

Plant Nutrition and Fertilization

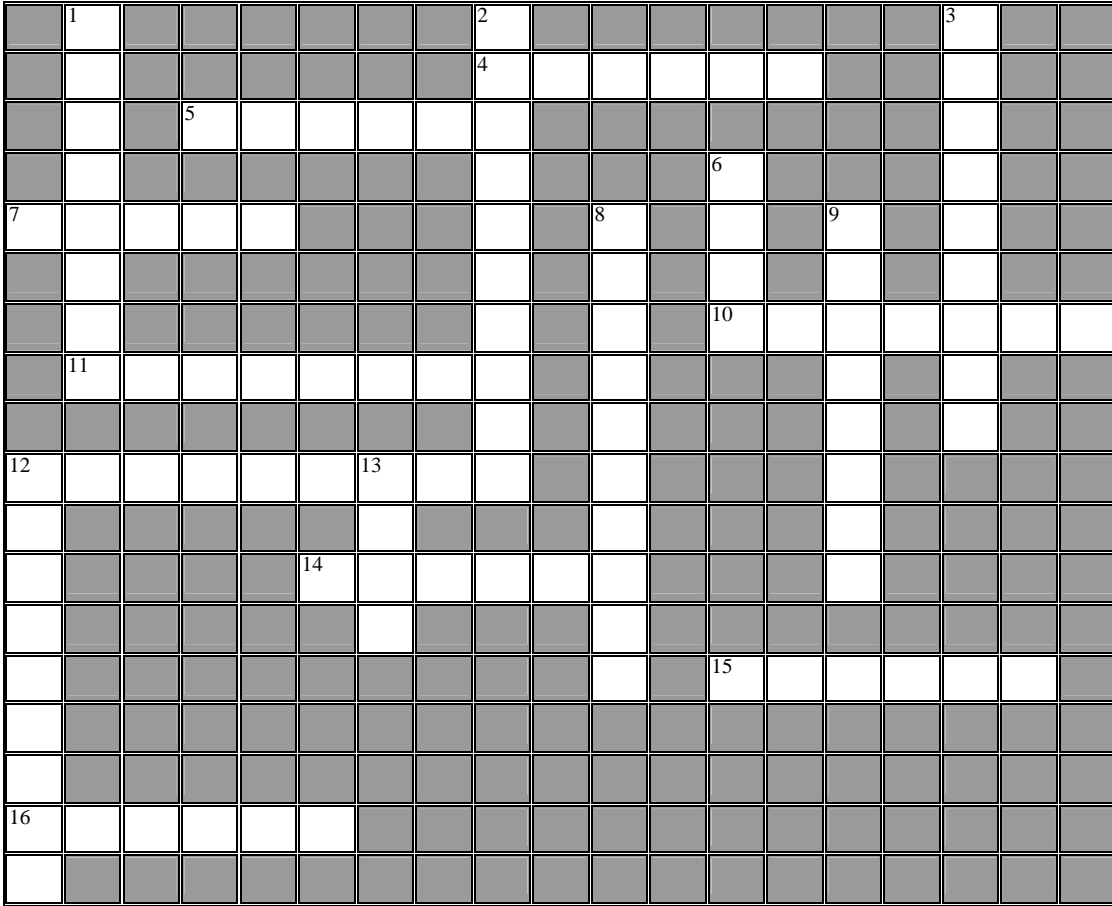
Questions are based upon Leslie Allen's lecture **and** Chapter 5 pgs. 90-105 of the Retail Garden Center Manual.

1. Name at least one function of each of the three primary macronutrients. (3pts)
2. How is nitrogen naturally cycled into the soil? (2pts)
3. Is fertilizer plant food? Why or why not? (3pts)
4. True or false: Woody landscape plants always require fertilizer. (1pt)
5. Why is it important to know the pH of soil? (4pts)
6. What macro and micro nutrients become unavailable to plants when the soil pH is 8.5? (3pts)

10. What is the difference between fertilizer and amendment? (4pt)

11. What is the benefit to leaving grass clippings on lawns? (3pts)

Plant Nutrition Crossword
Clues are on next page



DOWN

1. Essential element found in water, plants die without it
2. Micronutrient helps in the use of nitrogen
3. Primary macronutrient helps in the building of protein, photosynthesis, fruit quality and reduction of diseases
6. Micronutrient essential for the transformation of carbohydrates, regulates consumption of sugars, and part of the enzyme systems which regulate plant growth
8. Primary macronutrient effects rapid growth and encourages blooming and root growth
9. Micronutrient aids plant metabolism
12. Micronutrient functions with enzyme systems involved in breakdown of carbohydrates, and nitrogen metabolism
13. Micronutrient essential for formation of chlorophyll

ACROSS

4. Essential element found in air and water, everyone dies without it
5. Micronutrient functions in urea metabolism
7. Micronutrient aids production of sugar and carbohydrates, and essential for seed and fruit development
10. Secondary macronutrient an essential part of plant cell wall structure, provides for normal transport and retention of other elements as well as strength in the plant
11. Primary macronutrient helps plants with rapid growth, increasing seed and fruit production and improving the quality of leaf and forage crops
12. Secondary macronutrient part of the chlorophyll in all green plants and essential for photosynthesis. It also helps activate many plant enzymes needed for growth
14. Micronutrient important for reproductive growth, aids in root metabolism and helps in the utilization of proteins
15. Essential element found in the air, all organic molecules are made from it
16. Secondary macronutrient helps in chlorophyll formation and improves root growth and seed production