



# Maryland Department of Agriculture

Office of Resource Conservation  
Nutrient Management Program

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## University of Maryland Agricultural Nutrient Management Webinar January 8, 2015 Course #2008

### Post-Program Quiz for Agricultural NM CEUs

Complete this quiz with the information you learn from the Webinar presentations.

You must answer all the items correctly and submit this form to MDA to earn **2 Maryland Agricultural Nutrient Management continuing education credits**. Be sure to print your answers clearly. You must also include your printed name and the number as shown on your Maryland NM certificate or applicator voucher, your signature, date completed and your contact information.

Email [Tia.Randall-Murray1@maryland.gov](mailto:Tia.Randall-Murray1@maryland.gov) or mail completed form to: **MDA Nutrient Management Program, 50 Truman Pkwy #201, Annapolis MD 21401**, no later than 3 business days after you view the program. Keep a copy for your records.

### Part 1: "Soil Testing for Effective Nutrient Management"

1. What is the presenter's name? \_\_\_\_\_
2. Soil testing predicts the probability of a profitable crop response to \_\_\_\_\_ and \_\_\_\_\_.
3. Which phase of soil fertility testing is most prone to significant error? \_\_\_\_\_
4. List the 3 types of soil variability. \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_
5. In grid point sampling, what factors determine the spacing in the grid? \_\_\_\_\_
6. Besides the nutrient levels, what is the most important result on a soil test report? \_\_\_\_\_
7. Define soil nutrient intensity. \_\_\_\_\_
8. All soil testing methods will give a number, so how do scientists determine nutrient recommendations?  
\_\_\_\_\_
9. A lab's soil test result shows P to be 75 lbs./acre; would they show the same number for P<sub>2</sub>O<sub>5</sub> in lbs./acre? \_\_\_\_\_
10. What 3 specific field conditions could contribute to micronutrient deficiency symptoms in a crop, even if the soil test falls within the sufficiency range?  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

*Continued on next page*

## Part 2: “Plant Mineral Analysis”

11. How long after nutrient application should you wait before taking a soil sample? \_\_\_\_\_
12. When is the best time to sample manure? \_\_\_\_\_
13. Where in the sugarcane plant was leaf sample potassium concentration the greatest? \_\_\_\_\_
14. For which crop is tissue testing the primary source of information on nutritional status? \_\_\_\_\_
15. What is the interpretation for a tissue sample result coming back as “excessive?” \_\_\_\_\_  
\_\_\_\_\_
16. In the Westwood study, what was the calcium level taken at 50 days? \_\_\_\_\_ 200 days? \_\_\_\_\_
17. Using the table in the presentation, what is the interpretation for a K level of 1.6 in brambles? \_\_\_\_\_
18. What 3 collection criteria must be met to get an accurate tissue sample analysis? \_\_\_\_\_,  
\_\_\_\_\_, and \_\_\_\_\_
19. Penn State says to sample (what) \_\_\_\_\_ (when) \_\_\_\_\_ for pumpkins.
20. The sufficiency range for nitrogen in wheat is \_\_\_\_\_.
21. What is an area for further investigation to help determine why a crop is underperforming when: the soil test is “excessive” for a nutrient, but the tissue test for that nutrient is “insufficient?”  
\_\_\_\_\_
22. How should you handle and prepare a tissue sample for shipment to the testing lab?  
\_\_\_\_\_
23. In Maryland, what are the limitations on which plant tissue analysis lab you can use?  
\_\_\_\_\_

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I certify that I have viewed this program and am entitled to receive continuing education credits toward renewal of my Maryland Agricultural Nutrient Management certification or voucher. I understand that this **form may not be copied or distributed** to persons who did not participate in the program, that **online presentations for viewing may be withdrawn without notice**, and that **quizzes submitted after that time will not be accepted** for NM CEUs.

<i>Printed Name</i>	<i>Signature</i>
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<i>Daytime phone</i>	<i>Email</i>