

Utah State FFA Crops Contest 2002

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

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

There are 100 points possible, one point for each question except for the 2 crop/seed judging classes, which are worth 5 points each. The break down follows:

- 10 general agricultural production (multiple choice)
- 5 general soils (multiple choice)
- 5 pesticides (multiple choice)
- 5 insect identification
- 5 plant/soil disorder identification
- 30 weed identification
- 20 crop identification
- 10 seed identification
- 2 classes of crop/seed judging

Tie breaker: The 30 weed identifications will be used as tie breakers for individuals and teams. Should a tie still exist then general question # 10 will be used.

General Crops Questions (Circle the best answer)

1. What is a primary function of the Utah Crop Improvement Association?

- A. Regulation of pesticide use on crops
- B. Certification of seed
- C. Developing new hybrids
- D. Collecting taxes on harvested crops
- E. None of the above

2. Which component of some hay/forages could cause frothy bloat in ruminant animals when digested too rapidly?

- A. Lignin
- B. Fiber
- C. Protein
- D. Sugars
- E. Carbohydrates

3. *Rhizobium* is an important organism and seed inoculant because:

- A. It provides a symbiotic relationship with grasses
- B. It biologically provides nitrogen to crops
- C. It causes a damaging infection in roots of legumes
- D. A&B
- E. All of the above

4. Which of the following practices reduce soil erosion?

- A. Contour strip farming
- B. Leaving soils ruff with the use of primary tillage
- C. Use of a dammer diker
- D. Leaving crop residue to absorb rainfall impact
- 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. Which of the following would make a bag of seed illegal to sell?
- A. 50 % hard seed
  - B. 1.0 % weed seed
  - C. 0.5 % noxious weed seed
  - D. 25 % germination
  - 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. The pesticide 2,4 -D should not be used in weather above 80° F because:
- A. It has no effect on target pests at this temperature
  - B. It volatilizes and could cause damage to other plants by drift
  - C. It does not mix with water above this temperature
  - 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. Farmer John wants a harvest stand of corn that is 34,000 plants/acre. Assuming a 12 percent mortality rate, what seeding rate in plants/acre should he use?
- A. 40,800
  - B. 38,080
  - C. 38,636
  - D. 34,000
  - E. 29,920

#### Soils

11. Tillage of soil when it is too wet, causes which of following undesirable effects?
- A. Compaction
  - B. Poor soil structure
  - C. Large clods
  - D. None of the above
  - E. All of the above

12. Soils in Utah can generally be described as:

- A. Acidic
- B. Non calcareous
- C. Alkaline
- D. Low in potassium
- E. A&B

13. Soil pH is:

- A. A measure of acidity or alkalinity
- B. The rate of ammonium converted to nitrate
- C. The negative logarithm of the oxygen ion concentration in solution
- D. A rating scale of 0 to 14, 8 being neutral.
- 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. 11-52-0
- E. C&D

15. Soil textures are classified by which three components?

- A. Gravel, sand, clay
- B. Sand, silt, clay
- C. Sand, silt, organic material
- D. Sand, clay, organic material
- E. Silt, clay, organic material

#### Pesticides

16. Which government entity regulates pesticides in the state of Utah?

- A. Utah State University
- B. Sheriff Departments
- C. Utah Crop Improvement Association
- D. Utah Department of Agriculture and Food
- E. United States Department of Agriculture

17. Which of the following is considered a pesticide?

- A. a herbicide
- B. a fungicide
- C. bug spray (kills the insects)
- D. A&C
- E. all of the above

18. Which of the following should be done first when considering pest control?

- A. Use protective equipment
- B. Calculate an economic threshold
- C. Read the label
- D. Identify the pest
- E. Check the weather

19. A restricted use pesticide means that:

- A. Only government can use it.
- B. Applicators must be licensed
- C. Applicators must be under direct supervision of a licensed individual
- D. B&C
- E. All of the above

20. Farmer John wants to treat his 45-acre field with a herbicide. The label recommends 12 oz. of active ingredient per acre. How much chemical does he need to purchase?

- A. 16.9 gallons
- B. 4.22 gallons
- C. 540 quarts
- D. 5.63 gallons
- E. 3.75 gallons