

2013 State FFA Agronomy CDE Written Test

1. SCN symptoms would be more severe on what type of soil?
 - a) silt loam
 - b) clay loam
 - c) sandy
 - d) none of these

2. SCN eggs can live in the cysts for:
 - a) two weeks.
 - b) two months.
 - c) several years.
 - d) several days.

3. Which nutrient is a major concern in surface water because it may stimulate algae growth?
 - a) zinc
 - b) potassium
 - c) phosphorus
 - d) calcium

4. Soil tests should be taken at a depth of _____ inches.
 - a) 6-7 inches
 - b) 8-12 inches
 - c) 12-15 inches
 - d) it doesn't matter

5. Soil erosion is expected to be greatest with:
 - a) narrow rows planted across the slope.
 - b) narrow rows planted up and down hill.
 - c) wide rows planted across the slope.
 - d) wide rows planted up and down the hill.

6. The A-horizon is:
 - a) the zone of clay accumulation.
 - b) the zone of coarse mineral material.
 - c) the topsoil.
 - d) the subsoil.

7. Which of the following is a serious water quality concern?
 - a) nitrogen fertilizer
 - b) phosphorus fertilizer
 - c) sediment
 - d) all are serious water quality problems in Iowa

8. Which crop has the ability to biologically "fix" atmospheric nitrogen?
 - a) red clover
 - b) oats
 - c) triticale
 - d) barley

9. Excessive rates of which nutrient on cereal grains would cause “lodging”?
- potassium
 - nitrogen
 - lime
 - calcium
10. Worldwide consumption of organic products has grown at a rate of _____ % per year.
- 5
 - 10
 - 20
 - 32
11. To sell a product as “organic” the crop must have been raised on land that no synthetic chemical inputs were used for the previous _____ years.
- 3
 - 5
 - 7
 - 10
12. The basis for insect, disease, and nematode management in organic farming is:
- synthetic chemicals.
 - natural chemical compounds.
 - the inherent equilibrium in nature.
 - resistant crops.
13. What are examples of “allelopathic” crops that help control weeds in organic farming?
- corn and soybeans
 - oats and rye
 - sorghum and millet
 - alfalfa and soybeans
14. Switchgrass is established from:
- seed.
 - cuttings.
 - plugs.
 - stolons.
15. A common way to control weeds in switchgrass grown for conservation is to:
- use herbicides.
 - use controlled burning in the spring.
 - use controlled burning in the fall.
 - cultivate in early spring.
16. Which regional varieties of switchgrass are most winter hardy?
- southern
 - northern
 - mid regions
 - all are the same
17. Switchgrass will use as much or more of which nutrient when compared to corn?
- nitrogen
 - potassium
 - phosphorus
 - iron

18. If considering replanting corn, consideration should be given to:
- herbicides used.
 - livestock feed needs.
 - potential crop pest problems.
 - all of the above.
19. The longevity of a forage species is determined greatly by:
- cold hardiness traits.
 - types of tillage.
 - seeding rate.
 - palatability.
20. Which of the following crops performs the worst under acid soil conditions?
- alfalfa
 - red clover
 - white clover
 - lespedeza
21. Soybeans respond to poor stands by:
- producing tillers.
 - increasing branching.
 - producing rhizomes and stolons.
 - soybeans don't grow in poor stands and should be replanted.
22. When evaluating soybeans after a hail storm, what type of damage would warrant replanting?
- removal of the terminal bud
 - severing the stem below the cotyledons
 - 50% of the leaves removed
 - all of the above
23. Producers tend to make soybean replant decisions based on:
- quick visual estimates.
 - scientific data.
 - research findings.
 - news reports.
24. Which cropping rotation would receive the highest N credit for this year's corn crop?
- corn following corn
 - corn following soybeans
 - corn following brome grass
 - corn following alfalfa
25. The primary consideration in selecting a soybean variety or brand is:
- harvestable yield.
 - disease resistance.
 - insect resistance.
 - lodging score.
26. When comparing varieties in the Iowa Crop Performance Test with a LSD of 2, which of the following statements is true?
- the top yielding variety is 2 bushels/acre better than the second highest variety
 - the lowest yielding variety is half the top yielding variety in yield potential
 - the varieties are separated into two groups according to yield potential
 - varieties that have a yield within 2 bushels of one another are assumed to be equal

