

WEED SCIENCE TEST

Plant Characteristics:

(MARK THE BEST ANSWERS IN THE BLANKS)

- Right answers*
X
1. A plant that requires two years to complete its life cycle is a
 a. perennial
 b. winter annual
 c. annual bluegrass
 d. biennial
 2. The most effective time to apply a soil-active herbicide for the control of general annual weeds is:
 a. late in the day.
 b. before they germinate.
 c. before they flower and set seed.
 d. when the temperature is above 50° F.
 3. Narrowleaved weeds can be recognized in the field by noting the:
 a. upright, narrow leaves.
 b. the seedhead and small seeds.
 c. the parallel veins in the leaves.
 d. the net-like veins in the leaves.
 4. A good example of a broadleaf weed is:
 a. yellow starthistle.
 b. Russian thistle.
 c. field bindweed.
 d. any of the above.
 5. Translocation in plants refers to: *A. could be right*
 a. the uptake of water, nutrients, and other chemicals by the plant.
 b. the production of food (photosynthates) by plants.
 c. the movement of synthates, herbicides, and other compounds in plants.
 d. the absorption of chemicals through the cuticle.
 6. The principal distinction between winter and summer annuals is whether:
 a. they live less than or more than one year.
 b. they germinate during the winter or summer period.
 c. a contact herbicide like paraquat will kill them.
 d. they bloom during the winter or summer period.
 7. Bermudagrass and johnsongrass both possess rhizomes. A rhizome is:
 a. a bulb.
 b. a thickened root.
 c. stolon.
 d. a specialized underground stem.

8. Biological control of weeds:

- a. is a good idea, but is impossible because of California's diversified crops.
- b. must be further developed on annual weeds in annual crops.
- c. has worked well on perennial weeds in California.
- d. controls a weed but does not eradicate the species.

9. Chemical weed control:

- a. provides the only completely adequate ultimate answer to the weed control problems in California.
- b. should only be used when everything else fails.
- c. should be viewed as a tool in plant management.
- d. is the only practice that requires a written recommendation.

10. The most common method of introduction of new weed species into a new geographic area historically has been through:

- a. irrigation water.
- b. livestock manure.
- c. planting seed.
- d. wind.

Herbicides:

11. A selective herbicide is one that is:

- a. applied to the soil and translocated in the plant.
- b. applied to the foliage and nonmobile in the plant.
- c. applied to the foliage and translocated in the plant.
- d. all of the above.

12. Classification of an herbicide as selective or non-selective depends on:

- a. chemical structure of the herbicide.
- b. formulation of the herbicide.
- c. how the herbicide is used.
- d. all of the above.

13. A translocated herbicide:

- a. kills only that part of the plant contacted by the chemical.
- b. moves in the plant.
- c. increases drift to non-target plants.
- d. none of the above.

14. An example of the selective use of an herbicide is:

- a. glyphosate (Roundup) to control ditchbank weeds.
- b. bromoxynil (Buctril, Brominal) in wheat and barley.
- c. paraquat applied postemergent in a preirrigated cotton field.
- d. bromacil (Hyvar-X) in vineyards.

15. Herbicide degradation is influenced by:
- a. sunlight
 - b. soil pH
 - c. soil microbe activity
 - d. all of the above
16. Cold and/or dry conditions generally:
- a. increase the breakdown of herbicides in the soil.
 - b. decrease the breakdown of herbicides in the soil.
 - c. have no influence on chemical degradation in soil.
 - d. enhance microbial activity in the soil.
17. Preplant or preemergence herbicides must:
- a. be mechanically incorporated into the soil.
 - b. act through the soil media.
 - c. have low volatility.
 - d. must be translocated in the plant.
18. Contact herbicides are:
- a. applied to the plant foliage.
 - b. incorporated into the soil.
 - c. applied to the soil surface.
 - d. all of the above.
19. Translocation in the plant refers to:
- a. the uptake of water, nutrients and other chemicals by the plant.
 - b. the production of food by the plant.
 - c. the movement of food and other materials in the plant
 - d. the absorption of chemicals through the cuticle.
20. An example of a selective foliar applied translocated herbicide is:
- a. 2,4-D
 - b. trifluralin (Treflan)
 - c. paraquat
 - d. oxyfluorfen (Goal)
21. A mixture in which very small particles of one liquid are suspended in another liquid is called:
- a. liquid formulation
 - b. emulsifying agent
 - c. wettable powder
 - d. emulsion
22. A basic herbicide when prepared for commercial use is called:
- a. diluent
 - b. miscible mixture
 - c. acid equivalent
 - d. formulation

23. A material that assists or modifies the spray solution in some manner is called:

- a. nonionic
- b. cationic
- c. activator
- d. adjuvant

24. A wetting agent is the same as a/an:

- a. additive
- b. thickener
- c. spreader
- d. detergent

25. An anionic wetting agent has the following electrical charge:

- a. neutral
- b. no charge
- c. positive
- d. negative

26. The most commonly used surfactant in herbicidal sprays is:

- a. cationic
- b. positively charged
- c. nonionic
- d. anionic

27. The average amount of surfactant used in most herbicide solutions is in the range of:

- a. 0.1 to 0.5%
- b. 1.0 to 5.0%
- c. 1/2 to 1.0%
- d. any of the above

28. With a phenoxy-type herbicide (2,4-D) maximum effect from added surfactant can be expected at the level of:

- a. 1.0 to 2.0%
- b. 1/2 to 1.0%
- c. 0.2 to 0.5%
- d. 0.5 to 1.0%

Nomenclature:

MATCH THE FOLLOWING TERMS WITH THE BEST DEFINITION.
NO DEFINITION IS USED MORE THAN ONCE.

	<u>Terms</u>	<u>Definitions</u>
1.	<u>H</u> Adjuvant	A. A material that accentuates the emulsifying, spreading, or wetting properties of spray solutions at a surface.
2.	<u>F</u> Winter annual	B. The chemicals in a product that are responsible for the herbicidal effect.
3.	<u>R</u> Acid equivalent	C. A plant that completes its life cycle in one year.
4.	<u>L</u> Wetting agent	D. A mixture in which minute globules of one liquid are suspended in another liquid.
5.	<u>E</u> Contact herbicide	E. A plant that continues to live from one year to the next.
6.	<u>B</u> Active ingredient	F. A herbicide that kills only where it is applied and does not move within the plant.
7.	<u>D</u> Surfactant	G. A herbicide that moves within the plant from the point of application.
8.	<u>V</u> Emulsion	H. A material added to the spray solution.
9.	<u>M</u> Hormone	I. A plant that produces vegetative growth the first year and flowers the second year.
10.	<u>P</u> Perennial	J. A plant that germinates in the fall and completes its growth cycle the next year.
		K. The parent acid.
		L. A compound which causes the spray solution to contact surfaces more thoroughly.
		M. A growth regulating substance that may occur naturally in plants or may be synthesized by man.
		N. Can produce genetic change.

