

## ROCKY MOUNTAIN CCA SELF-STUDY EXAMINATION

## DIRECTIONS

1. Clearly mark an "X" in the brackets next to the best answer to each question. Complete evaluation form and registration form.
2. Tear out this page and place in envelope along with a \$10 check (processing fee) payable to the American Society of Agronomy (or fill out credit card information). Payment in U.S. currency only.
3. Mail self-study exam and fee to: ASA c/o CCA Self-Study Exam, 677 S. Segoe Road, Madison, WI 53711.

*A passing exam score (70%) is worth 1.0 Rocky Mountain CEU's in soil and water management.*

## QUESTIONS

1. Mycorrhizae are a
  - a. Nitrogen-fixing bacteria
  - b. Actinomycete
  - c. Protozoa
  - d. Plant-fungi symbiosis
2. Granular structure is largely the result of
  - a. Soil biological processes
  - b. Compaction
  - c. Water infiltration
  - d. Sand dominated soils
3. A typical agricultural soil is usually
  - a. 10% air and 90% solids
  - b. 50% solids and 50% pores
  - c. 25% air and 75% solids
  - d. 10% air, 40% water and 50% solids
4. The soil property which is generally considered to be relatively constant and the most important physical property of the soil is
  - a. Soil water
  - b. Soil porosity
  - c. Soil texture
  - d. Bulk density
5. At 70% saturation, microorganism activity is most likely low because of
  - a. Low nutrient availability
  - b. Low available oxygen
  - c. Low temperatures
  - d. Low capillary water content
6. Of the following soil types, which would most likely hold the most water at field capacity?
  - a. Silt
  - b. Sandy loam
  - c. Clay loam
  - d. Loam
7. Most chemical reactions in the soil occur on the surface of
  - a. Sand particles
  - b. Silt particles
  - c. Colloid particles
  - d. Water molecules

8. Sodic soils are dominated by \_\_\_\_\_ ions on exchange sites.  
 a. Calcium  
 b. Potassium  
 c. Sodium  
 d. Aluminum
9. The most biologically active region in the soil is the  
 a. B horizon  
 b. C horizon  
 c. Earthworm casts  
 d. Rhizosphere
10. Calcareous soils in Montana and Wyoming are most likely  
 a. Acidic  
 b. Alkaline  
 c. Neutral  
 d. There is no correlation between calcareous soils and pH

## SELF-STUDY EVALUATION FORM

### SOIL AND WATER MODULE #1

		STRONGLY DISAGREE	←————→	STRONGLY AGREE		
Information presented will be useful in my daily crop advising activities . . . . .	1	2		3	4	5
Information was organized and logical . . . . .	1	2		3	4	5
Graphics/tables were appropriate and enhanced my learning . . . . .	1	2		3	4	5
I was stimulated to think how to use and apply the information presented. . . . .	1	2		3	4	5
The article addressed the stated competency area and performance objective(s) . . . . .	1	2		3	4	5

*What suggestions (general and specific) do you have to improve future modules?*

*Topics you would like to see addressed in future self-study materials:*

## SELF-STUDY EXAM REGISTRATION FORM—

### FOR ROCKY MOUNTAIN CCA CREDIT

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

CCA Certification #: \_\_\_\_\_ Credit Card Type and # \_\_\_\_\_

Expiration Date: \_\_\_\_\_ Name on Card: \_\_\_\_\_

*A \$2.00 Processing Fee will be added to all credit card charges.*

I certify that I alone completed this self-study course and recognize that an ethics violation may revoke my CCA status.

\_\_\_\_\_  
Signature of registrant as it appears on Code of Ethics

\_\_\_\_\_  
Date