UF | IFAS Extension
UNIVERSITY of FLORIDA

In-Service Training (IST#: 31893)/CEU Roundup (FDACS CEU #: 30223)/CCA Tracking #: FL 53817 thru FL 53822

New Technology for Commercial Vegetable and Fruit Production (IX)

Wednesday, February 24, 2021

County:_____ City:_____ Zip code:_____

Pre-test

Name:_____(Use the **same** name or symbol for pre- and post-tests)

1. **The instrument VERIS is used for one of the following measurements.**

   a. Soil nutrients.
   b. Plant height.
   c. Soil EC.
   d. Soil mapping.
   e. Soil minerals.
   f. All the above.

2. **NDVI does NOT stand for Normalized difference vegetative index.**

   a. True.
   b. False.

3. **The difference between active and passive sensors is:**

   a. Active sensors work automatically
   b. Passive sensors need human help to operate
   c. Active sensors have their light source
   d. Passive sensors have their light source
   e. Both sensors depend on sunlight

4. **What is the one thing you need to know before making a diagnosis.**

   a. The orchard history.
   b. What a healthy plant looks like.
   c. How the problem developed.
   d. All the above.

5. **What is the difference between a symptom and a sign?**

   a. A sign must always be seen with a microscope.
   b. Symptoms are on the plant first.
   c. A symptom is the first indication of a pathogen and a sign is proof of a pathogen.
   d. All the above.

6. **What specific characteristic distinguishes a nutritional deficiency from a pathological or pest symptom.**

   a. Nutritional deficiencies are generally symmetrical.
   b. Nutritional deficiency symptoms do not change over time.
   c. Nutritional deficiency symptoms are different for different tree species.
   d. All the above.

7. **Which of the below new diagnostic tool/s can identify a causal pathogen with high specificity and sensitivity**

   a. Multi-spectral sensor.
   b. Hyper-spectral sensor
   c. Raman spectroscopy
   d. Recombinase polymerase amplification

8. **Which of the below new diagnostic tool/s uses laser and captures molecular vibrations as the approach in analysis?**
   a. Multi-spectral sensor
   b. Hyper-spectral sensor
   c. Raman spectroscopy
   d. Recombinase polymerase amplification
9. **Which of the below new diagnostic tool/s uses neutral network as the approach in analysis.**
   a. Multi-spectral sensor
   b. Hyper-spectral sensor
   c. Raman spectroscopy
   d. Machine learning and Artificial Intelligence (AI)
10. **What are the weed management challenges for the future?**
    a. Increasing demand for food production
    b. Decreasing herbicide tolerance by the weeds
    c. Increasing number of new herbicide chemistries
    d. All the above
11. **Select the appropriate statement regarding slow-release herbicide carriers?**
    a. They decrease herbicide retention in the soil
    b. They potentially improve crop-safety
    c. Both a and b
    d. They reduce carry-over toxicity to subsequent crops
    e. All the above
12. **Which is NOT a benefit of planting cover crops?**
    a. Reduce weeds
    b. Reduce soil erosion
    c. Reduce soil moisture
    d. Reduce soil compaction
13. **True or false: Legumes can contribute to soil nitrogen concentrations because of a symbiotic relationship with a specific type of bacteria.?**
    a. True
    b. False
14. **Which of the following ARE questions that you should ask when evaluating soil microbial amendments:**
    a. What is the concentration of organisms being added?
    b. What are the conditions required for inoculation?
    c. Has the amendment been used with your crop of choice before?
    d. a and b
    e. a, b, and c
15. **What is the <u>primary challenge</u> to optimizing N uptake by crops in organic systems?**
    a. Regulations
    b. Synchronizing N availability with crop demand
    c. Excess precipitation
    d. Germplasm not ideal for organic systems
    e. Fertilizer technology
16. **Which factor is the <u>least important</u> in the development of a nitrogen BMP for organic carrots?**
    a. Irrigation and precipitation rates
    b. Nutrients are sourced from plants and animals
    c. Nitrogen contribution from cover crops and/or weeds
    d. The rate of plant development