Utah State FFA Crops Contest 2002

Name or Number: ______________________________  FFAChapter: ________________________

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