Registration form

Weed Identification and Control $300.00

48 HOUR RUSH ORDER PROCESSING FEE ADDITIONAL $50.00

Rush service does not include overnight delivery or FedEx fees.

Start and finish dates: _____

You will have 90 days from this date in order to complete this course

Print Name_____

I have read and understood the disclaimer notice found on page 4. Signature is required.
You can electronically sign with XXX

Signature _____

Address: _____

City_____ State _____Zip_____

Phone:
Home (_____) _____ Work (_____) _____

Fax (____) _____ Email_____

License or
Operator ID #_____Exp. Date_____

Please circle/check which certification you are applying the course CEU's.

Commercial Applicator____ Residential Applicator____ Industrial Applicator____

Pesticide Handler____ Agricultural Applicator____ Adviser____ Other _____

Your certificate will be mailed to you in about two weeks.

Technical Learning College PO Box 3060, Chino Valley, AZ 86323
Toll Free (866) 557-1746 Fax (928) 272-0747 E-Mail info@tlch2o.com

If you paid on the Internet, please write your 4 or 5-digit code_____

We will stop mailing the certificate of completion we need your e-mail address. We will e-mail the certificate to you, if no e-mail address; we will mail it to you.

DISCLAIMER NOTICE

I understand that it is my responsibility to ensure that this CEU course is either approved or accepted in my State for CEU credit. I understand State laws and rules change on a frequent basis and I believe this course is currently accepted in my State for CEU or contact hour credit, if it is not, I will not hold Technical Learning College responsible. I fully understand that this type of study program deals with dangerous, changing conditions and various laws and that I will not hold Technical Learning College, Technical Learning Consultants, Inc. (TLC) liable in any fashion for any errors, omissions, advice, suggestions or neglect contained in this CEU education training course or for any violation or injury, death, neglect, damage or loss of your license or certification caused in any fashion by this CEU education training or course material suggestion or error or my lack of submitting paperwork. It is my responsibility to call or contact TLC if I need help or assistance and double-check to ensure my registration page and assignment has been received and graded. It is my responsibility to ensure all information is correct and to abide with all rules and regulations.

State Approval Listing Link, check to see if your State accepts or has pre-approved this course. Not all States are listed. Not all courses are listed. If the course is not accepted for CEU credit, we will give you the course free if you ask your State to accept it for credit.

State Approval Listing URL…

http://www.tlch2o.com/PDF/CEU%20State%20Approvals.pdf

You can obtain a printed version of the course manual from TLC for an additional $139.95 plus shipping charges.

AFFIDAVIT OF EXAM COMPLETION

I affirm that I personally completed the entire text of the course. I also affirm that I completed the exam without assistance from any outside source.

I understand that it is my responsibility to file or maintain my certificate of completion as required by the state or by the designation organization.

Grading Information

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.

For security purposes, please fax or e-mail a copy of your driver's license and always call us to confirm we've received your assignment and to confirm your identity.

Thank you…

All downloads are electronically tracked and monitored for security purposes.

CUSTOMER SERVICE RESPONSE CARD

Weed Control Training Course

NAME: _____

E-MAIL_____PHONE_____

PLEASE COMPLETE THIS FORM BY CIRCLING THE NUMBER OF THE APPROPRIATE ANSWER IN THE AREA BELOW.

1. Please rate the difficulty of your course.
Very Easy 0 1 2 3 4 5 Very Difficult

2. Please rate the difficulty of the testing process.
Very Easy 0 1 2 3 4 5 Very Difficult

3. Please rate the subject matter on the exam to your actual field or work.
Very Similar 0 1 2 3 4 5 Very Different

4. How did you hear about this Course? _____

5. What would you do to improve the Course?

_____

_____

6. How about the price of the course?

Poor_____ Fair ____ Average ____ Good____ Great_____

7. How was your customer service?

Poor___ Fair ____ Average ____ Good _____ Great_____

8. Any other concerns or comments.

_____

_____

Important Information about this Course (Disclaimer Notice)

This CEU course has been prepared to educate pesticide applicators and operators in general safety awareness of dealing with the often-complex and various pesticide treatment sprays, devices, methods, and applications. This course (manual) will cover general laws, regulations, required procedures and accepted policies relating to the use of pesticides and herbicides. It should be noted, however, that the regulation of pesticides and hazardous materials is an ongoing process and subject to change over time. For this reason, a list of resources is provided to assist in obtaining the most up-to-date information on various subjects. This manual is a not a guidance document for applicators or operators who are involved with pesticides. It is not designed to meet the requirements of the United States Environmental Protection Agency or your local State environmental protection agency or health department. This course manual will provide general pesticide safety awareness and should not be used as a basis for pesticide treatment method/device guidance. This document is not a detailed pesticide informational manual or a source or remedy for poison control.

Technical Learning College or Technical Learning Consultants, Inc. makes no warranty, guarantee or representation as to the absolute correctness or appropriateness of the information in this manual and assumes no responsibility in connection with the implementation of this information. It cannot be assumed that this manual contains all measures and concepts required for specific conditions or circumstances. This document should be used for educational purposes only and is not considered a legal document. Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

Confine chemicals to the property or plants being treated. Avoid drift onto neighboring properties, especially gardens containing fruits and/or vegetables ready to be picked. Dispose of empty containers carefully. Follow label instructions for disposal. Never reuse containers. Make sure empty containers are not accessible to children or animals. Never dispose of containers where they may contaminate water supplies or natural waterways. Do not pour down sink or toilet. Consult your county agricultural commissioner for correct ways of disposing of excess pesticides. You should never burn pesticide containers.

Individuals who are responsible for pesticide storage, mixing and application should obtain and comply with the most recent federal, state, and local regulations relevant to these sites and are urged to consult with the EPA and other appropriate federal, state and local agencies.

USE PESTICIDES WISELY: ALWAYS READ THE ENTIRE PESTICIDE LABEL CAREFULLY, FOLLOW ALL MIXING AND APPLICATION INSTRUCTIONS AND WEAR ALL RECOMMENDED PERSONAL PROTECTIVE GEAR AND CLOTHING. CONTACT YOUR STATE DEPARTMENT OF AGRICULTURE FOR ANY ADDITIONAL PESTICIDE USE REQUIREMENTS, RESTRICTIONS OR RECOMMENDATIONS.

NOTICE: MENTION OF PESTICIDE PRODUCTS IN THIS COURSE DOES NOT CONSTITUTE ENDORSEMENT OF ANY MATERIAL OR HERB OR HERBAL SUPPLEMENT. ALWAYS FOLLOW THE PRODUCT'S LABEL INSTRUCTIONS.

NOTICE

I understand that it is my responsibility to ensure that this CEU course is either approved or accepted in my State for CEU credit. I understand State laws and rules change on a frequent basis and I believe this course is currently accepted in my State for CEU or contact hour credit, if it is not, I will not hold Technical Learning College responsible. I also understand that this type of study program deals with dangerous conditions and that I will not hold Technical Learning College, Technical Learning Consultants, Inc. (TLC) liable for any errors or omissions or advice contained in this CEU education training course or for any violation or injury caused by this CEU education training course material. I will call or contact TLC if I need help or assistance and double-check to ensure my registration page and assignment has been received and graded.

Grading Information

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.

Weed Control Answer Key

Name_____

Phone# _____

You are solely responsible in ensuring that this course is accepted for credit by your State. Did you check with your State agency to ensure this course is accepted for credit?

Method of Course acceptance confirmation. Please fill this section

Website __ Telephone Call___ Email____ Spoke to_____

Did you receive the approval number, if applicable? _____

What is the course approval number, if applicable? _____

You are responsible to ensure that TLC receives the Assignment and Registration Key. Please call us to ensure that we received it.

Multiple Choice. Pick only one answer per question. Exactly as in text. Circle or Mark off, Underline or Bold the answer. Please circle or underline the number of the assignment version 1 or 2 or 3 or 4 or 5

1.	A B C D E F	15.	A B C D E F	29.	A B C D E F
2.	A B C D E F	16.	A B C D E F	30.	A B C D E F
3.	A B C D E F	17.	A B C D E F	31.	A B C D E F
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7.	A B C D E F	21.	A B C D E F	35.	A B C D E F
8.	A B C D E F	22.	A B C D E F	36.	A B C D E F
9.	A B C D E F	23.	A B C D E F	37.	A B C D E F
10.	A B C D E F	24.	A B C D E F	38.	A B C D E F
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234. A B C D E F

235. A B C D E F	257. A B C D E F	279. A B C D E F
236. A B C D E F	258. A B C D E F	280. A B C D E F
237. A B C D E F	259. A B C D E F	281. A B C D E F
238. A B C D E F	260. A B C D E F	282. A B C D E F
239. A B C D E F	261. A B C D E F	283. A B C D E F
240. A B C D E F	262. A B C D E F	284. A B C D E F
241. A B C D E F	263. A B C D E F	285. A B C D E F
242. A B C D E F	264. A B C D E F	286. A B C D E F
243. A B C D E F	265. A B C D E F	287. A B C D E F
244. A B C D E F	266. A B C D E F	288. A B C D E F
245. A B C D E F	267. A B C D E F	289. A B C D E F
246. A B C D E F	268. A B C D E F	290. A B C D E F
247. A B C D E F	269. A B C D E F	291. A B C D E F
248. A B C D E F	270. A B C D E F	292. A B C D E F
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252. A B C D E F	274. A B C D E F	296. A B C D E F
253. A B C D E F	275. A B C D E F	297. A B C D E F
254. A B C D E F	276. A B C D E F	298. A B C D E F
255. A B C D E F	277. A B C D E F	299. A B C D E F
256. A B C D E F	278. A B C D E F	300. A B C D E F

You are finished with your assignment. Please fax this answer key and your registration page along with the customer survey to TLC.

We will require a photocopy of your driver's license.

Fax Number (928) 272-0747 Back-Up Fax (928) 468-0675

Amount of Time for Course Completion – How many hours you spent on course?

Must match State Hour Requirement _____ (Hours)

Please fax or email this answer key and the registration Page to TLC. Call 15 minutes later to ensure we have received the paperwork

Assignment Instructions

1. We will require all students to fax or e-mail a copy of their driver's license with the registration form.
2. You will need to pick one of the following five assignments to complete. This selection process is based upon your last name.

If your last name begins with an A to E, you will pick assignment number 1, if your last name begins with the letter F to L, you are to complete assignment number 2 and if your last name begins with the letter M-Q, you will pick assignment number 3 and if your last name begins with the letter R-Z, you will pick assignment number 4.

Multiple Choice, Please select one answer and mark it on the answer key. The answer must come from the course text. (s) means answer can be plural or singular.

Assignment #1 for all pest applicators whose last name begins with A-E you will find your assignment on pages 11-49.

Assignment #2 for all pest applicators whose last name begins starting with the letter F-L, your assignment is found on pages 51-89.

Assignment #3 for all pest applicators whose last name begins starting with the letter M-Q, your assignment is found on pages 91-129.

Assignment #4 for all pest applicators whose last name begins starting with the letter R-Z, your assignment is found on pages 131-168.

Assignment #5 for all pest applicators who have failed the first assignment. Pages 169-204

2017 Changes to EPA's Farm Worker Protection Standard

In late 2015 the Environmental Protection Agency issued the long awaited revision to the Worker Protection Standard (WPS). This law it is now technically active and it will be enforced. Please keep in mind that the WPS covers both restricted use AND general use pesticides. This course is not for worker and/or handler training. Always follow the label and your State Pesticide Agency rules.

This course contains EPA's federal rule requirements. Please be aware that each state implements pesticide regulations that may be more stringent than EPA's regulations and these frequently are changed. Check with your state environmental/pesticide agency for more information.

Weed Identification and Control Assignment #1
For Students Names A-E

You will have 90 days from the start of this course to have successfully passed this assignment with a score of 70 %. You may e mail the answers to TLC, info@tlch2o.com or fax the answers to TLC, (928) 272-0747. This assignment is available to you in a Word Format on TLC's Website. You can find online assistance for this course on the in the Search function on Adobe Acrobat PDF to help find the answers. Once you have paid the course fee, you will be provided complete course support from Student Services Dr. Rusty Randall or Dr. Bubba Jenkins (928) 468-0665.

Write your answers on the Answer Key found in the front of this assignment.
ASSIGNMENT INSTRUCTIONS
1. We will require all students to fax or e-mail a copy of their driver's license with the registration form.
2. You will need to pick one of the following five assignments to complete. This selection process is based upon your last name. If your last name begins with an A to E, you will pick assignment number 1, if your last name begins with the letter F to L, you are to complete assignment number 2 and if your last name begins with the letter M-Q, you will pick assignment number 3 and if your last name begins with the letter R-Z, you will pick assignment number 4.

Multiple Choice assignment, please select one answer and mark it on the answer key. The answer must come from the course text. (s) means answer can be plural or singular. There are no intentional trick questions

What is a Weed?
Generally, the term weed is used to describe any plant that is unwanted and grows or spreads aggressively.

1. Terms such as _____are used somewhat interchangeably to refer to weeds that infest large areas.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Invasive, exotic or non-native
F. None of the Above

2. Free from the natural controls present in their native lands, these weeds grow quickly and overtake _____.
A. Non-native (or alien)
B. No natural enemies
C. Noxious weeds
D. Native vegetation
E. Native plants
F. None of the Above

Noxious Weed
3. Millions of acres of once healthy, productive rangelands, forestlands and riparian areas have been overrun by _____.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Plant species
F. None of the Above

What is a noxious weed?
4. The term "_____" means different things to different people. In the broadest sense, it is any plant growing where it is not wanted.
A. Non-native (or alien)
B. No natural enemies
C. Noxious weeds
D. Native vegetation
E. Weed
F. None of the Above

5. Weeds can be native or non-native, invasive or non-invasive, and _____. Legally, a noxious weed is any plant designated by a Federal, State or county government as injurious to public health, agriculture, recreation, wildlife or property.
A. Noxious or invasive weeds D. Plants non-native to North America
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

6. A _____ is also commonly defined as a plant that grows out of place (i.e. a rose can be a weed in a wheat field) and is "competitive, persistent, and pernicious.
A. Non-native (or alien) D. Native vegetation
B. No natural enemies E. Natural controls
C. Noxious weed F. None of the Above

7. The _____mandated for control are plants non-native to North America. Consequently, these plants do not have the natural checks as found in their native land, such as insects, diseases, and herbivores that would keep the plant population in check.
A. Noxious or invasive weeds D. Noxious weeds
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

8. Due to the competitive aggressive ability of these plants, coupled with no natural controls, these plants will develop mono-culture stands. Not only are many _____out competed by these weeds, but native vegetation and the wildlife associated with it will be replaced.
A. Noxious or invasive weeds D. Crops
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

9. Consequently, identifying the weeds when they first become established and developing an integrated weed management plan to control them is critical in maintaining healthy, productive land. The term _____is used to describe a legal designation for plant species that have been determined to be especially undesirable or difficult to control.
A. Noxious weed D. Plants non-native to North America
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

10. These weeds are subject, by law, to certain restrictions. Regulated by the U.S. Department of Agriculture, there are_____.
A. Non-native (or alien) D. Native vegetation
B. No natural enemies E. Natural controls
C. 90 federal noxious weeds F. None of the Above

11. _____include not only noxious weeds, but also other plants that are not native to this country.
A. Noxious or invasive weeds D. Plants non-native to North America
B. Invasive plants E. Plant species
C. Noxious or not noxious F. None of the Above

12. Plants are _____if they have been introduced into an environment where they did not evolve. As a result, they usually have no natural enemies to limit their reproduction and spread.
A. Non-native (or alien) D. Considered invasive
B. No natural enemies E. Natural controls
C. Noxious weeds F. None of the Above

13. Some _____can produce significant changes to vegetation, composition, structure, or ecosystem function.

A. Noxious or invasive weeds
B. Invasive plants
C. Noxious or not noxious
D. Plants non-native to North America
E. Plant species
F. None of the Above

What is an Invasive Species?

14. An ' _____' is defined as a species that is 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

A. Non-native (or alien)
B. No natural enemies
C. Noxious weeds
D. Native vegetation
E. Invasive species
F. None of the Above

Weed Identification Section

15. A _____ is any plant growing in an area where it is not wanted. We try to control weeds because they compete with crops for light, moisture, space and nutrients.

A. Seed
B. Weed
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

16. Certain weed species can harbor _____and insect pests and can be a serious threat to the ecosystem's health. Other species may be poisonous, allergenic or an irritant to humans and/or livestock.

A. Seeds
B. Plant diseases
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

17. Medical and economic problems such as illness, death, rash, hayfever, or a _____of fur, meat and milk products may result.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Reduction in quality
E. Crops for light, moisture, space and nutrients
F. None of the Above

18. Weeds have many unique characteristics which make them extremely difficult to control. Most produce a tremendous number of _____.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

19. The _____of some weed species may be dormant for many years, with only a small percentage germinating each year.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

20. Some _____ will not germinate without intense heat, like from a wild fire. Weeds generally mature earlier than the crop and often seeds will be dropped before crop harvest and remain in the field. Weeds are generally more competitive than crops and can often survive under unfavorable growing conditions.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

21. _____ may conveniently be divided into two classes based on the way in which they emerge from the seed.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

22. _____ emerge with a single seed leaf whereas dicots emerge with two seed leaves.

A. Monocots
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

23. Most _____ found in turfgrass are from the family Gramineae and are termed weedy grasses. Examples include crabgrass, annual bluegrass, tall fescue, and quackgrass.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

24. _____, on the other hand, are termed broadleaf weeds and include such plants as dandelion, clover, ground ivy, knotweed, and plantain.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Dicots
F. None of the Above

25. Weedy grasses and _____are further divided into groups according to the plants' length of life.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Broadleaf weeds
F. None of the Above

26. _____ have a life of more than two years, though new seeds may be produced every year.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

27. _____ have a life of two years, generally storing up food reserves in the leaves and roots the first year and producing seed in the second year.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

28. The _____ are often grouped with perennial weeds since control is similar.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

29. _____germinate from seed, grow, flower, and produce seed in less than one year.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Annual weeds
F. None of the Above

30. Summer annuals (AKA warm season annuals) germinate in the spring and mature in the fall, whereas winter annuals (AKA_____) germinate in fall or late winter and mature in late spring.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Cool season annuals
C. Biennial weeds F. None of the Above

31. _____ complete their lifecycle from seed to maturity in less than one year. They germinate in the spring, mature, set seed and die in the fall.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

32. _____germinate in the fall, overwinter as seedlings or small rosettes and mature, set seed and die the following spring or early summer. Some weeds are capable of both summer and winter annual lifecycles.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Winter annuals
C. Biennial weeds F. None of the Above

Biennials
33. _____ complete their lifecycles in less than two years. Germination and the production of an overwintering rosette of leaves occur the first year.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Correct identification
C. Biennials F. None of the Above

34. The second year flowering, _____, and plant death occur. Control is best obtained during the first year.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Seed production
C. Biennial weeds F. None of the Above

Perennials
35. _____live for more than two years. They reproduce vegetatively from roots, rhizomes, buds, or tillers, or from seed, or both. They can be especially difficult to control because of their persistent root systems.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Perennials
C. Biennial weeds F. None of the Above

36. Early identification of emerged weed species is critical for choosing the best weed control methods. This guide will enable you to identify_____.
A. Monocot weeds D. Weeds at three growth stages
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

37. Effective control of _____is based on correct identification.
A. Monocot weeds D. Weeds in turf
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

Understanding Weed Terms

38. _____ is, simply put, all life on earth, even that which has yet to be discovered. More specifically, it includes the millions of diverse species, from bacteria to whales that share the earth's lands and waters with us.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

39. Each year, many thousands of species are being extinguished as a result of_____, such as habitat destruction and exotic species introductions.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Human activities
F. None of the Above

40. _____ Biological control is the deliberate use of the pest's natural enemies - predators, parasites, and pathogens - to reduce the pest population below damage levels.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

41. _____: When exploring chemical control options, you should select the lowest risk and most effective products. The key is to use pesticides in a way that complements rather than hinders other elements in the strategy and which also limits negative environmental effects.

A. Cultivar(s)
B. Biological Management
C. Chemical Control
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

42. _____: Short for “cultivated variety.” A plant “variety” developed by man via plant selection and/or genetic manipulation to exhibit a set of plant characteristics.

A. Cultivar
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

43. _____ are maintained via controlled pollination or vegetative means, so that cultivar characteristics are passed to ensuing generations.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

44. _____: Cultural practices are a manipulation of the habitat environment to increase pest mortality or reduce rates of pest increase and damage.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

45. There are many different cultural practices that can help to reduce pest impact such as selection of pest resistant varieties of crops, mulching, winter cover crops, changing planting dates to minimize insect impact, burning, flooding, crop rotations that include_____, moisture management, addition of beneficial insect habitat, or other habitat alterations.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Non-susceptible crops
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

46. _____: Short for “ecological variety.” A plant “variety” developed by man from a collection of plants of a native species that were selected from several to many natural populations in a specific region.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

47. The purpose is to have high genetic diversity in the parent collection, which reflects the natural diversity within that species in the defined region. To maintain genetic diversity in ensuing generations, little to no selection is done during the _____ development process.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

48. An _____ is an intermediate step between a wild-growing plant and a cultivar.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

49. _____: A plant species that exists in a region because it was brought to that region by man, during and since settlement of the region. We are still introducing exotic plants, by intention or by accident.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

50. _____: An exotic plant species that is able to invade and overrun native ecosystems. Some native plants can become invasive under certain conditions, but most invasive species are introduced (exotic).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

51. _____: The most important aspect of an alien plant is how it responds to a new environment. An invasive species is one that displays rapid growth and spread, allowing it to establish over large areas. Free from the vast and complex array of natural controls present in their native lands, including herbivores, parasites, and diseases, exotic plants may experience rapid and unrestricted growth in new environments.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

52. _____is enhanced by features such as strong vegetative growth, abundant seed production, high seed germination rate, long-lived seeds, and rapid maturation to a sexually reproductive (seed-producing) stage. Invasive plants reproduce rapidly, either vegetatively or by seed. Their phenomenal growth allows them to overwhelm and displace existing vegetation and form dense one-species stands.

A. Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

53. Not all exotic species are considered harmful. For example, a small number of _____ (e.g., corn, wheat, oats) form the basis of our agricultural industry and pose little to no threat to our natural ecosystems. However, each alien plant is one less native host plant for our native insects, vertebrates and other organisms that are dependent upon them.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Non-invasive alien plants
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

54. _____: A plant species or cultivar that is grown for its beauty (in its end use), rather than commercial or production reasons.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

55. _____: Is a comprehensive, environmentally sensitive approach to managing pests that includes a combination of strategies that pose the least hazard to people, property, and the environment.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

56. The simple philosophy is that control will be more effective, and _____will be less likely to build up, when a range of measures is deployed against a pest. These measures can include, cultural, mechanical or physical, biological, and chemical methods for managing the pest.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Resistance
F. None of the Above

57. Some of the key components to a successful _____ program include the following: Identify current and potential pest species, their biology, and conditions conducive to the pest(s) (air, water, food, shelter, temperature and light).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. IPM
F. None of the Above

58. Understand the physical and _____that affect the number and distribution of pests and their natural enemies.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Biological factors
F. None of the Above

59. _____: Mechanical or physical control methods involve using barriers, traps, or physical removal to prevent or reduce pest problems.

A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

60. Tactics may include using row covers or trenches to prevent insects from reaching the crop, baited or pheromone traps to capture insects, or _____or mowing for weed control.

A. Source-identified seed
B. Noxious Weeds
C. Cultivation
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

61. _____: A plant species that is found in a region because it developed and evolved in that region over thousands of years. Plants that existed in a region prior to settlement.
A. Source-identified seed
B. Noxious Weed
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

62. _____: An exotic plant that was introduced into an area, escaped from cultivation and reproduces on its own (includes exotic invasive plants). Many plants commonly thought to be natives were actually introduced by early settlers.
A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

63. _____: The term noxious is a legal designation used specifically for plant species that have been determined to be major pests of agricultural ecosystems and are subject, by law, to certain restrictions. The U.S. Department of Agriculture regulates noxious weeds.
A. Source-identified seed
B. Noxious Weeds
C. Native plants
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

64. Plants can also be designated as "_____" by states and counties, usually through "noxious weed boards". Many noxious weeds designated for their impacts to agriculture also threaten natural areas. Melaleuca (Melaleuca quinquen-ervia), a tree from Australia, aggressively invades seasonal wetlands in the Everglades National Park in Florida and has been designated a federal noxious weed. Additional listings of exotic pest plants affecting natural ecosystems are expected, as their ecological and economic impacts continue to grow.
A. Source-identified seed
B. Noxious Weeds
C. Native plants
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

65. _____: Any living organism (plant or animal) that occurs where it is not wanted or that causes damage to crops or humans or other animals.
A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

66. _____: Off-spring of plants collected from a single defined natural population of a native species for production of seed. No selection is done during the collection and subsequent seed increase steps, so as to conserve genetic diversity. The genetic diversity is less than for an ecovar.
A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

67. _____: Within a species, a naturally occurring sub-group of plants that have one or more minor characteristics that set it apart from the rest of the species. Ex.: Solidago odora var. chapmanii.
A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

68. _____: The term weed is a subjective word used to describe any plant considered to be "out of place." In other words, weeds can include native and non-native plants alike, growing wherever someone wishes they weren't. Invasive exotic plants of natural ecosystems are often referred to as natural areas weeds.

A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Weeds, Wildlands and Natural Areas
E. Source-identified seed
F. None of the Above

69. A _____is generally an area of land or water with predominantly native vegetation or natural geological features that is allowed to respond to the forces of nature with little to no direct human interference. The term wildlands is also used to describe these areas.

A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Natural area
E. Weeds, Wildlands and Natural Areas
F. None of the Above

The Invasive Problem

Invasive Species

70. The term “native” is used to describe plants that were growing here before the arrival of Europeans. Exotics are those that do not naturally occur in an area but have been introduced by people. Many exotic species pose no threat, but some are invasive and grow out of control — displacing _____which provide food and shelter for an assortment of native wildlife.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Native plants
F. None of the Above

71. It is not always possible to predict if or when a species will become a _____(for example, Japanese honeysuckle was planted as an ornamental for 80 years before it escaped cultivation!), but a red flag should run up at any non-native with fleshy fruits dispersed by birds.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Pest plant
F. None of the Above

Impacts of Invasive Alien Plants

72. _____ are one of the greatest threats to the natural ecosystems of the U.S. and are destroying America's natural history and identity.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

73. These _____are disrupting the ecology of natural ecosystems, displacing native plant and animal species, and degrading our nation's unique and diverse biological resources.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Unwelcome plants, insects and other organisms
F. None of the Above

74. _____ reduce the amount of light, water; nutrients and space available to native species, alter hydrological patterns, soil chemistry, moisture-holding capacity, and erodibility, and change fire regimes.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

75. _____are capable of hybridizing with native plant relatives, resulting in unnatural changes to a plant's genetic makeup; others have been found to harbor plant pathogens, such as bacterial leaf scorch (Xylella fastidiosa) that can affect both native and non-native plants, including ornamentals.

A. Some native plants
B. Some exotics
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

76. Still others contain toxins that may be lethal to certain animals. For example, garlic mustard has been found to contain compounds that are lethal to a _____.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

77. Exotic organisms have been referred to as biological pollution. In some cases, exotic plant invaders are driving our rarest species closer to extinction. According to the U.S. Fish and Wildlife Service, an estimated 42% of the nation's endangered and threatened species have declined as a result of encroaching _____.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

Impacts to Native Fauna

78. Our native fauna, including insects, birds, mammals, reptiles, fish and other animals, is dependent on native plants for food and shelter. While some animals have a varied diet and can feed on a wide number of_____, others are highly specialized and may be restricted to feeding on several or a single plant species.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Plant species
E. Invasive species
F. None of the Above

79. Caterpillars of the monarch butterfly have evolved to feed primarily on plants in the genus Asclepias (milkweeds) that contain special chemicals. The term host plant is generally used to describe a plant species that is required food for at least one stage of an insect or other animal. As exotic plants replace our native flora, fewer host plants are available to provide the necessary nutrition for _____.

A. Some native plants
B. Exotic plants
C. Our native wildlife
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

Disturbance Effects

80. _____are especially problematic in areas that have been disturbed by human activities such as road building, residential development, forest clearing, logging operations, grazing, mining, ditching of marshes for mosquito control, mowing, erosion control and fire prevention and control activities.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

81. _____, such as fires, floods, tornadoes, landslides, and tree falls also provide avenues for invasive species to get started. The enormity of change wrought upon the American landscape over the past few hundred years has thrown things out of balance.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

82. Lacking_____, native species and ecosystems benefit from natural disturbances that provide opportunities for genetic mixing and nutrient recycling, and reduce fuel loadings.
A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Exotic species
E. Invasive species
F. None of the Above

83. _____ display invasive growth tendencies in their native ranges, often as a response to natural or human-caused disturbances. For example, native grape vines in forests may grow vigorously in response to a tree fall or selective timber cut that opens the canopy and brings abundant sunlight into previously shaded areas.
A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

84. This "invasive" growth spurt is usually temporary though, and slows down again as trees and other plants fill in and the forest canopy is recovered. The best way to reduce plant invasions is to focus on preventing non-native species introductions, _____, minimizing disturbance to forests, wetlands, barrens and other natural communities.
A. Aggressive invaders
B. Invasive non-native organisms
C. Managing existing infestations
D. Our native fauna
E. Invasive species
F. None of the Above

Importance of Native Plants
85. Approximately 18,000 plants are native to the ecosystems of North America. Our native flora (i.e., all U.S. native plants) provides the foundation of the _____and defines the various ecosystems and regions of the country. These plants also provide natural sources of food and fiber, and were the essential sources of nutrition and other materials for native American Indians.
A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Historic American landscape
F. None of the Above

86. The _____have been greatly reduced as a result of human encroachment which has destroyed many millions of acres of natural habitat. In the U.S. alone, about 200 native plant species have become extinct since the 1800's and 5,000 species are considered to be at risk. Invasions of non-native plants are the second greatest threat to native species after direct habitat destruction.
A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Populations of many native plants
E. Invasive species
F. None of the Above

Recognize the major plant characteristics used to identify weeds.
87. _____: Lower part of the leaf that is attached to the node.
A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

88. _____: Located where the blade and the sheath meet.
A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

89. _____:Region of nodes with tightly compacted internodes.
A. Collar
B. Crown
C. Node
D. Auricle
E. Shoot
F. None of the Above

90. _____:The region between the nodes
A. Collar D. Auricle
B. Internode E. Shoot
C. Node F. None of the Above

91. _____:Enlarged areas at intervals along the stem and also the part of the plant where buds are attached.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

92. _____:Underground stems that grow laterally.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

93. _____:Attachment of the plant to the soil that absorbs minerals and water needed for the plants survival.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

94. _____:Aboveground stems that grow laterally.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

95. _____:Characteristic of the grass that describes how the new blades emerge from the sheath as growth occurs.
A. Sheath D. Rhizomes
B. Ligule E. Vernation
C. Blade F. None of the Above

96. _____:The aboveground parts of the plant.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

97. _____:A structure that grows from the collar area on the inner side of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

98. _____:An appendage that grows from the edge of the collar and may wrap around the stem.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

99. _____:The upper part of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

Broadleaves (dicots), Grasses (monocots), and Sedges

100. Weeds can be classified into three primary categories: broadleaves (dicots), grasses (_____), and sedges.

A. Cotyledons
B. Monocots
C. Rhizomes
D. Every species of plant, animal, fungi, bacteria
E. A native (indigenous) species
F. None of the Above

101. To identify broadleaf seedlings, it is common to look first at the cotyledons or seed leaves. The _____ are the first pair of leaves that open after emergence.

A. Endemic
B. Leaf surfaces
C. Leaf shape
D. Other physical and biological factors
E. Cotyledons
F. None of the Above

102. _____ have various shapes and sizes; they may be linear-, egg-, round- or butterfly-shaped or have variations of each.

A. Cotyledons
B. Petiole
C. Rhizomes
D. Every species of plant, animal, fungi, bacteria
E. A native (indigenous) species
F. None of the Above

103. Look at other features of the weed, such as the _____(leaves emerging after cotyledons) and stems.

A. True leaves
B. Leaf surfaces
C. Leaf shape
D. Other physical and biological factors
E. Underground vegetative stems
F. None of the Above

104. Leaf shape can vary dramatically and is a consistent key to_____. The leaves may be alternately or oppositely arranged along the stem.

A. Endemic
B. Leaf surfaces
C. Leaf shape
D. Other physical and biological factors
E. Plant identification
F. None of the Above

105. Some leaves may be attached to a short stem, known as the petiole, while others may lack a _____.

A. Cotyledons
B. Petiole
C. Rhizomes
D. Every species of plant, animal, fungi, bacteria
E. A native (indigenous) species
F. None of the Above

106. Check the leaf surfaces for the presence of hair and the_____.

A. Endemic
B. Amount of waxiness
C. Leaf shape
D. Other physical and biological factors
E. Underground vegetative stems
F. None of the Above

107. Stems can also assist in identifying a weed; they have various shapes and amounts of hair, if any. Finally, dig or carefully remove the roots from the soil and look for the presence of rhizomes, creeping roots, or other structures such as_____.

A. Cotyledons
B. Petiole
C. Rhizomes
D. Tubers
E. A native (indigenous) species
F. None of the Above

108. _____are underground vegetative stems from which new plants are generated. The presence of these vegetative structures will indicate that the weed's life cycle is perennial.

A. Endemic
B. Leaf surfaces
C. Leaf shape
D. Other physical and biological factors
E. Rhizomes
F. None of the Above

Native Range

109. Every species of plant, animal, fungi, bacteria and other organism has a home in some part of the world, where it has existed for thousands of years as a result of natural forces and influences like climate, storms, moisture, fire, soils and_____.

A. Cotyledons D. Species interactions
B. Petiole E. A native (indigenous) species
C. Rhizomes F. None of the Above

110. Over long periods of time, these and other physical and biological factors direct the _____.

A. Endemic D. Distributions of organisms in nature
B. Leaf surfaces E. Underground vegetative stems
C. Leaf shape F. None of the Above

111. A native (_____) species is one that occurs in a particular region, ecosystem, and habitat without direct or indirect human actions.

A. Cotyledons D. Every species of plant, animal, fungi, bacteria
B. Petiole E. Indigenous
C. Rhizomes F. None of the Above

112. Species native to North America are generally recognized as those occurring on the continent prior to European settlement. _____ is used to describe populations of native animals, plants or other organisms, that are have relatively restricted distributions and are confined to certain environments.

A. Endemic D. Other physical and biological factors
B. Leaf surfaces E. Underground vegetative stems
C. Leaf shape F. None of the Above

113. Organisms are considered non-native (alien, exotic, foreign, introduced, non-indigenous) when they occur artificially in locations beyond their known_____.

A. Cotyledon D. Species of plant, animal, fungi, bacteria
B. Petiole E. Historical natural ranges
C. Rhizome F. None of the Above

114. _____ can refer to species brought in from other continents, regions, ecosystems and even other habitats.

A. Considered exotic D. Large numbers of species
B. Species exotic E. Many introduced plants
C. Non-native F. None of the Above

115. _____ to the U.S. include those transported from Europe, Asia, Africa, South America, Australia and other parts of the world. It also includes any species moved by people from one locality in the U.S. to a new one.

A. Considered exotic D. Large numbers of species
B. Species exotic E. Many introduced plants
C. Non-native F. None of the Above

116. Black locust (Robinia pseudoacacia) is native to the southern Appalachian region of the eastern U.S. Because of its_____, it was planted all around the U.S. during this century for living fences, erosion control, wind breaks and other purposes. Even though it is native to the U.S., black locust is considered exotic anywhere it occurs outside its known historical natural range of southern Appalachia.

A. Considered exotic D. Large numbers of species
B. Species exotic E. Rapid growth and hardiness
C. Non-native F. None of the Above

117. Once an Exotic, Always an Exotic! European settlers brought hundreds of plants to North America from their home lands, for food, medicinal, ornamental, and other purposes. Introductions of exotic plants continue today, and are increasing due to_____, increased international travel, and the intentional and accidental movement of large numbers of species between continents as a result of expanded international trade.

A. Considered exotic
B. Species exotic
C. An exploding human population
D. Large numbers of species
E. Many introduced plants
F. None of the Above

118. _____have become naturalized across the continent and some are replacing North American native plant species. These naturalized plants, however much a part of our current landscapes and ecosystems, are nonetheless exotic, since they were moved here by people rather than by natural means.

A. Considered exotic
B. Species exotic
C. Non-native
D. Large numbers of species
E. Many introduced plants
F. None of the Above

119. Because the _____of some species are unknown or unclear, research continues to attempt to unravel the tangle of human and natural influences responsible for their current ranges.

A. Historical distributions
B. Species exotic
C. Non-native
D. Large numbers of species
E. Many introduced plants
F. None of the Above

Weed Classifications

120. Most common weeds fit into two large general classifications: broadleaves and grasses. Broadleaves and grasses may be further divided into _____.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

121. _____may be even further subdivided by the seasons in which they germinate and grow.

A. Annual and perennial weeds
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

122. Annuals _____ complete their life cycle in less than one year.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

123. Normally, they are considered easy to control. This is true for any one crop of weeds. However, because of an abundance of dormant seed and fast growth, annuals are very persistent. They actually cost more to control than perennial weeds. Most common field weeds are annuals. There are two types; _____.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Summer and winter annuals
F. None of the Above

Summer Annuals

124. _____ germinate in the spring, make most of their growth during the summer, and the plants mature and die in the fall. The seeds lie dormant in the soil until next spring.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

Winter Annuals

125. _____geminate in the fall and winter and usually mature seed in the spring or early summer before the plants die. The seeds often lie dormant in the soil during the summer months. In this group, high soil temperatures (125°F or above) have a tendency to cause seed dormancy. These are most troublesome in fall and early spring in ornamental plant areas.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Winter annuals
F. None of the Above

Biennials

126. _____lives for more than 1 year but not more than 2 years. Only a few troublesome weeds fall in this group. There is confusion between biennials and winter annuals, because the winter annual group normally lives during 2 calendar years and during 2 seasons.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. A biennial plant
F. None of the Above

Perennials

127. _____ live for more than 2 years and may live almost indefinitely. Most produce by seed and many are able to spread vegetatively. They are classified according to their method of reproduction as simple and creeping.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

Simple Perennials

128. _____spread by seed. They have no natural means of spreading vegetatively. However, if injured or cut, the cut pieces may produce new plants. For example a dandelion or dock root cut in half longitudinally may produce two plants. The roots are usually fleshy and may grow very large.

A. Annuals and perennials
B. Simple perennials
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

Creeping Perennials

129. _____reproduce by creeping roots, creeping above ground stems (stolons), or creeping below-ground stems (rhizomes). In addition they may reproduce by seed.

A. Creeping perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

130. Some weeds maintain themselves and_____, which are modified rhizomes adapted for food storage. Nutsedge (nutgrass) and Jerusalem artichoke are examples.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Some creeping perennials
E. Propagate by means of tubers
F. None of the Above

131. Once a field is infested, _____ are probably the most difficult group of weeds to control. Cultivators and plows often drag pieces about the field.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Creeping perennials
E. Roundup-resistant weeds
F. None of the Above

132. _____, repeated mowing for 1 or 2 years, or persistent herbicides are often necessary for control.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Continuous and repeated cultivations
E. Roundup-resistant weeds
F. None of the Above

133. Cultivation, in combination with herbicides, is proving effective on some creeping perennials. An effective eradication program also requires_____.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. The killing of seedlings
E. Roundup-resistant weeds
F. None of the Above

Roundup-Resistant Weeds

134. _____ like horseweed and giant ragweed are forcing farmers to go back to more expensive techniques that they had long ago abandoned.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Some creeping perennials
E. Roundup-resistant weeds
F. None of the Above

135. There is a particularly tenacious species of glyphosate-resistant pest called Palmer amaranth, or pigweed, whose _____has begun to seriously infesting farms.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Resistant form
E. Roundup-resistant weeds
F. None of the Above

136. Pigweed can grow three inches a day and reach seven feet or more, choking out crops; it is so sturdy that it can damage harvesting equipment. In an attempt to kill the pest before it becomes that big, plow fields and mixing herbicides into the soil. That threatens to reverse one of the agricultural advances bolstered by the_____: minimum-till farming.

A. Tubers
B. Roundup revolution
C. Roundup and Roundup Ready crops
D. Some creeping perennials
E. Roundup-resistant weeds
F. None of the Above

137. By combining_____, farmers did not have to plow under the weeds to control them. That reduced erosion, the runoff of chemicals into waterways and the use of fuel for tractors.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Some creeping perennials
E. Roundup-resistant weeds
F. None of the Above

Commonly Found Weed Section
A-Z Common Names

African Rue

138. Description: African rue is a multi-branched and _____.

A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Bushy perennial
E. An herbaceous perennial
F. None of the Above

139. A member of the _____ it is a succulent plant, with bright green alternating leaves that are smooth and finely divided with long, narrow segments. Plants grow 1.5 feet tall and 3-4 feet in diameter.

A. Compositae Family
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Caltrop family
F. None of the Above

140. Flowers are white with _____ and are present in spring to early fall. Fruit is a located in a leathery capsule 2-4 celled which contains 45-60 seeds.

A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

141. Seeds are angular, dark brown and have a distinctive smell. When crushed, the stems also have a disagreeable odor. The base of this plant is _____can branch and reach 20 feet in depth.

A. Compositae Family
B. Woody and roots
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

142. African rue prefers distributed environments such as roadsides, fields and rangelands in desert and semi-desert areas. It is often found in soils with high salinity and most parts of the plant contain _____that reduce growth of other vegetation.

A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

Artichoke, Jerusalem

143. Plant Description: It is nearly impossible to distinguish Jerusalem artichoke from annual sunflowers based on above-ground growth. Jerusalem artichoke has a coarse, 5- to 10-foot tall stem, large leaves with a rough upper surface, and_____.

A. Compositae Family
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Bright yellow sunflower-like flowers
F. None of the Above

144. Jerusalem artichoke can be easily distinguished from annual sunflowers by its below-ground growth that includes fleshy tubers resembling thin, knotty potatoes. Reproduction of Jerusalem artichoke is by seeds, rhizomes (_____), and tubers.

A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. Horizontal underground stems
F. None of the Above

Asparagus, Wild

145. Plant Description: Wild asparagus is an herbaceous perennial, well-known for its edible young shoots. Mature plants have a_____, and reproduce by seed.

A. Distinctive fern-like appearance
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

Aster, White-Heath

146. Plant Description: White heath aster is a _____that can frequently be seen growing by the side of the road as a clump of upright stems with wand-like spreading branches. In late August, small white flowers cover the top half of the plant.

A. Five individual petals
B. Allelopathic chemicals
C. Perennial weed
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

147. The flowers, which are similar to those produced by other plants in the Compositae Family, are actually _____made up of many individual flowers that may be different shapes and colors.

A. Head-like clusters
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

148. In the case of white heath aster, there are _____in the center of each head surrounded by 16 to 35 white ray flowers. Reproduction is by seeds.

A. Five individual petals
B. Yellow disk flowers
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

Austrian Peaweed

149. Identification: Perennial; flowers from May to July. A creeping plant with compound leaves; numerous leaflets oval and covered in hair. Flowers 1/4 to 1 inch long and orange-red. Many seeds in _____.

A. Bladder-like translucent pods
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

Bamboo

150. _____thrive in sun or light shade if provided with abundant moisture and rich soil. Where drought may be expected or in hot interior climates, some shading would be beneficial for most varieties. Established plants withstand flooding.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Phyllostachys species
F. None of the Above

151. Control: Bamboo can be controlled in a small area (a normal city yard) simply by mowing or stepping on the young shoots. New shoots could also be used for culinary purposes and cooked, much like asparagus. Keep in mind that running bamboo only puts up new shoots for a short time each year, and when they are "_____", the new plants are very fragile and easy to destroy.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Any rhizomes
D. Nodes on the stem.
E. Shooting
F. None of the Above

152. To really slow the spread of the rhizomes, the grove can be _____at any time. (Best time seems to be in the fall or early winter). This is done with a sharp, narrow spade (8" wide, flat spade works quite well) by "trimming" the rhizomes on all sides which need to be controlled.

A. Rhizomes
B. Root pruned
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

153. Push the shovel straight down to its maximum depth so as to cut through any _____ encountered, (8-10 inches is usually sufficient). Keep moving the spade one width at a time to the right or left, cutting a line until all the rhizomes have been cut.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Rhizomes
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

Bedstraw, Smooth

154. Plant Description: There are at least 30 different bedstraws in North America, and many are perennials like smooth bedstraw that produce sprawling tangled mats from which_____.

A. Rhizomes
B. A few erect stems arise
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

155. The typical bedstraw leaf is linear and _____consisting of as many as 8 leaves at nodes on the stem.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Formed in whorls
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

156. Smooth bedstraw is the _____with 8 leaves at each node on main stems and 6 to 8 leaves at nodes on branches.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Only white-flowered form
F. None of the Above

157. Reproduction is by seeds and underground, spreading rhizomes (_____).

A. Leaves alternate and compound
B. Spreading rhizomes
C. Horizontal underground stems
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

Related Information:

158. The common name 'bedstraw' has two possible origins: the dried plant was used to stuff mattresses; it is said that bedstraw was placed in the _____when Jesus was born. John 3:16

A. Manger at Bethlehem
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

Biddy-biddy

159. Description: Perennial that grows four to eight inches tall. Biddy-biddy spreads by stolons that root at the nodes and plants form large mats where individual plants are indistinguishable. The plant stems are _____ depending on conditions.

A. Rhizomes
B. Prostrate to erect
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

160. Leaves alternate and compound, with _____having 5 to 11 leaflets 1/4-2/3 inches long.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Any rhizomes
D. Mature plants.
E. New plants are very fragile and easy to destroy
F. None of the Above

161. _____, and turn into a round bur that disperses as a unit when mature.

A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Dense ground cover
E. Flower heads spherical
F. None of the Above

162. Impacts: This plant prefers open, disturbed, well-drained sites, including stable dunes, open scrub, _____, and trampled sites in coastal habitats where some summer moisture is available and frosts are infrequent. Plants thrive on poor soils and compete poorly with established vegetation.

