

Utah State FFA Agronomy CDE 2003

Name or Number: \_\_\_\_\_ FFA Chapter: \_\_\_\_\_

Team: \_\_\_\_\_ Score: \_\_\_\_\_

There are 219 points possible, two points for each question except for the judging, grading, and disorder identification. The break down follows:

- 10 general agricultural production (multiple choice)
- 5 general soils (multiple choice)
- 15 pesticides (fill in the blank)
- 30 weed identification
- 15 crop identification
- 10 seed identification
- 2 soil samples(2 points each)
- 1 class of crop/seed judging (10 points)
- 1 class of grain grading (10 points)
- 5 plant/soil disorder identification (25 points)

Tie breaker: The 30 weed identification and then if needed, the seed identification will be used as tie breakers for individuals and teams.

General Crops Questions (Circle the best answer)

1. The blue tag on a bag of Utah Certified seed is issued by what organization?
  - A. USDA
  - B. Utah Crop Improvement Association
  - C. Pioneer HybridSeedCompany
  - D. Utah State University
  - E. None of the above
  
2. After a plant reaches maturity, what happens to its forage quality in general?
  - A. % Fiber increases and % protein decreases
  - B. % Fiber and protein decrease
  - C. % Fiber and protein increase
  - D. % Fiber decreases and % protein increases
  - E. None of the above
  
3. Which crops may benefit from a seed inoculation with *Rhizobium*?
  - A. Legumes
  - B. Alfalfa
  - C. Peas
  - D. A&B
  - E. All of the above
  
4. Which of the following affect soil erosion?
  - A. Slope
  - B. Condition of soil surface
  - C. Direction of tillage
  - D. Amount of crop residue
  - E. All of the above

5. Compare the following tags of barley seed offered for sale. Which Seed has the greatest percentage of pure live seed?
- A. Bag 1 95 % pure seed, 100 % germination, 5 % weed seed
  - B. Bag 2 98 % pure seed, 90 % germination, 2 % weed seed
  - C. Bag 3 95 % pure seed, 95 % germination, 5 % weed seed
  - D. Bag 4 100 % pure seed, 94 % germination, 0 % weed seed
6. In Utah, which government agency checks seed labels and tests seed to determine if it is legal for sale?
- A. USDA
  - B. United State Department of Agriculture
  - C. Sheriffs
  - D. Utah Department of Agriculture and Food
  - E. All of the above
7. Farmer Brown wants to apply 75 lbs/acre of available Nitrogen to his garden. If he purchases a common yard and garden fertilizer 16-16-8, how much total product will he need for his ½ acre garden?
- A. 234.38 lbs
  - B. 937.50 lbs
  - C. 468.75 lbs
  - D. 37.5 lbs
  - E. 600 lbs
8. What is the process that preserves forage in silage production?
- A. Fixation
  - B. Volatilization
  - C. Fermentation
  - D. A&C
  - E. All of the above
9. An acre is how many square feet?
- A. 45,640
  - B. 25,280
  - C. 10,000
  - D. 43,560
  - E. 5,280
10. What is the basic difference between winter and spring wheat?
- A. One is red and one is white
  - B. One is requires a cold period (winter) to flower
  - C. One is harvested in the winter and the other in the spring.
  - D. One is good for baking bread the other for cookies
  - E. None of the above

#### Soils

11. Which of the following cause soil compaction?
- A. Grazing wet pastures
  - B. Heavy farm machinery
  - C. Improper tire inflation
  - D. B&C only
  - E. All of the above

12. Alkaline soils in Utah are primarily the result of:

- A. Acid rain
- B. Low precipitation
- C. Pollution
- D. Erosion
- E. B&D

13. Soil pH is:

- A. A measure of acidity or alkalinity
- B. A rating of soil color and has no affect on soil fertility
- C. The negative logarithm of the oxygen ion concentration in solution
- D. A rating scale of 0 to 14, 1 being alkaline.
- E. A direct measure of phosphorus

14. A soil test recommends adding phosphorus to a field. Which fertilizer could you use?

- A. 34-0-0
- B. 0-0-60
- C. 0-45-0
- D. Manure
- E. C&D

15. Alfalfa is good for soil fertility because?

- A. They use less water then grasses
- B. They use very little potassium
- C. They fix nitrogen into the soil
- D. B&C
- E. All of the above

Pesticides NOTE: You should have received 2 pesticide labels and a crop scouting report to answer these questions.

16. What are the product names? \_\_\_\_\_ & \_\_\_\_\_

17. What is the active ingredient and % on the Blue label? \_\_\_\_\_

18. What is the active ingredient and % on the Yellow label? \_\_\_\_\_

19. What is the one or two word general statement the reflects the toxicity level of the Blue label pesticide? \_\_\_\_\_

What is the one or two word general statement the reflects the toxicity level of the Yellow label pesticide? \_\_\_\_\_

20. Which product requires a license or direct supervision of someone with a license to apply?  
\_\_\_\_\_ Why is it a restricted use pesticide?  
\_\_\_\_\_

21. What personal protective equipment is needed for both products?  
\_\_\_\_\_ shirt, \_\_\_\_\_ pants, Chemical-resistant \_\_\_\_\_,  
\_\_\_\_\_ and \_\_\_\_\_.

22. What additional equipment is needed to mix and apply the blue labeled product?  
\_\_\_\_\_ and \_\_\_\_\_

23. Name two non target species, listed on the label, that may be killed by these products  
\_\_\_\_\_

24. What should be done before chewing gum, eating, drinking, using tobacco, or using the toilet?

\_\_\_\_\_

25. What should be done with or how should clothing be treated if drenched with the blue labeled product?

\_\_\_\_\_

26. Do not use or store either product in what location? \_\_\_\_\_

27. Can these products be applied to water? \_\_\_\_\_ What other areas pose an environmental hazard? \_\_\_\_\_

28. What does REI stand for? \_\_\_\_\_ What is the REI for alfalfa for the blue product \_\_\_\_\_ yellow \_\_\_\_\_

29. What is the minimum harvest interval (days) for alfalfa of the yellow product? \_\_\_ blue? \_\_\_

30. Based on the crop scout report which product should be used on the alfalfa for grasshoppers? \_\_\_\_\_ Why? \_\_\_\_\_