

Unit 4 Test Plant Health

Name _____ Date _____ Hour _____

Multiple Choice

Choose the answer that best completes each statement or question.

- ___ 1. Which macronutrient promotes plant growth, increases leaf size and gives plants their dark green color through the production of chlorophyll?
- A. sulfur
 - B. phosphorus
 - C. potassium
 - D. nitrogen
- ___ 2. Which macronutrient promotes vigor and disease resistance and increases tolerance to weather changes?
- A. sulfur
 - B. chlorine
 - C. potassium
 - D. nitrogen
- ___ 3. Which macronutrient is needed by the plant for growth and reproduction, and promotes germination and seed growth?
- A. copper
 - B. phosphorus
 - C. manganese
 - D. nitrogen
- ___ 4. Which macronutrient is a component of cell walls and helps plants maintain strength?
- A. calcium
 - B. sulfur
 - C. magnesium
 - D. molybdenum
- ___ 5. Which macronutrient stimulates root growth and is also needed for protein formation?
- A. calcium
 - B. sulfur
 - C. magnesium
 - D. molybdenum

- ___ 6. Which macronutrient is essential for chlorophyll production and also aids in the metabolism of carbohydrates and aids enzyme reactions necessary for growth?
- A. iron
 - B. sulfur
 - C. magnesium
 - D. molybdenum
- ___ 7. Which micronutrient aids in the production and transport of sugars, and is also essential for pollination and reproduction?
- A. boron
 - B. iron
 - C. chlorine
 - D. copper
- ___ 8. Which micronutrient is needed for chlorophyll formation and oxygen transfer?
- A. zinc
 - B. iron
 - C. chlorine
 - D. copper
- ___ 9. Which micronutrient is important in respiration and nitrogen metabolism, and is also needed for chlorophyll formation?
- A. sulfur
 - B. calcium
 - C. chlorine
 - D. manganese
- ___ 10. Which micronutrient helps activate enzymes that regulate plant growth, is important in chlorophyll production, and is also involved in respiration and protein production?
- A. zinc
 - B. iron
 - C. chlorine
 - D. copper
- ___ 11. Which micronutrient aids in nitrogen metabolism and the formation of root nodules?
- A. iron
 - B. chlorine
 - C. copper
 - D. molybdenum

- ___ 12. Which micronutrient aids in the production of proteins and helps regulate chemical processes?
- A. iron
 - B. boron
 - C. copper
 - D. magnesium
- ___ 13. Which micronutrient is needed for photosynthesis?
- A. calcium
 - B. chlorine
 - C. nitrogen
 - D. magnesium
- ___ 14. A plant that has yellowing on older leaves near the bottom of the plant with the remaining plant appearing light green is likely to have a ___.
- A. nitrogen deficiency
 - B. boron deficiency
 - C. manganese deficiency
 - D. phosphorus deficiency
- ___ 15. What nutrient deficiency can cause a reddish or purplish color to the leaves?
- A. nitrogen deficiency
 - B. boron deficiency
 - C. manganese deficiency
 - D. phosphorus deficiency
- ___ 16. What nutrient deficiency will cause yellowing, especially of young leaves, will cause terminal buds to die, and will also cause plants to fail to set seed?
- A. nitrogen deficiency
 - B. boron deficiency
 - C. manganese deficiency
 - D. phosphorus deficiency
- ___ 17. What nutrient deficiency will cause reduced growth, yellowing of leaves, and white stripes along the veins of leaves?
- A. nitrogen deficiency
 - B. boron deficiency
 - C. magnesium deficiency
 - D. phosphorus deficiency

- ___ 18. What nutrient deficiency will cause yellowing, especially of young leaves, with the veins remaining green and may also cause brown spotting?
- A. nitrogen deficiency
 - B. boron deficiency
 - C. manganese deficiency
 - D. phosphorus deficiency
- ___ 19. A plant that has reduced or stunted growth and older leaves that appear scorched or dried is most likely to have a ___.
- A. iron deficiency
 - B. boron deficiency
 - C. manganese deficiency
 - D. potassium deficiency
- ___ 20. What nutrient deficiency will cause yellowing of leaves, especially younger leaves, and will also cause new growth to appear small and abnormal?
- A. nitrogen deficiency
 - B. boron deficiency
 - C. copper deficiency
 - D. potassium deficiency
- ___ 21. What is the number on the pH scale that indicates a neutral pH?
- A. 0
 - B. 7
 - C. 14
 - D. 21
- ___ 22. Numbers that are an indication of acidity on the pH scale are numbers that are ___.
- A. below 7
 - B. above 7
 - C. above 14
 - D. between 7 and 14
- ___ 23. Numbers that are an indication of alkalinity on the pH scale are numbers that are ___.
- A. below 7
 - B. above 7
 - C. above 14
 - D. between 0 and 7

- ___ 24. Most plant nutrients are available when the soil pH is between ____.
- A. 0 and 3.0
 - B. 4.0 and 5.0
 - C. 6.0 and 7.0
 - D. 7.0 and 8.0
- ___ 25. Fertilizer refers to soil amendments that ____.
- A. are sold commercially
 - B. contain more than two ingredients
 - C. contain more than three ingredients
 - D. contain a guaranteed minimum percentage of nutrients
- ___ 26. What is often used to raise the pH and is used on acidic soils?
- A. sulfur
 - B. ground limestone
 - C. alfalfa meal
 - D. soybean meal
- ___ 27. What is often used to lower the pH and is used on alkaline soils?
- A. sulfur
 - B. ground limestone
 - C. alfalfa meal
 - D. soybean meal
- ___ 28. What insects may inject toxic materials into the plant?
- A. chewing insects
 - B. sucking insects
 - C. boring insects
 - D. pecking insects
- ___ 29. What insects cause damage to plants such as uneven or broken margins on the leaves and other plant parts?
- A. chewing insects
 - B. sucking insects
 - C. boring insects
 - D. pecking insects
- ___ 30. What insects cause damage that is often hard to detect?
- A. chewing insects
 - B. sucking insects
 - C. boring insects
 - D. pecking insects

True or False

Indicate if each statement is true or false.

- ___ 31. Nutrient deficiencies may be difficult to determine because many nutrient deficiencies can appear similar.
- ___ 32. Some nutrients can become toxic to plants at certain pH levels.
- ___ 33. The nutrients aluminum, zinc, copper, and iron are more readily available in alkaline soils.
- ___ 34. Soil amendments can help improve properties such as water retention, permeability, drainage, nutrient-holding capacity, and aeration.
- ___ 35. A complete fertilizer contains all of the macronutrients.
- ___ 36. The main organisms that cause plant diseases are fungi, bacteria, viruses, and nematodes.
- ___ 37. If a plant is considered a weed, it is always considered a weed regardless of location.
- ___ 38. Certain insects are considered beneficial insects and eat harmful crop pests.
- ___ 39. Animals cause damage to plants mainly by stepping on plant parts.
- ___ 40. Plant diseases can form in any environment.

Matching

Match each method of pest treatment with its definition.

- A. biological
- B. chemical

- C. cultural
- D. mechanical

- ___ 41. the use of pesticides, insecticides, and herbicides
- ___ 42. crop rotation, trap cropping, removal of crops or pruning of infested parts, tilling, and good sanitation practices
- ___ 43. using organisms to help control pests
- ___ 44. traps, temperature extremes, hand removal and cultivation

Short Answer

45. What is the difference between a complete fertilizer and an incomplete fertilizer?