A. Grassy areas
B. Bindweed leaves
C. Herbicide application
D. Deep root system
E. Dense field bindweed infestations
F. None of the Above

Bindweed, Field

163. Field bindweed can be spread by seed, _____, farm implements, infested soil adhering to the roots of nursery stock, root growth from infested areas, and by animals.

A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Root fragments
E. Root growth
F. None of the Above

164. Field bindweed has a deep root system that competes with _____for water and nutrients.

A. Flowers are funnel-shaped
B. Bindweed leaves
C. Herbicide application
D. Crop plants
E. Dense field bindweed infestations
F. None of the Above

165. Vines climb on plants and shade crops, cause lodging of_____, and make harvesting difficult by clogging machinery.

A. Twining perennial vine
B. Bindweed foliage
C. Small grains
D. Dense ground cover
E. Root growth
F. None of the Above

166. Dense field _____ may reduce crop yields by 50 to 60 percent. Land infested with field bindweed is reduced in value.

A. Flowers are funnel-shaped
B. Bindweed leaves
C. Herbicide application
D. Deep root system
E. Bindweed infestations
F. None of the Above

167. Field bindweed is a _____which produces a dense ground cover. The twining stems vary from 1.5 to 6 feet or more in length.

A. Twining perennial vine
B. Long-lived perennial
C. Vine
D. Dense ground cover
E. Root growth
F. None of the Above

168. Leaf size and shape are variable, but generally the leaves are 1 to 2 inches long, smooth, and shaped like an arrowhead. Flowers are_____, about 1 inch diameter, and white or pink in color.

A. Flowers are funnel-shaped
B. Bindweed leaves
C. Herbicide application
D. Funnel-shaped
E. Dense
F. None of the Above

169. The _____has two small bracts located ½ to 2 inches below the flower. The bracts, along with leaf shape and smaller flower size, distinguish field bindweed from hedge bindweed.

A. Twining perennial vine
B. Bindweed foliage
C. Flower stalk
D. Dense ground cover
E. Root growth
F. None of the Above

170. Control: Herbicides such as glyphosate can be painted on _____. Repeat applications will be needed.

A. Flowers
B. Bindweed leaves
C. Herbicide application
D. Deep roots
E. Infestations
F. None of the Above

171. Herbicides such as 2,4-D combinations can be sprayed on_____; repeat applications may be needed.

A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Dense ground cover
E. Root growth
F. None of the Above

172. The most effective times for _____ are during flowering, or in August/September. Always read the label before applying any pesticide.

A. Flowers are funnel-shaped
B. Bindweed leaves
C. Herbicide application
D. Deep root system
E. Dense field bindweed infestations
F. None of the Above

Bindweed, Hedge

173. Plant Description: Hedge bindweed is a_____.

A. Twining perennial vine
B. Bindweed foliage
C. Vine
D. Dense ground cover
E. Root
F. None of the Above

174. Characteristics distinguishing it from other vines include arrowhead-shaped leaves that have pointed tips, pinkish petals fused into funnel-shaped flowers, the presence of large bracts enclosing the base of each flower, and_____.

A. Large bracts
B. Creeping perennial roots
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

175. The plant reproduces by seeds and _____.

A. Short-lived perennial
B. Stolons
C. A unique flower
D. Creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Bindweed, Japanese

176. Plant Description: Japanese bindweed is a_____. Its appearance is similar to that of hedge bindweed except it has smaller flowers and the bracts enclosing the base of each flower are smaller.

A. Large bracts
B. Creeping perennial
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

177. The _____that escaped cultivation has a distinctive double flower. Compared with other bindweed flowers, this is a unique flower in that it has twice the number of petals and looks similar to a rose or carnation.

A. Short-lived perennial
B. Stolons
C. Weedy form
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Birdsfoot Trefoil

178. Plant Description: Birdsfoot trefoil has a perennial root crown and stems that die back each winter. The species is characterized by _____consisting of 3 clover-like leaflets at the tip separated by a short stem from 2 smaller leaflets at the base. Its flowers are yellow, clover like, and in groups of 2 to 6. They are arranged such that, when pods form, they resemble a bird's foot.

A. Large bracts
B. Compound leaves
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

179. Reproduction is by seeds and plants spread by _____(stolons) and rhizomes (horizontal underground stems).

A. Short-lived perennial
B. Modified stems
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

180. Because roots arise from buds at the nodes of older stems, it is possible to propagate plants by stem cuttings. Also, new shoots arise from_____.

A. Large bracts
B. Root crowns
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

Black medic

181. Black medic is an annual, _____or short-lived perennial.

A. Biennial
B. Stolon
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

182. A_____, it is closely related to alfalfa. It is most often found in lawns having low fertility.

A. Large bracts
B. Legume
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

183. Often called Japanese clover, this plant has small yellow flowers and a _____. It can be pulled from moist soil without difficulty. Keeping your lawn healthy and dense with proper watering, mowing, and fertilization will discourage invasion by black medic.

A. Short-lived perennial
B. Stolons
C. A unique flower
D. Seeds and creeping roots
E. Deep taproot
F. None of the Above

184. Control: Triclopyr + 2,4-D combination herbicides or _____are more effective than 2,4-D alone.

A. Wavy margins
B. Application of 2,4-D
C. Bladder-like calyx
D. Triclopyr + 2,4-D combination herbicides
E. Other 2,4-D combination herbicides
F. None of the Above

185. Keeping your lawn healthy and dense with_____, mowing, and fertilization will discourage invasion by black medic.

A. Short-lived perennial
B. Proper watering
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Blue Mustard

186. Blue mustard is a winter annual that germinates in the fall and produces a _____with deeply lobed leaves, similar in appearance to a dandelion.

A. Beak
B. Germinate
C. Rosette
D. Physical destruction of a weed
E. Large patche
F. None of the Above

187. Blue mustard bears _____in March through April. Leaves on the flowering stems are coarsely toothed and have wavy margins.

A. Wavy margins
B. Application
C. Bladder-like calyx
D. Purple or blue flowers at the top of the plant
E. A soap like lather
F. None of the Above

188. The plant may grow from 1 to 1 1/2 feet in height. Two-inch long, bean-like seedpods (siliques) that resemble "_____" mature in early summer.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

189. Control: Herbicides are most effective if applied before_____. In the spring, while it is actively growing, this weed can be controlled with an application of 2,4-D.

A. Wavy margins
B. Application of 2,4-D
C. Bladder-like calyx
D. Weeds start to bolt in the spring
E. A soap like lather when mixed with water
F. None of the Above

190. Mechanical Weed Control: Mechanical weed control involves the_____.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

191. Techniques involve hand pulling and hand hoeing which are practical for small infestations. Mowing is often used; but by far, the most common practice of mechanical control includes _____.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

Bouncingbet

192. Plant Description: Bouncingbet is a_____, a dense show of fragrant phlox-like flowers in summer, and the tendency to form large patches.

A. Beaks
B. Germinates
C. Tillage
D. Perennial characterized by smooth leafy stems
E. The tendency to form large patches
F. None of the Above

193. Stems, leaves and roots contain a _____that forms a soap like lather when mixed with water. Bouncingbet reproduces by seeds and spreading underground stems (rhizomes).

A. Wavy margins
B. Application of 2,4-D
C. Bladder-like calyx
D. Thick juice
E. A soap like lather
F. None of the Above

194. Similar Species: White campion (Silene pratensis) can be distinguished from bouncingbet by _____.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Its hairy stems and leaves
F. None of the Above

195. Bladder campion (Silene vulgaris) can be distinguished by its _____and papery, bladder-like calyx.

A. Wavy margins
B. Deeply lobed flower petals
C. Bladder-like calyx
D. Herbicides
E. Flowers
F. None of the Above

196. In addition, white campion and _____do not grow in large, dense patches like bouncingbet.

A. Bladder campion
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Its hairy stems and leaves
F. None of the Above

Brackenfern

197. Plant Description: Brackenfern is a large, coarse, perennial fern that has almost horizontal leaves and can grow 1 1/2 to 6 1/2 feet tall (sometimes up to 10 feet). Unlike our more_____, this primitive perennial lacks true stems.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Typical broadleaf perennials
F. None of the Above

198. Each leaf arises directly from a rhizome (horizontal underground stem), and is supported on a rigid leaf stalk. In addition, brackenfern does not produce flowers or seeds. Instead, _____and creeping rhizomes. This species often forms large colonies.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. It reproduces by spores
F. None of the Above

Brambles

199. Plant Description: Brambles are a diverse group of_____, shrubs or trailing vines, that are noted for their prickly stems and berry-like, usually edible fruits.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Perennial herbs
F. None of the Above

200. They can reproduce by many different methods including seeds, root sprouts, underground stems (rhizomes), and branches that _____(stolons). In some species, individual stems live only two years, but new stems are continually produced. In all species, roots are perennial.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Root at the tips
F. None of the Above

Broadleaf Plantain

201. Broadleaf Plantain is a_____. It has broad leaves with prominent veins. The leaves are arranged in a rosette and may smother lawn grass.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. Low growing perennial
F. None of the Above

202. The _____normally grow taller than the foliage but may develop below mowing height. Vigorous, thick turfgrass is less susceptible to invasion.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. Flowering spikes
F. None of the Above

203. Control: Triclopyr + 2,4-D or 2,4-D alone or 2,4-D combination herbicides should control _____. Always read the label before applying any pesticide.

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Plantain
F. None of the Above

Brome, Smooth

204. Plant Description: Smooth brome is a sod-forming, perennial grass, distinguished by long, slender, bronze- or purple-tinted flower clusters that make up the flower head. This species spreads by seeds and dark-colored rhizomes (_____).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Horizontal underground stems
F. None of the Above

205. Similar Species: Smooth brome may be confused with quackgrass (Elytrigia repens). However, smooth brome lacks the prominent claw-like appendages (_____) that clasp the stem at the top of the sheath in quackgrass.

A. Evergreen shrub
B. Auricles
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, French

206. Description: Perennial; blooms April to June. Grows three to ten feet tall. Evergreen shrub similar to Scotch broom except plants do not grow as erect, leaves are retained the entire year, leaves trifoliate and more numerous, and_____.

A. Larger yellow flowers
B. Evergreen shrub
C. Yellow flowers smaller
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

207. Impacts: This plant, _____, takes advantage of land disturbances to establish and spread. In California, large infestations displace native plant species and significantly increase the costs of reforestation in commercial timberlands.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, Portuguese

208. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Evergreen shrub similar to Scotch broom except pods inflated and hairy all over,_____. Stems more silvery, but difficult to distinguish until leaves and flowers fall off.

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Giving appearance of pussy willow buds
F. None of the Above

Broom, Scotch

209. Description: Perennial; blooms April to June. Grows 3 to 10 feet tall. Evergreen shrub with many slender, erect, dark green angled branches with small, simple leaves. Abundant small, yellow,_____.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Pea-shaped flowers
E. An aggressive pioneer species
F. None of the Above

210. Easily confused with_____. Spanish broom (S. Junceum) has round stems, very few leaves, and larger yellow flowers.

A. Spanish broom
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Broom, Spanish

211. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Similar to Scotch broom except stems thicker and rougher, it has very few leaves, and flowers larger and_____.

A. Fewer in number
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broomsedge

212. Plant Description: Broomsedge is a clump-forming perennial grass that is most noticeable in the fall, when its stems and leaves turn a_____. It reproduces by seed and short rhizomes (horizontal underground stems).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Distinctive orangish-tan to reddish-brown color
E. Except pods inflated and hairy all over
F. None of the Above

213. Root system - Dense, fibrous roots are produced from _____(horizontal underground stems).

A. Short rhizomes
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Buffalo Bur

214. Buffalo bur, sometimes called Kansas thistle and_____, is a tap rooted annual weed. It bears long, yellow spines on stems, leaves, and flower heads and can grow up to 2 feet high. Drought resistant, its highest occurrence is in dry, exposed soil.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Prickly nightshade
F. None of the Above

215. The oblong leaves are 2-3 inches long with _____and are covered with very dense, stiff, and sharp spines.

A. Bright yellow flowers
B. Deep rounded lobes
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

216. Bright yellow flowers can be seen in summer. In the fall, berries up to 3/8 inch in diameter are enclosed in the _____and are filled with black, wrinkled, flat pitted seeds.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Dried flower parts
F. None of the Above

217. Control of this plant is important, as it is a host for the Colorado potato beetle. When mature, the main stem breaks near the ground and the plant rolls like_____, widely scattering the 8500 seeds that each plant produces.

A. Bright yellow flowers
B. Tumbleweed
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

218. Herbicides should be applied between_____. Dicamba, Triclopyr and 2,4-D can be effective in controlling Buffalo bur. Glyphosate in a 2% solution can be applied as a spot treatment.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Late bud to early flower
C. Flower heads lilac-like F. None of the Above

Butterfly Bush
219. Description:_____; flowers mid to late summer. Grows up to 10 feet tall. Leaves narrow, opposite and green to blue-gray.
A. Bright yellow flowers D. Scotch broom
B. Perennial shrub E. Upper leaves
C. Green to blue-gray F. None of the Above

220. _____ lilac-like but come to a more definite point. Flowers small and purple.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Kansas thistle and prickly nightshade
C. Flower heads F. None of the Above

221. Impacts: This plant is a pioneering species that dominates open habitats. It poses an ecological threat to dry-land meadows, open slopes and dunes, dominating these sites as much as _____ has historically. It also invades reforested sites, resulting in a loss of forest productivity.
A. Bright yellow flowers D. Scotch broom
B. Colorado potato beetle E. Upper leaves
C. Green to blue-gray F. None of the Above

Bugloss, Common
222. Description: Perennial herb; flowers May to October. Grows one to two feet tall._____; overall plant is coarsely hairy.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Stems and leaves fleshy
C. Flower heads lilac-like F. None of the Above

223. Basal leaves are_____; mid leaves are progressively smaller up the stem, and the upper leaves are sessile (no petiole) or clasping.
A. Bright yellow flowers D. Scotch broom
B. Narrowly oblong E. Upper leaves
C. Green to blue-gray F. None of the Above

224. Blue to purple flowers with white throats. Petals are five equal lobes, forming_____. Flowers found in coiled clusters at the end of stems. As the flowers open, coils unfold.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. An uncurved tube
C. Flower heads lilac-like F. None of the Above

225. Fruit is a four-chambered nutlet; each nutlet contains_____.
A. One seed D. Several hundred seed heads
B. Spine-tipped lobes E. Rosette leaves
C. Spiny wings F. None of the Above

226. Impacts: This plant invades alfalfa fields, pastures, pine forests, rangeland, riparian and waste areas. The fleshy stalks can cause hay bales to mold. Large, very dense stands can occur, offering strong competition to_____.
A. Rosette leaves D. Native plant communities
B. Spiny bracts E. Leaf axils on the flower stem
C. Biennial F. None of the Above

Bull Thistle

227. Description: An upright biennial. Young seedling leaves are oblong in shape, but mature _____ are saw-toothed and spiny with cottony hairs on the undersurface.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

228. _____ generally grow 2 - 12 inches long and 3/4 - 4 inches wide. Leaves are dark green and are arranged alternately along the rigid flower stalk, that grows 1 - 5 feet tall and can be highly branched.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Strong competition to native plant communities
E. Leaf axils on the flower stem
F. None of the Above

229. _____have distinctly pointed, spine-tipped lobes, with bases that clasp the stem to form spiny wings.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Stem leaves
F. None of the Above

230. _____, 1 to 2 inches diameter, are borne on branch tips, and are subtended by an egg-shaped cluster of spiny bracts.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Purplish/pink flower heads
E. Leaf axils on the flower stem
F. None of the Above

231. _____give rise to seed heads that contain many single-seeded fruits, each topped by a plume of feathery white hairs.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Flower heads
E. Leaf axils on the flower stem
F. None of the Above

232. Weedy Characteristics: Bull thistle reproduces solely by seed. Each plant can produce between one and several hundred seed heads, and seed heads produce_____.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. An average of 100 seeds each
E. Rosette leaves
F. None of the Above

Burdock, Common

233. Plant Description: Common burdock is a biennial that grows as a _____the first year and then produces a 5-foot-tall, erect, bushy flowering stem.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Rosette of leaves
E. Leaf axils on the flower stem
F. None of the Above

234. Rosette leaves are distinctive due to their large size, heart-shaped base, wooly undersurface, and hollow leaf stalks (_____).

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Petioles
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

235. Stem leaves are similar to but smaller than rosette leaves. Located at the ends of branches or at leaf axils on the flower stem are flower heads comprised of a bur with hooked bristles beneath a closely packed _____.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Cluster of tubular, purplish flowers
E. Leaf axils on the flower stem
F. None of the Above

236. The weed is best known for the _____on its burs that stick to fur and clothing. The only means by which common burdock reproduces are its seeds.

A. Hooked bristles
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

Buttercup, Creeping

237. Plant Description: Creeping buttercup is a low-growing, rosette-forming, spreading perennial. It is characterized by _____and creeping horizontal stems (stolons) that root at the nodes to form new rosettes.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. 3-parted leaves
E. New rosettes
F. None of the Above

238. This species reproduces primarily by_____, but can also reproduce by seeds. Because of its spreading, strawberry-like growth habit, creeping buttercup can rapidly form large patches.

A. Actively growing plants
B. Perennial weed
C. Stolons
D. Mature plants
E. Perennial
F. None of the Above

Chemical

239. Herbicides can be used if allowed and appropriate for_____. Follow all label directions to ensure safe and effective use.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. The site and land use
E. New rosettes
F. None of the Above

240. Glyphosate (e.g. Roundup, Aquamaster) can be applied to actively growing plants before they seed. Keep spray off of grass and other plants. Re-seed or re-plant bare areas after removing buttercup to keep it from_____.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Some mature plants will generally recover
E. Re-infesting the area
F. None of the Above

241. _____herbicides can be applied over grassy areas infested with creeping buttercup to selectively kill the buttercup and not the grass. Products containing the active ingredient MCPA are most effective on buttercup. Metsulfuron (Escort, Ally) is also effective but can harm some grasses. Follow label directions on timing and rates.

A. Actively growing plants
B. Buttercup
C. Creeping buttercup
D. Broadleaf
E. Perennial
F. None of the Above

242. It will probably take at least two or three applications to _____because of the seed bank and because some mature plants will generally recover.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Eradicate creeping buttercup
E. Perennial
F. None of the Above

243. Monitor the treated area for re-growth and pull up _____before they establish runners.
A. Spine-tipped branches D. Any new seedlings
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

Buttercup, Tall
244. Plant Description: Tall buttercup is a perennial weed characterized by erect stems and deeply lobed leaves. This species reproduces only_____.
A. By actively growing plants D. By rhizomes
B. By perennial weeds E. By rosettes
C. By seeds F. None of the Above

Impacts
245. _____can dominate a pasture or meadow given the opportunity, especially with acid soils and/or over-grazing. It could hinder colonization by native species in a prairie or grassland habitat if it were allowed to invade and spread.
A. Spine-tipped branches D. Tall buttercup
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

246. The main impact is to livestock. _____are toxic to grazing animals, who can suffer from salivation, skin irritation, blisters, abdominal distress, inflammation, and diarrhea.
A. Spine-tipped branches D. Fresh buttercup plants
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

247. Fortunately, _____ has a strong, bitter taste so animals generally try to avoid it if more palatable
A. Spine-tipped branches D. Fresh plants
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

Camelthorn
248. Description: Perennial; flowers June to July. Grows 1 1/2 to 4 feet tall. Stems greenish with _____1/4 to 1 3/4 inches long.
A. Actively growing plants D. Slender spines
B. Perennial weed E. Perennial
C. Toxic F. None of the Above

249. Leaves wedge-shaped, hairless on the upper surface, 1/4 to 1 1/4 inches long. _____small, pea-like, pinkish purple to maroon, occur on short, spine-tipped branches along the upper portion of the plant.
A. Spine-tipped branches D. Flowers
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

250. _____curved upward, deeply indented with each seed clearly outlined in the pod.
A. Actively growing plants D. Some mature plants
B. Perennial weed E. Perennial
C. Reddish-brown jointed seed pods F. None of the Above

Campion, White

251. Plant Description: White campion can be a winter or summer annual, biennial, or_____.

A. Short-lived perennial
B. Reproduction
C. Leaves are lance-shaped
D. Winter or summer annual, biennial
E. Creeping perennial weed
F. None of the Above

252. This species is characterized by _____and showy white flowers, whose petals emerge from a green, inflated, bladder-like structure (calyx).

A. Bladder-like structure (calyx)
B. Downy foliage
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

253. Reproduction is primarily by seeds, although fragmented segments of the _____can give rise to new plants.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Root crown
E. Creeping perennial weed
F. None of the Above

Canada Goldenrod

254. Plant Description: Canada goldenrod is a perennial distinguished by numerous small yellow flowers located in _____at the top of individual, unbranched, leafy stems.

A. Bladder-like structure (calyx)
B. Perennial
C. Pyramid-shaped clusters
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

255. Flowers are crowded onto _____that originate at a central axis and are arranged more or less horizontally.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Numerous backward-curved stalks
E. Creeping perennial weed
F. None of the Above

256. Leaves are_____, hairless on the upper surface, hairy underneath, and sharply toothed on the edge.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Lance-shaped, tapered at both ends
E. Creeping perennial weed
F. None of the Above

257. Leaves are described as being 3-nerved, meaning the midrib and 2 parallel lateral veins are prominent. Plants reproduce by way of short rhizomes (horizontal underground stems) emerging from the base of aerial stems and by_____.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Wind dispersed seeds
E. Creeping perennial weed
F. None of the Above

Canada Thistle

258. Canada thistle (Cirsium arvense) is an aggressive, creeping perennial weed that infests crops, pastures, rangeland, roadsides and_____. Generally, infestations start on disturbed ground, including ditch banks, overgrazed pastures, tilled fields or abandoned sites.

A. Bladder-like structure (calyx)
B. Non-crop areas
C. Cool-season perennial
D. Is an aggressive, creeping perennial weed
E. In infestations
F. None of the Above

259. Canada thistle reduces forage consumption in _____because cattle typically will not graze near infestations.
A. Pastures and rangeland D. An aggressive, creeping perennial weed
B. Perennial E. Infestations
C. Cool-season perennial F. None of the Above

260. Canada thistle is a creeping perennial that reproduces from vegetative buds in its root system and from seed. It is difficult to control because its _____allows it to recover from control attempts.
A. Creeping perennial D. Extensive root system
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

261. Combining control methods is the best form of Canada thistle management. Persistence is imperative so the weed is continually stressed, forcing it to exhaust_____.
A. Creeping perennial D. Root nutrient stores and eventually die
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

262. Herbicides such as glyphosate can be painted on thistle leaves. _____will be needed. Herbicides such as triclopyr + clopyralid or 2,4-D combinations can be sprayed on thistle foliage; repeat applications may be needed at 6 week intervals.
A. Creeping perennial D. Herbicide applications
B. Canada thistle management E. Repeat applications
C. Applying any pesticide F. None of the Above

263. The most effective times for herbicide applications are spring, just after the green shoots appear, or in August/September. Always read the label before_____.
A. Applying any pesticide D. Herbicide applications
B. Canada thistle management E. Repeat applications
C. Repeat applications F. None of the Above

Canarygrass
264. Plant Description: Reed canarygrass is a tall, coarse, sod-forming, cool-season perennial, characterized in summer by its two-tone appearance of golden seedheads atop green foliage. It reproduces through seeds and more typically by _____(horizontal underground stems). This species tends to grow in clumps 3 feet or more in diameter, and can form large, dense colonies.
A. Bladder-like structure (calyx) D. Seed
B. Perennial E. Vigorous rhizomes
C. Cool-season perennial F. None of the Above

Carrot, Wild
265. Plant Description: Wild carrot is a biennial that looks and smells similar to_____. Its distinctive fern-like foliage forms a rosette during the first year.
A. Creeping perennial D. Cultivated carrot
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

266. During the second year of growth, it produces a succession of _____that terminate in umbrella-shaped clusters of small white flowers.
A. Mat-forming species D. Hairy flower stalks
B. Reproduces by seeds E. Leaf-like bracts and branches
C. Heart-shaped leaves appear F. None of the Above

267. A distinctive feature of wild carrot is the appearance of a dark purple flower (rarely several flowers) in the center of most flower clusters. Once flowers mature and_____, the flower cluster closes forming a cuplike bird's nest. Wild carrot reproduces by seeds.
A. Seeds begin to develop
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Catnip
268. Plant Description: Catnip is _____best known for the minty odor emitted by its leaves and stems when they are crushed or wilted. The odor is very attractive to cats.
A. An erect perennial
B. Reproduced by seeds
C. Heart-shaped
D. In the Mint Family
E. Leaf-like
F. None of the Above

269. Other distinctive characteristics are _____and the serrated appearance of the leaf edges, which resembles the toothed edge of a saw.
A. Downy foliage
B. Reproduced by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

270. The flower shape is common among members of the mint family consisting of 2 lips, and flower color is white with unusual purple dots. Along with most members of the Mint Family, catnip has square stems. This species reproduces by seeds and _____(horizontal underground stems).
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. It also produces short rhizomes
E. Leaf-like bracts and branches
F. None of the Above

Catsear, Common
271. Plant Description: Common catsear is a perennial with a growth form similar to that of dandelion; its leaves form a basal rosette and it produces_____. Leaves of common catsear are typically lance-shaped with irregular rounded lobes and hairs on both the upper and lower surfaces.
A. Either an annual
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Yellow head-like flowers at the tips of upright stems
F. None of the Above

272. Emerging from the rosette are _____that usually have leaf-like bracts and branches. At the tips of the branches are 1-inch-wide flower heads composed of many tubular, yellow flowers.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Wiry hairless stems
E. Leaf-like bracts and branches
F. None of the Above

273. Common catsear reproduces by seeds and vegetatively by way of _____that can produce new plants if separated.
A. Buds formed on the crown
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Chickweed, Mouseear
274. Plant Description: Mouseear chickweed is a creeping, mat-forming species that normally behaves as a perennial; however, it is possible for it to exist as an annual. Plants reproduce by seeds and roots growing from the_____. It tends to form dense patches.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Nodes of stems
E. Leaf-like bracts and branches
F. None of the Above

Chicory

275. Plant Description: Chicory is _____that initially grows as a rosette of irregularly-toothed basal leaves. Then, later in the season, leafless stems emerge with sky-blue daisy-like flowers scattered along their length.

A. Either an annual
B. Reproduces by seeds
C. A perennial
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

276. Flowers open each morning and close as sunlight increases in intensity around noon. Only a few flower heads open at a time and each head opens for a single day. Chicory_____.

A. Is a mat-forming species
B. Reproduces by rhizomes
C. Has heart-shaped leaves
D. Reproduces by seeds
E. Has leaf-like bracts and branches
F. None of the Above

Cinquefoil, Rough

277. Plant Description: Rough cinquefoil behaves as either an annual if growing in cultivated ground, a biennial when growing in less disturbed sites, or_____.

A. A short-lived perennial
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

278. It grows as a _____ at the beginning of the season, but later forms an upright, hairy, robust stem with yellow flowers. Leaves consist of 3 coarsely-toothed, hairy leaflets. Rough cinquefoil reproduces by seeds.

A. Mat-forming species
B. Seed
C. Heart-shaped leaf
D. Rosette
E. Leaf-like bract
F. None of the Above

Cinquefoil, Sulfur

279. Plant Description: Sulfur cinquefoil is a perennial. It is an erect, hairy, generally unbranched plant with yellow flowers and leaves consisting of_____. Leaflets are arranged such that they radiate from a common point like fingers on a hand. Sulfur cinquefoil reproduces by seeds.

A. 5 to 7 coarsely-toothed leaflets
B. Seeds
C. Roots
D. Unbranched plant with yellow flowers and leaves
E. Rosette
F. None of the Above

Colts Foot

280. Plant Description: Coltsfoot is a_____. Its flowers are the same color, size, and shape as dandelion flowers, and the two species are easily confused while in bloom if viewed from a distance.

A. Mat-forming species
B. Reproducer of seeds
C. Yellow-flowered perennial
D. A member of the Mint Family
E. Wooly vegetative stem
F. None of the Above

281. Coltsfoot blooms so early that the flowers have already come and gone by the time leaves emerge. Also, coltsfoot flowers appear at the tips of 1/8-inch-thick stems that are wooly and covered with _____ giving them an appearance similar to that of asparagus spears.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

282. After flowers have matured, clumps of broad, heart-shaped leaves appear on short, _____.

A. Mat-forming species
B. Wooly vegetative stems
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

283. Coltsfoot reproduces primarily by _____ (horizontal underground stems) and also by seeds.
A. Distinctive curled clusters
B. Perennial herb
C. A dense, healthy turf
D. Horizontal creeping rhizomes
E. Branched taproot
F. None of the Above

284. Root system - Coltsfoot forms an extensive system of _____(horizontal underground
A. Opened flowers
B. Seeds
C. Good cultural habits
D. Petioles
E. Thick white rhizomes
F. None of the Above

Comfrey, Common
285. Plant Description: Common comfrey is a perennial herb with lower leaves that are bristly, up to 12 inches long, and attached to winged leaf stalks (_____) that emerge from the base of the plant.
A. Distinctive curled clusters
B. Perennial herbs
C. Stems
D. Petioles
E. Branched taproots
F. None of the Above

286. Smaller leaves that are also bristly but lack petioles are borne on_____.
A. Opened flowers
B. Stems
C. Rhizomes
D. 2- to 3-foot tall flowering stems
E. Branched taproots
F. None of the Above

287. Flowers are bell shaped and either yellow or blue. They form in distinctive curled clusters having an appearance similar to that of a_____. Reproduction is by way of seeds. Also, new plants can be propagated by dividing the roots of established plants.
A. Distinctive curled cluster
B. Perennial herb
C. Scorpion's tail
D. A broadleaf summer-annual weed
E. A branched taproot
F. None of the Above

Common Groundsel
288. Common groundsel is_____. A prolific seed producer, seeds are produced within several weeks of germination, and there are several generations within the same year. This weed likes moist soil and is often found in well-irrigated areas such as lawns and flower beds.
A. Opened flower
B. A prolific seed producer
C. An early season weed
D. Also bristly but lack petioles
E. A common weed in the home vegetable garden
F. None of the Above

289. Control: A dense, healthy turf will prevent seeds from taking root in the lawn. _____can be increased with proper mowing, fertilization, watering, and other cultural practices. Good drainage will also help to discourage the growth of common groundsel.
A. Distinctive curled clusters
B. Perennial herbs
C. A dense, healthy turf
D. Broadleaf summer-annual weed control measures
E. Turf density
F. None of the Above

290. The plants can be easily pulled by hand from moist soil. Be sure to pull and dispose of them before they set seed, as seed can mature in _____even after the plants have been killed. If there is heavy infestation, spot treat with a post-emergent herbicide containing glyphosate (Roundup, Kleenup).
A. Opened flowers
B. Seed producing
C. Weeds
D. Petioles
E. To vegetables
F. None of the Above

Common Lambsquarters

291. Common Lambsquarters is a _____ that can be found anyplace the soil has been disturbed. The growth habits of the common lambsquarters vary with its location. If growing along the road or in an open field, it may reach three or four feet in height.

A. Distinctive curled cluster
B. Perennial herb
C. Dense, healthy turf
D. Broadleaf summer-annual weed
E. Broadleaf winter-annual weed
F. None of the Above

292. Control: The best methods of weed control in the home vegetable garden are mulching, handpulling, rototilling, hoeing and preventing the weeds from_____.

A. Opened flowers
B. A prolific seed producer
C. Going to seed
D. Blooming
E. The home vegetable garden
F. None of the Above

293. Because of its short, branched taproot, lambsquarters can be easily hand-pulled from moist soil. The best methods of weed control in the home vegetable garden are mulching, hand pulling, rototilling, hoeing and preventing the weeds from going to seed. Because of its_____, lambsquarters can be easily hand-pulled from moist soil.

A. Distinctive curled clusters
B. Perennial herb classification
C. Rosette stage
D. Short, branched taproot
E. Long, branched taproot
F. None of the Above

294. Prevention by use of _____ should be the first line of defense in eliminating broadleaf weeds such as lambsquarters from lawns.

A. Violence
B. Hoe
C. Good cultural habits
D. Fire
E. Weed control in the home vegetable garden
F. None of the Above

295. Pre-emergent herbicides such as trifluralin (Preen) can be used to_____.

A. Control grass
B. Control perennial herbs
C. Create a dense, healthy turf
D. Control broadleaf summer-annual weed
E. Prevent germination of weed seeds
F. None of the Above

296. Post-emergent herbicides effective against)_____ are 2,4-D, MCPP and dicamba (sold under many brand names) and combination formulas (Trimec).

A. Broadleaf weeds
B. Perennial herbs
C. Turf
D. Broadleaf summer-annual weeds
E. Weed seeds
F. None of the Above

Common Mallow

297. Common mallow is most frequently found in newly seeded lawns or lawns that are stressed and lack density. It can be_____.

A. Opened flower
B. A prolific seed producer
C. An annual or biennial
D. Found with banana trees
E. Found with a long, branched taproot
F. None of the Above

298. Mallow has a deep taproot but can be easily pulled from moist soil. The foliage resembles that of the geranium. The _____of common mallow are pinkish-white and the fruits look like small, round cheeses.

A. Flowers
B. Flowering plants
C. Rosette stage
D. Seeds
E. Stems
F. None of the Above

299. Control: _____with proper mowing, fertilization, watering and other cultural practices can help in the control of this weed.

A. A non-selective herbicide
B. Seed production
C. Herbicide spraying
D. Increasing turf density
E. Spreading perennial
F. None of the Above

300. Post-emergent herbicides are _____effective. Triclopyr + clopyralid or triclopyr alone are suggested.

A. Post-emergent herbicides
B. Very
C. Not
D. Only marginally
E. An insecticide and are
F. None of the Above

You are finished with your assignment.

Weed Identification and Control Assignment #2
For Students Names F-L

You will have 90 days from the start of this course to have successfully passed this assignment with a score of 70 %. You may e mail the answers to TLC, info@tlch2o.com or fax the answers to TLC, (928) 272-0747. This assignment is available to you in a Word Format on TLC's Website. You can find online assistance for this course on the in the Search function on Adobe Acrobat PDF to help find the answers. Once you have paid the course fee, you will be provided complete course support from Student Services Dr. Rusty Randall or Dr. Bubba Jenkins (928) 468-0665.

Write your answers on the Answer Key found in the front of this assignment.
ASSIGNMENT INSTRUCTIONS
1. We will require all students to fax or e-mail a copy of their driver's license with the registration form.
2. You will need to pick one of the following five assignments to complete. This selection process is based upon your last name. If your last name begins with an A to E, you will pick assignment number 1, if your last name begins with the letter F to L, you are to complete assignment number 2 and if your last name begins with the letter M-Q, you will pick assignment number 3 and if your last name begins with the letter R-Z, you will pick assignment number 4.

Multiple Choice assignment, please select one answer and mark it on the answer key. The answer must come from the course text. (s) means answer can be plural or singular. There are no intentional trick questions

Commonly Found Weed Section
A-Z Common Names
African Rue
1. Description: African rue is a multi-branched and _____.
A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Bushy perennial
E. An herbaceous perennial
F. None of the Above

2. A member of the _____ it is a succulent plant, with bright green alternating leaves that are smooth and finely divided with long, narrow segments. Plants grow 1.5 feet tall and 3-4 feet in diameter.
A. Compositae Family
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Caltrop family
F. None of the Above

3. Flowers are white with _____ and are present in spring to early fall. Fruit is a located in a leathery capsule 2-4 celled which contains 45-60 seeds.
A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

4. Seeds are angular, dark brown and have a distinctive smell. When crushed, the stems also have a disagreeable odor. The base of this plant is _____can branch and reach 20 feet in depth.
A. Compositae Family
B. Woody and roots
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

5. African rue prefers distributed environments such as roadsides, fields and rangelands in desert and semi-desert areas. It is often found in soils with high salinity and most parts of the plant contain _____that reduce growth of other vegetation.

A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

Artichoke, Jerusalem

6. Plant Description: It is nearly impossible to distinguish Jerusalem artichoke from annual sunflowers based on above-ground growth. Jerusalem artichoke has a coarse, 5- to 10-foot tall stem, large leaves with a rough upper surface, and_____.

A. Compositae Family
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Bright yellow sunflower-like flowers
F. None of the Above

7. Jerusalem artichoke can be easily distinguished from annual sunflowers by its below-ground growth that includes fleshy tubers resembling thin, knotty potatoes. Reproduction of Jerusalem artichoke is by seeds, rhizomes (_____), and tubers.

A. Five individual petals
B. Allelopathic chemicals
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. Horizontal underground stems
F. None of the Above

Asparagus, Wild

8. Plant Description: Wild asparagus is an herbaceous perennial, well-known for its edible young shoots. Mature plants have a_____, and reproduce by seed.

A. Distinctive fern-like appearance
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

Aster, White-Heath

9. Plant Description: White heath aster is a _____that can frequently be seen growing by the side of the road as a clump of upright stems with wand-like spreading branches. In late August, small white flowers cover the top half of the plant.

A. Five individual petals
B. Allelopathic chemicals
C. Perennial weed
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

10. The flowers, which are similar to those produced by other plants in the Compositae Family, are actually _____made up of many individual flowers that may be different shapes and colors.

A. Head-like clusters
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

11. In the case of white heath aster, there are _____in the center of each head surrounded by 16 to 35 white ray flowers. Reproduction is by seeds.

A. Five individual petals
B. Yellow disk flowers
C. Fleshy tubers
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

Austrian Peaweed

12. Identification: Perennial; flowers from May to July. A creeping plant with compound leaves; numerous leaflets oval and covered in hair. Flowers 1/4 to 1 inch long and orange-red. Many seeds in _____.

A. Bladder-like translucent pods
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

Bamboo

13. _____thrive in sun or light shade if provided with abundant moisture and rich soil. Where drought may be expected or in hot interior climates, some shading would be beneficial for most varieties. Established plants withstand flooding.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Phyllostachys species
F. None of the Above

14. Control: Bamboo can be controlled in a small area (a normal city yard) simply by mowing or stepping on the young shoots. New shoots could also be used for culinary purposes and cooked, much like asparagus. Keep in mind that running bamboo only puts up new shoots for a short time each year, and when they are "_____", the new plants are very fragile and easy to destroy.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Any rhizomes
D. Nodes on the stem.
E. Shooting
F. None of the Above

15. To really slow the spread of the rhizomes, the grove can be _____at any time. (Best time seems to be in the fall or early winter). This is done with a sharp, narrow spade (8" wide, flat spade works quite well) by "trimming" the rhizomes on all sides which need to be controlled.

A. Rhizomes
B. Root pruned
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

16. Push the shovel straight down to its maximum depth so as to cut through any _____ encountered, (8-10 inches is usually sufficient). Keep moving the spade one width at a time to the right or left, cutting a line until all the rhizomes have been cut.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Rhizomes
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

Bedstraw, Smooth

17. Plant Description: There are at least 30 different bedstraws in North America, and many are perennials like smooth bedstraw that produce sprawling tangled mats from which_____.

A. Rhizomes
B. A few erect stems arise
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

18. The typical bedstraw leaf is linear and _____consisting of as many as 8 leaves at nodes on the stem.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Formed in whorls
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

19. Smooth bedstraw is the _____with 8 leaves at each node on main stems and 6 to 8 leaves at nodes on branches.
A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Only white-flowered form
F. None of the Above

20. Reproduction is by seeds and underground, spreading rhizomes (_____).
A. Leaves alternate and compound
B. Spreading rhizomes
C. Horizontal underground stems
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

Related Information:
21. The common name 'bedstraw' has two possible origins: the dried plant was used to stuff mattresses; it is said that bedstraw was placed in the _____when Jesus was born. John 3:16
A. Manger at Bethlehem
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

Biddy-biddy
22. Description: Perennial that grows four to eight inches tall. Biddy-biddy spreads by stolons that root at the nodes and plants form large mats where individual plants are indistinguishable. The plant stems are _____ depending on conditions.
A. Rhizomes
B. Prostrate to erect
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

23. Leaves alternate and compound, with _____having 5 to 11 leaflets 1/4-2/3 inches long.
A. Leaves alternate and compound
B. Spreading rhizomes
C. Any rhizomes
D. Mature plants.
E. New plants are very fragile and easy to destroy
F. None of the Above

24. _____, and turn into a round bur that disperses as a unit when mature.
A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Dense ground cover
E. Flower heads spherical
F. None of the Above

25. Impacts: This plant prefers open, disturbed, well-drained sites, including stable dunes, open scrub, _____, and trampled sites in coastal habitats where some summer moisture is available and frosts are infrequent. Plants thrive on poor soils and compete poorly with established vegetation.
A. Grassy areas
B. Bindweed leaves
C. Herbicide application
D. Deep root system
E. Dense field bindweed infestations
F. None of the Above

Bindweed, Field
26. Field bindweed can be spread by seed, _____, farm implements, infested soil adhering to the roots of nursery stock, root growth from infested areas, and by animals.
A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Root fragments
E. Root growth
F. None of the Above

27. Field bindweed has a deep root system that competes with _____for water and nutrients.
A. Flowers are funnel-shaped D. Crop plants
B. Bindweed leaves E. Dense field bindweed infestations
C. Herbicide application F. None of the Above

28. Vines climb on plants and shade crops, cause lodging of_____, and make harvesting difficult by clogging machinery.
A. Twining perennial vine D. Dense ground cover
B. Bindweed foliage E. Root growth
C. Small grains F. None of the Above

29. Dense field _____ may reduce crop yields by 50 to 60 percent. Land infested with field bindweed is reduced in value.
A. Flowers are funnel-shaped D. Deep root system
B. Bindweed leaves E. Bindweed infestations
C. Herbicide application F. None of the Above

30. Field bindweed is a _____which produces a dense ground cover. The twining stems vary from 1.5 to 6 feet or more in length.
A. Twining perennial vine D. Dense ground cover
B. Long-lived perennial E. Root growth
C. Vine F. None of the Above

31. Leaf size and shape are variable, but generally the leaves are 1 to 2 inches long, smooth, and shaped like an arrowhead. Flowers are_____, about 1 inch diameter, and white or pink in color.
A. Flowers are funnel-shaped D. Funnel-shaped
B. Bindweed leaves E. Dense
C. Herbicide application F. None of the Above

32. The _____has two small bracts located ½ to 2 inches below the flower. The bracts, along with leaf shape and smaller flower size, distinguish field bindweed from hedge bindweed.
A. Twining perennial vine D. Dense ground cover
B. Bindweed foliage E. Root growth
C. Flower stalk F. None of the Above

33. Control: Herbicides such as glyphosate can be painted on _____. Repeat applications will be needed.
A. Flowers D. Deep roots
B. Bindweed leaves E. Infestations
C. Herbicide application F. None of the Above

34. Herbicides such as 2,4-D combinations can be sprayed on_____; repeat applications may be needed.
A. Twining perennial vine D. Dense ground cover
B. Bindweed foliage E. Root growth
C. Vines F. None of the Above

35. The most effective times for _____ are during flowering, or in August/September. Always read the label before applying any pesticide.
A. Flowers are funnel-shaped D. Deep root system
B. Bindweed leaves E. Dense field bindweed infestations
C. Herbicide application F. None of the Above

36. Bindweed, Hedge
Plant Description: Hedge bindweed is a_____.
A. Twining perennial vine
B. Bindweed foliage
C. Vine
D. Dense ground cover
E. Root
F. None of the Above

37. Characteristics distinguishing it from other vines include arrowhead-shaped leaves that have pointed tips, pinkish petals fused into funnel-shaped flowers, the presence of large bracts enclosing the base of each flower, and_____.
A. Large bracts
B. Creeping perennial roots
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

38. The plant reproduces by seeds and _____.
A. Short-lived perennial
B. Stolons
C. A unique flower
D. Creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Bindweed, Japanese
39. Plant Description: Japanese bindweed is a_____. Its appearance is similar to that of hedge bindweed except it has smaller flowers and the bracts enclosing the base of each flower are smaller.
A. Large bracts
B. Creeping perennial
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

40. The _____that escaped cultivation has a distinctive double flower. Compared with other bindweed flowers, this is a unique flower in that it has twice the number of petals and looks similar to a rose or carnation.
A. Short-lived perennial
B. Stolons
C. Weedy form
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Birdsfoot Trefoil
41. Plant Description: Birdsfoot trefoil has a perennial root crown and stems that die back each winter. The species is characterized by _____consisting of 3 clover-like leaflets at the tip separated by a short stem from 2 smaller leaflets at the base. Its flowers are yellow, clover like, and in groups of 2 to 6. They are arranged such that, when pods form, they resemble a bird's foot.
A. Large bracts
B. Compound leaves
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

42. Reproduction is by seeds and plants spread by _____(stolons) and rhizomes (horizontal underground stems).
A. Short-lived perennial
B. Modified stems
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Black medic

43. Black medic is an annual, _____or short-lived perennial.

A. Biennial
B. Stolon
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

44. A_____, it is closely related to alfalfa. It is most often found in lawns having low fertility.

A. Large bracts
B. Legume
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

45. Often called Japanese clover, this plant has small yellow flowers and a _____. It can be pulled from moist soil without difficulty. Keeping your lawn healthy and dense with proper watering, mowing, and fertilization will discourage invasion by black medic.

A. Short-lived perennial
B. Stolons
C. A unique flower
D. Seeds and creeping roots
E. Deep taproot
F. None of the Above

46. Control: Triclopyr + 2,4-D combination herbicides or _____are more effective than 2,4-D alone.

A. Crabgrass killer
B. Application of 2,4-D
C. Compound herbicide
D. Triclopyr + 2,4-D combination herbicides
E. Other 2,4-D combination herbicides
F. None of the Above

47. Keeping your lawn healthy and dense with_____, mowing, and fertilization will discourage invasion by black medic.

A. Short-lived perennial
B. Proper watering
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Blue Mustard

48. Blue mustard is a winter annual that germinates in the fall and produces a _____with deeply lobed leaves, similar in appearance to a dandelion.

A. Beak
B. Germinate
C. Rosette
D. Physical destruction of a weed
E. Large patche
F. None of the Above

49. Blue mustard bears _____in March through April. Leaves on the flowering stems are coarsely toothed and have wavy margins.