27. If the high temperature for yesterday was 92° and the low temperature was 48°, how many GDDs did the corn accumulate?
- 21
 - 20
 - 18
 - 17
28. On a seed tag you find the following information: 92% germination, 5% inert material, 1.2% weed seed, 1.4% other crop seed. What is the percent PLS?
- 92.0%
 - 90.4%
 - 87.4%
 - 85.0%
29. Which crop would be more severely damaged if cut off at ground level right after emergence?
- alfalfa
 - corn
 - oats
 - soybeans
30. Bt corn is a biological control for which pest?
- northern corn leaf blight
 - northern corn rootworm
 - Japanese beetle
 - none of these
31. When planting corn in sandy soil compared to a silt loam, a producer would plant:
- deeper.
 - at the same depth.
 - shallower.
 - planting depth wouldn't make a difference.
32. When adjusting soil pH for an acid condition a producer would apply:
- DAP.
 - lime.
 - manure.
 - gypsum.
33. Aphids normally cause the most damage in what crop?
- alfalfa
 - corn
 - oats
 - soybeans
34. Which insect pest would spread diseases from one plant to another because it sucks the plant juices?
- bean leaf beetle
 - grasshopper
 - fall armyworm
 - potato leaf hopper
35. Cleaning the soil off of tillage equipment is a suggested control measure for:
- alfalfa weevils.
 - fall armyworms.
 - southern corn rootworms.
 - soybean cyst nematodes.

36. Which weed is classified as a “primary noxious” weed according to the Iowa Weed Law?
- giant ragweed
 - Canada thistle
 - cocklebur
 - velvet leaf
37. Which insect would feed on corn and cause death shortly after emergence?
- black cutworm
 - fall army worm
 - northern corn rootworm
 - two-spotted spider mite
38. If a weed grows as a rosette in the fall and produces a seed head the next summer, it would be a (an):
- annual.
 - summer annual.
 - biennial.
 - perennial.
39. Some weeds like quackgrass are spread by:
- haplocorms.
 - rhizomes.
 - stolons.
 - a & b
40. Potato leaf hoppers cause the most damage to which crop?
- alfalfa
 - corn
 - soybeans
 - potatoes
41. According to the Soybean Replant Decisions publication from Iowa State, decreasing soybean stands from 140,000 to 70,000 plants per acre decreased yields by:
- 5%.
 - 15%.
 - 25%.
 - 50%.
42. If soybeans are damaged by hail removing the terminal bud, regrowth occurs from:
- axillary buds.
 - cotyledons.
 - radicles.
 - trifoliate leaves.
43. The “growing point” in corn comes above ground at this stage:
- V2
 - V4
 - V6
 - VT
44. Loess soils are deposited by:
- gravity.
 - glaciers.
 - running water.
 - wind.

45. Nutrient deficiency symptoms are most apt to be seen on soils with a pH of:
- a) 6.5.
 - b) 7.0.
 - c) 8.5.
 - d) none of these are correct.
46. Top soil tends to be higher in:
- a) clay.
 - b) sand.
 - c) acidity.
 - d) organic matter.
47. When experiencing a dry year (drought), producers would probably experience:
- a) less insect problems.
 - b) less disease problems.
 - c) more disease problems.
 - d) more SCN problems.
48. Which statement(s) are true of switchgrass?
- a) it is spread by short rhizomes
 - b) it is a bunch grass
 - c) it uses more nitrogen than corn
 - d) all of these are true
49. The best time to take a soil sample would be:
- a) during the growing season.
 - b) right before harvest.
 - c) right after harvest.
 - d) right after planting.
50. Weeds are exhibiting resistance to herbicides because:
- a) they are spreading by more ways.
 - b) their seeds can live in the soil for many years.
 - c) farmers are using more fungicides.
 - d) the same herbicide is used year after year.