A. Wavy margins
B. Application
C. Bladder-like calyx
D. Purple or blue flowers at the top of the plant
E. A soap like lather
F. None of the Above

50. The plant may grow from 1 to 1 1/2 feet in height. Two-inch long, bean-like seedpods (siliques) that resemble "_____" mature in early summer.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

51. Control: Herbicides are most effective if applied before_____. In the spring, while it is actively growing, this weed can be controlled with an application of 2,4-D.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. Weeds start to bolt in the spring
E. DCPA (Dacthal)
F. None of the Above

52. Mechanical Weed Control: Mechanical weed control involves the_____.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Physical destruction of a weed
F. None of the Above

53. Techniques involve hand pulling and hand hoeing which are practical for small infestations. Mowing is often used; but by far, the most common practice of mechanical control includes _____.
A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

Bouncingbet

54. Plant Description: Bouncingbet is a_____, a dense show of fragrant phlox-like flowers in summer, and the tendency to form large patches.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Perennial characterized by smooth leafy stems
F. None of the Above

55. Stems, leaves and roots contain a _____that forms a soap like lather when mixed with water. Bouncingbet reproduces by seeds and spreading underground stems (rhizomes).
A. Wavy margins
B. Application of 2,4-D
C. Bladder-like calyx
D. Thick juice
E. A soap like lather
F. None of the Above

56. Similar Species: White campion (Silene pratensis) can be distinguished from bouncingbet by _____.
A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Its hairy stems and leaves
F. None of the Above

57. Bladder campion (Silene vulgaris) can be distinguished by its _____and papery, bladder-like calyx.
A. Wavy margins
B. Deeply lobed flower petals
C. Bladder-like calyx
D. Herbicides
E. Flowers
F. None of the Above

58. In addition, white campion and _____do not grow in large, dense patches like bouncingbet.
A. Bladder campion
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Its hairy stems and leaves
F. None of the Above

Brackenfern

59. Plant Description: Brackenfern is a large, coarse, perennial fern that has almost horizontal leaves and can grow 1 1/2 to 6 1/2 feet tall (sometimes up to 10 feet). Unlike our more_____, this primitive perennial lacks true stems.
A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Typical broadleaf perennials
F. None of the Above

60. Each leaf arises directly from a rhizome (horizontal underground stem), and is supported on a rigid leaf stalk. In addition, brackenfern does not produce flowers or seeds. Instead, _____and creeping rhizomes. This species often forms large colonies.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. It reproduces by spores
F. None of the Above

Brambles

61. Plant Description: Brambles are a diverse group of_____, shrubs or trailing vines, that are noted for their prickly stems and berry-like, usually edible fruits.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Perennial herbs
F. None of the Above

62. They can reproduce by many different methods including seeds, root sprouts, underground stems (rhizomes), and branches that _____(stolons). In some species, individual stems live only two years, but new stems are continually produced. In all species, roots are perennial.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Root at the tips
F. None of the Above

Broadleaf Plantain

63. Broadleaf Plantain is a_____. It has broad leaves with prominent veins. The leaves are arranged in a rosette and may smother lawn grass.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. Low growing perennial
F. None of the Above

64. The _____normally grow taller than the foliage but may develop below mowing height. Vigorous, thick turfgrass is less susceptible to invasion.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. Flowering spikes
F. None of the Above

65. Control: Triclopyr + 2,4-D or 2,4-D alone or 2,4-D combination herbicides should control _____. Always read the label before applying any pesticide.

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Plantain
F. None of the Above

Brome, Smooth

66. Plant Description: Smooth brome is a sod-forming, perennial grass, distinguished by long, slender, bronze- or purple-tinted flower clusters that make up the flower head. This species spreads by seeds and dark-colored rhizomes (_____).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Horizontal underground stems
F. None of the Above

67. Similar Species: Smooth brome may be confused with quackgrass (Elytrigia repens). However, smooth brome lacks the prominent claw-like appendages (_____) that clasp the stem at the top of the sheath in quackgrass.

A. Evergreen shrub
B. Auricles
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, French

68. Description: Perennial; blooms April to June. Grows three to ten feet tall. Evergreen shrub similar to Scotch broom except plants do not grow as erect, leaves are retained the entire year, leaves trifoliate and more numerous, and_____.

A. Larger yellow flowers
B. Evergreen shrub
C. Yellow flowers smaller
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

69. Impacts: This plant, _____, takes advantage of land disturbances to establish and spread. In California, large infestations displace native plant species and significantly increase the costs of reforestation in commercial timberlands.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, Portuguese

70. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Evergreen shrub similar to Scotch broom except pods inflated and hairy all over,_____. Stems more silvery, but difficult to distinguish until leaves and flowers fall off.

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Giving appearance of pussy willow buds
F. None of the Above

Broom, Scotch

71. Description: Perennial; blooms April to June. Grows 3 to 10 feet tall. Evergreen shrub with many slender, erect, dark green angled branches with small, simple leaves. Abundant small, yellow, _____.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Pea-shaped flowers
E. An aggressive pioneer species
F. None of the Above

72. Easily confused with_____. Spanish broom (S. Junceum) has round stems, very few leaves, and larger yellow flowers.

A. Spanish broom
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Broom, Spanish

73. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Similar to Scotch broom except stems thicker and rougher, it has very few leaves, and flowers larger and_____.

A. Fewer in number
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broomsedge

74. Plant Description: Broomsedge is a clump-forming perennial grass that is most noticeable in the fall, when its stems and leaves turn a_____. It reproduces by seed and short rhizomes (horizontal underground stems).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Distinctive orangish-tan to reddish-brown color
E. Except pods inflated and hairy all over
F. None of the Above

75. Root system - Dense, fibrous roots are produced from _____(horizontal underground stems).

A. Short rhizomes
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Buffalo Bur

76. Buffalo bur, sometimes called Kansas thistle and_____, is a tap rooted annual weed. It bears long, yellow spines on stems, leaves, and flower heads and can grow up to 2 feet high. Drought resistant, its highest occurrence is in dry, exposed soil.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Prickly nightshade
F. None of the Above

77. The oblong leaves are 2-3 inches long with _____and are covered with very dense, stiff, and sharp spines.

A. Bright yellow flowers
B. Deep rounded lobes
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

78. Bright yellow flowers can be seen in summer. In the fall, berries up to 3/8 inch in diameter are enclosed in the _____and are filled with black, wrinkled, flat pitted seeds.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Dried flower parts
F. None of the Above

79. Control of this plant is important, as it is a host for the Colorado potato beetle. When mature, the main stem breaks near the ground and the plant rolls like_____, widely scattering the 8500 seeds that each plant produces.

A. Bright yellow flowers
B. Tumbleweed
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

80. Herbicides should be applied between_____. Dicamba, Triclopyr and 2,4-D can be effective in controlling Buffalo bur. Glyphosate in a 2% solution can be applied as a spot treatment.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Late bud to early flower
F. None of the Above

Butterfly Bush

81. Description:_____; flowers mid to late summer. Grows up to 10 feet tall. Leaves narrow, opposite and green to blue-gray.

A. Bright yellow flowers
B. Perennial shrub
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

82. _____ lilac-like but come to a more definite point. Flowers small and purple.

A. Five equal lobes
B. Perennial herb
C. Flower heads
D. Flat pitted seeds
E. Kansas thistle and prickly nightshade
F. None of the Above

83. Impacts: This plant is a pioneering species that dominates open habitats. It poses an ecological threat to dry-land meadows, open slopes and dunes, dominating these sites as much as _____has historically. It also invades reforested sites, resulting in a loss of forest productivity.

A. Bright yellow flowers
B. Colorado potato beetle
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

Bugloss, Common

84. Description: Perennial herb; flowers May to October. Grows one to two feet tall._____; overall plant is coarsely hairy.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Stems and leaves fleshy
F. None of the Above

85. Basal leaves are_____; mid leaves are progressively smaller up the stem, and the upper leaves are sessile (no petiole) or clasping.

A. Bright yellow flowers
B. Narrowly oblong
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

86. Blue to purple flowers with white throats. Petals are five equal lobes, forming_____. Flowers found in coiled clusters at the end of stems. As the flowers open, coils unfold.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. An uncurved tube
F. None of the Above

87. Fruit is a four-chambered nutlet; each nutlet contains_____.

A. One seed
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

88. Impacts: This plant invades alfalfa fields, pastures, pine forests, rangeland, riparian and waste areas. The fleshy stalks can cause hay bales to mold. Large, very dense stands can occur, offering strong competition to_____.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Native plant communities
E. Leaf axils on the flower stem
F. None of the Above

Bull Thistle

89. Description: An upright biennial. Young seedling leaves are oblong in shape, but mature _____ are saw-toothed and spiny with cottony hairs on the undersurface.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

90. _____ generally grow 2 - 12 inches long and 3/4 - 4 inches wide. Leaves are dark green and are arranged alternately along the rigid flower stalk, that grows 1 - 5 feet tall and can be highly branched.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Strong competition to native plant communities
E. Leaf axils on the flower stem
F. None of the Above

91. _____have distinctly pointed, spine-tipped lobes, with bases that clasp the stem to form spiny wings.
A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Stem leaves
F. None of the Above

92. _____, 1 to 2 inches diameter, are borne on branch tips, and are subtended by an egg-shaped cluster of spiny bracts.
A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Purplish/pink flower heads
E. Leaf axils on the flower stem
F. None of the Above

93. _____give rise to seed heads that contain many single-seeded fruits, each topped by a plume of feathery white hairs.
A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Flower heads
E. Leaf axils on the flower stem
F. None of the Above

94. Weedy Characteristics: Bull thistle reproduces solely by seed. Each plant can produce between one and several hundred seed heads, and seed heads produce_____.
A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. An average of 100 seeds each
E. Rosette leaves
F. None of the Above

Burdock, Common
95. Plant Description: Common burdock is a biennial that grows as a _____the first year and then produces a 5-foot-tall, erect, bushy flowering stem.
A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Rosette of leaves
E. Leaf axils on the flower stem
F. None of the Above

96. Rosette leaves are distinctive due to their large size, heart-shaped base, wooly undersurface, and hollow leaf stalks (_____).
A. Four-chambered nutlet
B. Spine-tipped lobes
C. Petioles
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

97. Stem leaves are similar to but smaller than rosette leaves. Located at the ends of branches or at leaf axils on the flower stem are flower heads comprised of a bur with hooked bristles beneath a closely packed _____.
A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Cluster of tubular, purplish flowers
E. Leaf axils on the flower stem
F. None of the Above

98. The weed is best known for the _____on its burs that stick to fur and clothing. The only means by which common burdock reproduces are its seeds.
A. Hooked bristles
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

Buttercup, Creeping

99. Plant Description: Creeping buttercup is a low-growing, rosette-forming, spreading perennial. It is characterized by _____and creeping horizontal stems (stolons) that root at the nodes to form new rosettes.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. 3-parted leaves
E. New rosettes
F. None of the Above

100. This species reproduces primarily by_____, but can also reproduce by seeds. Because of its spreading, strawberry-like growth habit, creeping buttercup can rapidly form large patches.

A. Actively growing plants
B. Perennial weed
C. Stolons
D. Mature plants
E. Perennial
F. None of the Above

Chemical

101. Herbicides can be used if allowed and appropriate for_____. Follow all label directions to ensure safe and effective use.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. The site and land use
E. New rosettes
F. None of the Above

102. Glyphosate (e.g. Roundup, Aquamaster) can be applied to actively growing plants before they seed. Keep spray off of grass and other plants. Re-seed or re-plant bare areas after removing buttercup to keep it from_____.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Some mature plants will generally recover
E. Re-infesting the area
F. None of the Above

103. _____herbicides can be applied over grassy areas infested with creeping buttercup to selectively kill the buttercup and not the grass. Products containing the active ingredient MCPA are most effective on buttercup. Metsulfuron (Escort, Ally) is also effective but can harm some grasses. Follow label directions on timing and rates.

A. Actively growing plants
B. Buttercup
C. Creeping buttercup
D. Broadleaf
E. Perennial
F. None of the Above

104. It will probably take at least two or three applications to _____because of the seed bank and because some mature plants will generally recover.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Eradicate creeping buttercup
E. Perennial
F. None of the Above

105. Monitor the treated area for re-growth and pull up _____before they establish runners.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Any new seedlings
E. New rosettes
F. None of the Above

Buttercup, Tall

106. Plant Description: Tall buttercup is a perennial weed characterized by erect stems and deeply lobed leaves. This species reproduces only_____.

A. By actively growing plants
B. By perennial weeds
C. By seeds
D. By rhizomes
E. By rosettes
F. None of the Above

Impacts

107. _____can dominate a pasture or meadow given the opportunity, especially with acid soils and/or over-grazing. It could hinder colonization by native species in a prairie or grassland habitat if it were allowed to invade and spread.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Tall buttercup
E. New rosettes
F. None of the Above

108. The main impact is to livestock. _____are toxic to grazing animals, who can suffer from salivation, skin irritation, blisters, abdominal distress, inflammation, and diarrhea.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Fresh buttercup plants
E. New rosettes
F. None of the Above

109. Fortunately, _____ has a strong, bitter taste so animals generally try to avoid it if more palatable

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Fresh plants
E. New rosettes
F. None of the Above

Camelthorn

110. Description: Perennial; flowers June to July. Grows 1 1/2 to 4 feet tall. Stems greenish with _____1/4 to 1 3/4 inches long.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Slender spines
E. Perennial
F. None of the Above

111. Leaves wedge-shaped, hairless on the upper surface, 1/4 to 1 1/4 inches long. _____small, pea-like, pinkish purple to maroon, occur on short, spine-tipped branches along the upper portion of the plant.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Flowers
E. New rosettes
F. None of the Above

112. _____curved upward, deeply indented with each seed clearly outlined in the pod.

A. Actively growing plants
B. Perennial weed
C. Reddish-brown jointed seed pods
D. Some mature plants
E. Perennial
F. None of the Above

Campion, White

113. Plant Description: White campion can be a winter or summer annual, biennial, or_____.

A. Short-lived perennial
B. Reproduction
C. Leaves are lance-shaped
D. Winter or summer annual, biennial
E. Creeping perennial weed
F. None of the Above

114. This species is characterized by _____and showy white flowers, whose petals emerge from a green, inflated, bladder-like structure (calyx).

A. Bladder-like structure (calyx)
B. Downy foliage
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

115. Reproduction is primarily by seeds, although fragmented segments of the _____can give rise to new plants.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Root crown
E. Creeping perennial weed
F. None of the Above

Canada Goldenrod

116. Plant Description: Canada goldenrod is a perennial distinguished by numerous small yellow flowers located in _____at the top of individual, unbranched, leafy stems.

A. Bladder-like structure (calyx)
B. Perennial
C. Pyramid-shaped clusters
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

117. Flowers are crowded onto _____that originate at a central axis and are arranged more or less horizontally.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Numerous backward-curved stalks
E. Creeping perennial weed
F. None of the Above

118. Leaves are_____, hairless on the upper surface, hairy underneath, and sharply toothed on the edge.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Lance-shaped, tapered at both ends
E. Creeping perennial weed
F. None of the Above

119. Leaves are described as being 3-nerved, meaning the midrib and 2 parallel lateral veins are prominent. Plants reproduce by way of short rhizomes (horizontal underground stems) emerging from the base of aerial stems and by_____.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Wind dispersed seeds
E. Creeping perennial weed
F. None of the Above

Canada Thistle

120. Canada thistle (Cirsium arvense) is an aggressive, creeping perennial weed that infests crops, pastures, rangeland, roadsides and_____. Generally, infestations start on disturbed ground, including ditch banks, overgrazed pastures, tilled fields or abandoned sites.

A. Bladder-like structure (calyx)
B. Non-crop areas
C. Cool-season perennial
D. Is an aggressive, creeping perennial weed
E. In infestations
F. None of the Above

121. Canada thistle reduces forage consumption in _____because cattle typically will not graze near infestations.

A. Pastures and rangeland
B. Perennial
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

122. Canada thistle is a creeping perennial that reproduces from vegetative buds in its root system and from seed. It is difficult to control because its _____allows it to recover from control attempts.

A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Extensive root system
E. Fern-like foliage
F. None of the Above

123. Combining control methods is the best form of Canada thistle management. Persistence is imperative so the weed is continually stressed, forcing it to exhaust_____.
A. Creeping perennial D. Root nutrient stores and eventually die
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

124. Herbicides such as glyphosate can be painted on thistle leaves. _____will be needed. Herbicides such as triclopyr + clopyralid or 2,4-D combinations can be sprayed on thistle foliage; repeat applications may be needed at 6 week intervals.
A. Creeping perennial D. Herbicide applications
B. Canada thistle management E. Repeat applications
C. Applying any pesticide F. None of the Above

125. The most effective times for herbicide applications are spring, just after the green shoots appear, or in August/September. Always read the label before_____.
A. Applying any pesticide D. Herbicide applications
B. Canada thistle management E. Repeat applications
C. Repeat applications F. None of the Above

Canarygrass
126. Plant Description: Reed canarygrass is a tall, coarse, sod-forming, cool-season perennial, characterized in summer by its two-tone appearance of golden seedheads atop green foliage. It reproduces through seeds and more typically by _____(horizontal underground stems). This species tends to grow in clumps 3 feet or more in diameter, and can form large, dense colonies.
A. Bladder-like structure (calyx) D. Seed
B. Perennial E. Vigorous rhizomes
C. Cool-season perennial F. None of the Above

Carrot, Wild
127. Plant Description: Wild carrot is a biennial that looks and smells similar to_____. Its distinctive fern-like foliage forms a rosette during the first year.
A. Creeping perennial D. Cultivated carrot
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

128. During the second year of growth, it produces a succession of _____that terminate in umbrella-shaped clusters of small white flowers.
A. Mat-forming species D. Hairy flower stalks
B. Reproduces by seeds E. Leaf-like bracts and branches
C. Heart-shaped leaves appear F. None of the Above

129. A distinctive feature of wild carrot is the appearance of a dark purple flower (rarely several flowers) in the center of most flower clusters. Once flowers mature and_____, the flower cluster closes forming a cuplike bird's nest. Wild carrot reproduces by seeds.
A. Seeds begin to develop D. Unbranched plant with yellow flowers and leaves
B. Reproduces by seeds E. Perennial that initially grows as a rosette
C. Typically lance-shaped F. None of the Above

Catnip
130. Plant Description: Catnip is _____best known for the minty odor emitted by its leaves and stems when they are crushed or wilted. The odor is very attractive to cats.
A. An erect perennial D. In the Mint Family
B. Reproduced by seeds E. Leaf-like
C. Heart-shaped F. None of the Above

131. Other distinctive characteristics are _____and the serrated appearance of the leaf edges, which resembles the toothed edge of a saw.
A. Downy foliage
B. Reproduced by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

132. The flower shape is common among members of the mint family consisting of 2 lips, and flower color is white with unusual purple dots. Along with most members of the Mint Family, catnip has square stems. This species reproduces by seeds and _____(horizontal underground stems).
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. It also produces short rhizomes
E. Leaf-like bracts and branches
F. None of the Above

Catsear, Common
133. Plant Description: Common catsear is a perennial with a growth form similar to that of dandelion; its leaves form a basal rosette and it produces_____. Leaves of common catsear are typically lance-shaped with irregular rounded lobes and hairs on both the upper and lower surfaces.
A. Either an annual
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Yellow head-like flowers at the tips of upright stems
F. None of the Above

134. Emerging from the rosette are _____that usually have leaf-like bracts and branches. At the tips of the branches are 1-inch-wide flower heads composed of many tubular, yellow flowers.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Wiry hairless stems
E. Leaf-like bracts and branches
F. None of the Above

135. Common catsear reproduces by seeds and vegetatively by way of _____that can produce new plants if separated.
A. Buds formed on the crown
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Chickweed, Mouseear
136. Plant Description: Mouseear chickweed is a creeping, mat-forming species that normally behaves as a perennial; however, it is possible for it to exist as an annual. Plants reproduce by seeds and roots growing from the_____. It tends to form dense patches.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Nodes of stems
E. Leaf-like bracts and branches
F. None of the Above

Chicory
137. Plant Description: Chicory is _____that initially grows as a rosette of irregularly-toothed basal leaves. Then, later in the season, leafless stems emerge with sky-blue daisy-like flowers scattered along their length.
A. Either an annual
B. Reproduces by seeds
C. A perennial
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

138. Flowers open each morning and close as sunlight increases in intensity around noon. Only a few flower heads open at a time and each head opens for a single day. Chicory_____.
A. Is a mat-forming species
B. Reproduces by rhizomes
C. Has heart-shaped leaves
D. Reproduces by seeds
E. Has leaf-like bracts and branches
F. None of the Above

Cinquefoil, Rough

139. Plant Description: Rough cinquefoil behaves as either an annual if growing in cultivated ground, a biennial when growing in less disturbed sites, or_____.

A. A short-lived perennial
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

140. It grows as a _____ at the beginning of the season, but later forms an upright, hairy, robust stem with yellow flowers. Leaves consist of 3 coarsely-toothed, hairy leaflets. Rough cinquefoil reproduces by seeds.

A. Mat-forming species
B. Seed
C. Heart-shaped leaf
D. Rosette
E. Leaf-like bract
F. None of the Above

Cinquefoil, Sulfur

141. Plant Description: Sulfur cinquefoil is a perennial. It is an erect, hairy, generally unbranched plant with yellow flowers and leaves consisting of_____. Leaflets are arranged such that they radiate from a common point like fingers on a hand. Sulfur cinquefoil reproduces by seeds.

A. 5 to 7 coarsely-toothed leaflets
B. Seeds
C. Roots
D. Unbranched plant with yellow flowers and leaves
E. Rosette
F. None of the Above

What is a Weed?

Generally, the term weed is used to describe any plant that is unwanted and grows or spreads aggressively.

142. Terms such as _____are used somewhat interchangeably to refer to weeds that infest large areas.

A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Invasive, exotic or non-native
F. None of the Above

Noxious Weed

143. Millions of acres of once healthy, productive rangelands, forestlands and riparian areas have been overrun by _____.

A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Plant species
F. None of the Above

What is a noxious weed?

144. The term "_____" means different things to different people. In the broadest sense, it is any plant growing where it is not wanted.

A. Non-native (or alien)
B. No natural enemies
C. Noxious weeds
D. Native vegetation
E. Weed
F. None of the Above

145. The _____mandated for control are plants non-native to North America. Consequently, these plants do not have the natural checks as found in their native land, such as insects, diseases, and herbivores that would keep the plant population in check.

A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Noxious weeds
E. Plant species
F. None of the Above

146. Due to the competitive aggressive ability of these plants, coupled with no natural controls, these plants will develop mono-culture stands. Not only are many _____out competed by these weeds, but native vegetation and the wildlife associated with it will be replaced.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Crops
E. Plant species
F. None of the Above

Colts Foot
147. Plant Description: Coltsfoot is a_____. Its flowers are the same color, size, and shape as dandelion flowers, and the two species are easily confused while in bloom if viewed from a distance.
A. Mat-forming species
B. Reproducer of seeds
C. Yellow-flowered perennial
D. A member of the Mint Family
E. Wooly vegetative stem
F. None of the Above

148. Coltsfoot blooms so early that the flowers have already come and gone by the time leaves emerge. Also, coltsfoot flowers appear at the tips of 1/8-inch-thick stems that are wooly and covered with _____ giving them an appearance similar to that of asparagus spears.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

149. After flowers have matured, clumps of broad, heart-shaped leaves appear on short, _____.
A. Mat-forming species
B. Wooly vegetative stems
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

150. Root system - Coltsfoot forms an extensive system of _____(horizontal underground
A. Opened flowers
B. Seeds
C. Good cultural habits
D. Petioles
E. Thick white rhizomes
F. None of the Above

Comfrey, Common
151. Plant Description: Common comfrey is a perennial herb with lower leaves that are bristly, up to 12 inches long, and attached to winged leaf stalks (_____) that emerge from the base of the plant.
A. Distinctive curled clusters
B. Perennial herbs
C. Stems
D. Petioles
E. Branched taproots
F. None of the Above

152. Smaller leaves that are also bristly but lack petioles are borne on_____.
A. Opened flowers
B. Stems
C. Rhizomes
D. 2- to 3-foot tall flowering stems
E. Branched taproots
F. None of the Above

153. Flowers are bell shaped and either yellow or blue. They form in distinctive curled clusters having an appearance similar to that of a_____. Reproduction is by way of seeds. Also, new plants can be propagated by dividing the roots of established plants.
A. Distinctive curled cluster
B. Perennial herb
C. Scorpion's tail
D. A broadleaf summer-annual weed
E. A branched taproot
F. None of the Above

Common Groundsel

154. Common groundsel is_____. A prolific seed producer, seeds are produced within several weeks of germination, and there are several generations within the same year. This weed likes moist soil and is often found in well-irrigated areas such as lawns and flower beds.

A. Opened flower
B. A prolific seed producer
C. An early season weed
D. Also bristly but lack petioles
E. A common weed in the home vegetable garden
F. None of the Above

155. Control: A dense, healthy turf will prevent seeds from taking root in the lawn. _____can be increased with proper mowing, fertilization, watering, and other cultural practices. Good drainage will also help to discourage the growth of common groundsel.

A. Distinctive curled clusters
B. Perennial herbs
C. A dense, healthy turf
D. Broadleaf summer-annual weed control measures
E. Turf density
F. None of the Above

156. The plants can be easily pulled by hand from moist soil. Be sure to pull and dispose of them before they set seed, as seed can mature in _____even after the plants have been killed. If there is heavy infestation, spot treat with a post-emergent herbicide containing glyphosate (Roundup, Kleenup).

A. Opened flowers
B. Seed producing
C. Weeds
D. Petioles
E. To vegetables
F. None of the Above

Common Lambsquarters

157. Common Lambsquarters is a _____ that can be found anyplace the soil has been disturbed. The growth habits of the common lambsquarters vary with its location. If growing along the road or in an open field, it may reach three or four feet in height.

A. Distinctive curled cluster
B. Perennial herb
C. Dense, healthy turf
D. Broadleaf summer-annual weed
E. Broadleaf winter-annual weed
F. None of the Above

158. Control: The best methods of weed control in the home vegetable garden are mulching, handpulling, rototilling, hoeing and preventing the weeds from_____.

A. Opened flowers
B. A prolific seed producer
C. Going to seed
D. Blooming
E. The home vegetable garden
F. None of the Above

159. Because of its short, branched taproot, lambsquarters can be easily hand-pulled from moist soil. The best methods of weed control in the home vegetable garden are mulching, hand pulling, rototilling, hoeing and preventing the weeds from going to seed. Because of its_____, lambsquarters can be easily hand-pulled from moist soil.

A. Distinctive curled clusters
B. Perennial herb classification
C. Rosette stage
D. Short, branched taproot
E. Long, branched taproot
F. None of the Above

160. Prevention by use of _____ should be the first line of defense in eliminating broadleaf weeds such as lambsquarters from lawns.

A. Violence
B. Hoe
C. Good cultural habits
D. Fire
E. Weed control in the home vegetable garden
F. None of the Above

161. Pre-emergent herbicides such as trifluralin (Preen) can be used to_____.

A. Control grass
B. Control perennial herbs
C. Create a dense, healthy turf
D. Control broadleaf summer-annual weed
E. Prevent germination of weed seeds
F. None of the Above

162. Post-emergent herbicides effective against)_____ are 2,4-D, MCPP and dicamba (sold under many brand names) and combination formulas (Trimec).

A. Broadleaf weeds
B. Perennial herbs
C. Turf
D. Broadleaf summer-annual weeds
E. Weed seeds
F. None of the Above

Common Mallow

163. Common mallow is most frequently found in newly seeded lawns or lawns that are stressed and lack density. It can be_____.

A. Opened flower
B. A prolific seed producer
C. An annual or biennial
D. Found with banana trees
E. Found with a long, branched taproot
F. None of the Above

164. Mallow has a deep taproot but can be easily pulled from moist soil. The foliage resembles that of the geranium. The _____of common mallow are pinkish-white and the fruits look like small, round cheeses.

A. Flowers
B. Flowering plants
C. Rosette stage
D. Seeds
E. Stems
F. None of the Above

165. Control: _____with proper mowing, fertilization, watering and other cultural practices can help in the control of this weed.

A. A non-selective herbicide
B. Seed production
C. Herbicide spraying
D. Increasing turf density
E. Spreading perennial
F. None of the Above

166. Post-emergent herbicides are _____effective. Triclopyr + clopyralid or triclopyr alone are suggested.

A. Post-emergent herbicides
B. Very
C. Not
D. Only marginally
E. An insecticide and are
F. None of the Above

Common Mullein

167. Common mullein, also known as wooly mullein, velvet dock, flannel leaf, Aaron's rod, torch plant, and miner's candle is a_____.

A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

168. Common mullein was brought over from Europe by early settlers. It was used as a medicinal herb in the treatment of coughs and diarrhea and_____. A methanol extract from this plant has also been used an an insecticide for mosquito larvae.

A. Post-emergent herbicide
B. Is a flowering plant
C. For skin disorders
D. As a respiratory stimulant for the lungs when smoked
E. An insecticide for mosquito larvae
F. None of the Above

169. A _____, first year mullein plants are low-growing rosettes about 5 inches in width. The felt-like leaves are a bluish green in color.

A. Non-selective weed
B. Seed producer
C. Featherlike plant
D. Biennial
E. Spreading perennial
F. None of the Above

170. Flowering plants are produced the second year, growing 5 to 10 feet in height including the flowering spike. This _____produces five-petaled flowers that bloom a few at a time all summer. The tiny seeds can germinate after lying dormant for several decades.
A. Spreading perennial
B. Flowering plant
C. Rosette stage
D. Deep taproot
E. Leafy spike
F. None of the Above

171. Mullein plants have _____and are easily hand-pulled. Recently, weevils (Gymnetron tetrum) that feed on the seeds have been found effective in reducing seed production.
A. Spreading stems
B. Seed production
C. Featherlike leaves
D. Shallow tap roots
E. Spreading roots
F. None of the Above

172. Control: When hand-pulling is not safe or practical, such as on a steep slope, herbicide control is an effective option. This is especially effective during the_____. Because of the wooly nature of the leaves, herbicides should be mixed with a surfactant to facilitate uptake.
A. Post-emergent stage
B. Flowering stage
C. Rosette stage
D. Deep taproot
E. Spreading stage
F. None of the Above

173. A 2% solution of glyphosate or triclopyr and water, plus a_____, can be applied using a hand sprayer. Use with care around desired plants as glyphosate is a non-selective herbicide. Always read and follow the directions carefully when using a herbicide.
A. A non-selective herbicide
B. Seed reducer
C. Liquid
D. Glyphosate or triclopyr
E. Non-ionic surfactant
F. None of the Above

Common Yarrow
174. Description: A low-growing, _____ with upright flower stalks that can reach 3 feet in height. Each plant produces one to several flower stalks, which are often branched and covered by fine hairs.
A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

175. _____, with tiny, fine leaflets lining each side of the leaf stem. Leaves are arranged along the stem at even intervals.
A. Spreading stems
B. Seed production
C. Leaves are featherlike
D. Shallow tap roots
E. Spreading roots
F. None of the Above

176. _____grow between 1 and 6 inches long and 1/4 - 1 inch wide.
A. Spreading stems
B. Seed production
C. Leaves
D. Flower heads
E. Spreading roots
F. None of the Above

177. Flower heads are borne in flattened or umbrella-shaped clusters at stem tops. Each individual _____ consists usually of five, 1/8 inch long, white to pinkish-white ray flowers surrounding 10-20 pale yellow disk flowers.
A. Spreading stem
B. Seed production
C. Leaf
D. Flower heads
E. Spreading root
F. None of the Above

Crabgrass

178. Crabgrass is a summer annual grass with wider blades and a lighter green color than _____. It is low growing, prostrate, and often has reddish-purple stems. It forms seedheads below mowing height.

A. Crabgrass
B. Bluegrass
C. Compound leaves
D. Reddish-purple
E. Perennial crown
F. None of the Above

179. Crabgrass is less prevalent when turf has_____. In particular, mowing too low promotes crabgrass seed germination. Maintain mowing heights of 2.5 - 3 inches.

A. Stems
B. Good density
C. Bright yellow flower heads
D. Sharply toothed lobes
E. Immature, young seedlings
F. None of the Above

180. Control: _____(benefin + trifluralin, dithiopyr, DCPA, oxadiazon, pendimethalin, or prodiamine) applied correctly and at the proper time should provide control.

A. Crabgrass killer
B. Applied correctly
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

181. Do not use _____ on a newly seeded or sodded lawn or when overseeding a lawn.

A. Crabgrass killer
B. Applied correctly
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

182. Fenoxaprop and other _____"crabgrass killer" (MSMA, DSMA, MAMA) sprays are not effective unless crabgrass plants are immature, young seedlings. Always read the label before applying any pesticide.

A. Post-emergent
B. Applied correctly
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

Creeping Yellow Cress

183. Description:_____; flowers June to August. Grows up to 20 in tall. Leaves 2 to 4 in long and pinnately divided into narrow, sharply toothed lobes. Flowers yellow with four small petals.

A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

Crownvetch, Trailing

184. Plant Description: Crownvetch is a _____ characterized by compound leaves made up 11 or more small leaflets arranged in pairs and pinkish flowers resembling those of peas, beans, or clovers that are grouped into head-like clusters.

A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

185. Stems are_____, forming a tangled mass less than 2 feet tall. Reproduction is by seeds.

A. Long and trail along the ground
B. An erect biennial
C. Bright yellow
D. Sharply toothed lobes
E. Immature, young seedlings
F. None of the Above

186. Root system - Roots form a _____.
A. Rhizome
B. Sharply toothed lobe
C. Compound stem
D. Reddish-purple stem
E. Perennial crown
F. None of the Above

Curlycup Gumweed
187. Description: An erect biennial or _____with one to several green, reddish, or whitish branching stems. Stems grow 1-3 feet tall.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

188. Leaves are borne alternately along the stem, and typically clasp the stem, with no stalk. Leaves have an oval or linear shape with serrated margins, are 1/2 - 2 1/2 inches long, and_____.
A. Long and trail along the ground
B. An erect biennial
C. Bright yellow
D. Sharply toothed lobes
E. Are covered with glands that exude a sticky resin
F. None of the Above

189. _____are borne at the tip of each branch, held in bright green cups of tiny, resinous bracts that curl in hooks away from the flowers.
A. Long and trail along the ground
B. An erect biennial
C. Bright yellow flower heads
D. Sharply toothed lobes
E. Immature, young seedlings
F. None of the Above

190. Flower heads grow up to 1 inch across and are sticky with resin. As the plant matures, flowers are replaced by tiny, ridged, four-sided, off-white seeds, to which two to three bristles are_____.
A. Long and trail along the ground
B. An erect biennial
C. Bright yellow
D. Sharply toothed lobes
E. Attached at the tip
F. None of the Above

Cutleaf Teasel
191. Description: _____; flowers July to September. Grows up to seven feet tall. Rosette leaves ovid to oblong, mature leaves opposite, large, oblong and prickly.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

192. Upper stem leaves irregularly lobed. Stems tall and prickly. Flowers small, white and packed into ovate heads. Common teasel is similar, but has purple flowers and_____.
A. An extensive taproot
B. Rhizomatous roots
C. A single, bright-yellow flower head
D. No lobes on upper leaves
E. Stems tall and prickly
F. None of the Above

Daisy, Oxeye
193. Plant Description: Ox-eye daisy is a _____distinguished by lower leaves that are dark green, hairless, somewhat fleshy, and coarsely toothed and conspicuous daisy-like flowers with white rays and yellow centers.
A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

194. _____ are another identifying feature. The plant reproduces by seeds and short rhizomes (horizontal underground stems).

A. An extensive taproot
B. Rhizomatous roots
C. A single, bright-yellow flower head
D. A simple herbaceous perennial
E. Stems tall and prickly
F. None of the Above

Dandelion

195. The Dandelion is a _____with an extensive taproot. Its yellow flowers can develop anytime between March and November and are followed by fluffy seed heads. More prevalent under low turf density, dandelion growth can be inhibited by increasing the turf density.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

196. Dandelions can be dug out with special tools, but any part of the _____that is left is capable of regenerating a plant.

A. An extensive taproot
B. Rhizomatous roots
C. Root
D. Plant
E. Stem
F. None of the Above

197. Control: A 2,4-D or _____is most effective and should be used in spring and fall. Always read the label before applying any pesticide.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

198. _____, and are 2-12 inches long and 1/2 - 4 inches wide. Leaf shape varies, from having wavy or toothed margins to having deep, pointed lobes.

A. A globe shape
B. Fluffy seed heads
C. Leaves are arranged in a low-growing rosette
D. Coarsely toothed and conspicuous flowers
E. Or toothed margins to having deep lobes
F. None of the Above

199. The rosette produces one or more hollow flower stalks that grow 2 - 24 inches tall, depending on conditions. _____develops at the apex of each stalk, and is 3/4 - 2 inches in diameter.

A. An extensive taproot
B. Rhizomatous roots
C. A single, bright-yellow flower head
D. A single, bright-yellow flower head
E. Stems tall and prickly
F. None of the Above

200. The seed head is composed of many 1/8 inch-long rough, brown, oblong fruits with white hairs attached at the tip,_____.

A. Collectively forming a globe shape
B. Fluffy seed heads
C. Spring and fall
D. Coarsely toothed and conspicuous daisy-like flowers
E. Or toothed margins to having deep, pointed lobes
F. None of the Above

Daylily, Tawny

201. Plant Description: Tawny daylily is a _____, characterized by its beautiful orange flowers which line the roadsides in July. This species is not a true lily, as indicated by its unspotted blossoms and leafless stems.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

202. Tawny daylily reproduces primarily by rhizomes (_____) and tuber-like roots, and rarely by seeds.

A. A twining vine
B. Is especially destructive
C. Vertical underground stems
D. Horizontal underground stems
E. Basal rosette
F. None of the Above

Dock, Broadleaf

203. Plant Description: Broadleaf dock is a _____with a deep taproot that can reach depths of up to 5 feet. It reproduces primarily by seeds, but there is limited regeneration from root tissues.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

204. The plants grow as a basal rosette with relatively large leaves. The _____may reach heights up to 5 feet and will have smaller versions of the basal leaves arranged alternate.

A. Plant
B. Vine
C. Hairless reproductive stem
D. Horizontal underground stem
E. Basal rosette
F. None of the Above

205. The smartweed family is characterized by a papery sheath (called the ocrea) that _____.

A. Easy to pull and destroy
B. Is hard to control
C. Is classified as a perennial
D. Cover each node
E. Is a rosette-forming perennial
F. None of the Above

Dodder

206. Dodder (Cuscuta and Grammica), is a twining yellow or orange plant sometimes tinged with purple or red. Occasionally it is almost white. _____and thread-like or relatively stout.

A. A twining plant
B. Is especially destructive
C. The stems can be very thin
D. Horizontal underground stems
E. Basal rosette with relatively large leaves
F. None of the Above

207. Description: Dodder is classified as a member of the _____in older references, and as a member of the Dodder Family (Cuscutaceae) in the more recent publications.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Morning-Glory Family (Convolvulaceae)
F. None of the Above

208. _____various kinds of wild and cultivated plants, and is especially destructive to alfalfa, lespedeza, flax, clover and potatoes.

A. A twining yellow or orange plant to
B. Is especially destructive to
C. Infested with dodder and will destroy
D. Horizontal underground stems with
E. Dodder parasitizes
F. None of the Above

209. Control: Its wide host range and the long life of its dormant seeds make dodder hard to control and _____.

A. Pulling and destroying
B. Hard to control
C. Is classified as a pest
D. Nearly impossible to eradicate
E. Is a rosette-forming perennial
F. None of the Above

210. Dodder seed can be spread by irrigation water, in the manures of livestock that have eaten infested alfalfa, or along with the seed of crops that were _____.

A. Seed
B. Especially destructive
C. Infested with dodder
D. Stems
E. Cut
F. None of the Above

211. Pulling and destroying dodder infected plants is recommended. _____before it produces seeds or infestations will spread.
A. Pull D. Cover each plant
B. Mow E. Dodder must be destroyed
C. Spray F. None of the Above

212. Preemergent herbicides such as_____, applied to the soil in the spring prior to seed germination will prevent this pest. The use of a 2,4-D type herbicide or contact herbicide directed at infected hosts and dodder plants is effective in killing established parasitic plants (as well as the host). Always read and follow label directions when using herbicides.
A. Crabgrass killer D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. DCPA (Dacthal)
C. Compound herbicide F. None of the Above

Dogbane, Hemp
213. Plant Description: Hemp dogbane is _____ with a woody stem that is undivided at the base but becomes much-branched in its upper half. All parts of the plant exude a milky sap when cut, broken, or crushed.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

214. Hemp dogbane can be identified by its leaves, which are 2 to 6 inches long, opposite (2 leaves per node), elliptical, and_____, and its small flowers that are greenish-white and form in clusters located at the ends of main stems and primary branches.
A. Related to cherry trees D. Most vigorous growth
B. Foliage E. Smooth edged
C. Cutting as close to the ground as possible F. None of the Above

215. Fruits are distinctive 4- to 8-inch-long pods that generally occur in pairs. Hemp dogbane reproduces by seeds, but the primary mode of reproduction of plants in agronomic fields is vegetative_____.
A. Ear like projections D. By way of creeping roots
B. Primary mode of reproduction E. Rows of cultivated crops
C. Grown ornamentally F. None of the Above

Dyers Woad
216. Description: Dyer's woad is a _____that grows up to three feet tall. It has multiple stems that arise from the base. Foliage has distinctive blue-green cast with whitish glaze.
A. Perennial or biennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

217. The _____ are smaller and clasp the stem with ear like projections. Flowers are bright yellow, small and in clusters. Flowers have four spoon shaped petals.
A. Ear like projections D. A stout perennial
B. Primary mode of reproduction E. Rows of cultivated crops
C. Upper leaves F. None of the Above

218. _____are flat and black or purplish brown. Flowering and the most vigorous growth will occur mainly in sandy, gravelly soils, and in marginal farmlands.
A. Fruits pods D. Most vigorous growth
B. Foliage E. Ends of main stems and primary branches
C. Cutting as close to the ground as possible F. None of the Above

219. Invades rangeland, grain fields, pastures, waste areas, roadsides, and fencerows. It can also be found in orchards and _____.

A. Ear like projections
B. Primary mode of reproduction
C. Grown ornamentally
D. A stout perennial
E. In rows of cultivated crops
F. None of the Above

220. Flowering and _____will occur mainly in sandy, gravelly soils, and in marginal farmlands. Invades rangeland, grain fields, pastures, waste areas, roadsides, and fencerows. It can also be found in orchards and in rows of cultivated crops.

A. Ear like projections
B. Primary mode of reproduction
C. Grown ornamentally
D. A stout perennial
E. The most vigorous growth
F. None of the Above

English holly

221. English holly is a _____that is grown ornamentally in the northwestern United States and Canada but is also commonly found escaping into forests in this region. English holly's native range is the British Isles to southern and central Europe. It is grown commercially in the Pacific Northwest and commonly used in decorations and floral arrangements as well as in landscapes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Broadleaf evergreen tree/shrub
F. None of the Above

English laurel

222. English laurel, also called cherry laurel, is a large _____or small tree often used for landscaping, usually as a hedge. Related to cherry trees, English laurel gets its common name from its resemblance to the true laurel tree.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Control

223. Small plants can dug up when soil is moist (take care when handling because this plant is poisonous).

To control larger plants, _____, cutting as close to the ground as possible and remove stems to make it easier to control re-growth.

A. Cut stems and trunks by hand or chainsaw
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

Evening Primrose

224. Plant Description: Common evening primrose is a _____that produces a rosette of leaves the first year and flowers borne on an upright leafy stalk during the second year of growth.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

225. There are many _____ evening primroses that appear similar and can be difficult to distinguish. Most have 4-petaled yellow flowers that open at dusk.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

226. A few, including common evening primrose, have lance-shaped leaves without lobes. Leaves of common evening primrose usually appear thin and crinkled and _____. Also, leaves on the lower portion of the stem are often purplish. Reproduction is by seeds.
A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. May have a reddish midrib
E. Infest crop seeds
F. None of the Above

False Brome
227. Description: _____ grass; forms short "squatty" bunches. Stems hollow with broad, flat one quarter to one third inch wide lax leaves and a leaf sheath open to the base.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

228. Leaf color a bright green that often remains through fall and part of winter. _____ and lower stems hairy; ligules membranous.
A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. Appear thin
E. Infest crop seeds
F. None of the Above

229. Flowers born in a true spike that droops noticeably, and spikelets with short or_____.
A. No stalks
B. Stems hollow with broad
C. Droops noticeably
D. To make it easier to control re-growth
E. An erect bushy perennial
F. None of the Above

230. False brome plants appear to be _____few to a couple hundred seeds per plant. Isolated plants are observed to produce viable seeds and become new weed epicenters complicating control efforts.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Self-fertile producing
E. A stout perennial
F. None of the Above

Four-o' Clock, Wild
231. Plant Description: Wild four-o'clock is an erect bushy _____, characterized by its large fleshy taproot, swollen joints and smooth heart-shaped leaves that resemble lilac leaves. It reproduces by seeds.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

232. Wild four-o'clock spreads to new places by its seeds, which can hitch rides on vehicles and _____.
A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. Appear thin and crinkled and may have a reddish midrib
E. Infest crop seeds and livestock feed
F. None of the Above

233. This species is highly tolerant of _____. However, good control can be obtained using mechanical methods. For very small infestations, digging up plants is effective.
A. Crabgrass killer
B. 2,4-D
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

234. Wild four-o'clock is nearly impossible to pull up, because the stems readily break off at the_____, only to sprout again.
A. Bulb-forming perennial
B. Form dense stands
C. Root crown
D. A distinct S-curve just below the root crown
E. Sprout again
F. None of the Above

Foxtail
235. Foxtail is a summer _____grass with wider blades and a lighter green color than bluegrass. It is also faster growing than bluegrass. Seed heads may form despite regular mowing. Foxtail is much less prevalent when turfgrass has good density. Re-sod or reseed bare spots.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Annual
F. None of the Above

236. Control: A _____(benefin + trifluralin, dithiopyr, oxadiazon, pendimethalin or prodiamine) applied correctly and at the proper time should provide control.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

Fescue, Tall
237. Plant Description: Tall fescue is a coarse, clump-forming, cool-season _____ grass, characterized by its relatively wide, dark green, coarsely ridged leaves. This species reproduces by seeds and short rhizomes (horizontal underground stems).
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

238. Clumps can expand by producing new shoots (tillers) from the_____. Tall fescue can form dense stands.
A. Bulb-forming perennial
B. Form dense stands
C. Base of existing stems
D. A distinct S-curve just below the root crown
E. Sprout again
F. None of the Above

239. Tall fescue is_____. Studies suggest that the endophytic fungus infecting many varieties of tall fescue makes the grass more drought tolerant, as well as potentially toxic to nearby plant species (allelopathic), thus allowing tall fescue to replace native plant communities.
A. Coarsely ridged leaves
B. One of the most widely adapted weeds
C. Allelopathic
D. Species is highly tolerant
E. A strong garlic odor
F. None of the Above

Garlic, Wild
240. Plant Description: Wild garlic is a grass-like, bulb-forming _____ characterized by slender, erect stems and leaves, and a globe-like flower head produced at the top of each stem, composed mostly of tiny aerial bulblets rather than flowers.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

241. This species reproduces by underground and_____, and less frequently by seeds (plants in the northern part of the range rarely produce seeds). When crushed, all parts of the plant give off a strong garlic odor.
A. Coarsely ridged leaves
B. Aerial bulblets
C. Allelopathic
D. Species is highly tolerant
E. A strong garlic odor
F. None of the Above

Garlic Mustard

242. Plant Description: Garlic mustard is a _____ that forms a rosette the first spring and an upright stem with small white flowers the second spring. It is characterized by triangular, coarsely toothed leaves and a slender taproot with a distinct S-curve just below the root crown.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

243. Young leaves give off a strong garlic odor when crushed, but the odor fades with leaf age and is nearly gone by fall. Garlic mustard_____.

A. Stems are square
B. Reproduces only by seeds
C. Has multiple forks
D. Control in two generations
E. Resembles a wheat kernel
F. None of the Above

244. _____ and very difficult to control once established. It tends to form dense stands that crowd out herbaceous native flora. As a result, invasion of garlic mustard into forests tends to decrease the number of native spring species.

A. Stems are square
B. Fall application
C. Multiple forks
D. This weed is invasive
E. Resembles a wheat kernel
F. None of the Above

245. Garlic mustard can be controlled by _____for several years until the seedbank is depleted.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Preventing new seed production
F. None of the Above

246. Various methods can be used to_____, including cutting plants at ground level just before or during flowering, hand pulling, burning, or spot application of herbicides (optimally in early spring or fall).

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Prevent seed formation
F. None of the Above

247. When hand pulling, a significant portion of the root crown must be removed or else plants can resprout. However, the best management strategy is_____.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. To prevent establishment
F. None of the Above

248. Herbicide Control: Apply a _____(8 ounces in a 3-gal. sprayer) with a surfactant (or without a surfactant when near surface waters) to thoroughly wet all foliage in April through June (during flowering) to control two generations.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Glyphosate herbicide as a 2% solution in water
F. None of the Above

Geranium, Shiny

249. Description: Shiny geranium grows predominantly as _____though it may become biennial depending on moisture conditions.

A. An annual weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Goatgrass, Barbed

250. Description: _____; grows 8 to 16 inches tall with few to many culms. Leaf sheaths contain white hairs when young, becoming more or less smooth once matured. The blades are rigid, sharp, pointed, and spreading. Grain 1/4 inch long, resembling a wheat kernel.

A. Annual
B. Winter annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Henbit

251. Henbit is a _____occasionally found in lawns in early spring. The lower leaves have a stalk while the upper leaves clasp the stem.

A. An annual weed
B. Winter annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

252. Stems are square, like other members of the mint family. All the leaves are coarsely toothed and opposite from each other. Flowers appear in May and are_____, trumpet-shaped, pinkish white to purple, and form just above upper leaves.

A. Stems are square
B. About one-half inch long
C. Multiple
D. Two generations
E. Resembling a wheat kernel
F. None of the Above

253. This weed is more often found in buffalograss than in bluegrass. Newly-seeded bluegrass and established bluegrass lawns with _____may have some henbit.

A. Pink flowers
B. A pungent odor
C. Newly-seeded grass
D. Poor density
E. Crowns
F. None of the Above

254. Control: Henbit has a taproot and is easily pulled from moist soil. Heavy infestations can be controlled with_____, 2,4-D or 2,4-D combination herbicides; at or prior to flowering. Fall application of a pre-emergent herbicide (dithiopyr, isoxaben, pendimethalin or prodiamine) will prevent henbit germination.

A. Triclopyr + clopyralid
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

Herb Robert

255. Description: Herb Robert is a branching, low growing_____. It has light green leaves that are deeply dissected and release a pungent odor making this plant easy to recognize.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Winter and spring annual
F. None of the Above

256. As the plants mature the foliage turns red. This red color is very noticeable under bright light conditions. The stems are_____, have multiple forks, and are brittle at the joints.

A. Square
B. Highly pubescent
C. Multiple forks
D. Round
E. Resembling a wheat kernel
F. None of the Above

257. The roots are shallow allowing for easy hand removal. The pink flowers are perfect and five petaled. The receptacle is elongated into a pointed structure called a "_____" or “storks bill”. Herb Robert reproduces only by seeds.

A. Torus
B. Horn
C. Dash
D. Break
E. Root crown
F. None of the Above

258. Flowers are usually _____creating uniform populations.
A. Are square D. Round
B. Self-fertile E. Resembling a wheat kernel
C. Multiple F. None of the Above

Hydrilla
259. Description: _____ aquatic plant. Grows rooted to the bottom with long stems that reach water's surface.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

260. Can be_____. Leaves are 1/16 to 1/8 inch wide, 1/4 to 3/4 inch long and occur in whorls of five.
A. Saucer-shaped D. Spreading rhizomes
B. Does not have turions E. Flowering
C. Monoecious or dioecious F. None of the Above

261. Small, axillary leaf scales are found next to the stem and inserted at the base of the leaf, a character that distinguishes hydrilla from other family members. The _____ (tubers) are a key identifying feature.
A. Nut-like turions D. Upright perennial
B. Perennial herbs E. Sod-forming
C. Rhizomes and seeds F. None of the Above

262. Egeria densa is similar in appearance but has leaves in whorls of four and does not have _____.
A. Loose clusters D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

Ironweed, Tall
263. Plant Description: Tall ironweed is _____with a highly visible dark red stem that grows over 7 feet tall and is widely branched at the top.
A. An upright perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

264. At the ends of branches in _____ are saucer-shaped, 1/4-inch-wide flower heads consisting of 30 or fewer purple disk flowers. Attached to the stem are 10-inch-long, lance-shaped, pointed leaves that have short downy hairs on the lower surface.
A. Loose clusters D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

265. Reproduction is primarily by way of seeds, but _____ sometimes arise from the large root crown.
A. New shoots D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

Joepyeweed

266. Plant Description: Joe-Pye weeds are _____ herbs with leaves in whorls (3 to 6 leaves per node) and purplish flowers in terminal clusters.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

267. Stems of HOLLOW JOEPYEWEED are mostly hollow, there are usually 4 to 6 leaves in a whorl, and flower heads consist of fewer than 8 purple tubular flowers. _____ are arranged in a domed terminal cluster.

A. Loose clusters
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Flower heads
F. None of the Above

268. Stems of SPOTTED JOEPYEWEED are_____, there are 5 leaves in a whorl, and flower heads are pinkish-purple consisting of between 8 and 22 tubular flowers. Flower heads are arranged in flat-topped terminal clusters.

A. Flat-topped terminal clusters
B. Perennial herbs
C. Rhizomes
D. An upright perennial
E. Purple or purple-spotted
F. None of the Above

269. SWEET JOEPYEWEED foliage smells like vanilla when crushed, stems are green with purplish nodes, there are 3 or 4 leaves in each whorl, and flower heads are dull pink consisting of fewer than 8 tubular flowers. Flower heads are arranged in_____.

A. Loose clusters are saucer-shaped
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Dome-shaped terminal clusters
F. None of the Above

270. Joe-Pye weeds reproduce by _____.

A. Flat-topped terminal clusters
B. Perennial herbs
C. Rhizomes and seeds
D. An upright perennial
E. Sod-forming perennials
F. None of the Above

271. Root system - The root systems includes spreading rhizomes (_____).

A. Loose clusters
B. Does not have turions
C. Way of seeds
D. Spreading rhizomes
E. Horizontal underground stems
F. None of the Above

Johnsongrass

272. Plant Description: Johnsongrass is a large, coarse, _____, characterized by its purplish, pyramidal flower heads and the prominent white midrib down the leaf blade. It reproduces by seeds and stout rhizomes (horizontal underground stems), and can form large, dense patches.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A sod-forming perennial grass
F. None of the Above

Jubata Grass

273. Description: Jubata grass is a _____that ranges six to twenty-three feet tall. Plants have long leaves arising from a tufted base or tussock.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial weed
D. Biennial
E. Perennial grass
F. None of the Above

274. The flower cluster is a _____at the end of a very long stem. Stems generally are at least twice as long as the tussock.
A. Stem height
B. Japanese knotweed
C. Plumed panicle
D. Truncate leaves
E. Biennial or short-lived perennial
F. None of the Above

275. Plumes consist of_____, deep violet when immature, turning pinkish or tawny cream-white at maturity. Jubata grass is easily confused with pampas grass (Cortaderia selloana).
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Hairy female flowers
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

276. The two species are distinguished by stem height, leaf, plume, and spikelet color, florets, leaf tip, and _____.
A. Presence of viable seed
B. Japanese knotweed
C. A plumed panicle
D. Truncate leaves
E. Biennial or short-lived perennial
F. None of the Above

277. The _____ are less erect and more spreading and not fountain-like, when compared to tussocks of Cortaderia selloana.
A. Inflorescence
B. Tips of flower head bracts
C. Tips
D. Tussocks of jubata grass
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knapweed, Spotted
278. Description: _____; blooms midsummer to fall. Grows up to 3 feet tall. Multi-stemmed plant with several stems arising from crown.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

279. Flowers purple or rarely cream colored. _____ are usually black, thus the name "spotted." Seeds dispersed by wind, animals, and people.
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knotweed, Giant
280. Description: _____; blooms July to October. Grows over 12 feet tall. Closely related and similar to Japanese knotweed.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

281. Leaf cordate, or heart shaped; often exceeds one foot long. _____of creamy white flowers sparse and the flower size does not increase with maturity.
A. Inflorescence
B. Tips of flower head bracts
C. Stem height
D. Fountain-like
E. Stout stems
F. None of the Above

282. _____ with Japanese knotweed are common. Japanese knotweed is smaller with truncate leaves.

A. Hybrids
B. Spotted knotweed
C. Giant knotweed
D. Truncate leaves
E. Biennial or short-lived perennial weeds
F. None of the Above

283. Impacts: Giant knotweed is the largest of the knotweeds, enabling this species to dominate and out compete native or_____. It poses a significant threat to riparian areas where it prevents streamside tree regeneration.

A. Beneficial plants
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems
F. None of the Above

Knotweed, Japanese

284. Description: _____; blooms July to October. Grows four to nine foot tall and has long creeping rhizomes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

285. Stout stems reddish-brown,_____. Leaves short stalked, trucate, broadly ovate and 2-6" long by 2-4" wide.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Nodes slightly swollen
E. A milky juice
F. None of the Above

286. Flowers greenish-white to cream in large plume-like clusters at the ends of the stems. _____ with giant knotweed are common.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Perennial
E. Herbaceous perennial weed
F. None of the Above

Lesser Celandine

287. Description: Lesser celandine is an herbaceous, _____ plant in the buttercup family (Ranunculaceae).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

288. Plants have a basal rosette of dark green, shiny, stalked leaves that are kidney to heart-shaped. The flowers open in March and April, have eight glossy, butter-yellow petals, and are borne singly on _____.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Delicate stalks that rise above the leaves
E. Herbaceous perennial weed
F. None of the Above

289. _____are produced along the stems of the above ground portions of the plant, but are not apparent until late in the flowering period.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. A milky juice
F. None of the Above

290. When in bloom, large infestations of lesser celandine appear as a green carpet with yellow dots, _____.
A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Spreading across the forest floor
E. Herbaceous perennial weed
F. None of the Above

291. There are _____of lesser celandine including a double-flowered form with many crowded petals and dark green leaves mottled with silvery markings.
A. Hybrids
B. Spotted varieties
C. Many varieties
D. Truncate leave varieties
E. Biennial varieties
F. None of the Above

292. The primary reproductive method is the formation of turions that are_____.
A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Produced on the roots in large numbers
F. None of the Above

Leafy spurge
293. Leafy spurge (Euphorbia esula L.) is a creeping, _____of foreign origin that reproduces from seed and vegetative root buds.
A. Herbaceous perennial weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Lettuce, Prickly
294. Plant Description: Prickly lettuce is an erect biennial (_____) that grows as a rosette of basal leaves during its first year.
A. Clump-forming perennial
B. Rarely an annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

295. Each rosette gives rise to a _____that is usually erect and sometimes branched, especially the top portion where small, daisy-like, yellow flowers are borne.
A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Solitary stem
E. Herbaceous perennial weed
F. None of the Above

296. _____ and have prickly edges and a distinctive row of stiff, sharp prickles on the underside of midribs. Nearly half of the length of each seed consists of a beak having a tuft of silky white hairs (pappus) at the tip.
A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Stem leaves are irregularly-lobed
F. None of the Above

297. All plant parts exude_____ . The plant reproduces only by seeds.
A. Stem tip
B. Fragmented stems
C. A milky juice when cut or broken
D. A biennial root crown
E. Purple-magenta flowers
F. None of the Above

298. Similar Species: Prickly lettuce can be confused with sowthistles (Sonchus spp.), which have prickly leaf margins but_____ .
A. Spikelets
B. Smooth midribs
C. Spreads by rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

299. Tall lettuce (Lactuca canadensis) and tall blue lettuce (Lactuca biennis) look similar to prickly lettuce except they have leaves with smooth edges and_____.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Midribs without prickles
E. Purple-magenta flowers
F. None of the Above

London Rocket

300. London rocket is a European native weed belonging to the mustard family, and is one of the _____ . It is abundant in irrigated land in crops such as alfalfa and small grains, in gardens, citrus orchards, pastures, and along roadsides.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. First winter weeds to appear
F. None of the Above

You are finished with your assignment.

Weed Identification and Control Assignment #3
For Students Names M-Q

You will have 90 days from the start of this course to have successfully passed this assignment with a score of 70 %. You may e mail the answers to TLC, info@tlch2o.com or fax the answers to TLC, (928) 272-0747. This assignment is available to you in a Word Format on TLC's Website. You can find online assistance for this course on the in the Search function on Adobe Acrobat PDF to help find the answers. Once you have paid the course fee, you will be provided complete course support from Student Services Dr. Rusty Randall or Dr. Bubba Jenkins (928) 468-0665.

Write your answers on the Answer Key found in the front of this assignment.
ASSIGNMENT INSTRUCTIONS
1. We will require all students to fax or e-mail a copy of their driver's license with the registration form.
2. You will need to pick one of the following five assignments to complete. This selection process is based upon your last name. If your last name begins with an A to E, you will pick assignment number 1, if your last name begins with the letter F to L, you are to complete assignment number 2 and if your last name begins with the letter M-Q, you will pick assignment number 3 and if your last name begins with the letter R-Z, you will pick assignment number 4.

Multiple Choice assignment, please select one answer and mark it on the answer key. The answer must come from the course text. (s) means answer can be plural or singular. There are no intentional trick questions

What is a Weed?
Generally, the term weed is used to describe any plant that is unwanted and grows or spreads aggressively.

1. Terms such as _____are used somewhat interchangeably to refer to weeds that infest large areas.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Invasive, exotic or non-native
F. None of the Above

Noxious Weed
2. Millions of acres of once healthy, productive rangelands, forestlands and riparian areas have been overrun by _____.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Plant species
F. None of the Above

What is a noxious weed?
3. The term "_____" means different things to different people. In the broadest sense, it is any plant growing where it is not wanted.
A. Non-native (or alien)
B. No natural enemies
C. Noxious weeds
D. Native vegetation
E. Weed
F. None of the Above

4. The _____mandated for control are plants non-native to North America. Consequently, these plants do not have the natural checks as found in their native land, such as insects, diseases, and herbivores that would keep the plant population in check.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Noxious weeds
E. Plant species
F. None of the Above

5. Due to the competitive aggressive ability of these plants, coupled with no natural controls, these plants will develop mono-culture stands. Not only are many _____out competed by these weeds, but native vegetation and the wildlife associated with it will be replaced.
A. Noxious or invasive weeds D. Crops
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

6. Consequently, identifying the weeds when they first become established and developing an integrated weed management plan to control them is critical in maintaining healthy, productive land. The term _____is used to describe a legal designation for plant species that have been determined to be especially undesirable or difficult to control.
A. Noxious weed D. Plants non-native to North America
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

7. These weeds are subject, by law, to certain restrictions. Regulated by the U.S. Department of Agriculture, there are_____.
A. Non-native (or alien) D. Native vegetation
B. No natural enemies E. Natural controls
C. 90 federal noxious weeds F. None of the Above

8. _____include not only noxious weeds, but also other plants that are not native to this country.
A. Noxious or invasive weeds D. Plants non-native to North America
B. Invasive plants E. Plant species
C. Noxious or not noxious F. None of the Above

9. Plants are _____if they have been introduced into an environment where they did not evolve. As a result, they usually have no natural enemies to limit their reproduction and spread.
A. Non-native (or alien) D. Considered invasive
B. No natural enemies E. Natural controls
C. Noxious weeds F. None of the Above

10. Some _____can produce significant changes to vegetation, composition, structure, or ecosystem function.
A. Noxious or invasive weeds D. Plants non-native to North America
B. Invasive plants E. Plant species
C. Noxious or not noxious F. None of the Above

What is an Invasive Species?
11. An ' _____' is defined as a species that is 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
A. Non-native (or alien) D. Native vegetation
B. No natural enemies E. Invasive species
C. Noxious weeds F. None of the Above

Understanding Weed Terms
12. _____ is, simply put, all life on earth, even that which has yet to be discovered. More specifically, it includes the millions of diverse species, from bacteria to whales that share the earth's lands and waters with us.
A. Cultivar(s) D. Exotic (introduced) plant
B. Biological Management E. Ornamental plant
C. Biodiversity F. None of the Above

13. _____ Biological control is the deliberate use of the pest's natural enemies - predators, parasites, and pathogens - to reduce the pest population below damage levels.
A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

14. _____: When exploring chemical control options, you should select the lowest risk and most effective products. The key is to use pesticides in a way that complements rather than hinders other elements in the strategy and which also limits negative environmental effects.
A. Cultivar(s)
B. Biological Management
C. Chemical Control
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

15. _____: Short for “cultivated variety.” A plant “variety” developed by man via plant selection and/or genetic manipulation to exhibit a set of plant characteristics.
A. Cultivar
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

16. _____ are maintained via controlled pollination or vegetative means, so that cultivar characteristics are passed to ensuing generations.
A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

17. _____: Cultural practices are a manipulation of the habitat environment to increase pest mortality or reduce rates of pest increase and damage.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

18. There are many different cultural practices that can help to reduce pest impact such as selection of pest resistant varieties of crops, mulching, winter cover crops, changing planting dates to minimize insect impact, burning, flooding, crop rotations that include_____, moisture management, addition of beneficial insect habitat, or other habitat alterations.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Non-susceptible crops
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

19. _____: Short for “ecological variety.” A plant “variety” developed by man from a collection of plants of a native species that were selected from several to many natural populations in a specific region.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

20. The purpose is to have high genetic diversity in the parent collection, which reflects the natural diversity within that species in the defined region. To maintain genetic diversity in ensuing generations, little to no selection is done during the _____ development process.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

21. _____: An exotic plant species that is able to invade and overrun native ecosystems. Some native plants can become invasive under certain conditions, but most invasive species are introduced (exotic).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

22. _____: The most important aspect of an alien plant is how it responds to a new environment. An invasive species is one that displays rapid growth and spread, allowing it to establish over large areas. Free from the vast and complex array of natural controls present in their native lands, including herbivores, parasites, and diseases, exotic plants may experience rapid and unrestricted growth in new environments.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

23. _____is enhanced by features such as strong vegetative growth, abundant seed production, high seed germination rate, long-lived seeds, and rapid maturation to a sexually reproductive (seed-producing) stage. Invasive plants reproduce rapidly, either vegetatively or by seed. Their phenomenal growth allows them to overwhelm and displace existing vegetation and form dense one-species stands.

A. Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

24. Some of the key components to a successful _____ program include the following: Identify current and potential pest species, their biology, and conditions conducive to the pest(s) (air, water, food, shelter, temperature and light).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. IPM
F. None of the Above

25. Understand the physical and _____that affect the number and distribution of pests and their natural enemies.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Biological factors
F. None of the Above

26. _____: Mechanical or physical control methods involve using barriers, traps, or physical removal to prevent or reduce pest problems.

A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

27. Tactics may include using row covers or trenches to prevent insects from reaching the crop, baited or pheromone traps to capture insects, or _____or mowing for weed control.

A. Source-identified seed
B. Noxious Weeds
C. Cultivation
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

28. _____: A plant species that is found in a region because it developed and evolved in that region over thousands of years. Plants that existed in a region prior to settlement.

A. Source-identified seed
B. Noxious Weed
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

29. _____: An exotic plant that was introduced into an area, escaped from cultivation and reproduces on its own (includes exotic invasive plants). Many plants commonly thought to be natives were actually introduced by early settlers.

A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

The Invasive Problem

Invasive Species

30. The term “native” is used to describe plants that were growing here before the arrival of Europeans. Exotics are those that do not naturally occur in an area but have been introduced by people. Many exotic species pose no threat, but some are invasive and grow out of control — displacing _____which provide food and shelter for an assortment of native wildlife.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Native plants
F. None of the Above

31. It is not always possible to predict if or when a species will become a _____(for example, Japanese honeysuckle was planted as an ornamental for 80 years before it escaped cultivation!), but a red flag should run up at any non-native with fleshy fruits dispersed by birds.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Pest plant
F. None of the Above

Impacts of Invasive Alien Plants

32. _____ are one of the greatest threats to the natural ecosystems of the U.S. and are destroying America's natural history and identity.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

33. These _____are disrupting the ecology of natural ecosystems, displacing native plant and animal species, and degrading our nation's unique and diverse biological resources.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Unwelcome plants, insects and other organisms
F. None of the Above

34. _____ reduce the amount of light, water; nutrients and space available to native species, alter hydrological patterns, soil chemistry, moisture-holding capacity, and erodibility, and change fire regimes.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

35. _____are capable of hybridizing with native plant relatives, resulting in unnatural changes to a plant's genetic makeup; others have been found to harbor plant pathogens, such as bacterial leaf scorch (Xylella fastidiosa) that can affect both native and non-native plants, including ornamentals.

A. Some native plants
B. Some exotics
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

Impacts to Native Fauna

36. Our native fauna, including insects, birds, mammals, reptiles, fish and other animals, is dependent on native plants for food and shelter. While some animals have a varied diet and can feed on a wide number of_____, others are highly specialized and may be restricted to feeding on several or a single plant species.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Plant species
E. Invasive species
F. None of the Above

37. Caterpillars of the monarch butterfly have evolved to feed primarily on plants in the genus Asclepias (milkweeds) that contain special chemicals. The term host plant is generally used to describe a plant species that is required food for at least one stage of an insect or other animal. As exotic plants replace our native flora, fewer host plants are available to provide the necessary nutrition for _____.

A. Some native plants
B. Exotic plants
C. Our native wildlife
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

Disturbance Effects

38. _____are especially problematic in areas that have been disturbed by human activities such as road building, residential development, forest clearing, logging operations, grazing, mining, ditching of marshes for mosquito control, mowing, erosion control and fire prevention and control activities.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

39. _____, such as fires, floods, tornadoes, landslides, and tree falls also provide avenues for invasive species to get started. The enormity of change wrought upon the American landscape over the past few hundred years has thrown things out of balance.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

40. Lacking_____, native species and ecosystems benefit from natural disturbances that provide opportunities for genetic mixing and nutrient recycling, and reduce fuel loadings.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Exotic species
E. Invasive species
F. None of the Above

41. _____ display invasive growth tendencies in their native ranges, often as a response to natural or human-caused disturbances. For example, native grape vines in forests may grow vigorously in response to a tree fall or selective timber cut that opens the canopy and brings abundant sunlight into previously shaded areas.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

42. This "invasive" growth spurt is usually temporary though, and slows down again as trees and other plants fill in and the forest canopy is recovered. The best way to reduce plant invasions is to focus on preventing non-native species introductions, _____, minimizing disturbance to forests, wetlands, barrens and other natural communities.

A. Aggressive invaders
B. Invasive non-native organisms
C. Managing existing infestations
D. Our native fauna
E. Invasive species
F. None of the Above

Importance of Native Plants

43. Approximately 18,000 plants are native to the ecosystems of North America. Our native flora (i.e., all U.S. native plants) provides the foundation of the _____and defines the various ecosystems and regions of the country. These plants also provide natural sources of food and fiber, and were the essential sources of nutrition and other materials for native American Indians.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Historic American landscape
F. None of the Above

44. The _____have been greatly reduced as a result of human encroachment which has destroyed many millions of acres of natural habitat. In the U.S. alone, about 200 native plant species have become extinct since the 1800's and 5,000 species are considered to be at risk. Invasions of non-native plants are the second greatest threat to native species after direct habitat destruction.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Populations of many native plants
E. Invasive species
F. None of the Above

Recognize the major plant characteristics used to identify weeds.

45. _____: Lower part of the leaf that is attached to the node.

A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

46. _____: Located where the blade and the sheath meet.

A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

47. _____:Region of nodes with tightly compacted internodes.

A. Collar
B. Crown
C. Node
D. Auricle
E. Shoot
F. None of the Above

48. _____:The region between the nodes

A. Collar
B. Internode
C. Node
D. Auricle
E. Shoot
F. None of the Above

49. _____:Enlarged areas at intervals along the stem and also the part of the plant where buds are attached.

A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

50. _____:Underground stems that grow laterally.

A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

51. _____:Attachment of the plant to the soil that absorbs minerals and water needed for the plants survival.

A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

52. _____:Aboveground stems that grow laterally.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

53. _____:Characteristic of the grass that describes how the new blades emerge from the sheath as growth occurs.
A. Sheath D. Rhizomes
B. Ligule E. Vernation
C. Blade F. None of the Above

54. _____:The aboveground parts of the plant.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

55. _____:A structure that grows from the collar area on the inner side of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

56. _____:An appendage that grows from the edge of the collar and may wrap around the stem.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

57. _____:The upper part of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

Commonly Found Weed Section
A-Z Common Names
Artichoke, Jerusalem
58. Plant Description: It is nearly impossible to distinguish Jerusalem artichoke from annual sunflowers based on above-ground growth. Jerusalem artichoke has a coarse, 5- to 10-foot tall stem, large leaves with a rough upper surface, and_____.
A. Compositae Family D. Creeping plant with compound leaves
B. Perennial weed E. Bright yellow sunflower-like flowers
C. An herbaceous perennial F. None of the Above

59. Jerusalem artichoke can be easily distinguished from annual sunflowers by its below-ground growth that includes fleshy tubers resembling thin, knotty potatoes. Reproduction of Jerusalem artichoke is by seeds, rhizomes (_____), and tubers.
A. Five individual petals D. Multi-branched and bushy perennial
B. Allelopathic chemicals E. Horizontal underground stems
C. Fleshy tubers F. None of the Above

Asparagus, Wild
60. Plant Description: Wild asparagus is an herbaceous perennial, well-known for its edible young shoots. Mature plants have a_____, and reproduce by seed.
A. Distinctive fern-like appearance D. Creeping plant with compound leaves
B. Perennial weed E. Annual sunflowers
C. An herbaceous perennial F. None of the Above

Aster, White-Heath

61. Plant Description: White heath aster is a _____that can frequently be seen growing by the side of the road as a clump of upright stems with wand-like spreading branches. In late August, small white flowers cover the top half of the plant.

A. Five individual petals
B. Allelopathic chemicals
C. Perennial weed
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

Austrian Peaweed

62. Identification: Perennial; flowers from May to July. A creeping plant with compound leaves; numerous leaflets oval and covered in hair. Flowers 1/4 to 1 inch long and orange-red. Many seeds in _____.

A. Bladder-like translucent pods
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

Bamboo

63. _____thrive in sun or light shade if provided with abundant moisture and rich soil. Where drought may be expected or in hot interior climates, some shading would be beneficial for most varieties. Established plants withstand flooding.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Phyllostachys species
F. None of the Above

Bedstraw, Smooth

64. Plant Description: There are at least 30 different bedstraws in North America, and many are perennials like smooth bedstraw that produce sprawling tangled mats from which _____.

A. Rhizomes
B. A few erect stems arise
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

65. The typical bedstraw leaf is linear and _____consisting of as many as 8 leaves at nodes on the stem.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Formed in whorls
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

66. Smooth bedstraw is the _____with 8 leaves at each node on main stems and 6 to 8 leaves at nodes on branches.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Only white-flowered form
F. None of the Above

67. Reproduction is by seeds and underground, spreading rhizomes (_____).

A. Leaves alternate and compound
B. Spreading rhizomes
C. Horizontal underground stems
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

Related Information:

68. The common name 'bedstraw' has two possible origins: the dried plant was used to stuff mattresses; it is said that bedstraw was placed in the _____when Jesus was born. John 3:16

A. Manger at Bethlehem
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

Biddy-biddy

69. Description: Perennial that grows four to eight inches tall. Biddy-biddy spreads by stolons that root at the nodes and plants form large mats where individual plants are indistinguishable. The plant stems are _____ depending on conditions.

A. Rhizomes
B. Prostrate to erect
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

Bindweed, Field

70. Field bindweed can be spread by seed, _____, farm implements, infested soil adhering to the roots of nursery stock, root growth from infested areas, and by animals.

A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Root fragments
E. Root growth
F. None of the Above

Bindweed, Hedge

71. Plant Description: Hedge bindweed is a_____.

A. Twining perennial vine
B. Bindweed foliage
C. Vine
D. Dense ground cover
E. Root
F. None of the Above

72. Characteristics distinguishing it from other vines include arrowhead-shaped leaves that have pointed tips, pinkish petals fused into funnel-shaped flowers, the presence of large bracts enclosing the base of each flower, and_____.

A. Large bracts
B. Creeping perennial roots
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

73. The plant reproduces by seeds and _____.

A. Short-lived perennial
B. Stolons
C. A unique flower
D. Creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Bindweed, Japanese

74. Plant Description: Japanese bindweed is a_____. Its appearance is similar to that of hedge bindweed except it has smaller flowers and the bracts enclosing the base of each flower are smaller.

A. Large bracts
B. Creeping perennial
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

75. The _____that escaped cultivation has a distinctive double flower. Compared with other bindweed flowers, this is a unique flower in that it has twice the number of petals and looks similar to a rose or carnation.

A. Short-lived perennial
B. Stolons
C. Weedy form
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Birdsfoot Trefoil

76. Plant Description: Birdsfoot trefoil has a perennial root crown and stems that die back each winter. The species is characterized by _____consisting of 3 clover-like leaflets at the tip separated by a short stem from 2 smaller leaflets at the base. Its flowers are yellow, clover like, and in groups of 2 to 6. They are arranged such that, when pods form, they resemble a bird's foot.

A. Large bracts
B. Compound leaves
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

Black medic

77. Black medic is an annual, _____or short-lived perennial.

A. Biennial
B. Stolon
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Blue Mustard

78. Blue mustard is a winter annual that germinates in the fall and produces a _____with deeply lobed leaves, similar in appearance to a dandelion.

A. Beak
B. Germinate
C. Rosette
D. Physical destruction of a weed
E. Large patche
F. None of the Above

79. Blue mustard bears _____in March through April. Leaves on the flowering stems are coarsely toothed and have wavy margins.

A. Wavy margins
B. Application
C. Bladder-like calyx
D. Purple or blue flowers at the top of the plant
E. A soap like lather
F. None of the Above

80. The plant may grow from 1 to 1 1/2 feet in height. Two-inch long, bean-like seedpods (siliques) that resemble "_____" mature in early summer.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

81. Control: Herbicides are most effective if applied before_____. In the spring, while it is actively growing, this weed can be controlled with an application of 2,4-D.

A. Wavy margins
B. Application of 2,4-D
C. Bladder-like calyx
D. Weeds start to bolt in the spring
E. A soap like lather when mixed with water
F. None of the Above

82. Mechanical Weed Control: Mechanical weed control involves the_____.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

83. Techniques involve hand pulling and hand hoeing which are practical for small infestations. Mowing is often used; but by far, the most common practice of mechanical control includes _____.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

Bouncingbet

84. Plant Description: Bouncingbet is a_____, a dense show of fragrant phlox-like flowers in summer, and the tendency to form large patches.

A. Beaks
B. Germinates
C. Tillage
D. Perennial characterized by smooth leafy stems
E. The tendency to form large patches
F. None of the Above

Brackenfern

85. Plant Description: Brackenfern is a large, coarse, perennial fern that has almost horizontal leaves and can grow 1 1/2 to 6 1/2 feet tall (sometimes up to 10 feet). Unlike our more_____, this primitive perennial lacks true stems.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Typical broadleaf perennials
F. None of the Above

Brambles

86. Plant Description: Brambles are a diverse group of_____, shrubs or trailing vines, that are noted for their prickly stems and berry-like, usually edible fruits.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Perennial herbs
F. None of the Above

Broadleaf Plantain

87. Broadleaf Plantain is a_____. It has broad leaves with prominent veins. The leaves are arranged in a rosette and may smother lawn grass.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. Low growing perennial
F. None of the Above

Brome, Smooth

88. Plant Description: Smooth brome is a sod-forming, perennial grass, distinguished by long, slender, bronze- or purple-tinted flower clusters that make up the flower head. This species spreads by seeds and dark-colored rhizomes (_____).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Horizontal underground stems
F. None of the Above

Broom, French

89. Description: Perennial; blooms April to June. Grows three to ten feet tall. Evergreen shrub similar to Scotch broom except plants do not grow as erect, leaves are retained the entire year, leaves trifoliate and more numerous, and_____.

A. Larger yellow flowers
B. Evergreen shrub
C. Yellow flowers smaller
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Impacts: This plant, _____, takes advantage of land disturbances to establish and spread.

90. In California, large infestations displace native plant species and significantly increase the costs of reforestation in commercial timberlands.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, Portuguese

91. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Evergreen shrub similar to Scotch broom except pods inflated and hairy all over,_____. Stems more silvery, but difficult to distinguish until leaves and flowers fall off.

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Giving appearance of pussy willow buds
F. None of the Above

Broom, Scotch

92. Description: Perennial; blooms April to June. Grows 3 to 10 feet tall. Evergreen shrub with many slender, erect, dark green angled branches with small, simple leaves. Abundant small, yellow, _____.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Pea-shaped flowers
E. An aggressive pioneer species
F. None of the Above

93. Easily confused with_____. Spanish broom (S. Junceum) has round stems, very few leaves, and larger yellow flowers.

A. Spanish broom
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Broom, Spanish

94. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Similar to Scotch broom except stems thicker and rougher, it has very few leaves, and flowers larger and_____.

A. Fewer in number
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broomsedge

95. Plant Description: Broomsedge is a clump-forming perennial grass that is most noticeable in the fall, when its stems and leaves turn a_____. It reproduces by seed and short rhizomes (horizontal underground stems).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Distinctive orangish-tan to reddish-brown color
E. Except pods inflated and hairy all over
F. None of the Above

96. Root system - Dense, fibrous roots are produced from _____(horizontal underground stems).

A. Short rhizomes
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Buffalo Bur

97. Buffalo bur, sometimes called Kansas thistle and_____, is a tap rooted annual weed. It bears long, yellow spines on stems, leaves, and flower heads and can grow up to 2 feet high. Drought resistant, its highest occurrence is in dry, exposed soil.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Prickly nightshade
F. None of the Above

98. The oblong leaves are 2-3 inches long with _____and are covered with very dense, stiff, and sharp spines.
A. Bright yellow flowers D. Scotch broom
B. Deep rounded lobes E. Upper leaves
C. Green to blue-gray F. None of the Above

99. Bright yellow flowers can be seen in summer. In the fall, berries up to 3/8 inch in diameter are enclosed in the _____and are filled with black, wrinkled, flat pitted seeds.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Dried flower parts
C. Flower heads lilac-like F. None of the Above

100. Control of this plant is important, as it is a host for the Colorado potato beetle. When mature, the main stem breaks near the ground and the plant rolls like_____, widely scattering the 8500 seeds that each plant produces.
A. Bright yellow flowers D. Scotch broom
B. Tumbleweed E. Upper leaves
C. Green to blue-gray F. None of the Above

101. Herbicides should be applied between_____. Dicamba, Triclopyr and 2,4-D can be effective in controlling Buffalo bur. Glyphosate in a 2% solution can be applied as a spot treatment.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Late bud to early flower
C. Flower heads lilac-like F. None of the Above

Butterfly Bush
102. Description:_____; flowers mid to late summer. Grows up to 10 feet tall. Leaves narrow, opposite and green to blue-gray.
A. Bright yellow flowers D. Scotch broom
B. Perennial shrub E. Upper leaves
C. Green to blue-gray F. None of the Above

103. _____ lilac-like but come to a more definite point. Flowers small and purple.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Kansas thistle and prickly nightshade
C. Flower heads F. None of the Above

104. Impacts: This plant is a pioneering species that dominates open habitats. It poses an ecological threat to dry-land meadows, open slopes and dunes, dominating these sites as much as _____has historically. It also invades reforested sites, resulting in a loss of forest productivity.
A. Bright yellow flowers D. Scotch broom
B. Colorado potato beetle E. Upper leaves
C. Green to blue-gray F. None of the Above

Bugloss, Common
105. Description: Perennial herb; flowers May to October. Grows one to two feet tall._____; overall plant is coarsely hairy.
A. Five equal lobes D. Flat pitted seeds
B. Perennial herb E. Stems and leaves fleshy
C. Flower heads lilac-like F. None of the Above

106. Basal leaves are_____; mid leaves are progressively smaller up the stem, and the upper leaves are sessile (no petiole) or clasping.
A. Bright yellow flowers D. Scotch broom
B. Narrowly oblong E. Upper leaves
C. Green to blue-gray F. None of the Above

Bull Thistle
107. Description: An upright biennial. Young seedling leaves are oblong in shape, but mature _____ are saw-toothed and spiny with cottony hairs on the undersurface.
A. Four-chambered nutlet D. Several hundred seed heads
B. Spine-tipped lobes E. Rosette leaves
C. Spiny wings F. None of the Above

Burdock, Common
108. Plant Description: Common burdock is a biennial that grows as a _____the first year and then produces a 5-foot-tall, erect, bushy flowering stem.
A. Rosette leaves D. Rosette of leaves
B. Spiny bracts E. Leaf axils on the flower stem
C. Biennial F. None of the Above

Buttercup, Creeping
109. Plant Description: Creeping buttercup is a low-growing, rosette-forming, spreading perennial. It is characterized by _____and creeping horizontal stems (stolons) that root at the nodes to form new rosettes.
A. Spine-tipped branches D. 3-parted leaves
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

Buttercup, Tall
110. Plant Description: Tall buttercup is a perennial weed characterized by erect stems and deeply lobed leaves. This species reproduces only_____.
A. By actively growing plants D. By rhizomes
B. By perennial weeds E. By rosettes
C. By seeds F. None of the Above

Impacts
111. _____can dominate a pasture or meadow given the opportunity, especially with acid soils and/or over-grazing. It could hinder colonization by native species in a prairie or grassland habitat if it were allowed to invade and spread.
A. Spine-tipped branches D. Tall buttercup
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

112. The main impact is to livestock. _____are toxic to grazing animals, who can suffer from salivation, skin irritation, blisters, abdominal distress, inflammation, and diarrhea.
A. Spine-tipped branches D. Fresh buttercup plants
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

113. Fortunately, _____ has a strong, bitter taste so animals generally try to avoid it if more palatable
A. Spine-tipped branches D. Fresh plants
B. Buttercup E. New rosettes
C. Creeping buttercup F. None of the Above

Camelthorn

114. Description: Perennial; flowers June to July. Grows 1 1/2 to 4 feet tall. Stems greenish with _____ 1/4 to 1 3/4 inches long.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Slender spines
E. Perennial
F. None of the Above

115. Leaves wedge-shaped, hairless on the upper surface, 1/4 to 1 1/4 inches long. _____small, pea-like, pinkish purple to maroon, occur on short, spine-tipped branches along the upper portion of the plant.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Flowers
E. New rosettes
F. None of the Above

116. _____curved upward, deeply indented with each seed clearly outlined in the pod.

A. Actively growing plants
B. Perennial weed
C. Reddish-brown jointed seed pods
D. Some mature plants
E. Perennial
F. None of the Above

Campion, White

117. Plant Description: White campion can be a winter or summer annual, biennial, or_____.

A. Short-lived perennial
B. Reproduction
C. Leaves are lance-shaped
D. Winter or summer annual, biennial
E. Creeping perennial weed
F. None of the Above

118. This species is characterized by _____and showy white flowers, whose petals emerge from a green, inflated, bladder-like structure (calyx).

A. Bladder-like structure (calyx)
B. Downy foliage
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

119. Reproduction is primarily by seeds, although fragmented segments of the _____can give rise to new plants.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Root crown
E. Creeping perennial weed
F. None of the Above

Canada Goldenrod

120. Plant Description: Canada goldenrod is a perennial distinguished by numerous small yellow flowers located in _____at the top of individual, unbranched, leafy stems.

A. Bladder-like structure (calyx)
B. Perennial
C. Pyramid-shaped clusters
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

121. Flowers are crowded onto _____that originate at a central axis and are arranged more or less horizontally.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Numerous backward-curved stalks
E. Creeping perennial weed
F. None of the Above

122. Leaves are_____, hairless on the upper surface, hairy underneath, and sharply toothed on the edge.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Lance-shaped, tapered at both ends
E. Creeping perennial weed
F. None of the Above

123. Leaves are described as being 3-nerved, meaning the midrib and 2 parallel lateral veins are prominent. Plants reproduce by way of short rhizomes (horizontal underground stems) emerging from the base of aerial stems and by_____.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Wind dispersed seeds
E. Creeping perennial weed
F. None of the Above

Canada Thistle

124. Canada thistle (Cirsium arvense) is an aggressive, creeping perennial weed that infests crops, pastures, rangeland, roadsides and_____. Generally, infestations start on disturbed ground, including ditch banks, overgrazed pastures, tilled fields or abandoned sites.

A. Bladder-like structure (calyx)
B. Non-crop areas
C. Cool-season perennial
D. Is an aggressive, creeping perennial weed
E. In infestations
F. None of the Above

125. Canada thistle reduces forage consumption in _____because cattle typically will not graze near infestations.

A. Pastures and rangeland
B. Perennial
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

126. Canada thistle is a creeping perennial that reproduces from vegetative buds in its root system and from seed. It is difficult to control because its _____allows it to recover from control attempts.

A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Extensive root system
E. Fern-like foliage
F. None of the Above

127. Combining control methods is the best form of Canada thistle management. Persistence is imperative so the weed is continually stressed, forcing it to exhaust_____.

A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Root nutrient stores and eventually die
E. Fern-like foliage
F. None of the Above

128. Herbicides such as glyphosate can be painted on thistle leaves. _____will be needed. Herbicides such as triclopyr + clopyralid or 2,4-D combinations can be sprayed on thistle foliage; repeat applications may be needed at 6 week intervals.

A. Creeping perennial
B. Canada thistle management
C. Applying any pesticide
D. Herbicide applications
E. Repeat applications
F. None of the Above

129. The most effective times for herbicide applications are spring, just after the green shoots appear, or in August/September. Always read the label before_____.

A. Applying any pesticide
B. Canada thistle management
C. Repeat applications
D. Herbicide applications
E. Repeat applications
F. None of the Above

Canarygrass

130. Plant Description: Reed canarygrass is a tall, coarse, sod-forming, cool-season perennial, characterized in summer by its two-tone appearance of golden seedheads atop green foliage. It reproduces through seeds and more typically by _____(horizontal underground stems). This species tends to grow in clumps 3 feet or more in diameter, and can form large, dense colonies.

A. Bladder-like structure (calyx)
B. Perennial
C. Cool-season perennial
D. Seed
E. Vigorous rhizomes
F. None of the Above

Carrot, Wild

131. Plant Description: Wild carrot is a biennial that looks and smells similar to_____. Its distinctive fern-like foliage forms a rosette during the first year.

A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Cultivated carrot
E. Fern-like foliage
F. None of the Above

132. During the second year of growth, it produces a succession of _____that terminate in umbrella-shaped clusters of small white flowers.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Hairy flower stalks
E. Leaf-like bracts and branches
F. None of the Above

133. A distinctive feature of wild carrot is the appearance of a dark purple flower (rarely several flowers) in the center of most flower clusters. Once flowers mature and_____, the flower cluster closes forming a cuplike bird's nest. Wild carrot reproduces by seeds.

A. Seeds begin to develop
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Catnip

134. Plant Description: Catnip is _____best known for the minty odor emitted by its leaves and stems when they are crushed or wilted. The odor is very attractive to cats.

A. An erect perennial
B. Reproduced by seeds
C. Heart-shaped
D. In the Mint Family
E. Leaf-like
F. None of the Above

135. Other distinctive characteristics are _____and the serrated appearance of the leaf edges, which resembles the toothed edge of a saw.

A. Downy foliage
B. Reproduced by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

136. The flower shape is common among members of the mint family consisting of 2 lips, and flower color is white with unusual purple dots. Along with most members of the Mint Family, catnip has square stems. This species reproduces by seeds and _____(horizontal underground stems).

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. It also produces short rhizomes
E. Leaf-like bracts and branches
F. None of the Above

Catsear, Common

137. Plant Description: Common catsear is a perennial with a growth form similar to that of dandelion; its leaves form a basal rosette and it produces_____. Leaves of common catsear are typically lance-shaped with irregular rounded lobes and hairs on both the upper and lower surfaces.

A. Either an annual
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Yellow head-like flowers at the tips of upright stems
F. None of the Above

138. Emerging from the rosette are _____that usually have leaf-like bracts and branches. At the tips of the branches are 1-inch-wide flower heads composed of many tubular, yellow flowers.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Wiry hairless stems
E. Leaf-like bracts and branches
F. None of the Above

139. Common catsear reproduces by seeds and vegetatively by way of _____that can produce new plants if separated.

A. Buds formed on the crown
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Chickweed, Mouseear

140. Plant Description: Mouseear chickweed is a creeping, mat-forming species that normally behaves as a perennial; however, it is possible for it to exist as an annual. Plants reproduce by seeds and roots growing from the_____. It tends to form dense patches.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Nodes of stems
E. Leaf-like bracts and branches
F. None of the Above

Chicory

141. Plant Description: Chicory is _____that initially grows as a rosette of irregularly-toothed basal leaves. Then, later in the season, leafless stems emerge with sky-blue daisy-like flowers scattered along their length.

A. Either an annual
B. Reproduces by seeds
C. A perennial
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

142. Flowers open each morning and close as sunlight increases in intensity around noon. Only a few flower heads open at a time and each head opens for a single day. Chicory_____.

A. Is a mat-forming species
B. Reproduces by rhizomes
C. Has heart-shaped leaves
D. Reproduces by seeds
E. Has leaf-like bracts and branches
F. None of the Above

Cinquefoil, Rough

143. Plant Description: Rough cinquefoil behaves as either an annual if growing in cultivated ground, a biennial when growing in less disturbed sites, or_____.

A. A short-lived perennial
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

144. It grows as a _____ at the beginning of the season, but later forms an upright, hairy, robust stem with yellow flowers. Leaves consist of 3 coarsely-toothed, hairy leaflets. Rough cinquefoil reproduces by seeds.

A. Mat-forming species
B. Seed
C. Heart-shaped leaf
D. Rosette
E. Leaf-like bract
F. None of the Above

Cinquefoil, Sulfur

145. Plant Description: Sulfur cinquefoil is a perennial. It is an erect, hairy, generally unbranched plant with yellow flowers and leaves consisting of_____. Leaflets are arranged such that they radiate from a common point like fingers on a hand. Sulfur cinquefoil reproduces by seeds.

A. 5 to 7 coarsely-toothed leaflets
B. Seeds
C. Roots
D. Unbranched plant with yellow flowers and leaves
E. Rosette
F. None of the Above

Colts Foot

146. Plant Description: Coltsfoot is a_____. Its flowers are the same color, size, and shape as dandelion flowers, and the two species are easily confused while in bloom if viewed from a distance.

A. Mat-forming species
B. Reproducer of seeds
C. Yellow-flowered perennial
D. A member of the Mint Family
E. Wooly vegetative stem
F. None of the Above

147. Coltsfoot blooms so early that the flowers have already come and gone by the time leaves emerge. Also, coltsfoot flowers appear at the tips of 1/8-inch-thick stems that are wooly and covered with _____ giving them an appearance similar to that of asparagus spears.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

148. After flowers have matured, clumps of broad, heart-shaped leaves appear on short, _____.

A. Mat-forming species
B. Wooly vegetative stems
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

149. Coltsfoot reproduces primarily by _____ (horizontal underground stems) and also by seeds.

A. Distinctive curled clusters
B. Perennial herb
C. A dense, healthy turf
D. Horizontal creeping rhizomes
E. Branched taproot
F. None of the Above

150. Root system - Coltsfoot forms an extensive system of _____(horizontal underground

A. Opened flowers
B. Seeds
C. Good cultural habits
D. Petioles
E. Thick white rhizomes
F. None of the Above

Comfrey, Common

151. Plant Description: Common comfrey is a perennial herb with lower leaves that are bristly, up to 12 inches long, and attached to winged leaf stalks (_____) that emerge from the base of the plant.

A. Distinctive curled clusters
B. Perennial herbs
C. Stems
D. Petioles
E. Branched taproots
F. None of the Above

152. Smaller leaves that are also bristly but lack petioles are borne on_____.

A. Opened flowers
B. Stems
C. Rhizomes
D. 2- to 3-foot tall flowering stems
E. Branched taproots
F. None of the Above

153. Flowers are bell shaped and either yellow or blue. They form in distinctive curled clusters having an appearance similar to that of a_____. Reproduction is by way of seeds. Also, new plants can be propagated by dividing the roots of established plants.

A. Distinctive curled cluster
B. Perennial herb
C. Scorpion's tail
D. A broadleaf summer-annual weed
E. A branched taproot
F. None of the Above

Common Groundsel

154. Common groundsel is_____. A prolific seed producer, seeds are produced within several weeks of germination, and there are several generations within the same year. This weed likes moist soil and is often found in well-irrigated areas such as lawns and flower beds.

A. Opened flower
B. A prolific seed producer
C. An early season weed
D. Also bristly but lack petioles
E. A common weed in the home vegetable garden
F. None of the Above

155. Control: A dense, healthy turf will prevent seeds from taking root in the lawn. _____can be increased with proper mowing, fertilization, watering, and other cultural practices. Good drainage will also help to discourage the growth of common groundsel.

A. Distinctive curled clusters
B. Perennial herbs
C. A dense, healthy turf
D. Broadleaf summer-annual weed control measures
E. Turf density
F. None of the Above

156. The plants can be easily pulled by hand from moist soil. Be sure to pull and dispose of them before they set seed, as seed can mature in _____even after the plants have been killed. If there is heavy infestation, spot treat with a post-emergent herbicide containing glyphosate (Roundup, Kleenup).

A. Opened flowers
B. Seed producing
C. Weeds
D. Petioles
E. To vegetables
F. None of the Above

Common Lambsquarters

157. Common Lambsquarters is a _____ that can be found anyplace the soil has been disturbed. The growth habits of the common lambsquarters vary with its location. If growing along the road or in an open field, it may reach three or four feet in height.

A. Distinctive curled cluster
B. Perennial herb
C. Dense, healthy turf
D. Broadleaf summer-annual weed
E. Broadleaf winter-annual weed
F. None of the Above

158. Control: The best methods of weed control in the home vegetable garden are mulching, handpulling, rototilling, hoeing and preventing the weeds from_____.

A. Opened flowers
B. A prolific seed producer
C. Going to seed
D. Blooming
E. The home vegetable garden
F. None of the Above

159. Because of its short, branched taproot, lambsquarters can be easily hand-pulled from moist soil. The best methods of weed control in the home vegetable garden are mulching, hand pulling, rototilling, hoeing and preventing the weeds from going to seed. Because of its_____, lambsquarters can be easily hand-pulled from moist soil.

A. Distinctive curled clusters
B. Perennial herb classification
C. Rosette stage
D. Short, branched taproot
E. Long, branched taproot
F. None of the Above

160. Prevention by use of _____ should be the first line of defense in eliminating broadleaf weeds such as lambsquarters from lawns.

A. Violence
B. Hoe
C. Good cultural habits
D. Fire
E. Weed control in the home vegetable garden
F. None of the Above

161. Pre-emergent herbicides such as trifluralin (Preen) can be used to_____.

A. Control grass
B. Control perennial herbs
C. Create a dense, healthy turf
D. Control broadleaf summer-annual weed
E. Prevent germination of weed seeds
F. None of the Above

162. Post-emergent herbicides effective against)_____ are 2,4-D, MCPP and dicamba (sold under many brand names) and combination formulas (Trimec).

A. Broadleaf weeds
B. Perennial herbs
C. Turf
D. Broadleaf summer-annual weeds
E. Weed seeds
F. None of the Above

Common Mallow

163. Common mallow is most frequently found in newly seeded lawns or lawns that are stressed and lack density. It can be_____.

A. Opened flower
B. A prolific seed producer
C. An annual or biennial
D. Found with banana trees
E. Found with a long, branched taproot
F. None of the Above

164. Mallow has a deep taproot but can be easily pulled from moist soil. The foliage resembles that of the geranium. The _____of common mallow are pinkish-white and the fruits look like small, round cheeses.

A. Flowers
B. Flowering plants
C. Rosette stage
D. Seeds
E. Stems
F. None of the Above

165. Control: _____with proper mowing, fertilization, watering and other cultural practices can help in the control of this weed.

A. A non-selective herbicide
B. Seed production
C. Herbicide spraying
D. Increasing turf density
E. Spreading perennial
F. None of the Above

166. Post-emergent herbicides are _____effective. Triclopyr + clopyralid or triclopyr alone are suggested.

A. Post-emergent herbicides
B. Very
C. Not
D. Only marginally
E. An insecticide and are
F. None of the Above

Common Mullein

167. Common mullein, also known as wooly mullein, velvet dock, flannel leaf, Aaron's rod, torch plant, and miner's candle is a_____.

A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

Common Yarrow

168. Description: A low-growing, _____ with upright flower stalks that can reach 3 feet in height. Each plant produces one to several flower stalks, which are often branched and covered by fine hairs.

A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

Crabgrass

169. Crabgrass is a summer annual grass with wider blades and a lighter green color than _____. It is low growing, prostrate, and often has reddish-purple stems. It forms seedheads below mowing height.

A. Crabgrass
B. Bluegrass
C. Compound leaves
D. Reddish-purple
E. Perennial crown
F. None of the Above

Creeping Yellow Cress
170. Description:_____; flowers June to August. Grows up to 20 in tall. Leaves 2 to 4 in long and pinnately divided into narrow, sharply toothed lobes. Flowers yellow with four small petals.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

Crownvetch, Trailing
171. Plant Description: Crownvetch is a _____ characterized by compound leaves made up 11 or more small leaflets arranged in pairs and pinkish flowers resembling those of peas, beans, or clovers that are grouped into head-like clusters.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

Curlycup Gumweed
172. Description: An erect biennial or _____with one to several green, reddish, or whitish branching stems. Stems grow 1-3 feet tall.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Cutleaf Teasel
173. Description: _____; flowers July to September. Grows up to seven feet tall. Rosette leaves ovid to oblong, mature leaves opposite, large, oblong and prickly.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Daisy, Oxeye
174. Plant Description: Ox-eye daisy is a _____distinguished by lower leaves that are dark green, hairless, somewhat fleshy, and coarsely toothed and conspicuous daisy-like flowers with white rays and yellow centers.
A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Dandelion
175. The Dandelion is a _____with an extensive taproot. Its yellow flowers can develop anytime between March and November and are followed by fluffy seed heads. More prevalent under low turf density, dandelion growth can be inhibited by increasing the turf density.
A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Daylily, Tawny
176. Plant Description: Tawny daylily is a _____, characterized by its beautiful orange flowers which line the roadsides in July. This species is not a true lily, as indicated by its unspotted blossoms and leafless stems.
A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Dock, Broadleaf

177. Plant Description: Broadleaf dock is a _____with a deep taproot that can reach depths of up to 5 feet. It reproduces primarily by seeds, but there is limited regeneration from root tissues.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Dodder

178. Dodder (Cuscuta and Grammica), is a twining yellow or orange plant sometimes tinged with purple or red. Occasionally it is almost white. _____and thread-like or relatively stout.

A. A twining plant
B. Is especially destructive
C. The stems can be very thin
D. Horizontal underground stems
E. Basal rosette with relatively large leaves
F. None of the Above

Dogbane, Hemp

179. Plant Description: Hemp dogbane is _____ with a woody stem that is undivided at the base but becomes much-branched in its upper half. All parts of the plant exude a milky sap when cut, broken, or crushed.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Dyers Woad

180. Description: Dyer's woad is a _____that grows up to three feet tall. It has multiple stems that arise from the base. Foliage has distinctive blue-green cast with whitish glaze.

A. Perennial or biennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

English holly

181. English holly is a _____that is grown ornamentally in the northwestern United States and Canada but is also commonly found escaping into forests in this region. English holly's native range is the British Isles to southern and central Europe. It is grown commercially in the Pacific Northwest and commonly used in decorations and floral arrangements as well as in landscapes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Broadleaf evergreen tree/shrub
F. None of the Above

English laurel

182. English laurel, also called cherry laurel, is a large _____or small tree often used for landscaping, usually as a hedge. Related to cherry trees, English laurel gets its common name from its resemblance to the true laurel tree.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Evening Primrose

183. Plant Description: Common evening primrose is a _____that produces a rosette of leaves the first year and flowers borne on an upright leafy stalk during the second year of growth.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

184. There are many _____ evening primroses that appear similar and can be difficult to distinguish. Most have 4-petaled yellow flowers that open at dusk.
A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

185. A few, including common evening primrose, have lance-shaped leaves without lobes. Leaves of common evening primrose usually appear thin and crinkled and _____. Also, leaves on the lower portion of the stem are often purplish. Reproduction is by seeds.
A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. May have a reddish midrib
E. Infest crop seeds
F. None of the Above

False Brome
186. Description: _____ grass; forms short "squatty" bunches. Stems hollow with broad, flat one quarter to one third inch wide lax leaves and a leaf sheath open to the base.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

187. Leaf color a bright green that often remains through fall and part of winter. _____ and lower stems hairy; ligules membranous.
A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. Appear thin
E. Infest crop seeds
F. None of the Above

188. Flowers born in a true spike that droops noticeably, and spikelets with short or_____.
A. No stalks
B. Stems hollow with broad
C. Droops noticeably
D. To make it easier to control re-growth
E. An erect bushy perennial
F. None of the Above

189. False brome plants appear to be _____few to a couple hundred seeds per plant. Isolated plants are observed to produce viable seeds and become new weed epicenters complicating control efforts.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Self-fertile producing
E. A stout perennial
F. None of the Above

Four-o' Clock, Wild
190. Plant Description: Wild four-o'clock is an erect bushy _____, characterized by its large fleshy taproot, swollen joints and smooth heart-shaped leaves that resemble lilac leaves. It reproduces by seeds.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Foxtail
191. Foxtail is a summer _____grass with wider blades and a lighter green color than bluegrass. It is also faster growing than bluegrass. Seed heads may form despite regular mowing. Foxtail is much less prevalent when turfgrass has good density. Re-sod or reseed bare spots.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Annual
F. None of the Above

192. Control: A _____(benefin + trifluralin, dithiopyr, oxadiazon, pendimethalin or prodiamine) applied correctly and at the proper time should provide control.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

Fescue, Tall
193. Plant Description: Tall fescue is a coarse, clump-forming, cool-season _____ grass, characterized by its relatively wide, dark green, coarsely ridged leaves. This species reproduces by seeds and short rhizomes (horizontal underground stems).
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

194. Clumps can expand by producing new shoots (tillers) from the_____. Tall fescue can form dense stands.
A. Bulb-forming perennial
B. Form dense stands
C. Base of existing stems
D. A distinct S-curve just below the root crown
E. Sprout again
F. None of the Above

195. Tall fescue is_____. Studies suggest that the endophytic fungus infecting many varieties of tall fescue makes the grass more drought tolerant, as well as potentially toxic to nearby plant species (allelopathic), thus allowing tall fescue to replace native plant communities.
A. Coarsely ridged leaves
B. One of the most widely adapted weeds
C. Allelopathic
D. Species is highly tolerant
E. A strong garlic odor
F. None of the Above

Garlic, Wild
196. Plant Description: Wild garlic is a grass-like, bulb-forming _____ characterized by slender, erect stems and leaves, and a globe-like flower head produced at the top of each stem, composed mostly of tiny aerial bulblets rather than flowers.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

Garlic Mustard
197. Plant Description: Garlic mustard is a _____ that forms a rosette the first spring and an upright stem with small white flowers the second spring. It is characterized by triangular, coarsely toothed leaves and a slender taproot with a distinct S-curve just below the root crown.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

198. Young leaves give off a strong garlic odor when crushed, but the odor fades with leaf age and is nearly gone by fall. Garlic mustard_____.
A. Stems are square
B. Reproduces only by seeds
C. Has multiple forks
D. Control in two generations
E. Resembles a wheat kernel
F. None of the Above

199. _____ and very difficult to control once established. It tends to form dense stands that crowd out herbaceous native flora. As a result, invasion of garlic mustard into forests tends to decrease the number of native spring species.
A. Stems are square
B. Fall application
C. Multiple forks
D. This weed is invasive
E. Resembles a wheat kernel
F. None of the Above

200. Garlic mustard can be controlled by _____for several years until the seedbank is depleted.
A. Crabgrass killer D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. Preventing new seed production
C. Compound herbicide F. None of the Above

201. Various methods can be used to_____, including cutting plants at ground level just before or during flowering, hand pulling, burning, or spot application of herbicides (optimally in early spring or fall).
A. Crabgrass killer D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. Prevent seed formation
C. Compound herbicide F. None of the Above

202. When hand pulling, a significant portion of the root crown must be removed or else plants can resprout. However, the best management strategy is_____.
A. Crabgrass killer D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. To prevent establishment
C. Compound herbicide F. None of the Above

203. Herbicide Control: Apply a _____(8 ounces in a 3-gal. sprayer) with a surfactant (or without a surfactant when near surface waters) to thoroughly wet all foliage in April through June (during flowering) to control two generations.
A. Crabgrass killer D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. Glyphosate herbicide as a 2% solution in water
C. Compound herbicide F. None of the Above

Geranium, Shiny
204. Description: Shiny geranium grows predominantly as _____though it may become biennial depending on moisture conditions.
A. An annual weed D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Goatgrass, Barbed
205. Description: _____; grows 8 to 16 inches tall with few to many culms. Leaf sheaths contain white hairs when young, becoming more or less smooth once matured. The blades are rigid, sharp, pointed, and spreading. Grain 1/4 inch long, resembling a wheat kernel.
A. Annual D. Biennial
B. Winter annual E. A stout perennial
C. Perennial F. None of the Above

Henbit
206. Henbit is a _____occasionally found in lawns in early spring. The lower leaves have a stalk while the upper leaves clasp the stem.
A. An annual weed D. Biennial
B. Winter annual E. A stout perennial
C. Perennial F. None of the Above

207. This weed is more often found in buffalograss than in bluegrass. Newly-seeded bluegrass and established bluegrass lawns with _____may have some henbit.
A. Pink flowers D. Poor density
B. A pungent odor E. Crowns
C. Newly-seeded grass F. None of the Above

208. Control: Henbit has a taproot and is easily pulled from moist soil. Heavy infestations can be controlled with_____, 2,4-D or 2,4-D combination herbicides; at or prior to flowering. Fall application of a pre-emergent herbicide (dithiopyr, isoxaben, pendimethalin or prodiamine) will prevent henbit germination.

A. Triclopyr + clopyralid
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

Herb Robert

209. Description: Herb Robert is a branching, low growing_____. It has light green leaves that are deeply dissected and release a pungent odor making this plant easy to recognize.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Winter and spring annual
F. None of the Above

210. As the plants mature the foliage turns red. This red color is very noticeable under bright light conditions. The stems are_____, have multiple forks, and are brittle at the joints.

A. Square
B. Highly pubescent
C. Multiple forks
D. Round
E. Resembling a wheat kernel
F. None of the Above

211. The roots are shallow allowing for easy hand removal. The pink flowers are perfect and five petaled. The receptacle is elongated into a pointed structure called a "_____" or “storks bill”. Herb Robert reproduces only by seeds.

A. Torus
B. Horn
C. Dash
D. Break
E. Root crown
F. None of the Above

212. Flowers are usually _____creating uniform populations.

A. Are square
B. Self-fertile
C. Multiple
D. Round
E. Resembling a wheat kernel
F. None of the Above

Hydrilla

213. Description: _____ aquatic plant. Grows rooted to the bottom with long stems that reach water’s surface.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

214. Can be_____. Leaves are 1/16 to 1/8 inch wide, 1/4 to 3/4 inch long and occur in whorls of five.

A. Saucer-shaped
B. Does not have turions
C. Monoecious or dioecious
D. Spreading rhizomes
E. Flowering
F. None of the Above

215. Small, axillary leaf scales are found next to the stem and inserted at the base of the leaf, a character that distinguishes hydrilla from other family members. The _____ (tubers) are a key identifying feature.

A. Nut-like turions
B. Perennial herbs
C. Rhizomes and seeds
D. Upright perennial
E. Sod-forming
F. None of the Above

216. Egeria densa is similar in appearance but has leaves in whorls of four and does not have _____.
A. Loose clusters D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

Ironweed, Tall
217. Plant Description: Tall ironweed is _____with a highly visible dark red stem that grows over 7 feet tall and is widely branched at the top.
A. An upright perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

218. At the ends of branches in _____ are saucer-shaped, 1/4-inch-wide flower heads consisting of 30 or fewer purple disk flowers. Attached to the stem are 10-inch-long, lance-shaped, pointed leaves that have short downy hairs on the lower surface.
A. Loose clusters D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

219. Reproduction is primarily by way of seeds, but _____ sometimes arise from the large root crown.
A. New shoots D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

Joepyeweed
220. Plant Description: Joe-Pye weeds are _____ herbs with leaves in whorls (3 to 6 leaves per node) and purplish flowers in terminal clusters.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

221. Stems of HOLLOW JOEPYEWEED are mostly hollow, there are usually 4 to 6 leaves in a whorl, and flower heads consist of fewer than 8 purple tubular flowers. _____ are arranged in a domed terminal cluster.
A. Loose clusters D. Spreading rhizomes
B. Turions E. Flower heads
C. Way of seeds F. None of the Above

222. Stems of SPOTTED JOEPYEWEED are_____, there are 5 leaves in a whorl, and flower heads are pinkish-purple consisting of between 8 and 22 tubular flowers. Flower heads are arranged in flat-topped terminal clusters.
A. Flat-topped terminal clusters D. An upright perennial
B. Perennial herbs E. Purple or purple-spotted
C. Rhizomes F. None of the Above

223. SWEET JOEPYEWEED foliage smells like vanilla when crushed, stems are green with purplish nodes, there are 3 or 4 leaves in each whorl, and flower heads are dull pink consisting of fewer than 8 tubular flowers. Flower heads are arranged in_____.
A. Loose clusters are saucer-shaped D. Spreading rhizomes
B. Turions E. Dome-shaped terminal clusters
C. Way of seeds F. None of the Above

224. Joe-Pye weeds reproduce by _____.
A. Flat-topped terminal clusters D. An upright perennial
B. Perennial herbs E. Sod-forming perennials
C. Rhizomes and seeds F. None of the Above

225. Root system - The root systems includes spreading rhizomes (_____).
A. Loose clusters D. Spreading rhizomes
B. Does not have turions E. Horizontal underground stems
C. Way of seeds F. None of the Above

Johnsongrass
226. Plant Description: Johnsongrass is a large, coarse, _____, characterized by its purplish, pyramidal flower heads and the prominent white midrib down the leaf blade. It reproduces by seeds and stout rhizomes (horizontal underground stems), and can form large, dense patches.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A sod-forming perennial grass
C. Perennial F. None of the Above

Jubata Grass
227. Description: Jubata grass is a _____that ranges six to twenty-three feet tall. Plants have long leaves arising from a tufted base or tussock.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. Perennial grass
C. Perennial weed F. None of the Above

228. The flower cluster is a _____at the end of a very long stem. Stems generally are at least twice as long as the tussock.
A. Stem height D. Truncate leaves
B. Japanese knotweed E. Biennial or short-lived perennial
C. Plumed panicle F. None of the Above

229. Plumes consist of_____, deep violet when immature, turning pinkish or tawny cream-white at maturity. Jubata grass is easily confused with pampas grass (Cortaderia selloana).
A. Inflorescence D. Hairy female flowers
B. Tips of flower head bracts E. Stout stems reddish-brown, nodes slightly swollen
C. Significant threat F. None of the Above

230. The two species are distinguished by stem height, leaf, plume, and spikelet color, florets, leaf tip, and _____.
A. Presence of viable seed D. Truncate leaves
B. Japanese knotweed E. Biennial or short-lived perennial
C. A plumed panicle F. None of the Above

231. The _____ are less erect and more spreading and not fountain-like, when compared to tussocks of Cortaderia selloana.
A. Inflorescence D. Tussocks of jubata grass
B. Tips of flower head bracts E. Stout stems reddish-brown, nodes slightly swollen
C. Tips F. None of the Above

Knapweed, Spotted
232. Description: _____; blooms midsummer to fall. Grows up to 3 feet tall. Multi-stemmed plant with several stems arising from crown.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. Biennial or short-lived perennial
C. Perennial F. None of the Above

233. Flowers purple or rarely cream colored. _____ are usually black, thus the name "spotted." Seeds dispersed by wind, animals, and people.
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knotweed, Giant
234. Description: _____; blooms July to October. Grows over 12 feet tall. Closely related and similar to Japanese knotweed.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

235. Leaf cordate, or heart shaped; often exceeds one foot long. _____of creamy white flowers sparse and the flower size does not increase with maturity.
A. Inflorescence
B. Tips of flower head bracts
C. Stem height
D. Fountain-like
E. Stout stems
F. None of the Above

236. _____ with Japanese knotweed are common. Japanese knotweed is smaller with truncate leaves.
A. Hybrids
B. Spotted knotweed
C. Giant knotweed
D. Truncate leaves
E. Biennial or short-lived perennial weeds
F. None of the Above

237. Impacts: Giant knotweed is the largest of the knotweeds, enabling this species to dominate and out compete native or_____. It poses a significant threat to riparian areas where it prevents streamside tree regeneration.
A. Beneficial plants
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems
F. None of the Above

Knotweed, Japanese
238. Description: _____; blooms July to October. Grows four to nine foot tall and has long creeping rhizomes.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

239. Stout stems reddish-brown,_____. Leaves short stalked, trucate, broadly ovate and 2-6" long by 2-4" wide.
A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Nodes slightly swollen
E. A milky juice
F. None of the Above

240. Flowers greenish-white to cream in large plume-like clusters at the ends of the stems. _____ with giant knotweed are common.
A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Perennial
E. Herbaceous perennial weed
F. None of the Above

Lesser Celandine

241. Description: Lesser celandine is an herbaceous, _____ plant in the buttercup family (Ranunculaceae).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

242. Plants have a basal rosette of dark green, shiny, stalked leaves that are kidney to heart-shaped. The flowers open in March and April, have eight glossy, butter-yellow petals, and are borne singly on _____.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Delicate stalks that rise above the leaves
E. Herbaceous perennial weed
F. None of the Above

243. _____are produced along the stems of the above ground portions of the plant, but are not apparent until late in the flowering period.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. A milky juice
F. None of the Above

244. When in bloom, large infestations of lesser celandine appear as a green carpet with yellow dots, _____.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Spreading across the forest floor
E. Herbaceous perennial weed
F. None of the Above

245. There are many varieties of lesser celandine including a double-flowered form with many crowded petals and dark green leaves mottled with silvery markings. The primary reproductive method is the formation of turions that are_____.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Produced on the roots in large numbers
F. None of the Above

Leafy spurge

246. Leafy spurge (Euphorbia esula L.) is a creeping, _____of foreign origin that reproduces from seed and vegetative root buds.

A. Herbaceous perennial weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Lettuce, Prickly

247. Plant Description: Prickly lettuce is an erect biennial (_____) that grows as a rosette of basal leaves during its first year.

A. Clump-forming perennial
B. Rarely an annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

248. Each rosette gives rise to a _____that is usually erect and sometimes branched, especially the top portion where small, daisy-like, yellow flowers are borne.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Solitary stem
E. Herbaceous perennial weed
F. None of the Above

249. _____ and have prickly edges and a distinctive row of stiff, sharp prickles on the underside of midribs. Nearly half of the length of each seed consists of a beak having a tuft of silky white hairs (pappus) at the tip.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Stem leaves are irregularly-lobed
F. None of the Above

250. All plant parts exude_____ . The plant reproduces only by seeds.

A. Stem tip
B. Fragmented stems
C. A milky juice when cut or broken
D. A biennial root crown
E. Purple-magenta flowers
F. None of the Above

251. Similar Species: Prickly lettuce can be confused with sowthistles (Sonchus spp.), which have prickly leaf margins but_____.

A. Spikelets
B. Smooth midribs
C. Spreads by rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

252. Tall lettuce (Lactuca canadensis) and tall blue lettuce (Lactuca biennis) look similar to prickly lettuce except they have leaves with smooth edges and_____.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Midribs without prickles
E. Purple-magenta flowers
F. None of the Above

London Rocket

253. London rocket is a European native weed belonging to the mustard family, and is one of the _____ . It is abundant in irrigated land in crops such as alfalfa and small grains, in gardens, citrus orchards, pastures, and along roadsides.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. First winter weeds to appear
F. None of the Above

254. London rocket is a_____. The stems branch from the base 1 to 3 feet high. It has a coarse taproot. Small, yellow flowers are borne on slender stalks in small clusters at the stem tip.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Bright green fleshy winter annual
F. None of the Above

Loosestrife, Purple

255. Plant Description: Purple loosestrife is a _____ plant that forms a dense bush consisting of up to 50 stems arising from a shallow root system, which includes a woody crown and rhizomes (horizontal underground stems).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

256. Location should be considered when characterizing this plant, as it is a much more aggressive weed when growing in wet areas. It can be identified while in bloom by its purple-magenta flowers that form on_____ . Also, upper above-ground parts of the plant should appear densely hairy.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Distinctive terminal spikes
E. Purple-magenta flowers
F. None of the Above

257. Purple loosestrife reproduces by seeds and it spreads by_____.
A. Spikelets
B. Slow growing perennial
C. Rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

Mallow, Common
258. Plant Description: Common mallow is a _____that has been known to sprout a second year from a biennial root crown.
A. Summer or winter annual
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

259. Distinguishing characteristics are the fruits, which resemble tiny wheels of cheese, and kidney-shaped leaves that are shallowly lobed, appear slightly crinkled, have toothed edges, and_____.
A. Spikelets
B. Slow growing perennial
C. Spreads by rhizomes
D. Appear slightly crinkled, have toothed edges
E. Attach to stems by way of long stalks (petioles)
F. None of the Above

260. Reproduction is by seeds, but fragmented stems can _____if conditions remain sufficiently moist for a long enough period of time.
A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Root at the nodes
E. Purple-magenta flowers
F. None of the Above

Mallow, Musk
261. Plant Description: Musk mallow is a _____ with an upright stem that can grow 3 1/2 feet tall and large pink flowers that have 5 petals and appear in clusters at the end of each stem or individually on long stalks attached to stem nodes.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

262. Leaves located at the base of the stem are _____while leaves located further up the stem are deeply dissected into 5 to 7 toothed sections. Leaves and flowers emit a strong musky odor in warm weather or when crushed. Reproduction is by seeds.
A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Rounded and slightly lobed
E. Purple-magenta flowers
F. None of the Above

Matgrass
263. Description: Matgrass is a slow growing _____ bunchgrass that is densely tufted, and long-lived. It produces unbranched flower-spikes that carry the single-flowered spikelets along one side only.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

264. _____are hard and bristle-like, bluish green and up to 1/4 inch wide, appearing narrower because blades are tightly folded along the midrib.
A. Stem tips
B. Fragmented stems
C. Stems are rounded
D. A biennial root crowns
E. Leaves
F. None of the Above

265. Stem tipped by _____ that bear all spikelets on one side of the stems and grows up to eight inches tall. This grass is tightly rooted therefore hard to remove.
A. Inconspicuous spikes
B. Asclepias family
C. Root system
D. Horizontal spreading roots
E. Twining vines, funnel-shaped flowers
F. None of the Above

Milkweed, Butterfly
266. Plant Description: Butterfly milkweed is a _____ member of the Milkweed Family that looks similar to other family members except for its showy orange flowers and watery rather than milky sap. It has upright stems that are hairy, leafy, and branched near the top of the plant. Reproduction is by seeds.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Common
267. Milkweed plants, _____, are the only host plant for the monarch and queen butterflies. The adult females seek out these plants on which they lay their eggs.
A. Inconspicuous spikes
B. Rosette-forming perennial
C. Root system
D. Members of the Asclepias family
E. Twining vines, funnel-shaped flowers
F. None of the Above

268. The caterpillars that hatch will remain on the plants and eat the leaves until they enter the pupal stage, then emerge as adult butterflies. It is a _____ herb with long-spreading rhizomes.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Honeyvine
269. Plant Description: Honeyvine milkweed is a_____. Characteristics distinguishing it from other perennial vines include opposite (2 leaves per node), heart-shaped leaves and whitish, vase-shaped flowers that form in axillary clusters. Also, foliage exudes a cloudy sap if crushed or cut. The plant reproduces by seeds and horizontal spreading roots.
A. Twining perennial vine
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Swamp
270. Plant Description: Swamp milkweed is a_____. Its stems and leaves exude a white milky sap if cut or broken, which is a common characteristic of species in the Milkweed Family.
A. Clump-forming perennial
B. Slender perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Morningglory, Bigroot
271. Plant Description: Bigroot morningglory is a _____ that shares numerous characteristics with other morningglories including twining vines, funnel-shaped flowers, and heart-shaped leaves. Unlike its relatives, bigroot morningglory has a very large and deep taproot. Reproduction is by seeds and creeping roots.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Motherwort
272. Plant Description: Motherwort is a _____that can grow up to 5 feet tall. As with other mint species, it has square stems and its foliage emits a pungent odor if crushed.
A. Stiff-stemmed perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Mugwort
273. Plant Description: Mugwort is one of several closely-related _____with an erect growth form and dissected leaves that generally give off a strong odor.
A. Herbs
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Musk thistle
274. Musk thistle is an aggressive weed of foreign origin that occurs in pastures, rangeland, roadsides and non-crop areas. It is a biennial weed, although occasionally it is_____.
A. Clump-forming perennial
B. An annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Nettle, Stinging
275. Plant Description: Stinging nettle is an erect, herbaceous _____ that is widely known for its unpleasant stinging hairs on the stems and lower leaf surface. It reproduces by wind-dispersed seeds and creeping rhizomes (horizontal underground stems), and grows in dense clumps, often forming large colonies.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Nightshade Bittersweet
276. Plant Description: Bittersweet nightshade is a _____ climbing or trailing vine that reproduces by seeds and rooting at the nodes of the prostrate stems. It can be distinguished from other viney plants by its hollow stems that are woody at the base and oval leaves with pointed tips.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Oblong Spurge
277. Description: Oblong spurge is a weedy escaped ornamental species of Euphorbia. This plant is an exotic _____l herb that produces up to 20 stems on a woody rootstalk with the plants reaching nearly three feet in height.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Old Man's Beard
278. Description: _____; blooms most of summer. Woody deciduous vine with stems growing up to thirty yards long. Leaves opposite and compound, usually with five leaflets.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

279. _____are small, greenish white and found in clusters in the upper leaf axils. Long feathery styles that produce a mass of white during the seed stage are responsible for the plant's name.
A. Rosette of leaves
B. Rosette
C. Shamrock appearance
D. Flowers
E. Submersed leaves
F. None of the Above

280. The characteristic feathery seed heads give this climber its name. Young vines are ribbed and often purple in color. Older vines are woody, often gray/brown in color. _____ flake when bent.
A. Fruits explode
B. An attractive aquatic plant
C. Older vines
D. Base of existing stems
E. Emergent stems
F. None of the Above

Orchardgrass
281. Plant Description: Orchardgrass is a coarse, clump-forming, cool-season _____ grass that starts growing early in the spring. It produces a very characteristically shaped flower head, consisting of rounded clumps of flowers that are borne on a few, stiff branches which jut out to the sides.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

282. This species reproduces by seeds, and clumps can expand by producing new shoots (tillers) from the base of _____.
A. Fruits explode
B. An attractive aquatic plant
C. Higher flow rates
D. Existing stems
E. Emergent stems
F. None of the Above

Oxalis
283. Description: The leaves of oxalis, also called creeping woodsorrel, have a _____and the plant is often mistaken for a clover. At night, or on cloudy days, the leaves may fold up. With the arrival of cooler weather in the fall, leaves turn purplish in color. Occasionally, some plants may have purple leaves all year round.
A. Clump-forming perennial
B. Shamrock appearance
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

284. Oxalis is a prostrate, _____with stems that will take root where they touch the ground. Flowers are small and yellow. When mature, fruits explode, scattering seed several feet away.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Creeping perennial weed
F. None of the Above

Parsnip, Wild
285. Plant Description: Wild parsnip is a _____that looks and smells similar to cultivated parsnip.
A. Biennial or sometimes a perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

286. The plant forms a rosette of leaves during the first year of growth and a_____. During the second year, it produces erect stems that grow 5 feet tall and terminate in umbrella-shaped clusters of small yellow flowers. Wild parsnip reproduces by seeds.
A. Rosette of leaves
B. Large edible taproot
C. Shamrock appearance
D. Emergent stems
E. Submersed leaves
F. None of the Above

Parrots Feather

287. Description: Parrot's feather is _____ with feathery lime-green leaves arranged in whorls on long stems (rhizomes). Flowers are small and white.

A. Fruits explode
B. An attractive aquatic plant
C. Higher flow rates
D. Base of existing stems
E. Emergent stems
F. None of the Above

288. The submersed leaves are limp and often appear to be decaying but the_____. The surface parts of the plants are the most distinctive trait as they can grow up to a foot above the water and look almost like small fir trees.

A. Rosette of leaves
B. Stems are very robust
C. Shamrock appearance
D. Water level fluctuations
E. Submersed leaves
F. None of the Above

289. Parrot's feather is found in freshwater lakes, ponds, streams, and canals and appears to be adapted to high nutrient environments. It tends to _____ or still water rather than in areas with higher flow rates.

A. Fruits explode
B. An attractive aquatic plant
C. Higher flow rates
D. Colonize slowly moving
E. Emergent stems
F. None of the Above

290. The _____can survive on wet banks of rivers and lakeshores, so it is well adapted to moderate water level fluctuations.

A. Emergent stems
B. Rosette of leaves
C. Shamrock appearance
D. Base of existing stems
E. Submersed leaves
F. None of the Above

Paterson's Curse

291. Description: An erect _____ member of the borage family (Boraginaceae) generally 1-3 feet tall. Plants are often multi-branched with an abundance of stout hairs on stems and leaves. Reproduction and spread is by seed.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Perennial Pepperweed

292. Description:_____ ; blooms May to September. Grows 1 to 6 ft. tall. Basal leaves larger than upper leaves, lanceolate, bright green to gray green, entire to toothed.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

293. Flowers white, very small, and _____ near the ends of branches; flowers produce a distinctive odor. Seed very small, flattened, slightly hairy, and reddish brown.

A. Is not allergenic
B. An oil
C. Rhizomes
D. Umbrella-shaped clusters
E. Form dense clusters
F. None of the Above

Poison Hemlock

294. Plant Description: Poison hemlock is a biennial that produces leaves in a basal rosette during its first year and forms an upright flower stalk when it bolts during the second year of growth.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Poison Ivy
295. Plant Description: This is a _____distinguished by its leaves that have three leaflets. The stalk attached to the middle leaflet is considerably longer than that attached to either of the two outer leaflets. It grows in a variety of forms including trailing, shrubby, or as a vine.
A. Deciduous woody perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Pokeweed, Common
296. Plant Description: Common pokeweed is a large, bushy, _____ that sometimes resembles a small tree, growing up to 10 feet in height. It is characterized by an enormous taproot, smooth succulent red-purple stems, large lance-shaped leaves and grape-like clusters of dark purple berries in the fall. This species reproduces from seeds.
A. Herbaceous perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

297. Root system - Common pokeweed produces a large, _____ (4 to 6 inches in diameter).
A. New shoots D. Herbaceous perennial
B. Roots E. Fleshy, white taproot
C. Few raw berries F. None of the Above

298. Toxicity: All parts of common pokeweed are toxic to humans, pets and livestock. Roots are the most poisonous, _____ are intermediate in toxicity (toxicity increases with maturity), and berries are the least toxic.
A. Leaves and stems D. Herbaceous perennial
B. Roots E. White taproot
C. Few raw berries F. None of the Above

299. Since common pokeweed is_____, most animals avoid eating it unless little else is available, or if it is in contaminated hay.
A. Not very palatable D. An herbaceous perennial
B. Very palatable E. A white taproot
C. Toxic F. None of the Above

300. Horses, sheep and cattle have been poisoned by eating fresh leaves or green fodder, and pigs have been poisoned by eating the roots. Children are most frequently poisoned by eating _____.
A. The stems D. This herbaceous perennial
B. Roots E. The taproot
C. Raw berries F. None of the Above

You are finished with your assignment.

Weed Identification and Control Assignment #4
Last Names R-Z

You will have 90 days from the start of this course to have successfully passed this assignment with a score of 70 %. You may e mail the answers to TLC, info@tlch2o.com or fax the answers to TLC, (928) 272-0747. This assignment is available to you in a Word Format on TLC's Website. You can find online assistance for this course on the in the Search function on Adobe Acrobat PDF to help find the answers. Once you have paid the course fee, you will be provided complete course support from Student Services Dr. Rusty Randall or Dr. Bubba Jenkins (928) 468-0665.

Write your answers on the Answer Key found in the front of this assignment.
ASSIGNMENT INSTRUCTIONS
1. We will require all students to fax or e-mail a copy of their driver's license with the registration form.
2. You will need to pick one of the following five assignments to complete. This selection process is based upon your last name. If your last name begins with an A to E, you will pick assignment number 1, if your last name begins with the letter F to L, you are to complete assignment number 2 and if your last name begins with the letter M-Q, you will pick assignment number 3 and if your last name begins with the letter R-Z, you will pick assignment number 4.

Multiple Choice assignment, please select one answer and mark it on the answer key. The answer must come from the course text. (s) means answer can be plural or singular. There are no intentional trick questions

What is a Weed?
Generally, the term weed is used to describe any plant that is unwanted and grows or spreads aggressively.

1. Terms such as _____are used somewhat interchangeably to refer to weeds that infest large areas.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Invasive, exotic or non-native
F. None of the Above

Noxious Weed
2. Millions of acres of once healthy, productive rangelands, forestlands and riparian areas have been overrun by _____.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Plants non-native to North America
E. Plant species
F. None of the Above

What is a noxious weed?
3. The term "_____" means different things to different people. In the broadest sense, it is any plant growing where it is not wanted.
A. Non-native (or alien)
B. No natural enemies
C. Noxious weeds
D. Native vegetation
E. Weed
F. None of the Above

4. The _____mandated for control are plants non-native to North America. Consequently, these plants do not have the natural checks as found in their native land, such as insects, diseases, and herbivores that would keep the plant population in check.
A. Noxious or invasive weeds
B. Invasive or non-invasive
C. Noxious or not noxious
D. Noxious weeds
E. Plant species
F. None of the Above

5. Due to the competitive aggressive ability of these plants, coupled with no natural controls, these plants will develop mono-culture stands. Not only are many _____out competed by these weeds, but native vegetation and the wildlife associated with it will be replaced.
A. Noxious or invasive weeds D. Crops
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

6. Consequently, identifying the weeds when they first become established and developing an integrated weed management plan to control them is critical in maintaining healthy, productive land. The term _____is used to describe a legal designation for plant species that have been determined to be especially undesirable or difficult to control.
A. Noxious weed D. Plants non-native to North America
B. Invasive or non-invasive E. Plant species
C. Noxious or not noxious F. None of the Above

7. These weeds are subject, by law, to certain restrictions. Regulated by the U.S. Department of Agriculture, there are_____.
A. Non-native (or alien) D. Native vegetation
B. No natural enemies E. Natural controls
C. 90 federal noxious weeds F. None of the Above

8. _____include not only noxious weeds, but also other plants that are not native to this country.
A. Noxious or invasive weeds D. Plants non-native to North America
B. Invasive plants E. Plant species
C. Noxious or not noxious F. None of the Above

9. Plants are _____if they have been introduced into an environment where they did not evolve. As a result, they usually have no natural enemies to limit their reproduction and spread.
A. Non-native (or alien) D. Considered invasive
B. No natural enemies E. Natural controls
C. Noxious weeds F. None of the Above

10. Some _____can produce significant changes to vegetation, composition, structure, or ecosystem function.
A. Noxious or invasive weeds D. Plants non-native to North America
B. Invasive plants E. Plant species
C. Noxious or not noxious F. None of the Above

What is an Invasive Species?
11. An ' _____' is defined as a species that is 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
A. Non-native (or alien) D. Native vegetation
B. No natural enemies E. Invasive species
C. Noxious weeds F. None of the Above

Understanding Weed Terms
12. _____ is, simply put, all life on earth, even that which has yet to be discovered. More specifically, it includes the millions of diverse species, from bacteria to whales that share the earth's lands and waters with us.
A. Cultivar(s) D. Exotic (introduced) plant
B. Biological Management E. Ornamental plant
C. Biodiversity F. None of the Above

13. _____ Biological control is the deliberate use of the pest's natural enemies - predators, parasites, and pathogens - to reduce the pest population below damage levels.
A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

14. _____: When exploring chemical control options, you should select the lowest risk and most effective products. The key is to use pesticides in a way that complements rather than hinders other elements in the strategy and which also limits negative environmental effects.
A. Cultivar(s)
B. Biological Management
C. Chemical Control
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

15. _____: Short for “cultivated variety.” A plant “variety” developed by man via plant selection and/or genetic manipulation to exhibit a set of plant characteristics.
A. Cultivar
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

16. _____ are maintained via controlled pollination or vegetative means, so that cultivar characteristics are passed to ensuing generations.
A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

17. _____: Cultural practices are a manipulation of the habitat environment to increase pest mortality or reduce rates of pest increase and damage.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

18. There are many different cultural practices that can help to reduce pest impact such as selection of pest resistant varieties of crops, mulching, winter cover crops, changing planting dates to minimize insect impact, burning, flooding, crop rotations that include_____, moisture management, addition of beneficial insect habitat, or other habitat alterations.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Non-susceptible crops
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

19. _____: Short for “ecological variety.” A plant “variety” developed by man from a collection of plants of a native species that were selected from several to many natural populations in a specific region.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

20. The purpose is to have high genetic diversity in the parent collection, which reflects the natural diversity within that species in the defined region. To maintain genetic diversity in ensuing generations, little to no selection is done during the _____ development process.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

21. _____: An exotic plant species that is able to invade and overrun native ecosystems. Some native plants can become invasive under certain conditions, but most invasive species are introduced (exotic).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

22. _____: The most important aspect of an alien plant is how it responds to a new environment. An invasive species is one that displays rapid growth and spread, allowing it to establish over large areas. Free from the vast and complex array of natural controls present in their native lands, including herbivores, parasites, and diseases, exotic plants may experience rapid and unrestricted growth in new environments.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

23. _____is enhanced by features such as strong vegetative growth, abundant seed production, high seed germination rate, long-lived seeds, and rapid maturation to a sexually reproductive (seed-producing) stage. Invasive plants reproduce rapidly, either vegetatively or by seed. Their phenomenal growth allows them to overwhelm and displace existing vegetation and form dense one-species stands.

A. Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

24. Some of the key components to a successful _____ program include the following: Identify current and potential pest species, their biology, and conditions conducive to the pest(s) (air, water, food, shelter, temperature and light).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. IPM
F. None of the Above

25. Understand the physical and _____that affect the number and distribution of pests and their natural enemies.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Biological factors
F. None of the Above

26. _____: Mechanical or physical control methods involve using barriers, traps, or physical removal to prevent or reduce pest problems.

A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

27. Tactics may include using row covers or trenches to prevent insects from reaching the crop, baited or pheromone traps to capture insects, or _____or mowing for weed control.

A. Source-identified seed
B. Noxious Weeds
C. Cultivation
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

28. _____: A plant species that is found in a region because it developed and evolved in that region over thousands of years. Plants that existed in a region prior to settlement.

A. Source-identified seed
B. Noxious Weed
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

29. _____: An exotic plant that was introduced into an area, escaped from cultivation and reproduces on its own (includes exotic invasive plants). Many plants commonly thought to be natives were actually introduced by early settlers.

A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

The Invasive Problem

Invasive Species

30. The term “native” is used to describe plants that were growing here before the arrival of Europeans. Exotics are those that do not naturally occur in an area but have been introduced by people. Many exotic species pose no threat, but some are invasive and grow out of control — displacing _____ which provide food and shelter for an assortment of native wildlife.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Native plants
F. None of the Above

31. It is not always possible to predict if or when a species will become a _____(for example, Japanese honeysuckle was planted as an ornamental for 80 years before it escaped cultivation!), but a red flag should run up at any non-native with fleshy fruits dispersed by birds.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Pest plant
F. None of the Above

Impacts of Invasive Alien Plants

32. _____ are one of the greatest threats to the natural ecosystems of the U.S. and are destroying America's natural history and identity.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

33. These _____are disrupting the ecology of natural ecosystems, displacing native plant and animal species, and degrading our nation's unique and diverse biological resources.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Unwelcome plants, insects and other organisms
F. None of the Above

34. _____ reduce the amount of light, water; nutrients and space available to native species, alter hydrological patterns, soil chemistry, moisture-holding capacity, and erodibility, and change fire regimes.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

35. _____are capable of hybridizing with native plant relatives, resulting in unnatural changes to a plant's genetic makeup; others have been found to harbor plant pathogens, such as bacterial leaf scorch (Xylella fastidiosa) that can affect both native and non-native plants, including ornamentals.

A. Some native plants
B. Some exotics
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

Impacts to Native Fauna

36. Our native fauna, including insects, birds, mammals, reptiles, fish and other animals, is dependent on native plants for food and shelter. While some animals have a varied diet and can feed on a wide number of_____, others are highly specialized and may be restricted to feeding on several or a single plant species.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Plant species
E. Invasive species
F. None of the Above

37. Caterpillars of the monarch butterfly have evolved to feed primarily on plants in the genus Asclepias (milkweeds) that contain special chemicals. The term host plant is generally used to describe a plant species that is required food for at least one stage of an insect or other animal. As exotic plants replace our native flora, fewer host plants are available to provide the necessary nutrition for _____.

A. Some native plants
B. Exotic plants
C. Our native wildlife
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

Disturbance Effects

38. _____are especially problematic in areas that have been disturbed by human activities such as road building, residential development, forest clearing, logging operations, grazing, mining, ditching of marshes for mosquito control, mowing, erosion control and fire prevention and control activities.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Invasive species
F. None of the Above

39. _____, such as fires, floods, tornadoes, landslides, and tree falls also provide avenues for invasive species to get started. The enormity of change wrought upon the American landscape over the past few hundred years has thrown things out of balance.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

40. Lacking_____, native species and ecosystems benefit from natural disturbances that provide opportunities for genetic mixing and nutrient recycling, and reduce fuel loadings.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Exotic species
E. Invasive species
F. None of the Above

41. _____ display invasive growth tendencies in their native ranges, often as a response to natural or human-caused disturbances. For example, native grape vines in forests may grow vigorously in response to a tree fall or selective timber cut that opens the canopy and brings abundant sunlight into previously shaded areas.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Native plant relatives
F. None of the Above

42. This "invasive" growth spurt is usually temporary though, and slows down again as trees and other plants fill in and the forest canopy is recovered. The best way to reduce plant invasions is to focus on preventing non-native species introductions, _____, minimizing disturbance to forests, wetlands, barrens and other natural communities.

A. Aggressive invaders
B. Invasive non-native organisms
C. Managing existing infestations
D. Our native fauna
E. Invasive species
F. None of the Above

Importance of Native Plants

43. Approximately 18,000 plants are native to the ecosystems of North America. Our native flora (i.e., all U.S. native plants) provides the foundation of the _____and defines the various ecosystems and regions of the country. These plants also provide natural sources of food and fiber, and were the essential sources of nutrition and other materials for native American Indians.

A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Historic American landscape
F. None of the Above

44. The _____have been greatly reduced as a result of human encroachment which has destroyed many millions of acres of natural habitat. In the U.S. alone, about 200 native plant species have become extinct since the 1800's and 5,000 species are considered to be at risk. Invasions of non-native plants are the second greatest threat to native species after direct habitat destruction.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Populations of many native plants
E. Invasive species
F. None of the Above

Recognize the major plant characteristics used to identify weeds.

45. _____: Lower part of the leaf that is attached to the node.

A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

46. _____: Located where the blade and the sheath meet.

A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

47. _____:Region of nodes with tightly compacted internodes.

A. Collar
B. Crown
C. Node
D. Auricle
E. Shoot
F. None of the Above

48. _____:The region between the nodes

A. Collar
B. Internode
C. Node
D. Auricle
E. Shoot
F. None of the Above

49. _____:Enlarged areas at intervals along the stem and also the part of the plant where buds are attached.

A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

50. _____:Underground stems that grow laterally.

A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

51. _____:Attachment of the plant to the soil that absorbs minerals and water needed for the plants survival.

A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

52. _____:Aboveground stems that grow laterally.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

53. _____:Characteristic of the grass that describes how the new blades emerge from the sheath as growth occurs.
A. Sheath D. Rhizomes
B. Ligule E. Vernation
C. Blade F. None of the Above

54. _____:The aboveground parts of the plant.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

55. _____:A structure that grows from the collar area on the inner side of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

56. _____:An appendage that grows from the edge of the collar and may wrap around the stem.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

57. _____:The upper part of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

Commonly Found Weed Section
A-Z Common Names
Artichoke, Jerusalem
58. Plant Description: It is nearly impossible to distinguish Jerusalem artichoke from annual sunflowers based on above-ground growth. Jerusalem artichoke has a coarse, 5- to 10-foot tall stem, large leaves with a rough upper surface, and_____.
A. Compositae Family D. Creeping plant with compound leaves
B. Perennial weed E. Bright yellow sunflower-like flowers
C. An herbaceous perennial F. None of the Above

59. Jerusalem artichoke can be easily distinguished from annual sunflowers by its below-ground growth that includes fleshy tubers resembling thin, knotty potatoes. Reproduction of Jerusalem artichoke is by seeds, rhizomes (_____), and tubers.
A. Five individual petals D. Multi-branched and bushy perennial
B. Allelopathic chemicals E. Horizontal underground stems
C. Fleshy tubers F. None of the Above

Asparagus, Wild
60. Plant Description: Wild asparagus is an herbaceous perennial, well-known for its edible young shoots. Mature plants have a_____, and reproduce by seed.
A. Distinctive fern-like appearance D. Creeping plant with compound leaves
B. Perennial weed E. Annual sunflowers
C. An herbaceous perennial F. None of the Above

Aster, White-Heath

61. Plant Description: White heath aster is a _____that can frequently be seen growing by the side of the road as a clump of upright stems with wand-like spreading branches. In late August, small white flowers cover the top half of the plant.

A. Five individual petals
B. Allelopathic chemicals
C. Perennial weed
D. Multi-branched and bushy perennial
E. An herbaceous perennial
F. None of the Above

Austrian Peaweed

62. Identification: Perennial; flowers from May to July. A creeping plant with compound leaves; numerous leaflets oval and covered in hair. Flowers 1/4 to 1 inch long and orange-red. Many seeds in _____.

A. Bladder-like translucent pods
B. Perennial weed
C. An herbaceous perennial
D. Creeping plant with compound leaves
E. Annual sunflowers
F. None of the Above

Bamboo

63. _____thrive in sun or light shade if provided with abundant moisture and rich soil. Where drought may be expected or in hot interior climates, some shading would be beneficial for most varieties. Established plants withstand flooding.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Phyllostachys species
F. None of the Above

Bedstraw, Smooth

64. Plant Description: There are at least 30 different bedstraws in North America, and many are perennials like smooth bedstraw that produce sprawling tangled mats from which _____.

A. Rhizomes
B. A few erect stems arise
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

65. The typical bedstraw leaf is linear and _____consisting of as many as 8 leaves at nodes on the stem.

A. Leaves alternate and compound
B. Spreading rhizomes
C. Formed in whorls
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

66. Smooth bedstraw is the _____with 8 leaves at each node on main stems and 6 to 8 leaves at nodes on branches.

A. Rhizomes
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Only white-flowered form
F. None of the Above

67. Reproduction is by seeds and underground, spreading rhizomes (_____).

A. Leaves alternate and compound
B. Spreading rhizomes
C. Horizontal underground stems
D. Nodes on the stem.
E. New plants are very fragile and easy to destroy
F. None of the Above

Related Information:

68. The common name 'bedstraw' has two possible origins: the dried plant was used to stuff mattresses; it is said that bedstraw was placed in the _____when Jesus was born. John 3:16

A. Manger at Bethlehem
B. Bedstraw
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

Biddy-biddy

69. Description: Perennial that grows four to eight inches tall. Biddy-biddy spreads by stolons that root at the nodes and plants form large mats where individual plants are indistinguishable. The plant stems are _____ depending on conditions.

A. Rhizomes
B. Prostrate to erect
C. Large mats
D. Sprawling tangled mats
E. Nodes on branches
F. None of the Above

Bindweed, Field

70. Field bindweed can be spread by seed, _____, farm implements, infested soil adhering to the roots of nursery stock, root growth from infested areas, and by animals.

A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Root fragments
E. Root growth
F. None of the Above

Bindweed, Hedge

71. Plant Description: Hedge bindweed is a_____.

A. Twining perennial vine
B. Bindweed foliage
C. Vine
D. Dense ground cover
E. Root
F. None of the Above

72. Characteristics distinguishing it from other vines include arrowhead-shaped leaves that have pointed tips, pinkish petals fused into funnel-shaped flowers, the presence of large bracts enclosing the base of each flower, and_____.

A. Large bracts
B. Creeping perennial roots
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

73. The plant reproduces by seeds and _____.

A. Short-lived perennial
B. Stolons
C. A unique flower
D. Creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Bindweed, Japanese

74. Plant Description: Japanese bindweed is a_____. Its appearance is similar to that of hedge bindweed except it has smaller flowers and the bracts enclosing the base of each flower are smaller.

A. Large bracts
B. Creeping perennial
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

75. The _____that escaped cultivation has a distinctive double flower. Compared with other bindweed flowers, this is a unique flower in that it has twice the number of petals and looks similar to a rose or carnation.

A. Short-lived perennial
B. Stolons
C. Weedy form
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Birdsfoot Trefoil

76. Plant Description: Birdsfoot trefoil has a perennial root crown and stems that die back each winter. The species is characterized by _____consisting of 3 clover-like leaflets at the tip separated by a short stem from 2 smaller leaflets at the base. Its flowers are yellow, clover like, and in groups of 2 to 6. They are arranged such that, when pods form, they resemble a bird's foot.

A. Large bracts
B. Compound leaves
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

Black medic

77. Black medic is an annual, _____or short-lived perennial.

A. Biennial
B. Stolon
C. A unique flower
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

Blue Mustard

78. Blue mustard is a winter annual that germinates in the fall and produces a _____with deeply lobed leaves, similar in appearance to a dandelion.

A. Beak
B. Germinate
C. Rosette
D. Physical destruction of a weed
E. Large patche
F. None of the Above

79. Blue mustard bears _____in March through April. Leaves on the flowering stems are coarsely toothed and have wavy margins.

A. Wavy margins
B. Application
C. Bladder-like calyx
D. Purple or blue flowers at the top of the plant
E. A soap like lather
F. None of the Above

80. The plant may grow from 1 to 1 1/2 feet in height. Two-inch long, bean-like seedpods (siliques) that resemble "_____" mature in early summer.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

81. Control: Herbicides are most effective if applied before_____. In the spring, while it is actively growing, this weed can be controlled with an application of 2,4-D.

A. Wavy margins
B. Application of 2,4-D
C. Bladder-like calyx
D. Weeds start to bolt in the spring
E. A soap like lather when mixed with water
F. None of the Above

82. Mechanical Weed Control: Mechanical weed control involves the_____.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

83. Techniques involve hand pulling and hand hoeing which are practical for small infestations. Mowing is often used; but by far, the most common practice of mechanical control includes _____.

A. Beaks
B. Germinates
C. Tillage
D. Physical destruction of a weed
E. The tendency to form large patches
F. None of the Above

Bouncingbet

84. Plant Description: Bouncingbet is a_____, a dense show of fragrant phlox-like flowers in summer, and the tendency to form large patches.

A. Beaks
B. Germinates
C. Tillage
D. Perennial characterized by smooth leafy stems
E. The tendency to form large patches
F. None of the Above

Brackenfern

85. Plant Description: Brackenfern is a large, coarse, perennial fern that has almost horizontal leaves and can grow 1 1/2 to 6 1/2 feet tall (sometimes up to 10 feet). Unlike our more_____, this primitive perennial lacks true stems.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Typical broadleaf perennials
F. None of the Above

Brambles

86. Plant Description: Brambles are a diverse group of_____, shrubs or trailing vines, that are noted for their prickly stems and berry-like, usually edible fruits.

A. Primitive perennial lacks true stems
B. Roots are perennial
C. Flowering spikes
D. Dense patches like bouncingbet
E. Perennial herbs
F. None of the Above

Broadleaf Plantain

87. Broadleaf Plantain is a_____. It has broad leaves with prominent veins. The leaves are arranged in a rosette and may smother lawn grass.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. Low growing perennial
F. None of the Above

Brome, Smooth

88. Plant Description: Smooth brome is a sod-forming, perennial grass, distinguished by long, slender, bronze- or purple-tinted flower clusters that make up the flower head. This species spreads by seeds and dark-colored rhizomes (_____).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Horizontal underground stems
F. None of the Above

Broom, French

89. Description: Perennial; blooms April to June. Grows three to ten feet tall. Evergreen shrub similar to Scotch broom except plants do not grow as erect, leaves are retained the entire year, leaves trifoliate and more numerous, and_____.

A. Larger yellow flowers
B. Evergreen shrub
C. Yellow flowers smaller
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Impacts: This plant, _____, takes advantage of land disturbances to establish and spread.

90. In California, large infestations displace native plant species and significantly increase the costs of reforestation in commercial timberlands.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, Portuguese

91. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Evergreen shrub similar to Scotch broom except pods inflated and hairy all over,_____.

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Giving appearance of pussy willow buds
F. None of the Above

Broom, Scotch

92. Description: Perennial; blooms April to June. Grows 3 to 10 feet tall. Evergreen shrub with many slender, erect, dark green angled branches with small, simple leaves. Abundant small, yellow, _____.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Pea-shaped flowers
E. An aggressive pioneer species
F. None of the Above

93. Easily confused with_____. Spanish broom (S. Junceum) has round stems, very few leaves, and larger yellow flowers.

A. Spanish broom
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Broom, Spanish

94. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Similar to Scotch broom except stems thicker and rougher, it has very few leaves, and flowers larger and_____.

A. Fewer in number
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broomsedge

95. Plant Description: Broomsedge is a clump-forming perennial grass that is most noticeable in the fall, when its stems and leaves turn a_____. It reproduces by seed and short rhizomes (horizontal underground stems).

A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Distinctive orangish-tan to reddish-brown color
E. Except pods inflated and hairy all over
F. None of the Above

96. Root system - Dense, fibrous roots are produced from _____(horizontal underground stems).

A. Short rhizomes
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Buffalo Bur

97. Buffalo bur, sometimes called Kansas thistle and_____, is a tap rooted annual weed. It bears long, yellow spines on stems, leaves, and flower heads and can grow up to 2 feet high. Drought resistant, its highest occurrence is in dry, exposed soil.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Prickly nightshade
F. None of the Above

98. The oblong leaves are 2-3 inches long with _____and are covered with very dense, stiff, and sharp spines.

A. Bright yellow flowers
B. Deep rounded lobes
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

99. Bright yellow flowers can be seen in summer. In the fall, berries up to 3/8 inch in diameter are enclosed in the _____and are filled with black, wrinkled, flat pitted seeds.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Dried flower parts
F. None of the Above

100. Control of this plant is important, as it is a host for the Colorado potato beetle. When mature, the main stem breaks near the ground and the plant rolls like_____, widely scattering the 8500 seeds that each plant produces.

A. Bright yellow flowers
B. Tumbleweed
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

101. Herbicides should be applied between_____. Dicamba, Triclopyr and 2,4-D can be effective in controlling Buffalo bur. Glyphosate in a 2% solution can be applied as a spot treatment.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Late bud to early flower
F. None of the Above

Butterfly Bush

102. Description:_____; flowers mid to late summer. Grows up to 10 feet tall. Leaves narrow, opposite and green to blue-gray.

A. Bright yellow flowers
B. Perennial shrub
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

103. _____ lilac-like but come to a more definite point. Flowers small and purple.

A. Five equal lobes
B. Perennial herb
C. Flower heads
D. Flat pitted seeds
E. Kansas thistle and prickly nightshade
F. None of the Above

104. Impacts: This plant is a pioneering species that dominates open habitats. It poses an ecological threat to dry-land meadows, open slopes and dunes, dominating these sites as much as _____has historically. It also invades reforested sites, resulting in a loss of forest productivity.

A. Bright yellow flowers
B. Colorado potato beetle
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

Bugloss, Common

105. Description: Perennial herb; flowers May to October. Grows one to two feet tall._____; overall plant is coarsely hairy.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Stems and leaves fleshy
F. None of the Above

106. Basal leaves are_____; mid leaves are progressively smaller up the stem, and the upper leaves are sessile (no petiole) or clasping.

A. Bright yellow flowers
B. Narrowly oblong
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

Bull Thistle

107. Description: An upright biennial. Young seedling leaves are oblong in shape, but mature _____ are saw-toothed and spiny with cottony hairs on the undersurface.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

Burdock, Common

108. Plant Description: Common burdock is a biennial that grows as a _____the first year and then produces a 5-foot-tall, erect, bushy flowering stem.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Rosette of leaves
E. Leaf axils on the flower stem
F. None of the Above

Buttercup, Creeping

109. Plant Description: Creeping buttercup is a low-growing, rosette-forming, spreading perennial. It is characterized by _____and creeping horizontal stems (stolons) that root at the nodes to form new rosettes.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. 3-parted leaves
E. New rosettes
F. None of the Above

Buttercup, Tall

110. Plant Description: Tall buttercup is a perennial weed characterized by erect stems and deeply lobed leaves. This species reproduces only_____.

A. By actively growing plants
B. By perennial weeds
C. By seeds
D. By rhizomes
E. By rosettes
F. None of the Above

Impacts

111. _____can dominate a pasture or meadow given the opportunity, especially with acid soils and/or over-grazing. It could hinder colonization by native species in a prairie or grassland habitat if it were allowed to invade and spread.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Tall buttercup
E. New rosettes
F. None of the Above

112. The main impact is to livestock. _____are toxic to grazing animals, who can suffer from salivation, skin irritation, blisters, abdominal distress, inflammation, and diarrhea.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Fresh buttercup plants
E. New rosettes
F. None of the Above

113. Fortunately, _____ has a strong, bitter taste so animals generally try to avoid it if more palatable

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Fresh plants
E. New rosettes
F. None of the Above

Camelthorn

114. Description: Perennial; flowers June to July. Grows 1 1/2 to 4 feet tall. Stems greenish with _____ 1/4 to 1 3/4 inches long.

A. Actively growing plants
B. Perennial weed
C. Toxic
D. Slender spines
E. Perennial
F. None of the Above

115. Leaves wedge-shaped, hairless on the upper surface, 1/4 to 1 1/4 inches long. _____small, pea-like, pinkish purple to maroon, occur on short, spine-tipped branches along the upper portion of the plant.

A. Spine-tipped branches
B. Buttercup
C. Creeping buttercup
D. Flowers
E. New rosettes
F. None of the Above

116. _____curved upward, deeply indented with each seed clearly outlined in the pod.

A. Actively growing plants
B. Perennial weed
C. Reddish-brown jointed seed pods
D. Some mature plants
E. Perennial
F. None of the Above

Campion, White

117. Plant Description: White campion can be a winter or summer annual, biennial, or_____.

A. Short-lived perennial
B. Reproduction
C. Leaves are lance-shaped
D. Winter or summer annual, biennial
E. Creeping perennial weed
F. None of the Above

118. This species is characterized by _____and showy white flowers, whose petals emerge from a green, inflated, bladder-like structure (calyx).
A. Bladder-like structure (calyx)
B. Downy foliage
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

119. Reproduction is primarily by seeds, although fragmented segments of the _____can give rise to new plants.
A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Root crown
E. Creeping perennial weed
F. None of the Above

Canada Goldenrod
120. Plant Description: Canada goldenrod is a perennial distinguished by numerous small yellow flowers located in _____at the top of individual, unbranched, leafy stems.
A. Bladder-like structure (calyx)
B. Perennial
C. Pyramid-shaped clusters
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

121. Flowers are crowded onto _____that originate at a central axis and are arranged more or less horizontally.
A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Numerous backward-curved stalks
E. Creeping perennial weed
F. None of the Above

122. Leaves are_____, hairless on the upper surface, hairy underneath, and sharply toothed on the edge.
A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Lance-shaped, tapered at both ends
E. Creeping perennial weed
F. None of the Above

123. Leaves are described as being 3-nerved, meaning the midrib and 2 parallel lateral veins are prominent. Plants reproduce by way of short rhizomes (horizontal underground stems) emerging from the base of aerial stems and by_____.
A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Wind dispersed seeds
E. Creeping perennial weed
F. None of the Above

Canada Thistle
124. Canada thistle (Cirsium arvense) is an aggressive, creeping perennial weed that infests crops, pastures, rangeland, roadsides and_____. Generally, infestations start on disturbed ground, including ditch banks, overgrazed pastures, tilled fields or abandoned sites.
A. Bladder-like structure (calyx)
B. Non-crop areas
C. Cool-season perennial
D. Is an aggressive, creeping perennial weed
E. In infestations
F. None of the Above

125. Canada thistle reduces forage consumption in _____because cattle typically will not graze near infestations.
A. Pastures and rangeland
B. Perennial
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

126. Canada thistle is a creeping perennial that reproduces from vegetative buds in its root system and from seed. It is difficult to control because its _____allows it to recover from control attempts.
A. Creeping perennial D. Extensive root system
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

127. Combining control methods is the best form of Canada thistle management. Persistence is imperative so the weed is continually stressed, forcing it to exhaust_____.
A. Creeping perennial D. Root nutrient stores and eventually die
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

128. Herbicides such as glyphosate can be painted on thistle leaves. _____will be needed. Herbicides such as triclopyr + clopyralid or 2,4-D combinations can be sprayed on thistle foliage; repeat applications may be needed at 6 week intervals.
A. Creeping perennial D. Herbicide applications
B. Canada thistle management E. Repeat applications
C. Applying any pesticide F. None of the Above

129. The most effective times for herbicide applications are spring, just after the green shoots appear, or in August/September. Always read the label before_____.
A. Applying any pesticide D. Herbicide applications
B. Canada thistle management E. Repeat applications
C. Repeat applications F. None of the Above

Canarygrass
130. Plant Description: Reed canarygrass is a tall, coarse, sod-forming, cool-season perennial, characterized in summer by its two-tone appearance of golden seedheads atop green foliage. It reproduces through seeds and more typically by _____(horizontal underground stems). This species tends to grow in clumps 3 feet or more in diameter, and can form large, dense colonies.
A. Bladder-like structure (calyx) D. Seed
B. Perennial E. Vigorous rhizomes
C. Cool-season perennial F. None of the Above

Carrot, Wild
131. Plant Description: Wild carrot is a biennial that looks and smells similar to_____. Its distinctive fern-like foliage forms a rosette during the first year.
A. Creeping perennial D. Cultivated carrot
B. Canada thistle management E. Fern-like foliage
C. Repeat applications F. None of the Above

132. During the second year of growth, it produces a succession of _____that terminate in umbrella-shaped clusters of small white flowers.
A. Mat-forming species D. Hairy flower stalks
B. Reproduces by seeds E. Leaf-like bracts and branches
C. Heart-shaped leaves appear F. None of the Above

133. A distinctive feature of wild carrot is the appearance of a dark purple flower (rarely several flowers) in the center of most flower clusters. Once flowers mature and_____, the flower cluster closes forming a cuplike bird's nest. Wild carrot reproduces by seeds.
A. Seeds begin to develop D. Unbranched plant with yellow flowers and leaves
B. Reproduces by seeds E. Perennial that initially grows as a rosette
C. Typically lance-shaped F. None of the Above

Catnip

134. Plant Description: Catnip is _____best known for the minty odor emitted by its leaves and stems when they are crushed or wilted. The odor is very attractive to cats.

A. An erect perennial
B. Reproduced by seeds
C. Heart-shaped
D. In the Mint Family
E. Leaf-like
F. None of the Above

135. Other distinctive characteristics are _____and the serrated appearance of the leaf edges, which resembles the toothed edge of a saw.

A. Downy foliage
B. Reproduced by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

136. The flower shape is common among members of the mint family consisting of 2 lips, and flower color is white with unusual purple dots. Along with most members of the Mint Family, catnip has square stems. This species reproduces by seeds and _____(horizontal underground stems).

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. It also produces short rhizomes
E. Leaf-like bracts and branches
F. None of the Above

Catsear, Common

137. Plant Description: Common catsear is a perennial with a growth form similar to that of dandelion; its leaves form a basal rosette and it produces_____. Leaves of common catsear are typically lance-shaped with irregular rounded lobes and hairs on both the upper and lower surfaces.

A. Either an annual
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Yellow head-like flowers at the tips of upright stems
F. None of the Above

138. Emerging from the rosette are _____that usually have leaf-like bracts and branches. At the tips of the branches are 1-inch-wide flower heads composed of many tubular, yellow flowers.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Wiry hairless stems
E. Leaf-like bracts and branches
F. None of the Above

139. Common catsear reproduces by seeds and vegetatively by way of _____that can produce new plants if separated.

A. Buds formed on the crown
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Chickweed, Mouseear

140. Plant Description: Mouseear chickweed is a creeping, mat-forming species that normally behaves as a perennial; however, it is possible for it to exist as an annual. Plants reproduce by seeds and roots growing from the_____. It tends to form dense patches.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Nodes of stems
E. Leaf-like bracts and branches
F. None of the Above

Chicory

141. Plant Description: Chicory is _____that initially grows as a rosette of irregularly-toothed basal leaves. Then, later in the season, leafless stems emerge with sky-blue daisy-like flowers scattered along their length.

A. Either an annual
B. Reproduces by seeds
C. A perennial
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

142. Flowers open each morning and close as sunlight increases in intensity around noon. Only a few flower heads open at a time and each head opens for a single day. Chicory_____.
A. Is a mat-forming species
B. Reproduces by rhizomes
C. Has heart-shaped leaves
D. Reproduces by seeds
E. Has leaf-like bracts and branches
F. None of the Above

Cinquefoil, Rough
143. Plant Description: Rough cinquefoil behaves as either an annual if growing in cultivated ground, a biennial when growing in less disturbed sites, or_____.
A. A short-lived perennial
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

144. It grows as a _____ at the beginning of the season, but later forms an upright, hairy, robust stem with yellow flowers. Leaves consist of 3 coarsely-toothed, hairy leaflets. Rough cinquefoil reproduces by seeds.
A. Mat-forming species
B. Seed
C. Heart-shaped leaf
D. Rosette
E. Leaf-like bract
F. None of the Above

Cinquefoil, Sulfur
145. Plant Description: Sulfur cinquefoil is a perennial. It is an erect, hairy, generally unbranched plant with yellow flowers and leaves consisting of_____.
A. 5 to 7 coarsely-toothed leaflets
B. Seeds
C. Roots
D. Unbranched plant with yellow flowers and leaves
E. Rosette
F. None of the Above

Colts Foot
146. Plant Description: Coltsfoot is a_____. Its flowers are the same color, size, and shape as dandelion flowers, and the two species are easily confused while in bloom if viewed from a distance.
A. Mat-forming species
B. Reproducer of seeds
C. Yellow-flowered perennial
D. A member of the Mint Family
E. Wooly vegetative stem
F. None of the Above

147. Coltsfoot blooms so early that the flowers have already come and gone by the time leaves emerge. Also, coltsfoot flowers appear at the tips of 1/8-inch-thick stems that are wooly and covered with _____ giving them an appearance similar to that of asparagus spears.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

148. After flowers have matured, clumps of broad, heart-shaped leaves appear on short, _____.
A. Mat-forming species
B. Wooly vegetative stems
C. Heart-shaped leaves appear
D. Scaly bracts
E. Leaf-like bracts and branches
F. None of the Above

149. Coltsfoot reproduces primarily by _____ (horizontal underground stems) and also by seeds.
A. Distinctive curled clusters
B. Perennial herb
C. A dense, healthy turf
D. Horizontal creeping rhizomes
E. Branched taproot
F. None of the Above

150. Root system - Coltsfoot forms an extensive system of _____(horizontal underground
A. Opened flowers
B. Seeds
C. Good cultural habits
D. Petioles
E. Thick white rhizomes
F. None of the Above

Comfrey, Common

151. Plant Description: Common comfrey is a perennial herb with lower leaves that are bristly, up to 12 inches long, and attached to winged leaf stalks (_____) that emerge from the base of the plant.

A. Distinctive curled clusters
B. Perennial herbs
C. Stems
D. Petioles
E. Branched taproots
F. None of the Above

152. Smaller leaves that are also bristly but lack petioles are borne on_____.

A. Opened flowers
B. Stems
C. Rhizomes
D. 2- to 3-foot tall flowering stems
E. Branched taproots
F. None of the Above

153. Flowers are bell shaped and either yellow or blue. They form in distinctive curled clusters having an appearance similar to that of a_____. Reproduction is by way of seeds. Also, new plants can be propagated by dividing the roots of established plants.

A. Distinctive curled cluster
B. Perennial herb
C. Scorpion's tail
D. A broadleaf summer-annual weed
E. A branched taproot
F. None of the Above

Common Groundsel

154. Common groundsel is_____. A prolific seed producer, seeds are produced within several weeks of germination, and there are several generations within the same year. This weed likes moist soil and is often found in well-irrigated areas such as lawns and flower beds.

A. Opened flower
B. A prolific seed producer
C. An early season weed
D. Also bristly but lack petioles
E. A common weed in the home vegetable garden
F. None of the Above

155. Control: A dense, healthy turf will prevent seeds from taking root in the lawn. _____can be increased with proper mowing, fertilization, watering, and other cultural practices. Good drainage will also help to discourage the growth of common groundsel.

A. Distinctive curled clusters
B. Perennial herbs
C. A dense, healthy turf
D. Broadleaf summer-annual weed control measures
E. Turf density
F. None of the Above

156. The plants can be easily pulled by hand from moist soil. Be sure to pull and dispose of them before they set seed, as seed can mature in _____even after the plants have been killed. If there is heavy infestation, spot treat with a post-emergent herbicide containing glyphosate (Roundup, Kleenup).

A. Opened flowers
B. Seed producing
C. Weeds
D. Petioles
E. To vegetables
F. None of the Above

Common Lambsquarters

157. Common Lambsquarters is a _____ that can be found anyplace the soil has been disturbed. The growth habits of the common lambsquarters vary with its location. If growing along the road or in an open field, it may reach three or four feet in height.

A. Distinctive curled cluster
B. Perennial herb
C. Dense, healthy turf
D. Broadleaf summer-annual weed
E. Broadleaf winter-annual weed
F. None of the Above

158. Control: The best methods of weed control in the home vegetable garden are mulching, handpulling, rototilling, hoeing and preventing the weeds from_____.

A. Opened flowers
B. A prolific seed producer
C. Going to seed
D. Blooming
E. The home vegetable garden
F. None of the Above

159. Because of its short, branched taproot, lambsquarters can be easily hand-pulled from moist soil. The best methods of weed control in the home vegetable garden are mulching, hand pulling, rototilling, hoeing and preventing the weeds from going to seed. Because of its_____, lambsquarters can be easily hand-pulled from moist soil.

A. Distinctive curled clusters
B. Perennial herb classification
C. Rosette stage
D. Short, branched taproot
E. Long, branched taproot
F. None of the Above

160. Prevention by use of _____ should be the first line of defense in eliminating broadleaf weeds such as lambsquarters from lawns.

A. Violence
B. Hoe
C. Good cultural habits
D. Fire
E. Weed control in the home vegetable garden
F. None of the Above

161. Pre-emergent herbicides such as trifluralin (Preen) can be used to_____.

A. Control grass
B. Control perennial herbs
C. Create a dense, healthy turf
D. Control broadleaf summer-annual weed
E. Prevent germination of weed seeds
F. None of the Above

162. Post-emergent herbicides effective against)_____ are 2,4-D, MCPP and dicamba (sold under many brand names) and combination formulas (Trimec).

A. Broadleaf weeds
B. Perennial herbs
C. Turf
D. Broadleaf summer-annual weeds
E. Weed seeds
F. None of the Above

Common Mallow

163. Common mallow is most frequently found in newly seeded lawns or lawns that are stressed and lack density. It can be_____.

A. Opened flower
B. A prolific seed producer
C. An annual or biennial
D. Found with banana trees
E. Found with a long, branched taproot
F. None of the Above

164. The _____of common mallow are pinkish-white and the fruits look like small, round cheeses.

A. Flowers
B. Flowering plants
C. Rosette stage
D. Seeds
E. Stems
F. None of the Above

165. Control: _____with proper mowing, fertilization, watering and other cultural practices can help in the control of this weed.

A. A non-selective herbicide
B. Seed production
C. Herbicide spraying
D. Increasing turf density
E. Spreading perennial
F. None of the Above

166. Post-emergent herbicides are _____effective. Triclopyr + clopyralid or triclopyr alone are suggested.

A. Post-emergent herbicides
B. Very
C. Not
D. Only marginally
E. An insecticide and are
F. None of the Above

Common Mullein

167. Common mullein, also known as wooly mullein, velvet dock, flannel leaf, Aaron's rod, torch plant, and miner's candle is a_____.

A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

Common Yarrow
168. Description: A low-growing, _____ with upright flower stalks that can reach 3 feet in height. Each plant produces one to several flower stalks, which are often branched and covered by fine hairs.
A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

Crabgrass
169. Crabgrass is a summer annual grass with wider blades and a lighter green color than _____. It is low growing, prostrate, and often has reddish-purple stems. It forms seedheads below mowing height.
A. Crabgrass
B. Bluegrass
C. Compound leaves
D. Reddish-purple
E. Perennial crown
F. None of the Above

Creeping Yellow Cress
170. Description:_____; flowers June to August. Grows up to 20 in tall. Leaves 2 to 4 in long and pinnately divided into narrow, sharply toothed lobes. Flowers yellow with four small petals.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

Crownvetch, Trailing
171. Plant Description: Crownvetch is a _____ characterized by compound leaves made up 11 or more small leaflets arranged in pairs and pinkish flowers resembling those of peas, beans, or clovers that are grouped into head-like clusters.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

Curlycup Gumweed
172. Description: An erect biennial or _____with one to several green, reddish, or whitish branching stems. Stems grow 1-3 feet tall.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Cutleaf Teasel
173. Description: _____; flowers July to September. Grows up to seven feet tall. Rosette leaves ovid to oblong, mature leaves opposite, large, oblong and prickly.
A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Daisy, Oxeye
174. Plant Description: Ox-eye daisy is a _____distinguished by lower leaves that are dark green, hairless, somewhat fleshy, and coarsely toothed and conspicuous daisy-like flowers with white rays and yellow centers.
A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Dandelion

175. The Dandelion is a _____with an extensive taproot. Its yellow flowers can develop anytime between March and November and are followed by fluffy seed heads. More prevalent under low turf density, dandelion growth can be inhibited by increasing the turf density.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Daylily, Tawny

176. Plant Description: Tawny daylily is a _____, characterized by its beautiful orange flowers which line the roadsides in July. This species is not a true lily, as indicated by its unspotted blossoms and leafless stems.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Dock, Broadleaf

177. Plant Description: Broadleaf dock is a _____with a deep taproot that can reach depths of up to 5 feet. It reproduces primarily by seeds, but there is limited regeneration from root tissues.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

Dodder

178. Dodder (Cuscuta and Grammica), is a twining yellow or orange plant sometimes tinged with purple or red. Occasionally it is almost white. _____and thread-like or relatively stout.

A. A twining plant
B. Is especially destructive
C. The stems can be very thin
D. Horizontal underground stems
E. Basal rosette with relatively large leaves
F. None of the Above

Dogbane, Hemp

179. Plant Description: Hemp dogbane is _____ with a woody stem that is undivided at the base but becomes much-branched in its upper half. All parts of the plant exude a milky sap when cut, broken, or crushed.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Dyers Woad

180. Description: Dyer's woad is a _____that grows up to three feet tall. It has multiple stems that arise from the base. Foliage has distinctive blue-green cast with whitish glaze.

A. Perennial or biennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

English holly

181. English holly is a _____that is grown ornamentally in the northwestern United States and Canada but is also commonly found escaping into forests in this region. English holly's native range is the British Isles to southern and central Europe. It is grown commercially in the Pacific Northwest and commonly used in decorations and floral arrangements as well as in landscapes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Broadleaf evergreen tree/shrub
F. None of the Above

English laurel

182. English laurel, also called cherry laurel, is a large _____or small tree often used for landscaping, usually as a hedge. Related to cherry trees, English laurel gets its common name from its resemblance to the true laurel tree.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Evening Primrose

183. Plant Description: Common evening primrose is a _____that produces a rosette of leaves the first year and flowers borne on an upright leafy stalk during the second year of growth.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

184. There are many _____ evening primroses that appear similar and can be difficult to distinguish. Most have 4-petaled yellow flowers that open at dusk.

A. Evergreen shrub
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

185. A few, including common evening primrose, have lance-shaped leaves without lobes. Leaves of common evening primrose usually appear thin and crinkled and _____. Also, leaves on the lower portion of the stem are often purplish. Reproduction is by seeds.

A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. May have a reddish midrib
E. Infest crop seeds
F. None of the Above

False Brome

186. Description: _____ grass; forms short "squatty" bunches. Stems hollow with broad, flat one quarter to one third inch wide lax leaves and a leaf sheath open to the base.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

187. Leaf color a bright green that often remains through fall and part of winter. _____ and lower stems hairy; ligules membranous.

A. Produce viable seeds
B. Leaf margins
C. An upright leafy stalk
D. Appear thin
E. Infest crop seeds
F. None of the Above

188. Flowers born in a true spike that droops noticeably, and spikelets with short or_____.

A. No stalks
B. Stems hollow with broad
C. Droops noticeably
D. To make it easier to control re-growth
E. An erect bushy perennial
F. None of the Above

189. False brome plants appear to be _____few to a couple hundred seeds per plant. Isolated plants are observed to produce viable seeds and become new weed epicenters complicating control efforts.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Self-fertile producing
E. A stout perennial
F. None of the Above

Four-o' Clock, Wild

190. Plant Description: Wild four-o'clock is an erect bushy _____, characterized by its large fleshy taproot, swollen joints and smooth heart-shaped leaves that resemble lilac leaves. It reproduces by seeds.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Foxtail

191. Foxtail is a summer _____grass with wider blades and a lighter green color than bluegrass. It is also faster growing than bluegrass. Seed heads may form despite regular mowing. Foxtail is much less prevalent when turfgrass has good density. Re-sod or reseed bare spots.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Annual
F. None of the Above

192. Control: A _____(benefin + trifluralin, dithiopyr, oxadiazon, pendimethalin or prodiamine) applied correctly and at the proper time should provide control.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

Fescue, Tall

193. Plant Description: Tall fescue is a coarse, clump-forming, cool-season _____ grass, characterized by its relatively wide, dark green, coarsely ridged leaves. This species reproduces by seeds and short rhizomes (horizontal underground stems).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

194. Clumps can expand by producing new shoots (tillers) from the_____. Tall fescue can form dense stands.

A. Bulb-forming perennial
B. Form dense stands
C. Base of existing stems
D. A distinct S-curve just below the root crown
E. Sprout again
F. None of the Above

195. Tall fescue is_____. Studies suggest that the endophytic fungus infecting many varieties of tall fescue makes the grass more drought tolerant, as well as potentially toxic to nearby plant species (allelopathic), thus allowing tall fescue to replace native plant communities.

A. Coarsely ridged leaves
B. One of the most widely adapted weeds
C. Allelopathic
D. Species is highly tolerant
E. A strong garlic odor
F. None of the Above

Garlic, Wild

196. Plant Description: Wild garlic is a grass-like, bulb-forming _____ characterized by slender, erect stems and leaves, and a globe-like flower head produced at the top of each stem, composed mostly of tiny aerial bulblets rather than flowers.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

Garlic Mustard

197. Plant Description: Garlic mustard is a _____ that forms a rosette the first spring and an upright stem with small white flowers the second spring. It is characterized by triangular, coarsely toothed leaves and a slender taproot with a distinct S-curve just below the root crown.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

198. Young leaves give off a strong garlic odor when crushed, but the odor fades with leaf age and is nearly gone by fall. Garlic mustard_____.

A. Stems are square
B. Reproduces only by seeds
C. Has multiple forks
D. Control in two generations
E. Resembles a wheat kernel
F. None of the Above

199. _____ and very difficult to control once established. It tends to form dense stands that crowd out herbaceous native flora. As a result, invasion of garlic mustard into forests tends to decrease the number of native spring species.

A. Stems are square
B. Fall application
C. Multiple forks
D. This weed is invasive
E. Resembles a wheat kernel
F. None of the Above

200. Garlic mustard can be controlled by _____for several years until the seedbank is depleted.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Preventing new seed production
F. None of the Above

201. Various methods can be used to_____, including cutting plants at ground level just before or during flowering, hand pulling, burning, or spot application of herbicides (optimally in early spring or fall).

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Prevent seed formation
F. None of the Above

202. When hand pulling, a significant portion of the root crown must be removed or else plants can resprout. However, the best management strategy is_____.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. To prevent establishment
F. None of the Above

203. Herbicide Control: Apply a _____(8 ounces in a 3-gal. sprayer) with a surfactant (or without a surfactant when near surface waters) to thoroughly wet all foliage in April through June (during flowering) to control two generations.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Glyphosate herbicide as a 2% solution in water
F. None of the Above

Geranium, Shiny

204. Description: Shiny geranium grows predominantly as _____though it may become biennial depending on moisture conditions.

A. An annual weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Goatgrass, Barbed
205. Description: _____; grows 8 to 16 inches tall with few to many culms. Leaf sheaths contain white hairs when young, becoming more or less smooth once matured. The blades are rigid, sharp, pointed, and spreading. Grain 1/4 inch long, resembling a wheat kernel.
A. Annual D. Biennial
B. Winter annual E. A stout perennial
C. Perennial F. None of the Above

Henbit
206. Henbit is a _____occasionally found in lawns in early spring. The lower leaves have a stalk while the upper leaves clasp the stem.
A. An annual weed D. Biennial
B. Winter annual E. A stout perennial
C. Perennial F. None of the Above

207. This weed is more often found in buffalograss than in bluegrass. Newly-seeded bluegrass and established bluegrass lawns with _____may have some henbit.
A. Pink flowers D. Poor density
B. A pungent odor E. Crowns
C. Newly-seeded grass F. None of the Above

208. Control: Henbit has a taproot and is easily pulled from moist soil. Heavy infestations can be controlled with_____, 2,4-D or 2,4-D combination herbicides; at or prior to flowering. Fall application of a pre-emergent herbicide (dithiopyr, isoxaben, pendimethalin or prodiamine) will prevent henbit germination.
A. Triclopyr + clopyralid D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. DCPA (Dacthal)
C. Compound herbicide F. None of the Above

Herb Robert
209. Description: Herb Robert is a branching, low growing_____. It has light green leaves that are deeply dissected and release a pungent odor making this plant easy to recognize.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. Winter and spring annual
C. Perennial F. None of the Above

210. As the plants mature the foliage turns red. This red color is very noticeable under bright light conditions. The stems are_____, have multiple forks, and are brittle at the joints.
A. Square D. Round
B. Highly pubescent E. Resembling a wheat kernel
C. Multiple forks F. None of the Above

211. The roots are shallow allowing for easy hand removal. The pink flowers are perfect and five petaled. The receptacle is elongated into a pointed structure called a "_____" or “storks bill”. Herb Robert reproduces only by seeds.
A. Torus D. Break
B. Horn E. Root crown
C. Dash F. None of the Above

212. Flowers are usually _____creating uniform populations.
A. Are square D. Round
B. Self-fertile E. Resembling a wheat kernel
C. Multiple F. None of the Above

Hydrilla

213. Description: _____ aquatic plant. Grows rooted to the bottom with long stems that reach water's surface.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

214. Can be_____. Leaves are 1/16 to 1/8 inch wide, 1/4 to 3/4 inch long and occur in whorls of five.

A. Saucer-shaped
B. Does not have turions
C. Monoecious or dioecious
D. Spreading rhizomes
E. Flowering
F. None of the Above

215. Small, axillary leaf scales are found next to the stem and inserted at the base of the leaf, a character that distinguishes hydrilla from other family members. The _____ (tubers) are a key identifying feature.

A. Nut-like turions
B. Perennial herbs
C. Rhizomes and seeds
D. Upright perennial
E. Sod-forming
F. None of the Above

216. Egeria densa is similar in appearance but has leaves in whorls of four and does not have _____.

A. Loose clusters
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Flower heads
F. None of the Above

Ironweed, Tall

217. Plant Description: Tall ironweed is _____with a highly visible dark red stem that grows over 7 feet tall and is widely branched at the top.

A. An upright perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

218. At the ends of branches in _____ are saucer-shaped, 1/4-inch-wide flower heads consisting of 30 or fewer purple disk flowers. Attached to the stem are 10-inch-long, lance-shaped, pointed leaves that have short downy hairs on the lower surface.

A. Loose clusters
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Flower heads
F. None of the Above

219. Reproduction is primarily by way of seeds, but _____ sometimes arise from the large root crown.

A. New shoots
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Flower heads
F. None of the Above

Joepyeweed

220. Plant Description: Joe-Pye weeds are _____ herbs with leaves in whorls (3 to 6 leaves per node) and purplish flowers in terminal clusters.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

221. Stems of HOLLOW JOEPYEWEED are mostly hollow, there are usually 4 to 6 leaves in a whorl, and flower heads consist of fewer than 8 purple tubular flowers. _____ are arranged in a domed terminal cluster.

A. Loose clusters
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Flower heads
F. None of the Above

222. Stems of SPOTTED JOEPYEWEED are_____, there are 5 leaves in a whorl, and flower heads are pinkish-purple consisting of between 8 and 22 tubular flowers. Flower heads are arranged in flat-topped terminal clusters.

A. Flat-topped terminal clusters
B. Perennial herbs
C. Rhizomes
D. An upright perennial
E. Purple or purple-spotted
F. None of the Above

223. SWEET JOEPYEWEED foliage smells like vanilla when crushed, stems are green with purplish nodes, there are 3 or 4 leaves in each whorl, and flower heads are dull pink consisting of fewer than 8 tubular flowers. Flower heads are arranged in_____.

A. Loose clusters are saucer-shaped
B. Turions
C. Way of seeds
D. Spreading rhizomes
E. Dome-shaped terminal clusters
F. None of the Above

224. Joe-Pye weeds reproduce by _____.

A. Flat-topped terminal clusters
B. Perennial herbs
C. Rhizomes and seeds
D. An upright perennial
E. Sod-forming perennials
F. None of the Above

225. Root system - The root systems includes spreading rhizomes (_____).

A. Loose clusters
B. Does not have turions
C. Way of seeds
D. Spreading rhizomes
E. Horizontal underground stems
F. None of the Above

Johnsongrass

226. Plant Description: Johnsongrass is a large, coarse, _____, characterized by its purplish, pyramidal flower heads and the prominent white midrib down the leaf blade. It reproduces by seeds and stout rhizomes (horizontal underground stems), and can form large, dense patches.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A sod-forming perennial grass
F. None of the Above

Jubata Grass

227. Description: Jubata grass is a _____that ranges six to twenty-three feet tall. Plants have long leaves arising from a tufted base or tussock.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial weed
D. Biennial
E. Perennial grass
F. None of the Above

228. The flower cluster is a _____at the end of a very long stem. Stems generally are at least twice as long as the tussock.

A. Stem height
B. Japanese knotweed
C. Plumed panicle
D. Truncate leaves
E. Biennial or short-lived perennial
F. None of the Above

229. Plumes consist of_____, deep violet when immature, turning pinkish or tawny cream-white at maturity. Jubata grass is easily confused with pampas grass (Cortaderia selloana).
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Hairy female flowers
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

230. The two species are distinguished by stem height, leaf, plume, and spikelet color, florets, leaf tip, and _____.
A. Presence of viable seed
B. Japanese knotweed
C. A plumed panicle
D. Truncate leaves
E. Biennial or short-lived perennial
F. None of the Above

231. The _____ are less erect and more spreading and not fountain-like, when compared to tussocks of Cortaderia selloana.
A. Inflorescence
B. Tips of flower head bracts
C. Tips
D. Tussocks of jubata grass
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knapweed, Spotted
232. Description: _____; blooms midsummer to fall. Grows up to 3 feet tall. Multi-stemmed plant with several stems arising from crown.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

233. Flowers purple or rarely cream colored. _____ are usually black, thus the name "spotted." Seeds dispersed by wind, animals, and people.
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knotweed, Giant
234. Description: _____; blooms July to October. Grows over 12 feet tall. Closely related and similar to Japanese knotweed.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

235. Leaf cordate, or heart shaped; often exceeds one foot long. _____of creamy white flowers sparse and the flower size does not increase with maturity.
A. Inflorescence
B. Tips of flower head bracts
C. Stem height
D. Fountain-like
E. Stout stems
F. None of the Above

236. _____ with Japanese knotweed are common. Japanese knotweed is smaller with truncate leaves.
A. Hybrids
B. Spotted knotweed
C. Giant knotweed
D. Truncate leaves
E. Biennial or short-lived perennial weeds
F. None of the Above

237. Impacts: Giant knotweed is the largest of the knotweeds, enabling this species to dominate and out compete native or_____. It poses a significant threat to riparian areas where it prevents streamside tree regeneration.
A. Beneficial plants
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems
F. None of the Above

Knotweed, Japanese

238. Description: _____; blooms July to October. Grows four to nine foot tall and has long creeping rhizomes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

239. Stout stems reddish-brown,_____. Leaves short stalked, trucate, broadly ovate and 2-6" long by 2-4" wide.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Nodes slightly swollen
E. A milky juice
F. None of the Above

240. Flowers greenish-white to cream in large plume-like clusters at the ends of the stems. _____ with giant knotweed are common.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Perennial
E. Herbaceous perennial weed
F. None of the Above

Lesser Celandine

241. Description: Lesser celandine is an herbaceous, _____ plant in the buttercup family (Ranunculaceae).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

242. Plants have a basal rosette of dark green, shiny, stalked leaves that are kidney to heart-shaped. The flowers open in March and April, have eight glossy, butter-yellow petals, and are borne singly on _____.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Delicate stalks that rise above the leaves
E. Herbaceous perennial weed
F. None of the Above

243. _____are produced along the stems of the above ground portions of the plant, but are not apparent until late in the flowering period.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. A milky juice
F. None of the Above

244. When in bloom, large infestations of lesser celandine appear as a green carpet with yellow dots, _____.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Spreading across the forest floor
E. Herbaceous perennial weed
F. None of the Above

245. There are many varieties of lesser celandine including a double-flowered form with many crowded petals and dark green leaves mottled with silvery markings. The primary reproductive method is the formation of turions that are_____.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Produced on the roots in large numbers
F. None of the Above

Leafy spurge

246. Leafy spurge (Euphorbia esula L.) is a creeping, _____of foreign origin that reproduces from seed and vegetative root buds.

A. Herbaceous perennial weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Lettuce, Prickly

247. Plant Description: Prickly lettuce is an erect biennial (_____) that grows as a rosette of basal leaves during its first year.

A. Clump-forming perennial
B. Rarely an annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

248. Each rosette gives rise to a _____that is usually erect and sometimes branched, especially the top portion where small, daisy-like, yellow flowers are borne.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Solitary stem
E. Herbaceous perennial weed
F. None of the Above

249. _____ and have prickly edges and a distinctive row of stiff, sharp prickles on the underside of midribs. Nearly half of the length of each seed consists of a beak having a tuft of silky white hairs (pappus) at the tip.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Stem leaves are irregularly-lobed
F. None of the Above

250. All plant parts exude_____ . The plant reproduces only by seeds.

A. Stem tip
B. Fragmented stems
C. A milky juice when cut or broken
D. A biennial root crown
E. Purple-magenta flowers
F. None of the Above

251. Similar Species: Prickly lettuce can be confused with sowthistles (Sonchus spp.), which have prickly leaf margins but_____.

A. Spikelets
B. Smooth midribs
C. Spreads by rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

252. Tall lettuce (Lactuca canadensis) and tall blue lettuce (Lactuca biennis) look similar to prickly lettuce except they have leaves with smooth edges and_____.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Midribs without prickles
E. Purple-magenta flowers
F. None of the Above

London Rocket

253. London rocket is a European native weed belonging to the mustard family, and is one of the _____ .

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. First winter weeds to appear
F. None of the Above

254. London rocket is a_____. The stems branch from the base 1 to 3 feet high. It has a coarse taproot. Small, yellow flowers are borne on slender stalks in small clusters at the stem tip.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Bright green fleshy winter annual
F. None of the Above

Loosestrife, Purple

255. Plant Description: Purple loosestrife is a _____ plant that forms a dense bush consisting of up to 50 stems arising from a shallow root system, which includes a woody crown and rhizomes (horizontal underground stems).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

256. Location should be considered when characterizing this plant, as it is a much more aggressive weed when growing in wet areas. It can be identified while in bloom by its purple-magenta flowers that form on_____ . Also, upper above-ground parts of the plant should appear densely hairy.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Distinctive terminal spikes
E. Purple-magenta flowers
F. None of the Above

257. Purple loosestrife reproduces by seeds and it spreads by_____.

A. Spikelets
B. Slow growing perennial
C. Rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

Mallow, Common

258. Plant Description: Common mallow is a _____that has been known to sprout a second year from a biennial root crown.

A. Summer or winter annual
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

259. Distinguishing characteristics are the fruits, which resemble tiny wheels of cheese, and kidney-shaped leaves that are shallowly lobed, appear slightly crinkled, have toothed edges, and_____.

A. Spikelets
B. Slow growing perennial
C. Spreads by rhizomes
D. Appear slightly crinkled, have toothed edges
E. Attach to stems by way of long stalks (petioles)
F. None of the Above

260. Reproduction is by seeds, but fragmented stems can _____if conditions remain sufficiently moist for a long enough period of time.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Root at the nodes
E. Purple-magenta flowers
F. None of the Above

Mallow, Musk

261. Plant Description: Musk mallow is a _____ with an upright stem that can grow 3 1/2 feet tall and large pink flowers that have 5 petals and appear in clusters at the end of each stem or individually on long stalks attached to stem nodes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

262. Leaves located at the base of the stem are _____while leaves located further up the stem are deeply dissected into 5 to 7 toothed sections. Leaves and flowers emit a strong musky odor in warm weather or when crushed. Reproduction is by seeds.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Rounded and slightly lobed
E. Purple-magenta flowers
F. None of the Above

Matgrass

263. Description: Matgrass is a slow growing _____ bunchgrass that is densely tufted, and long-lived. It produces unbranched flower-spikes that carry the single-flowered spikelets along one side only.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

264. _____are hard and bristle-like, bluish green and up to 1/4 inch wide, appearing narrower because blades are tightly folded along the midrib.

A. Stem tips
B. Fragmented stems
C. Stems are rounded
D. A biennial root crowns
E. Leaves
F. None of the Above

265. Stem tipped by _____ that bear all spikelets on one side of the stems and grows up to eight inches tall. This grass is tightly rooted therefore hard to remove.

A. Inconspicuous spikes
B. Asclepias family
C. Root system
D. Horizontal spreading roots
E. Twining vines, funnel-shaped flowers
F. None of the Above

Milkweed, Butterfly

266. Plant Description: Butterfly milkweed is a _____ member of the Milkweed Family that looks similar to other family members except for its showy orange flowers and watery rather than milky sap. It has upright stems that are hairy, leafy, and branched near the top of the plant. Reproduction is by seeds.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Common

267. Milkweed plants, _____, are the only host plant for the monarch and queen butterflies. The adult females seek out these plants on which they lay their eggs.

A. Inconspicuous spikes
B. Rosette-forming perennial
C. Root system
D. Members of the Asclepias family
E. Twining vines, funnel-shaped flowers
F. None of the Above

268. The caterpillars that hatch will remain on the plants and eat the leaves until they enter the pupal stage, then emerge as adult butterflies. It is a _____ herb with long-spreading rhizomes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Honeyvine

269. Plant Description: Honeyvine milkweed is a_____. Characteristics distinguishing it from other perennial vines include opposite (2 leaves per node), heart-shaped leaves and whitish, vase-shaped flowers that form in axillary clusters. Also, foliage exudes a cloudy sap if crushed or cut.

A. Twining perennial vine
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Swamp

270. Plant Description: Swamp milkweed is a_____. Its stems and leaves exude a white milky sap if cut or broken, which is a common characteristic of species in the Milkweed Family.

A. Clump-forming perennial
B. Slender perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Morningglory, Bigroot
271. Plant Description: Bigroot morningglory is a _____ that shares numerous characteristics with other morningglories including twining vines, funnel-shaped flowers, and heart-shaped leaves. Unlike its relatives, bigroot morningglory has a very large and deep taproot. Reproduction is by seeds and creeping roots.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Motherwort
272. Plant Description: Motherwort is a _____that can grow up to 5 feet tall. As with other mint species, it has square stems and its foliage emits a pungent odor if crushed.
A. Stiff-stemmed perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Mugwort
273. Plant Description: Mugwort is one of several closely-related _____with an erect growth form and dissected leaves that generally give off a strong odor.
A. Herbs D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Musk thistle
274. Musk thistle is an aggressive weed of foreign origin that occurs in pastures, rangeland, roadsides and non-crop areas. It is a biennial weed, although occasionally it is_____.
A. Clump-forming perennial D. Biennial
B. An annual E. A stout perennial
C. Perennial F. None of the Above

Nettle, Stinging
275. Plant Description: Stinging nettle is an erect, herbaceous _____ that is widely known for its unpleasant stinging hairs on the stems and lower leaf surface. It reproduces by wind-dispersed seeds and creeping rhizomes (horizontal underground stems), and grows in dense clumps, often forming large colonies.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Nightshade Bittersweet
276. Plant Description: Bittersweet nightshade is a _____ climbing or trailing vine that reproduces by seeds and rooting at the nodes of the prostrate stems. It can be distinguished from other viney plants by its hollow stems that are woody at the base and oval leaves with pointed tips.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Oblong Spurge
277. Description: Oblong spurge is a weedy escaped ornamental species of Euphorbia. This plant is an exotic _____l herb that produces up to 20 stems on a woody rootstalk with the plants reaching nearly three feet in height.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

Old Man's Beard
278. Description: _____; blooms most of summer. Woody deciduous vine with stems growing up to thirty yards long. Leaves opposite and compound, usually with five leaflets.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

279. _____are small, greenish white and found in clusters in the upper leaf axils. Long feathery styles that produce a mass of white during the seed stage are responsible for the plant's name.
A. Rosette of leaves D. Flowers
B. Rosette E. Submersed leaves
C. Shamrock appearance F. None of the Above

280. The characteristic feathery seed heads give this climber its name. Young vines are ribbed and often purple in color. Older vines are woody, often gray/brown in color. _____ flake when bent.
A. Fruits explode D. Base of existing stems
B. An attractive aquatic plant E. Emergent stems
C. Older vines F. None of the Above

Orchardgrass
281. Plant Description: Orchardgrass is a coarse, clump-forming, cool-season _____ grass that starts growing early in the spring. It produces a very characteristically shaped flower head, consisting of rounded clumps of flowers that are borne on a few, stiff branches which jut out to the sides.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

282. This species reproduces by seeds, and clumps can expand by producing new shoots (tillers) from the base of _____.
A. Fruits explode D. Existing stems
B. An attractive aquatic plant E. Emergent stems
C. Higher flow rates F. None of the Above

Oxalis
283. Description: The leaves of oxalis, also called creeping woodsorrel, have a _____and the plant is often mistaken for a clover. At night, or on cloudy days, the leaves may fold up. With the arrival of cooler weather in the fall, leaves turn purplish in color. Occasionally, some plants may have purple leaves all year round.
A. Clump-forming perennial D. Biennial
B. Shamrock appearance E. A stout perennial
C. Perennial F. None of the Above

284. Oxalis is a prostrate, _____with stems that will take root where they touch the ground. Flowers are small and yellow. When mature, fruits explode, scattering seed several feet away.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. Creeping perennial weed
C. Perennial F. None of the Above

Parsnip, Wild
285. Plant Description: Wild parsnip is a _____that looks and smells similar to cultivated parsnip.
A. Biennial or sometimes a perennial D. Biennial
B. Rosette-forming perennial E. A stout perennial
C. Perennial F. None of the Above

286. The plant forms a rosette of leaves during the first year of growth and a_____. During the second year, it produces erect stems that grow 5 feet tall and terminate in umbrella-shaped clusters of small yellow flowers. Wild parsnip reproduces by seeds.

A. Rosette of leaves
B. Large edible taproot
C. Shamrock appearance
D. Emergent stems
E. Submersed leaves
F. None of the Above

Parrots Feather

287. Description: Parrot's feather is _____ with feathery lime-green leaves arranged in whorls on long stems (rhizomes). Flowers are small and white.

A. Fruits explode
B. An attractive aquatic plant
C. Higher flow rates
D. Base of existing stems
E. Emergent stems
F. None of the Above

288. The submersed leaves are limp and often appear to be decaying but the_____. The surface parts of the plants are the most distinctive trait as they can grow up to a foot above the water and look almost like small fir trees.

A. Rosette of leaves
B. Stems are very robust
C. Shamrock appearance
D. Water level fluctuations
E. Submersed leaves
F. None of the Above

289. Parrot's feather is found in freshwater lakes, ponds, streams, and canals and appears to be adapted to high nutrient environments. It tends to _____ or still water rather than in areas with higher flow rates.

A. Fruits explode
B. An attractive aquatic plant
C. Higher flow rates
D. Colonize slowly moving
E. Emergent stems
F. None of the Above

290. The _____can survive on wet banks of rivers and lakeshores, so it is well adapted to moderate water level fluctuations.

A. Emergent stems
B. Rosette of leaves
C. Shamrock appearance
D. Base of existing stems
E. Submersed leaves
F. None of the Above

Paterson's Curse

291. Description: An erect _____ member of the borage family (Boraginaceae) generally 1-3 feet tall. Plants are often multi-branched with an abundance of stout hairs on stems and leaves. Reproduction and spread is by seed.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Perennial Pepperweed

292. Description:_____ ; blooms May to September. Grows 1 to 6 ft. tall. Basal leaves larger than upper leaves, lanceolate, bright green to gray green, entire to toothed.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

293. Flowers white, very small, and _____ near the ends of branches; flowers produce a distinctive odor. Seed very small, flattened, slightly hairy, and reddish brown.

A. Is not allergenic
B. An oil
C. Rhizomes
D. Umbrella-shaped clusters
E. Form dense clusters
F. None of the Above

Poison Hemlock

294. Plant Description: Poison hemlock is a biennial that produces leaves in a basal rosette during its first year and forms an upright flower stalk when it bolts during the second year of growth.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Poison Ivy

295. Plant Description: This is a _____distinguished by its leaves that have three leaflets. The stalk attached to the middle leaflet is considerably longer than that attached to either of the two outer leaflets. It grows in a variety of forms including trailing, shrubby, or as a vine.

A. Deciduous woody perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Pokeweed, Common

296. Plant Description: Common pokeweed is a large, bushy, _____ that sometimes resembles a small tree, growing up to 10 feet in height. It is characterized by an enormous taproot, smooth succulent red-purple stems, large lance-shaped leaves and grape-like clusters of dark purple berries in the fall. This species reproduces from seeds.

A. Herbaceous perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

297. Root system - Common pokeweed produces a large, _____ (4 to 6 inches in diameter).

A. New shoots
B. Roots
C. Few raw berries
D. Herbaceous perennial
E. Fleshy, white taproot
F. None of the Above

298. Toxicity: All parts of common pokeweed are toxic to humans, pets and livestock. Roots are the most poisonous, _____ are intermediate in toxicity (toxicity increases with maturity), and berries are the least toxic.

A. Leaves and stems
B. Roots
C. Few raw berries
D. Herbaceous perennial
E. White taproot
F. None of the Above

299. Since common pokeweed is_____, most animals avoid eating it unless little else is available, or if it is in contaminated hay.

A. Not very palatable
B. Very palatable
C. Toxic
D. An herbaceous perennial
E. A white taproot
F. None of the Above

300. Horses, sheep and cattle have been poisoned by eating fresh leaves or green fodder, and pigs have been poisoned by eating the roots. Children are most frequently poisoned by eating _____.

A. The stems
B. Roots
C. Raw berries
D. This herbaceous perennial
E. The taproot
F. None of the Above

You are finished with your assignment.

Weed Identification and Control Assignment #5

You will have 90 days from the start of this course to have successfully passed this assignment with a score of 70 %. You may e mail the answers to TLC, info@tlch2o.com or fax the answers to TLC, (928) 272-0747. This assignment is available to you in a Word Format on TLC's Website. You can find online assistance for this course on the in the Search function on Adobe Acrobat PDF to help find the answers. Once you have paid the course fee, you will be provided complete course support from Student Services Dr. Rusty Randall or Dr. Bubba Jenkins (928) 468-0665.

Multiple Choice assignment, please select one answer and mark it on the answer key. The answer must come from the course text. (s) means answer can be plural or singular. There are no intentional trick questions

1. A _____ is any plant growing in an area where it is not wanted. We try to control weeds because they compete with crops for light, moisture, space and nutrients.

A. Seed
B. Weed
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

2. The _____of some weed species may be dormant for many years, with only a small percentage germinating each year.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

3. Some _____ will not germinate without intense heat, like from a wild fire. Weeds generally mature earlier than the crop and often seeds will be dropped before crop harvest and remain in the field. Weeds are generally more competitive than crops and can often survive under unfavorable growing conditions.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

4. _____ may conveniently be divided into two classes based on the way in which they emerge from the seed.

A. Seeds
B. Weeds
C. Medical and economic problems
D. Other species
E. Crops for light, moisture, space and nutrients
F. None of the Above

5. _____ emerge with a single seed leaf whereas dicots emerge with two seed leaves.

A. Monocots
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

6. _____ have a life of more than two years, though new seeds may be produced every year.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Correct identification
F. None of the Above

7. _____ have a life of two years, generally storing up food reserves in the leaves and roots the first year and producing seed in the second year.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

8. The _____ are often grouped with perennial weeds since control is similar.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

9. Most _____ found in turfgrass are from the family Gramineae and are termed weedy grasses. Examples include crabgrass, annual bluegrass, tall fescue, and quackgrass.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

10. Certain weed species can harbor _____and insect pests and can be a serious threat to the ecosystem's health. Other species may be poisonous, allergenic or an irritant to humans and/or livestock.
A. Seeds D. Other species
B. Plant diseases E. Crops for light, moisture, space and nutrients
C. Medical and economic problems F. None of the Above

11. Medical and economic problems such as illness, death, rash, hayfever, or a _____of fur, meat and milk products may result.
A. Seeds D. Reduction in quality
B. Weeds E. Crops for light, moisture, space and nutrients
C. Medical and economic problems F. None of the Above

12. Weeds have many unique characteristics which make them extremely difficult to control. Most produce a tremendous number of _____.
A. Seeds D. Other species
B. Weeds E. Crops for light, moisture, space and nutrients
C. Medical and economic problems F. None of the Above

13. _____, on the other hand, are termed broadleaf weeds and include such plants as dandelion, clover, ground ivy, knotweed, and plantain.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Dicots
C. Biennial weeds F. None of the Above

14. Weedy grasses and _____are further divided into groups according to the plants' length of life.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Broadleaf weeds
C. Biennial weeds F. None of the Above

15. _____germinate from seed, grow, flower, and produce seed in less than one year.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Annual weeds
C. Biennial weeds F. None of the Above

16. Summer annuals (AKA warm season annuals) germinate in the spring and mature in the fall, whereas winter annuals (AKA_____) germinate in fall or late winter and mature in late spring.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Cool season annuals
C. Biennial weeds F. None of the Above

17. _____ complete their lifecycle from seed to maturity in less than one year. They germinate in the spring, mature, set seed and die in the fall.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

18. _____live for more than two years. They reproduce vegetatively from roots, rhizomes, buds, or tillers, or from seed, or both. They can be especially difficult to control because of their persistent root systems.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Perennials
C. Biennial weeds F. None of the Above

19. Early identification of emerged weed species is critical for choosing the best weed control methods. This guide will enable you to identify_____.
A. Monocot weeds D. Weeds at three growth stages
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

20. Effective control of _____is based on correct identification.
A. Monocot weeds D. Weeds in turf
B. Perennial weeds E. Correct identification
C. Biennial weeds F. None of the Above

21. _____ is, simply put, all life on earth, even that which has yet to be discovered. More specifically, it includes the millions of diverse species, from bacteria to whales that share the earth's lands and waters with us.
A. Cultivar(s) D. Exotic (introduced) plant
B. Biological Management E. Ornamental plant
C. Biodiversity F. None of the Above

22. _____ Biological control is the deliberate use of the pest's natural enemies - predators, parasites, and pathogens - to reduce the pest population below damage levels.
A. Cultivar(s) D. Exotic (introduced) plant
B. Biological Management E. Ornamental plant
C. Biodiversity F. None of the Above

23. _____germinate in the fall, overwinter as seedlings or small rosettes and mature, set seed and die the following spring or early summer. Some weeds are capable of both summer and winter annual lifecycles.
A. Monocot weeds D. Summer annuals
B. Perennial weeds E. Winter annuals
C. Biennial weeds F. None of the Above

24. _____ complete their lifecycles in less than two years. Germination and the production of an overwintering rosette of leaves occur the first year.

A. Monocot weeds
B. Perennial weeds
C. Biennials
D. Summer annuals
E. Correct identification
F. None of the Above

25. The second year flowering, _____, and plant death occur. Control is best obtained during the first year.

A. Monocot weeds
B. Perennial weeds
C. Biennial weeds
D. Summer annuals
E. Seed production
F. None of the Above

26. _____: When exploring chemical control options, you should select the lowest risk and most effective products. The key is to use pesticides in a way that complements rather than hinders other elements in the strategy and which also limits negative environmental effects.

A. Cultivar(s)
B. Biological Management
C. Chemical Control
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

27. _____: The most important aspect of an alien plant is how it responds to a new environment. An invasive species is one that displays rapid growth and spread, allowing it to establish over large areas. Free from the vast and complex array of natural controls present in their native lands, including herbivores, parasites, and diseases, exotic plants may experience rapid and unrestricted growth in new environments.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

28. _____is enhanced by features such as strong vegetative growth, abundant seed production, high seed germination rate, long-lived seeds, and rapid maturation to a sexually reproductive (seed-producing) stage. Invasive plants reproduce rapidly, either vegetatively or by seed. Their phenomenal growth allows them to overwhelm and displace existing vegetation and form dense one-species stands.

A. Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

29. Not all exotic species are considered harmful. For example, a small number of _____(e.g., corn, wheat, oats) form the basis of our agricultural industry and pose little to no threat to our natural ecosystems. However, each alien plant is one less native host plant for our native insects, vertebrates and other organisms that are dependent upon them.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Non-invasive alien plants
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

30. _____: Short for “cultivated variety.” A plant “variety” developed by man via plant selection and/or genetic manipulation to exhibit a set of plant characteristics.

A. Cultivar
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

31. _____ are maintained via controlled pollination or vegetative means, so that cultivar characteristics are passed to ensuing generations.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

32. _____: Cultural practices are a manipulation of the habitat environment to increase pest mortality or reduce rates of pest increase and damage.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

33. There are many different cultural practices that can help to reduce pest impact such as selection of pest resistant varieties of crops, mulching, winter cover crops, changing planting dates to minimize insect impact, burning, flooding, crop rotations that include_____, moisture management, addition of beneficial insect habitat, or other habitat alterations.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Non-susceptible crops
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

34. _____: Short for “ecological variety.” A plant “variety” developed by man from a collection of plants of a native species that were selected from several to many natural populations in a specific region.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

35. The purpose is to have high genetic diversity in the parent collection, which reflects the natural diversity within that species in the defined region. To maintain genetic diversity in ensuing generations, little to no selection is done during the _____ development process.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

36. An _____ is an intermediate step between a wild-growing plant and a cultivar.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

37. _____: A plant species that exists in a region because it was brought to that region by man, during and since settlement of the region. We are still introducing exotic plants, by intention or by accident.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

38. _____: An exotic plant species that is able to invade and overrun native ecosystems. Some native plants can become invasive under certain conditions, but most invasive species are introduced (exotic).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

39. _____: A plant species or cultivar that is grown for its beauty (in its end use), rather than commercial or production reasons.

A. Cultivar(s)
B. Biological Management
C. Biodiversity
D. Exotic (introduced) plant
E. Ornamental plant
F. None of the Above

40. _____: A plant species that is found in a region because it developed and evolved in that region over thousands of years. Plants that existed in a region prior to settlement.

A. Source-identified seed
B. Noxious Weed
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

41. _____: An exotic plant that was introduced into an area, escaped from cultivation and reproduces on its own (includes exotic invasive plants). Many plants commonly thought to be natives were actually introduced by early settlers.

A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

42. _____: The term noxious is a legal designation used specifically for plant species that have been determined to be major pests of agricultural ecosystems and are subject, by law, to certain restrictions. The U.S. Department of Agriculture regulates noxious weeds.

A. Source-identified seed
B. Noxious Weeds
C. Native plants
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

43. Plants can also be designated as "_____" by states and counties, usually through "noxious weed boards". Many noxious weeds designated for their impacts to agriculture also threaten natural areas. Melaleuca (Melaleuca quinquen-ervia), a tree from Australia, aggressively invades seasonal wetlands in the Everglades National Park in Florida and has been designated a federal noxious weed. Additional listings of exotic pest plants affecting natural ecosystems are expected, as their ecological and economic impacts continue to grow.

A. Source-identified seed
B. Noxious Weeds
C. Native plants
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

44. _____: Is a comprehensive, environmentally sensitive approach to managing pests that includes a combination of strategies that pose the least hazard to people, property, and the environment.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Integrated Pest Management (IPM)
F. None of the Above

45. The simple philosophy is that control will be more effective, and _____will be less likely to build up, when a range of measures is deployed against a pest. These measures can include, cultural, mechanical or physical, biological, and chemical methods for managing the pest.

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Resistance
F. None of the Above

46. Some of the key components to a successful _____ program include the following: Identify current and potential pest species, their biology, and conditions conducive to the pest(s) (air, water, food, shelter, temperature and light).

A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. IPM
F. None of the Above

47. Understand the physical and _____that affect the number and distribution of pests and their natural enemies.
A. Growth Habit – Invasiveness
B. Exotic invasive plant
C. Ecovar
D. Cultural management
E. Biological factors
F. None of the Above

48. _____: Mechanical or physical control methods involve using barriers, traps, or physical removal to prevent or reduce pest problems.
A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

49. Tactics may include using row covers or trenches to prevent insects from reaching the crop, baited or pheromone traps to capture insects, or _____or mowing for weed control.
A. Source-identified seed
B. Noxious Weeds
C. Cultivation
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

50. _____: Any living organism (plant or animal) that occurs where it is not wanted or that causes damage to crops or humans or other animals.
A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

51. _____: Off-spring of plants collected from a single defined natural population of a native species for production of seed. No selection is done during the collection and subsequent seed increase steps, so as to conserve genetic diversity. The genetic diversity is less than for an ecovar.
A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Mechanical or Physical Management
E. Source-identified seed
F. None of the Above

52. _____: Within a species, a naturally occurring sub-group of plants that have one or more minor characteristics that set it apart from the rest of the species. Ex.: Solidago odora var. chapmanii.
A. Mechanical or Physical Management
B. Native plant
C. Naturalized plant
D. Variety
E. Pest
F. None of the Above

53. _____: The term weed is a subjective word used to describe any plant considered to be "out of place." In other words, weeds can include native and non-native plants alike, growing wherever someone wishes they weren't. Invasive exotic plants of natural ecosystems are often referred to as natural areas weeds.
A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Weeds, Wildlands and Natural Areas
E. Source-identified seed
F. None of the Above

54. _____spread by seed. They have no natural means of spreading vegetatively. However, if injured or cut, the cut pieces may produce new plants. For example a dandelion or dock root cut in half longitudinally may produce two plants. The roots are usually fleshy and may grow very large.
A. Annuals and perennials
B. Simple perennials
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

55. _____reproduce by creeping roots, creeping above ground stems (stolons), or creeping below-ground stems (rhizomes). In addition they may reproduce by seed.

A. Creeping perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

56. Some weeds maintain themselves and_____, which are modified rhizomes adapted for food storage. Nutsedge (nutgrass) and Jerusalem artichoke are examples.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Some creeping perennials
E. Propagate by means of tubers
F. None of the Above

57. Once a field is infested, _____ are probably the most difficult group of weeds to control. Cultivators and plows often drag pieces about the field.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Creeping perennials
E. Roundup-resistant weeds
F. None of the Above

58. _____, repeated mowing for 1 or 2 years, or persistent herbicides are often necessary for control.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Continuous and repeated cultivations
E. Roundup-resistant weeds
F. None of the Above

59. Cultivation, in combination with herbicides, is proving effective on some creeping perennials. An effective eradication program also requires_____.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. The killing of seedlings
E. Roundup-resistant weeds
F. None of the Above

Roundup-Resistant Weeds

60. _____ like horseweed and giant ragweed are forcing farmers to go back to more expensive techniques that they had long ago abandoned.

A. Tubers
B. Agricultural advances
C. Roundup and Roundup Ready crops
D. Some creeping perennials
E. Roundup-resistant weeds
F. None of the Above

61. A _____is generally an area of land or water with predominantly native vegetation or natural geological features that is allowed to respond to the forces of nature with little to no direct human interference. The term wildlands is also used to describe these areas.

A. Source-identified seed
B. Noxious Weeds
C. Native plant
D. Natural area
E. Weeds, Wildlands and Natural Areas
F. None of the Above

The Invasive Problem

Invasive Species

62. The term “native” is used to describe plants that were growing here before the arrival of Europeans. Exotics are those that do not naturally occur in an area but have been introduced by people. Many exotic species pose no threat, but some are invasive and grow out of control — displacing _____which provide food and shelter for an assortment of native wildlife.

A. Aggressive invaders
B. Invasive non-native organisms
C. Native butterfly species
D. Our native fauna
E. Native plants
F. None of the Above

63. It is not always possible to predict if or when a species will become a _____(for example, Japanese honeysuckle was planted as an ornamental for 80 years before it escaped cultivation!), but a red flag should run up at any non-native with fleshy fruits dispersed by birds.
A. Some native plants
B. Exotic plants
C. Natural disturbances
D. Exotic plants and animals
E. Pest plant
F. None of the Above

Recognize the major plant characteristics used to identify weeds.
64. _____: Lower part of the leaf that is attached to the node.
A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

65. _____: Located where the blade and the sheath meet.
A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

66. _____:Region of nodes with tightly compacted internodes.
A. Collar
B. Crown
C. Node
D. Auricle
E. Shoot
F. None of the Above

67. _____:The region between the nodes
A. Collar
B. Internode
C. Node
D. Auricle
E. Shoot
F. None of the Above

68. Look at other features of the weed, such as the _____(leaves emerging after cotyledons) and stems.
A. True leaves
B. Leaf surfaces
C. Leaf shape
D. Other physical and biological factors
E. Underground vegetative stems
F. None of the Above

69. Leaf shape can vary dramatically and is a consistent key to_____. The leaves may be alternately or oppositely arranged along the stem.
A. Endemic
B. Leaf surfaces
C. Leaf shape
D. Other physical and biological factors
E. Plant identification
F. None of the Above

70. Some leaves may be attached to a short stem, known as the petiole, while others may lack a _____.
A. Cotyledons
B. Petiole
C. Rhizomes
D. Every species of plant, animal, fungi, bacteria
E. A native (indigenous) species
F. None of the Above

71. _____:Enlarged areas at intervals along the stem and also the part of the plant where buds are attached.
A. Collar
B. Roots
C. Node
D. Auricle
E. Shoot
F. None of the Above

72. _____:Underground stems that grow laterally.
A. Sheath
B. Ligule
C. Blade
D. Rhizomes
E. Stolons
F. None of the Above

73. _____:Attachment of the plant to the soil that absorbs minerals and water needed for the plants survival.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

74. _____:Aboveground stems that grow laterally.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

75. _____:Characteristic of the grass that describes how the new blades emerge from the sheath as growth occurs.
A. Sheath D. Rhizomes
B. Ligule E. Vernation
C. Blade F. None of the Above

76. _____:The aboveground parts of the plant.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

77. _____:A structure that grows from the collar area on the inner side of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

78. _____:An appendage that grows from the edge of the collar and may wrap around the stem.
A. Collar D. Auricle
B. Roots E. Shoot
C. Node F. None of the Above

79. _____:The upper part of the leaf.
A. Sheath D. Rhizomes
B. Ligule E. Stolons
C. Blade F. None of the Above

Broadleaves (dicots), Grasses (monocots), and Sedges
80. Weeds can be classified into three primary categories: broadleaves (dicots), grasses (_____), and sedges.
A. Cotyledons D. Every species of plant, animal, fungi, bacteria
B. Monocots E. A native (indigenous) species
C. Rhizomes F. None of the Above

81. To identify broadleaf seedlings, it is common to look first at the cotyledons or seed leaves. The _____ are the first pair of leaves that open after emergence.
A. Endemic D. Other physical and biological factors
B. Leaf surfaces E. Cotyledons
C. Leaf shape F. None of the Above

82. _____ have various shapes and sizes; they may be linear-, egg-, round- or butterfly-shaped or have variations of each.
A. Cotyledons D. Every species of plant, animal, fungi, bacteria
B. Petiole E. A native (indigenous) species
C. Rhizomes F. None of the Above

86. Check the leaf surfaces for the presence of hair and the_____.
A. Endemic D. Other physical and biological factors
B. Amount of waxiness E. Underground vegetative stems
C. Leaf shape F. None of the Above

87. Stems can also assist in identifying a weed; they have various shapes and amounts of hair, if any. Finally, dig or carefully remove the roots from the soil and look for the presence of rhizomes, creeping roots, or other structures such as_____.
A. Cotyledons D. Tubers
B. Petiole E. A native (indigenous) species
C. Rhizomes F. None of the Above

88. _____are underground vegetative stems from which new plants are generated. The presence of these vegetative structures will indicate that the weed's life cycle is perennial.
A. Endemic D. Other physical and biological factors
B. Leaf surfaces E. Rhizomes
C. Leaf shape F. None of the Above

89. Every species of plant, animal, fungi, bacteria and other organism has a home in some part of the world, where it has existed for thousands of years as a result of natural forces and influences like climate, storms, moisture, fire, soils and_____.
A. Cotyledons D. Species interactions
B. Petiole E. A native (indigenous) species
C. Rhizomes F. None of the Above

90. Over long periods of time, these and other physical and biological factors direct the _____.
A. Endemic D. Distributions of organisms in nature
B. Leaf surfaces E. Underground vegetative stems
C. Leaf shape F. None of the Above

91. A native (_____) species is one that occurs in a particular region, ecosystem, and habitat without direct or indirect human actions.
A. Cotyledons D. Every species of plant, animal, fungi, bacteria
B. Petiole E. Indigenous
C. Rhizomes F. None of the Above

92. Species native to North America are generally recognized as those occurring on the continent prior to European settlement. _____ is used to describe populations of native animals, plants or other organisms, that are have relatively restricted distributions and are confined to certain environments.
A. Endemic D. Other physical and biological factors
B. Leaf surfaces E. Underground vegetative stems
C. Leaf shape F. None of the Above

93. Organisms are considered non-native (alien, exotic, foreign, introduced, non-indigenous) when they occur artificially in locations beyond their known_____.
A. Cotyledon D. Species of plant, animal, fungi, bacteria
B. Petiole E. Historical natural ranges
C. Rhizome F. None of the Above

94._____ can refer to species brought in from other continents, regions, ecosystems and even other habitats.
A. Considered exotic D. Large numbers of species
B. Species exotic E. Many introduced plants
C. Non-native F. None of the Above

95. _____ to the U.S. include those transported from Europe, Asia, Africa, South America, Australia and other parts of the world. It also includes any species moved by people from one locality in the U.S. to a new one.
A. Considered exotic D. Large numbers of species
B. Species exotic E. Many introduced plants
C. Non-native F. None of the Above

96. Black locust (Robinia pseudoacacia) is native to the southern Appalachian region of the eastern U.S. Because of its_____, it was planted all around the U.S. during this century for living fences, erosion control, wind breaks and other purposes. Even though it is native to the U.S., black locust is considered exotic anywhere it occurs outside its known historical natural range of southern Appalachia.
A. Considered exotic D. Large numbers of species
B. Species exotic E. Rapid growth and hardiness
C. Non-native F. None of the Above

97. Once an Exotic, Always an Exotic! European settlers brought hundreds of plants to North America from their home lands, for food, medicinal, ornamental, and other purposes. Introductions of exotic plants continue today, and are increasing due to_____, increased international travel, and the intentional and accidental movement of large numbers of species between continents as a result of expanded international trade.
A. Considered exotic D. Large numbers of species
B. Species exotic E. Many introduced plants
C. An exploding human population F. None of the Above

98. _____have become naturalized across the continent and some are replacing North American native plant species. These naturalized plants, however much a part of our current landscapes and ecosystems, are nonetheless exotic, since they were moved here by people rather than by natural means.
A. Considered exotic D. Large numbers of species
B. Species exotic E. Many introduced plants
C. Non-native F. None of the Above

99. Because the _____of some species are unknown or unclear, research continues to attempt to unravel the tangle of human and natural influences responsible for their current ranges.
A. Historical distributions D. Large numbers of species
B. Species exotic E. Many introduced plants
C. Non-native F. None of the Above

100. Most common weeds fit into two large general classifications: broadleaves and grasses. Broadleaves and grasses may be further divided into _____.
A. Annuals and perennials D. Biennials and winter annuals
B. Annual plants E. Perennials
C. Summer annuals F. None of the Above

101. _____may be even further subdivided by the seasons in which they germinate and grow.
A. Annual and perennial weeds D. Biennials and winter annuals
B. Annual plants E. Perennials
C. Summer annuals F. None of the Above

102. _____ complete their life cycle in less than one year.
A. Annuals and perennials D. Biennials and winter annuals
B. Annual plants E. Perennials
C. Summer annuals F. None of the Above

103. Normally, they are considered easy to control. This is true for any one crop of weeds. However, because of an abundance of dormant seed and fast growth, annuals are very persistent. They actually cost more to control than perennial weeds. Most common field weeds are annuals. There are two types; _____.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Summer and winter annuals
F. None of the Above

104. _____ germinate in the spring, make most of their growth during the summer, and the plants mature and die in the fall. The seeds lie dormant in the soil until next spring.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

105. _____geminate in the fall and winter and usually mature seed in the spring or early summer before the plants die. The seeds often lie dormant in the soil during the summer months. In this group, high soil temperatures (125°F or above) have a tendency to cause seed dormancy. These are most troublesome in fall and early spring in ornamental plant areas.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Winter annuals
F. None of the Above

106. _____lives for more than 1 year but not more than 2 years. Only a few troublesome weeds fall in this group. There is confusion between biennials and winter annuals, because the winter annual group normally lives during 2 calendar years and during 2 seasons.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. A biennial plant
F. None of the Above

107. _____ live for more than 2 years and may live almost indefinitely. Most produce by seed and many are able to spread vegetatively. They are classified according to their method of reproduction as simple and creeping.

A. Annuals and perennials
B. Annual plants
C. Summer annuals
D. Biennials and winter annuals
E. Perennials
F. None of the Above

Commonly Found Weed Section
A-Z Common Names

Paterson's Curse

108. Description: An erect _____ member of the borage family (Boraginaceae) generally 1-3 feet tall. Plants are often multi-branched with an abundance of stout hairs on stems and leaves. Reproduction and spread is by seed.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Perennial Pepperweed

109. Description:_____ ; blooms May to September. Grows 1 to 6 ft. tall. Basal leaves larger than upper leaves, lanceolate, bright green to gray green, entire to toothed.

A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

110. Flowers white, very small, and _____ near the ends of branches; flowers produce a distinctive odor. Seed very small, flattened, slightly hairy, and reddish brown.
A. Is not allergenic
B. An oil
C. Rhizomes
D. Umbrella-shaped clusters
E. Form dense clusters
F. None of the Above

111. Plant Description: Poison hemlock is a biennial that produces leaves in a basal rosette during its first year and forms an upright flower stalk when it bolts during the second year of growth.
A. Clump-forming perennial
B. Annual or biennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Poison Ivy
112. Plant Description: This is a _____distinguished by its leaves that have three leaflets. The stalk attached to the middle leaflet is considerably longer than that attached to either of the two outer leaflets. It grows in a variety of forms including trailing, shrubby, or as a vine.
A. Deciduous woody perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

113. Plant Description: Common pokeweed is a large, bushy, _____ that sometimes resembles a small tree, growing up to 10 feet in height.
A. Herbaceous perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

114. Root system - Common pokeweed produces a large, _____ (4 to 6 inches in diameter).
A. New shoots
B. Roots
C. Few raw berries
D. Herbaceous perennial
E. Fleshy, white taproot
F. None of the Above

115. Toxicity: All parts of common pokeweed are toxic to humans, pets and livestock. Roots are the most poisonous, _____ are intermediate in toxicity (toxicity increases with maturity), and berries are the least toxic.
A. Leaves and stems
B. Roots
C. Few raw berries
D. Herbaceous perennial
E. White taproot
F. None of the Above

116. Since common pokeweed is_____, most animals avoid eating it unless little else is available, or if it is in contaminated hay.
A. Not very palatable
B. Very palatable
C. Toxic
D. An herbaceous perennial
E. A white taproot
F. None of the Above

117. Horses, sheep and cattle have been poisoned by eating fresh leaves or green fodder, and pigs have been poisoned by eating the roots. Children are most frequently poisoned by eating _____.
A. The stems
B. Roots
C. Raw berries
D. This herbaceous perennial
E. The taproot
F. None of the Above

118. Field bindweed can be spread by seed, _____, farm implements, infested soil adhering to the roots of nursery stock, root growth from infested areas, and by animals.
A. Twining perennial vine
B. Bindweed foliage
C. Vines
D. Root fragments
E. Root growth
F. None of the Above

119. Field bindweed has a deep root system that competes with _____for water and nutrients.
A. Flowers are funnel-shaped D. Crop plants
B. Bindweed leaves E. Dense field bindweed infestations
C. Herbicide application F. None of the Above

120. Vines climb on plants and shade crops, cause lodging of_____, and make harvesting difficult by clogging machinery.
A. Twining perennial vine D. Dense ground cover
B. Bindweed foliage E. Root growth
C. Small grains F. None of the Above

121. Dense field _____ may reduce crop yields by 50 to 60 percent. Land infested with field bindweed is reduced in value.
A. Flowers are funnel-shaped D. Deep root system
B. Bindweed leaves E. Bindweed infestations
C. Herbicide application F. None of the Above

122. Field bindweed is a _____which produces a dense ground cover. The twining stems vary from 1.5 to 6 feet or more in length.
A. Twining perennial vine D. Dense ground cover
B. Long-lived perennial E. Root growth
C. Vine F. None of the Above

123. Leaf size and shape are variable, but generally the leaves are 1 to 2 inches long, smooth, and shaped like an arrowhead. Flowers are_____, about 1 inch diameter, and white or pink in color.
A. Flowers are funnel-shaped D. Funnel-shaped
B. Bindweed leaves E. Dense
C. Herbicide application F. None of the Above

124. The _____has two small bracts located ½ to 2 inches below the flower. The bracts, along with leaf shape and smaller flower size, distinguish field bindweed from hedge bindweed.
A. Twining perennial vine D. Dense ground cover
B. Bindweed foliage E. Root growth
C. Flower stalk F. None of the Above

125. Control: Herbicides such as glyphosate can be painted on _____. Repeat applications will be needed.
A. Flowers D. Deep roots
B. Bindweed leaves E. Infestations
C. Herbicide application F. None of the Above

126. Herbicides such as 2,4-D combinations can be sprayed on_____; repeat applications may be needed.
A. Twining perennial vine D. Dense ground cover
B. Bindweed foliage E. Root growth
C. Vines F. None of the Above

127. The most effective times for _____ are during flowering, or in August/September. Always read the label before applying any pesticide.
A. Flowers are funnel-shaped D. Deep root system
B. Bindweed leaves E. Dense field bindweed infestations
C. Herbicide application F. None of the Above

128. Plant Description: Hedge bindweed is a_____.
A. Twining perennial vine
B. Bindweed foliage
C. Vine
D. Dense ground cover
E. Root
F. None of the Above

129. Characteristics distinguishing it from other vines include arrowhead-shaped leaves that have pointed tips, pinkish petals fused into funnel-shaped flowers, the presence of large bracts enclosing the base of each flower, and_____.
A. Large bracts
B. Creeping perennial roots
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

130. The plant reproduces by seeds and _____.
A. Short-lived perennial
B. Stolons
C. A unique flower
D. Creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

131. Plant Description: Japanese bindweed is a_____. Its appearance is similar to that of hedge bindweed except it has smaller flowers and the bracts enclosing the base of each flower are smaller.
A. Large bracts
B. Creeping perennial
C. Nodes of older stems
D. Smaller flowers and the bracts
E. An annual, biennial or short-lived perennial
F. None of the Above

132. The _____that escaped cultivation has a distinctive double flower. Compared with other bindweed flowers, this is a unique flower in that it has twice the number of petals and looks similar to a rose or carnation.
A. Short-lived perennial
B. Stolons
C. Weedy form
D. Seeds and creeping roots
E. Small yellow flowers and a deep taproot
F. None of the Above

133. Description: Perennial; blooms April to June. Grows three to ten feet tall. Evergreen shrub similar to Scotch broom except plants do not grow as erect, leaves are retained the entire year, leaves trifoliate and more numerous, and_____.
A. Larger yellow flowers
B. Evergreen shrub
C. Yellow flowers smaller
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

134. Impacts: This plant, _____, takes advantage of land disturbances to establish and spread. In California, large infestations displace native plant species and significantly increase the costs of reforestation in commercial timberlands.
A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Broom, Portuguese
135. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Evergreen shrub similar to Scotch broom except pods inflated and hairy all over,_____. Stems more silvery, but difficult to distinguish until leaves and flowers fall off.
A. Larger yellow flowers
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Giving appearance of pussy willow buds
F. None of the Above

Broom, Scotch

136. Description: Perennial; blooms April to June. Grows 3 to 10 feet tall. Evergreen shrub with many slender, erect, dark green angled branches with small, simple leaves. Abundant small, yellow, _____.

A. Evergreen shrub
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Pea-shaped flowers
E. An aggressive pioneer species
F. None of the Above

137. Easily confused with_____. Spanish broom (S. Junceum) has round stems, very few leaves, and larger yellow flowers.

A. Spanish broom
B. Evergreen shrub
C. Sod-forming, perennial grass
D. Clump-forming perennial grass
E. Except pods inflated and hairy all over
F. None of the Above

Broom, Spanish

138. Description: Perennial; blooms April to June. Grows 3 to 10 ft. tall. Similar to Scotch broom except stems thicker and rougher, it has very few leaves, and flowers larger and_____.

A. Fewer in number
B. Stems thicker and rougher
C. Dense, fibrous roots
D. Prominent claw-like appendages
E. An aggressive pioneer species
F. None of the Above

Buffalo Bur

139. Buffalo bur, sometimes called Kansas thistle and_____, is a tap rooted annual weed. It bears long, yellow spines on stems, leaves, and flower heads and can grow up to 2 feet high. Drought resistant, its highest occurrence is in dry, exposed soil.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Prickly nightshade
F. None of the Above

140. The oblong leaves are 2-3 inches long with _____and are covered with very dense, stiff, and sharp spines.

A. Bright yellow flowers
B. Deep rounded lobes
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

141. Bright yellow flowers can be seen in summer. In the fall, berries up to 3/8 inch in diameter are enclosed in the _____and are filled with black, wrinkled, flat pitted seeds.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Dried flower parts
F. None of the Above

142. Control of this plant is important, as it is a host for the Colorado potato beetle. When mature, the main stem breaks near the ground and the plant rolls like_____, widely scattering the 8500 seeds that each plant produces.

A. Bright yellow flowers
B. Tumbleweed
C. Green to blue-gray
D. Scotch broom
E. Upper leaves
F. None of the Above

143. Herbicides should be applied between_____. Dicamba, Triclopyr and 2,4-D can be effective in controlling Buffalo bur. Glyphosate in a 2% solution can be applied as a spot treatment.

A. Five equal lobes
B. Perennial herb
C. Flower heads lilac-like
D. Flat pitted seeds
E. Late bud to early flower
F. None of the Above

Bull Thistle

144. Description: An upright biennial. Young seedling leaves are oblong in shape, but mature _____ are saw-toothed and spiny with cottony hairs on the undersurface.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Rosette leaves
F. None of the Above

145. _____ generally grow 2 - 12 inches long and 3/4 - 4 inches wide. Leaves are dark green and are arranged alternately along the rigid flower stalk, that grows 1 - 5 feet tall and can be highly branched.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Strong competition to native plant communities
E. Leaf axils on the flower stem
F. None of the Above

146. _____have distinctly pointed, spine-tipped lobes, with bases that clasp the stem to form spiny wings.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. Several hundred seed heads
E. Stem leaves
F. None of the Above

147. _____, 1 to 2 inches diameter, are borne on branch tips, and are subtended by an egg-shaped cluster of spiny bracts.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Purplish/pink flower heads
E. Leaf axils on the flower stem
F. None of the Above

148. _____give rise to seed heads that contain many single-seeded fruits, each topped by a plume of feathery white hairs.

A. Rosette leaves
B. Spiny bracts
C. Biennial
D. Flower heads
E. Leaf axils on the flower stem
F. None of the Above

149. Weedy Characteristics: Bull thistle reproduces solely by seed. Each plant can produce between one and several hundred seed heads, and seed heads produce_____.

A. Four-chambered nutlet
B. Spine-tipped lobes
C. Spiny wings
D. An average of 100 seeds each
E. Rosette leaves
F. None of the Above

Campion, White

150. Plant Description: White campion can be a winter or summer annual, biennial, or_____.

A. Short-lived perennial
B. Reproduction
C. Leaves are lance-shaped
D. Winter or summer annual, biennial
E. Creeping perennial weed
F. None of the Above

151. This species is characterized by _____and showy white flowers, whose petals emerge from a green, inflated, bladder-like structure (calyx).

A. Bladder-like structure (calyx)
B. Downy foliage
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

152. Reproduction is primarily by seeds, although fragmented segments of the _____can give rise to new plants.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Root crown
E. Creeping perennial weed
F. None of the Above

Canada Goldenrod

153. Plant Description: Canada goldenrod is a perennial distinguished by numerous small yellow flowers located in _____at the top of individual, unbranched, leafy stems.

A. Bladder-like structure (calyx)
B. Perennial
C. Pyramid-shaped clusters
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

154. Flowers are crowded onto _____that originate at a central axis and are arranged more or less horizontally.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Numerous backward-curved stalks
E. Creeping perennial weed
F. None of the Above

155. Leaves are_____, hairless on the upper surface, hairy underneath, and sharply toothed on the edge.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Lance-shaped, tapered at both ends
E. Creeping perennial weed
F. None of the Above

156. Leaves are described as being 3-nerved, meaning the midrib and 2 parallel lateral veins are prominent. Plants reproduce by way of short rhizomes (horizontal underground stems) emerging from the base of aerial stems and by_____.

A. Central axis
B. Reproduction
C. Leaves are lance-shaped
D. Wind dispersed seeds
E. Creeping perennial weed
F. None of the Above

Canada Thistle

157. Canada thistle (Cirsium arvense) is an aggressive, creeping perennial weed that infests crops, pastures, rangeland, roadsides and_____. Generally, infestations start on disturbed ground, including ditch banks, overgrazed pastures, tilled fields or abandoned sites.

A. Bladder-like structure (calyx)
B. Non-crop areas
C. Cool-season perennial
D. Is an aggressive, creeping perennial weed
E. In infestations
F. None of the Above

158. Canada thistle reduces forage consumption in _____because cattle typically will not graze near infestations.

A. Pastures and rangeland
B. Perennial
C. Cool-season perennial
D. An aggressive, creeping perennial weed
E. Infestations
F. None of the Above

159. Canada thistle is a creeping perennial that reproduces from vegetative buds in its root system and from seed. It is difficult to control because its _____allows it to recover from control attempts.

A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Extensive root system
E. Fern-like foliage
F. None of the Above

160. Combining control methods is the best form of Canada thistle management. Persistence is imperative so the weed is continually stressed, forcing it to exhaust_____.

A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Root nutrient stores and eventually die
E. Fern-like foliage
F. None of the Above

161. Herbicides such as glyphosate can be painted on thistle leaves. _____will be needed. Herbicides such as triclopyr + clopyralid or 2,4-D combinations can be sprayed on thistle foliage; repeat applications may be needed at 6 week intervals.
A. Creeping perennial
B. Canada thistle management
C. Applying any pesticide
D. Herbicide applications
E. Repeat applications
F. None of the Above

162. The most effective times for herbicide applications are spring, just after the green shoots appear, or in August/September. Always read the label before_____.
A. Applying any pesticide
B. Canada thistle management
C. Repeat applications
D. Herbicide applications
E. Repeat applications
F. None of the Above

Canarygrass
163. Plant Description: Reed canarygrass is a tall, coarse, sod-forming, cool-season perennial, characterized in summer by its two-tone appearance of golden seedheads atop green foliage. It reproduces through seeds and more typically by _____(horizontal underground stems). This species tends to grow in clumps 3 feet or more in diameter, and can form large, dense colonies.
A. Bladder-like structure (calyx)
B. Perennial
C. Cool-season perennial
D. Seed
E. Vigorous rhizomes
F. None of the Above

164. Plant Description: Wild carrot is a biennial that looks and smells similar to_____. Its distinctive fern-like foliage forms a rosette during the first year.
A. Creeping perennial
B. Canada thistle management
C. Repeat applications
D. Cultivated carrot
E. Fern-like foliage
F. None of the Above

165. During the second year of growth, it produces a succession of _____that terminate in umbrella-shaped clusters of small white flowers.
A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Hairy flower stalks
E. Leaf-like bracts and branches
F. None of the Above

166. A distinctive feature of wild carrot is the appearance of a dark purple flower (rarely several flowers) in the center of most flower clusters. Once flowers mature and_____, the flower cluster closes forming a cuplike bird's nest. Wild carrot reproduces by seeds.
A. Seeds begin to develop
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Catnip
167. Plant Description: Catnip is _____best known for the minty odor emitted by its leaves and stems when they are crushed or wilted. The odor is very attractive to cats.
A. An erect perennial
B. Reproduced by seeds
C. Heart-shaped
D. In the Mint Family
E. Leaf-like
F. None of the Above

168. Other distinctive characteristics are _____and the serrated appearance of the leaf edges, which resembles the toothed edge of a saw.
A. Downy foliage
B. Reproduced by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

169. The flower shape is common among members of the mint family consisting of 2 lips, and flower color is white with unusual purple dots. Along with most members of the Mint Family, catnip has square stems. This species reproduces by seeds and _____(horizontal underground stems).

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. It also produces short rhizomes
E. Leaf-like bracts and branches
F. None of the Above

Catsear, Common

170. Plant Description: Common catsear is a perennial with a growth form similar to that of dandelion; its leaves form a basal rosette and it produces_____. Leaves of common catsear are typically lance-shaped with irregular rounded lobes and hairs on both the upper and lower surfaces.

A. Either an annual
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Yellow head-like flowers at the tips of upright stems
F. None of the Above

171. Emerging from the rosette are _____that usually have leaf-like bracts and branches. At the tips of the branches are 1-inch-wide flower heads composed of many tubular, yellow flowers.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Wiry hairless stems
E. Leaf-like bracts and branches
F. None of the Above

172. Common catsear reproduces by seeds and vegetatively by way of _____that can produce new plants if separated.

A. Buds formed on the crown
B. Reproduces by seeds
C. Typically lance-shaped
D. Unbranched plant with yellow flowers and leaves
E. Perennial that initially grows as a rosette
F. None of the Above

Chickweed, Mouseear

173. Plant Description: Mouseear chickweed is a creeping, mat-forming species that normally behaves as a perennial; however, it is possible for it to exist as an annual. Plants reproduce by seeds and roots growing from the_____. It tends to form dense patches.

A. Mat-forming species
B. Reproduces by seeds
C. Heart-shaped leaves appear
D. Nodes of stems
E. Leaf-like bracts and branches
F. None of the Above

Common Lambsquarters

174. Common Lambsquarters is a _____ that can be found anyplace the soil has been disturbed. The growth habits of the common lambsquarters vary with its location. If growing along the road or in an open field, it may reach three or four feet in height.

A. Distinctive curled cluster
B. Perennial herb
C. Dense, healthy turf
D. Broadleaf summer-annual weed
E. Broadleaf winter-annual weed
F. None of the Above

175. Control: The best methods of weed control in the home vegetable garden are mulching, handpulling, rototilling, hoeing and preventing the weeds from_____.

A. Opened flowers
B. A prolific seed producer
C. Going to seed
D. Blooming
E. The home vegetable garden
F. None of the Above

176. Because of its short, branched taproot, lambsquarters can be easily hand-pulled from moist soil. The best methods of weed control in the home vegetable garden are mulching, hand pulling, rototilling, hoeing and preventing the weeds from going to seed. Because of its_____, lambsquarters can be easily hand-pulled from moist soil.

A. Distinctive curled clusters
B. Perennial herb classification
C. Rosette stage
D. Short, branched taproot
E. Long, branched taproot
F. None of the Above

177. Prevention by use of _____ should be the first line of defense in eliminating broadleaf weeds such as lambsquarters from lawns.

A. Violence
B. Hoe
C. Good cultural habits
D. Fire
E. Weed control in the home vegetable garden
F. None of the Above

178. Pre-emergent herbicides such as trifluralin (Preen) can be used to_____.

A. Control grass
B. Control perennial herbs
C. Create a dense, healthy turf
D. Control broadleaf summer-annual weed
E. Prevent germination of weed seeds
F. None of the Above

179. Post-emergent herbicides effective against)_____ are 2,4-D, MCPP and dicamba (sold under many brand names) and combination formulas (Trimec).

A. Broadleaf weeds
B. Perennial herbs
C. Turf
D. Broadleaf summer-annual weeds
E. Weed seeds
F. None of the Above

180. Common mallow is most frequently found in newly seeded lawns or lawns that are stressed and lack density. It can be_____.

A. Opened flower
B. A prolific seed producer
C. An annual or biennial
D. Found with banana trees
E. Found with a long, branched taproot
F. None of the Above

181. Mallow has a deep taproot but can be easily pulled from moist soil. The foliage resembles that of the geranium. The _____of common mallow are pinkish-white and the fruits look like small, round cheeses.

A. Flowers
B. Flowering plants
C. Rosette stage
D. Seeds
E. Stems
F. None of the Above

182. Control: _____with proper mowing, fertilization, watering and other cultural practices can help in the control of this weed.

A. A non-selective herbicide
B. Seed production
C. Herbicide spraying
D. Increasing turf density
E. Spreading perennial
F. None of the Above

183. Post-emergent herbicides are _____effective. Triclopyr + clopyralid or triclopyr alone are suggested.

A. Post-emergent herbicides
B. Very
C. Not
D. Only marginally
E. An insecticide and are
F. None of the Above

184. Common mullein, also known as wooly mullein, velvet dock, flannel leaf, Aaron's rod, torch plant, and miner's candle is a_____.

A. Non-selective weed
B. Member of the figwort family
C. Leaves are featherlike
D. Biennial
E. Spreading perennial
F. None of the Above

185. Common mullein was brought over from Europe by early settlers. It was used as a medicinal herb in the treatment of coughs and diarrhea and_____. A methanol extract from this plant has also been used an an insecticide for mosquito larvae.

A. Post-emergent herbicide
B. Is a flowering plant
C. For skin disorders
D. As a respiratory stimulant for the lungs when smoked
E. An insecticide for mosquito larvae
F. None of the Above

186. A _____, first year mullein plants are low-growing rosettes about 5 inches in width. The felt-like leaves are a bluish green in color.
A. Non-selective weed D. Biennial
B. Seed producer E. Spreading perennial
C. Featherlike plant F. None of the Above

187. Flowering plants are produced the second year, growing 5 to 10 feet in height including the flowering spike. This _____produces five-petaled flowers that bloom a few at a time all summer. The tiny seeds can germinate after lying dormant for several decades.
A. Spreading perennial D. Deep taproot
B. Flowering plant E. Leafy spike
C. Rosette stage F. None of the Above

188. Mullein plants have _____and are easily hand-pulled. Recently, weevils (Gymnetron tetrum) that feed on the seeds have been found effective in reducing seed production.
A. Spreading stems D. Shallow tap roots
B. Seed production E. Spreading roots
C. Featherlike leaves F. None of the Above

189. Control: When hand-pulling is not safe or practical, such as on a steep slope, herbicide control is an effective option. This is especially effective during the_____. Because of the wooly nature of the leaves, herbicides should be mixed with a surfactant to facilitate uptake.
A. Post-emergent stage D. Deep taproot
B. Flowering stage E. Spreading stage
C. Rosette stage F. None of the Above

190. A 2% solution of glyphosate or triclopyr and water, plus a_____, can be applied using a hand sprayer.
A. A non-selective herbicide D. Glyphosate or triclopyr
B. Seed reducer E. Non-ionic surfactant
C. Liquid F. None of the Above

Common Yarrow
191. Description: A low-growing, _____ with upright flower stalks that can reach 3 feet in height. Each plant produces one to several flower stalks, which are often branched and covered by fine hairs.
A. Non-selective weed D. Biennial
B. Member of the figwort family E. Spreading perennial
C. Leaves are featherlike F. None of the Above

192. _____, with tiny, fine leaflets lining each side of the leaf stem. Leaves are arranged along the stem at even intervals.
A. Spreading stems D. Shallow tap roots
B. Seed production E. Spreading roots
C. Leaves are featherlike F. None of the Above

193. _____ grow between 1 and 6 inches long and 1/4 - 1 inch wide.
A. Spreading stems D. Flower heads
B. Seed production E. Spreading roots
C. Leaves F. None of the Above

194. Flower heads are borne in flattened or umbrella-shaped clusters at stem tops. Each individual _____ consists usually of five, 1/8 inch long, white to pinkish-white ray flowers surrounding 10-20 pale yellow disk flowers.
A. Spreading stem D. Flower heads
B. Seed production E. Spreading root
C. Leaf F. None of the Above

195. Crabgrass is a summer annual grass with wider blades and a lighter green color than _____. It is low growing, prostrate, and often has reddish-purple stems. It forms seedheads below mowing height.

A. Crabgrass
B. Bluegrass
C. Compound leaves
D. Reddish-purple
E. Perennial crown
F. None of the Above

196. Crabgrass is less prevalent when turf has_____. In particular, mowing too low promotes crabgrass seed germination. Maintain mowing heights of 2.5 - 3 inches.

A. Stems
B. Good density
C. Bright yellow flower heads
D. Sharply toothed lobes
E. Immature, young seedlings
F. None of the Above

197. Control: _____(benefin + trifluralin, dithiopyr, DCPA, oxadiazon, pendimethalin, or prodiamine) applied correctly and at the proper time should provide control.

A. Crabgrass killer
B. Applied correctly
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

198. Do not use _____ on a newly seeded or sodded lawn or when overseeding a lawn.

A. Crabgrass killer
B. Applied correctly
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

199. Fenoxaprop and other _____"crabgrass killer" (MSMA, DSMA, MAMA) sprays are not effective unless crabgrass plants are immature, young seedlings. Always read the label before applying any pesticide.

A. Post-emergent
B. Applied correctly
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

Creeping Yellow Cress

200. Description:_____; flowers June to August. Grows up to 20 in tall. Leaves 2 to 4 in long and pinnately divided into narrow, sharply toothed lobes. Flowers yellow with four small petals.

A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

201. Plant Description: Crownvetch is a _____ characterized by compound leaves made up 11 or more small leaflets arranged in pairs and pinkish flowers resembling those of peas, beans, or clovers that are grouped into head-like clusters.

A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Spreading perennial
F. None of the Above

202. Stems are_____, forming a tangled mass less than 2 feet tall. Reproduction is by seeds.

A. Long and trail along the ground
B. An erect biennial
C. Bright yellow
D. Sharply toothed lobes
E. Immature, young seedlings
F. None of the Above

203. Root system - Roots form a _____.

A. Rhizome
B. Sharply toothed lobe
C. Compound stem
D. Reddish-purple stem
E. Perennial crown
F. None of the Above

Curlycup Gumweed

204. Description: An erect biennial or _____with one to several green, reddish, or whitish branching stems. Stems grow 1-3 feet tall.

A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

205. Leaves are borne alternately along the stem, and typically clasp the stem, with no stalk. Leaves have an oval or linear shape with serrated margins, are 1/2 - 2 1/2 inches long, and _____.

A. Long and trail along the ground
B. An erect biennial
C. Bright yellow
D. Sharply toothed lobes
E. Are covered with glands that exude a sticky resin
F. None of the Above

206. _____are borne at the tip of each branch, held in bright green cups of tiny, resinous bracts that curl in hooks away from the flowers.

A. Long and trail along the ground
B. An erect biennial
C. Bright yellow flower heads
D. Sharply toothed lobes
E. Immature, young seedlings
F. None of the Above

207. Flower heads grow up to 1 inch across and are sticky with resin. As the plant matures, flowers are replaced by tiny, ridged, four-sided, off-white seeds, to which two to three bristles are_____.

A. Long and trail along the ground
B. An erect biennial
C. Bright yellow
D. Sharply toothed lobes
E. Attached at the tip
F. None of the Above

Cutleaf Teasel

208. Description: _____; flowers July to September. Grows up to seven feet tall. Rosette leaves ovid to oblong, mature leaves opposite, large, oblong and prickly.

A. Non-selective weed
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

209. Common teasel is similar, but has purple flowers and_____.

A. An extensive taproot
B. Rhizomatous roots
C. A single, bright-yellow flower head
D. No lobes on upper leaves
E. Stems tall and prickly
F. None of the Above

210. Plant Description: Ox-eye daisy is a _____distinguished by lower leaves that are dark green, hairless, somewhat fleshy, and coarsely toothed and conspicuous daisy-like flowers with white rays and yellow centers.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

211. _____ are another identifying feature. The plant reproduces by seeds and short rhizomes (horizontal underground stems).

A. An extensive taproot
B. Rhizomatous roots
C. A single, bright-yellow flower head
D. A simple herbaceous perennial
E. Stems tall and prickly
F. None of the Above

212. The Dandelion is a _____with an extensive taproot. Its yellow flowers can develop anytime between March and November and are followed by fluffy seed heads. More prevalent under low turf density, dandelion growth can be inhibited by increasing the turf density.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

213. Dandelions can be dug out with special tools, but any part of the _____that is left is capable of regenerating a plant.

A. An extensive taproot
B. Rhizomatous roots
C. Root
D. Plant
E. Stem
F. None of the Above

214. Control: A 2,4-D or _____is most effective and should be used in spring and fall. Always read the label before applying any pesticide.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Perennial spray
F. None of the Above

215. _____, and are 2-12 inches long and 1/2 - 4 inches wide. Leaf shape varies, from having wavy or toothed margins to having deep, pointed lobes.

A. A globe shape
B. Fluffy seed heads
C. Leaves are arranged in a low-growing rosette
D. Coarsely toothed and conspicuous flowers
E. Or toothed margins to having deep lobes
F. None of the Above

216. The rosette produces one or more hollow flower stalks that grow 2 - 24 inches tall, depending on conditions. _____develops at the apex of each stalk, and is 3/4 - 2 inches in diameter.

A. An extensive taproot
B. Rhizomatous roots
C. A single, bright-yellow flower head
D. A single, bright-yellow flower head
E. Stems tall and prickly
F. None of the Above

217. The seed head is composed of many 1/8 inch-long rough, brown, oblong fruits with white hairs attached at the tip,_____.

A. Collectively forming a globe shape
B. Fluffy seed heads
C. Spring and fall
D. Coarsely toothed and conspicuous daisy-like flowers
E. Or toothed margins to having deep, pointed lobes
F. None of the Above

218. Plant Description: Tawny daylily is a _____, characterized by its beautiful orange flowers which line the roadsides in July. This species is not a true lily, as indicated by its unspotted blossoms and leafless stems.

A. Clump-forming perennial
B. Winter annual
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

219. Tawny daylily reproduces primarily by rhizomes (_____) and tuber-like roots, and rarely by seeds.

A. A twining vine
B. Is especially destructive
C. Vertical underground stems
D. Horizontal underground stems
E. Basal rosette
F. None of the Above

220. Plant Description: Broadleaf dock is a _____with a deep taproot that can reach depths of up to 5 feet. It reproduces primarily by seeds, but there is limited regeneration from root tissues.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Short-lived perennial
F. None of the Above

221. The plants grow as a basal rosette with relatively large leaves. The _____may reach heights up to 5 feet and will have smaller versions of the basal leaves arranged alternate.

A. Plant
B. Vine
C. Hairless reproductive stem
D. Horizontal underground stem
E. Basal rosette
F. None of the Above

222. The smartweed family is characterized by a papery sheath (called the ocrea) that _____.
A. Easy to pull and destroy
B. Is hard to control
C. Is classified as a perennial
D. Cover each node
E. Is a rosette-forming perennial
F. None of the Above

223. Dodder (Cuscuta and Grammica), is a twining yellow or orange plant sometimes tinged with purple or red. Occasionally it is almost white. _____and thread-like or relatively stout.
A. A twining plant
B. Is especially destructive
C. The stems can be very thin
D. Horizontal underground stems
E. Basal rosette with relatively large leaves
F. None of the Above

224. Description: Dodder is classified as a member of the _____in older references, and as a member of the Dodder Family (Cuscutaceae) in the more recent publications.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Morning-Glory Family (Convolvulaceae)
F. None of the Above

225. _____various kinds of wild and cultivated plants, and is especially destructive to alfalfa, lespedeza, flax, clover and potatoes.
A. A twining yellow or orange plant to
B. Is especially destructive to
C. Infested with dodder and will destroy
D. Horizontal underground stems with
E. Dodder parasitizes
F. None of the Above

226. Control: Its wide host range and the long life of its dormant seeds make dodder hard to control and _____.
A. Pulling and destroying
B. Hard to control
C. Is classified as a pest
D. Nearly impossible to eradicate
E. Is a rosette-forming perennial
F. None of the Above

227. Dodder seed can be spread by irrigation water, in the manures of livestock that have eaten infested alfalfa, or along with the seed of crops that were _____.
A. Seed
B. Especially destructive
C. Infested with dodder
D. Stems
E. Cut
F. None of the Above

228. Pulling and destroying dodder infected plants is recommended. _____before it produces seeds or infestations will spread.
A. Pull
B. Mow
C. Spray
D. Cover each plant
E. Dodder must be destroyed
F. None of the Above

229. Preemergent herbicides such as_____, applied to the soil in the spring prior to seed germination will prevent this pest. The use of a 2,4-D type herbicide or contact herbicide directed at infected hosts and dodder plants is effective in killing established parasitic plants (as well as the host). Always read and follow label directions when using herbicides.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

230. Plant Description: Garlic mustard is a _____ that forms a rosette the first spring and an upright stem with small white flowers the second spring. It is characterized by triangular, coarsely toothed leaves and a slender taproot with a distinct S-curve just below the root crown.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Stout perennial
F. None of the Above

231. Young leaves give off a strong garlic odor when crushed, but the odor fades with leaf age and is nearly gone by fall. Garlic mustard_____.
A. Stems are square
B. Reproduces only by seeds
C. Has multiple forks
D. Control in two generations
E. Resembles a wheat kernel
F. None of the Above

232. _____ and very difficult to control once established. It tends to form dense stands that crowd out herbaceous native flora. As a result, invasion of garlic mustard into forests tends to decrease the number of native spring species.
A. Stems are square
B. Fall application
C. Multiple forks
D. This weed is invasive
E. Resembles a wheat kernel
F. None of the Above

233. Garlic mustard can be controlled by _____for several years until the seedbank is depleted.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Preventing new seed production
F. None of the Above

234. Various methods can be used to_____, including cutting plants at ground level just before or during flowering, hand pulling, burning, or spot application of herbicides (optimally in early spring or fall).
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Prevent seed formation
F. None of the Above

235. When hand pulling, a significant portion of the root crown must be removed or else plants can resprout. However, the best management strategy is_____.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. To prevent establishment
F. None of the Above

236. Herbicide Control: Apply a _____(8 ounces in a 3-gal. sprayer) with a surfactant (or without a surfactant when near surface waters) to thoroughly wet all foliage in April through June (during flowering) to control two generations.
A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Glyphosate herbicide as a 2% solution in water
F. None of the Above

237. Description: Shiny geranium grows predominantly as _____though it may become biennial depending on moisture conditions.
A. An annual weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Goatgrass, Barbed
238. Description: _____; grows 8 to 16 inches tall with few to many culms. Leaf sheaths contain white hairs when young, becoming more or less smooth once matured. The blades are rigid, sharp, pointed, and spreading. Grain 1/4 inch long, resembling a wheat kernel.
A. Annual
B. Winter annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

239. Henbit is a _____occasionally found in lawns in early spring. The lower leaves have a stalk while the upper leaves clasp the stem.
A. An annual weed D. Biennial
B. Winter annual E. A stout perennial
C. Perennial F. None of the Above

240. Stems are square, like other members of the mint family. All the leaves are coarsely toothed and opposite from each other. Flowers appear in May and are_____, trumpet-shaped, pinkish white to purple, and form just above upper leaves.
A. Stems are square D. Two generations
B. About one-half inch long E. Resembling a wheat kernel
C. Multiple F. None of the Above

241. This weed is more often found in buffalograss than in bluegrass. Newly-seeded bluegrass and established bluegrass lawns with _____may have some henbit.
A. Pink flowers D. Poor density
B. A pungent odor E. Crowns
C. Newly-seeded grass F. None of the Above

242. Control: Henbit has a taproot and is easily pulled from moist soil. Heavy infestations can be controlled with_____, 2,4-D or 2,4-D combination herbicides; at or prior to flowering. Fall application of a pre-emergent herbicide (dithiopyr, isoxaben, pendimethalin or prodiamine) will prevent henbit germination.
A. Triclopyr + clopyralid D. A pre-emergent herbicide
B. 2,4-D combination herbicide E. DCPA (Dacthal)
C. Compound herbicide F. None of the Above

243. Description: Herb Robert is a branching, low growing_____. It has light green leaves that are deeply dissected and release a pungent odor making this plant easy to recognize.
A. Clump-forming perennial D. Biennial
B. Rosette-forming perennial E. Winter and spring annual
C. Perennial F. None of the Above

244. As the plants mature the foliage turns red. This red color is very noticeable under bright light conditions. The stems are_____, have multiple forks, and are brittle at the joints.
A. Square D. Round
B. Highly pubescent E. Resembling a wheat kernel
C. Multiple forks F. None of the Above

245. The roots are shallow allowing for easy hand removal. The pink flowers are perfect and five petaled. The receptacle is elongated into a pointed structure called a "_____" or “storks bill”. Herb Robert reproduces only by seeds.
A. Torus D. Break
B. Horn E. Root crown
C. Dash F. None of the Above

246. Flowers are usually _____creating uniform populations.
A. Are square D. Round
B. Self-fertile E. Resembling a wheat kernel
C. Multiple F. None of the Above

247. Plant Description: Johnsongrass is a large, coarse, _____, characterized by its purplish, pyramidal flower heads and the prominent white midrib down the leaf blade. It reproduces by seeds and stout rhizomes (horizontal underground stems), and can form large, dense patches.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A sod-forming perennial grass
F. None of the Above

248. Description: Jubata grass is a _____that ranges six to twenty-three feet tall. Plants have long leaves arising from a tufted base or tussock.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial weed
D. Biennial
E. Perennial grass
F. None of the Above

249. The flower cluster is a _____at the end of a very long stem. Stems generally are at least twice as long as the tussock.
A. Stem height
B. Japanese knotweed
C. Plumed panicle
D. Truncate leaves
E. Biennial or short-lived perennial
F. None of the Above

250. Plumes consist of_____, deep violet when immature, turning pinkish or tawny cream-white at maturity. Jubata grass is easily confused with pampas grass (Cortaderia selloana).
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Hairy female flowers
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

251. The two species are distinguished by stem height, leaf, plume, and spikelet color, florets, leaf tip, and _____.
A. Presence of viable seed
B. Japanese knotweed
C. A plumed panicle
D. Truncate leaves
E. Biennial or short-lived perennial
F. None of the Above

252. The _____ are less erect and more spreading and not fountain-like, when compared to tussocks of Cortaderia selloana.
A. Inflorescence
B. Tips of flower head bracts
C. Tips
D. Tussocks of jubata grass
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knapweed, Spotted
253. Description: _____; blooms midsummer to fall. Grows up to 3 feet tall. Multi-stemmed plant with several stems arising from crown.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

254. Flowers purple or rarely cream colored. _____ are usually black, thus the name "spotted." Seeds dispersed by wind, animals, and people.
A. Inflorescence
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems reddish-brown, nodes slightly swollen
F. None of the Above

Knotweed, Giant
255. Description: _____; blooms July to October. Grows over 12 feet tall. Closely related and similar to Japanese knotweed.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Biennial or short-lived perennial
F. None of the Above

256. Leaf cordate, or heart shaped; often exceeds one foot long. _____of creamy white flowers sparse and the flower size does not increase with maturity.
A. Inflorescence
B. Tips of flower head bracts
C. Stem height
D. Fountain-like
E. Stout stems
F. None of the Above

257. _____ with Japanese knotweed are common. Japanese knotweed is smaller with truncate leaves.
A. Hybrids
B. Spotted knotweed
C. Giant knotweed
D. Truncate leaves
E. Biennial or short-lived perennial weeds
F. None of the Above

258. Impacts: Giant knotweed is the largest of the knotweeds, enabling this species to dominate and out compete native or_____.
A. Beneficial plants
B. Tips of flower head bracts
C. Significant threat
D. Not fountain-like
E. Stout stems
F. None of the Above

Knotweed, Japanese
259. Description: _____; blooms July to October. Grows four to nine foot tall and has long creeping rhizomes.
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

260. Stout stems reddish-brown,_____. Leaves short stalked, trucate, broadly ovate and 2-6" long by 2-4" wide.
A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Nodes slightly swollen
E. A milky juice
F. None of the Above

261. Flowers greenish-white to cream in large plume-like clusters at the ends of the stems. _____ with giant knotweed are common.
A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Perennial
E. Herbaceous perennial weed
F. None of the Above

Lesser Celandine
262. Description: Lesser celandine is an herbaceous, _____ plant in the buttercup family (Ranunculaceae).
A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

263. Plants have a basal rosette of dark green, shiny, stalked leaves that are kidney to heart-shaped. The flowers open in March and April, have eight glossy, butter-yellow petals, and are borne singly on _____.
A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Delicate stalks that rise above the leaves
E. Herbaceous perennial weed
F. None of the Above

264. _____are produced along the stems of the above ground portions of the plant, but are not apparent until late in the flowering period.
A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. A milky juice
F. None of the Above

265. When in bloom, large infestations of lesser celandine appear as a green carpet with yellow dots, _____.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Spreading across the forest floor
E. Herbaceous perennial weed
F. None of the Above

266. There are many varieties of lesser celandine including a double-flowered form with many crowded petals and dark green leaves mottled with silvery markings. The primary reproductive method is the formation of turions that are_____.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Produced on the roots in large numbers
F. None of the Above

267. Leafy spurge (Euphorbia esula L.) is a creeping, _____of foreign origin that reproduces from seed and vegetative root buds.

A. Herbaceous perennial weed
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

268. Plant Description: Prickly lettuce is an erect biennial (_____) that grows as a rosette of basal leaves during its first year.

A. Clump-forming perennial
B. Rarely an annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

269. Each rosette gives rise to a _____that is usually erect and sometimes branched, especially the top portion where small, daisy-like, yellow flowers are borne.

A. Kidney to heart-shaped
B. Large infestations
C. Hybrids
D. Solitary stem
E. Herbaceous perennial weed
F. None of the Above

270. _____ and have prickly edges and a distinctive row of stiff, sharp prickles on the underside of midribs. Nearly half of the length of each seed consists of a beak having a tuft of silky white hairs (pappus) at the tip.

A. An erect biennial
B. Formation of turions
C. Pale-colored bulblets
D. Stout stems reddish-brown
E. Stem leaves are irregularly-lobed
F. None of the Above

271. All plant parts exude_____ . The plant reproduces only by seeds.

A. Stem tip
B. Fragmented stems
C. A milky juice when cut or broken
D. A biennial root crown
E. Purple-magenta flowers
F. None of the Above

272. Similar Species: Prickly lettuce can be confused with sowthistles (Sonchus spp.), which have prickly leaf margins but_____ .

A. Spikelets
B. Smooth midribs
C. Spreads by rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

273. Tall lettuce (Lactuca canadensis) and tall blue lettuce (Lactuca biennis) look similar to prickly lettuce except they have leaves with smooth edges and_____.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Midribs without prickles
E. Purple-magenta flowers
F. None of the Above

London Rocket

274. London rocket is a European native weed belonging to the mustard family, and is one of the _____ . It is abundant in irrigated land in crops such as alfalfa and small grains, in gardens, citrus orchards, pastures, and along roadsides.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. First winter weeds to appear
F. None of the Above

275. London rocket is a_____. The stems branch from the base 1 to 3 feet high. It has a coarse taproot. Small, yellow flowers are borne on slender stalks in small clusters at the stem tip.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. Bright green fleshy winter annual
F. None of the Above

Loosestrife, Purple

276. Plant Description: Purple loosestrife is a _____ plant that forms a dense bush consisting of up to 50 stems arising from a shallow root system, which includes a woody crown and rhizomes (horizontal underground stems).

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

277. Location should be considered when characterizing this plant, as it is a much more aggressive weed when growing in wet areas. It can be identified while in bloom by its purple-magenta flowers that form on_____ . Also, upper above-ground parts of the plant should appear densely hairy.

A. Stem tip
B. Fragmented stems
C. Stem are rounded
D. Distinctive terminal spikes
E. Purple-magenta flowers
F. None of the Above

278. Purple loosestrife reproduces by seeds and it spreads by_____.

A. Spikelets
B. Slow growing perennial
C. Rhizomes
D. Appear slightly crinkled, have toothed edges
E. A woody crown and rhizomes
F. None of the Above

Milkweed, Common

279. Milkweed plants, _____, are the only host plant for the monarch and queen butterflies. The adult females seek out these plants on which they lay their eggs.

A. Inconspicuous spikes
B. Rosette-forming perennial
C. Root system
D. Members of the Asclepias family
E. Twining vines, funnel-shaped flowers
F. None of the Above

280. The caterpillars that hatch will remain on the plants and eat the leaves until they enter the pupal stage, then emerge as adult butterflies. It is a _____ herb with long-spreading rhizomes.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Honeyvine

281. Plant Description: Honeyvine milkweed is a_____. Characteristics distinguishing it from other perennial vines include opposite (2 leaves per node), heart-shaped leaves and whitish, vase-shaped flowers that form in axillary clusters. Also, foliage exudes a cloudy sap if crushed or cut. The plant reproduces by seeds and horizontal spreading roots.

A. Twining perennial vine
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Milkweed, Swamp

282. Plant Description: Swamp milkweed is a_____. Its stems and leaves exude a white milky sap if cut or broken, which is a common characteristic of species in the Milkweed Family.

A. Clump-forming perennial
B. Slender perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

283. It can be distinguished from other milkweeds by its habitat, as it is the only native milkweed species preferring wet ground. Reproduction is by way of seeds and_____.

A. Flowers are distinctively prickly
B. Deep taproot and thick
C. Weakly creeping roots
D. Long-spreading rhizomes
E. Inconspicuous flower clusters
F. None of the Above

Morningglory, Bigroot

284. Plant Description: Bigroot morningglory is a _____ that shares numerous characteristics with other morningglories including twining vines, funnel-shaped flowers, and heart-shaped leaves. Unlike its relatives, bigroot morningglory has a very large and deep taproot. Reproduction is by seeds and creeping roots.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

285. Root system - The root system consists of a large, _____, yellowish-white creeping roots.

A. Flowers are distinctively prickly
B. Deep taproot and thick
C. Milkweed Family
D. Long-spreading rhizomes
E. Inconspicuous flower clusters
F. None of the Above

Motherwort

286. Plant Description: Motherwort is a _____that can grow up to 5 feet tall. As with other mint species, it has square stems and its foliage emits a pungent odor if crushed.

A. Stiff-stemmed perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

287. The pink to pale purple flowers are grouped in clusters of 6 to 15 at the axils where upper leaves attach to the stem. Sepals located directly beneath the flowers are_____. The plant reproduces by seeds.

A. Flowers are distinctively prickly
B. Deep taproot and thick
C. Distinctively prickly
D. Long-spreading rhizomes
E. Inconspicuous flower clusters
F. None of the Above

Mugwort

288. Plant Description: Mugwort is one of several closely-related _____with an erect growth form and dissected leaves that generally give off a strong odor.

A. Herbs
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

289. Mugwort can be distinguished by its dark-green leaves, which are hairless above and silvery-white beneath due to a covering of wooly hairs, and_____.

A. Flowers are distinctively prickly
B. Deep taproot and thick
C. Its sage-like odor
D. Long-spreading rhizomes
E. Inconspicuous flower clusters
F. None of the Above

290. Also, it has inconspicuous flower clusters on upright branches located at leaf axils on the upper portion of the stem. New plants arise at the upturned ends of short, stout, _____(horizontal underground stems). The plant rarely reproduces from seeds.

A. Flowers are distinctively prickly
B. Deep taproot and thick
C. Horizontal rhizomes
D. Long-spreading rhizomes
E. Inconspicuous flower clusters
F. None of the Above

Musk thistle

291. Musk thistle is an aggressive weed of foreign origin that occurs in pastures, rangeland, roadsides and non-crop areas. It is a biennial weed, although occasionally it is_____.

A. Clump-forming perennial
B. An annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

292. Because musk thistle reproduces solely from seed, the key for successful management is to prevent seed production. Musk thistle is a _____ weed that reproduces only from seed.

A. Clump-forming perennial
B. An annual
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

293. The key to successful musk thistle control is_____.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. To prevent seed production
F. None of the Above

294. Apply herbicides such as Tordon, Vanquish/Clarity or 2,4-D to musk thistle rosettes in spring or fall. Apply _____ up to the early flower growth stage.

A. Crabgrass killer
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. Ally or Telar
F. None of the Above

295. _____ into a management system for best results. Germination and seedling establishment are correlated with moisture and light. Thus, more seeds germinate and establish plants in open pastures and other degraded areas.

A. Combine control methods
B. 2,4-D combination herbicide
C. Compound herbicide
D. A pre-emergent herbicide
E. DCPA (Dacthal)
F. None of the Above

296. Vigorously growing grass competes with musk thistle, and _____occur in pastures where grazing is deferred. However, musk thistle also can become a problem in pasture or rangeland that is in good condition.

A. A waxy appearance
B. Nodes of the prostrate stems
C. Fewer thistles
D. Weedy escaped ornamental species
E. Musk thistle rosettes
F. None of the Above

Nettle, Stinging

297. Plant Description: Stinging nettle is an erect, herbaceous _____ that is widely known for its unpleasant stinging hairs on the stems and lower leaf surface. It reproduces by wind-dispersed seeds and creeping rhizomes (horizontal underground stems), and grows in dense clumps, often forming large colonies.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

Nightshade Bittersweet

298. Plant Description: Bittersweet nightshade is a _____ climbing or trailing vine that reproduces by seeds and rooting at the nodes of the prostrate stems. It can be distinguished from other viney plants by its hollow stems that are woody at the base and oval leaves with pointed tips.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

299. Attached to the leaf stalk (petiole) at the base of larger leaves are_____, which are absent in smaller leaves. Therefore, the plant has 2 leaf forms that, along with its blue-violet flowers and bright red berries, can be useful to distinguish bittersweet nightshade from other nightshade species. All parts of the plant give off a disagreeable odor when bruised.

A. 2 opposite lobes
B. Moisture and light
C. Finely toothed margins
D. A disagreeable odor when bruised
E. Woody deciduous vine with stems
F. None of the Above

300. Description: Oblong spurge is a weedy escaped ornamental species of Euphorbia. This plant is an exotic _____ herb that produces up to 20 stems on a woody rootstalk with the plants reaching nearly three feet in height.

A. Clump-forming perennial
B. Rosette-forming perennial
C. Perennial
D. Biennial
E. A stout perennial
F. None of the Above

You are finished with your assignment.