

Agronomy Exam Version 1

- 1) The endosperm is \_\_\_\_\_ to an emerging seed.
  - A. The starchy food source
  - B. The first root
  - C. Protection for the plumule
  - D. The embryo
  
- 2) Tomato spotted wilt is a disease of tomato, potato and several other crops. It is caused by a \_\_\_\_\_.
  - A. Virus
  - B. Bacteria
  - C. Fungi
  - D. Mycoplasma
  
- 3) The primary source of error from a soil test is
  - A. laboratory analysis
  - B. field sampling technique
  - C. soil that is too wet
  - D. none of the above
  
- 4) A pesticide's ability to break down slowly and remain in the environment for a long time refers to its \_\_\_\_\_.
  - A. Persistence
  - B. Adsorption
  - C. Solubility
  - D. Runoff
  
- 5) Chemicals emitted by an organism to influence the behavior of other organisms of the same species are called \_\_\_\_\_.
  - A. Parasites
  - B. Pheromones
  - C. Pyrethroids
  - D. Surfactants
  
- 6) The first root emerging from the seed is called the:
  - A. Crown root
  - B. Radical
  - C. Seminal root
  - D. Coleoptiles
  
- 7) The structure that elongates to cause the emergence in corn is the:
  - A. Coleoptiles
  - B. Mesocotyl
  - C. Radicle
  - D. Plumule

8) If the soil has a low pH, what should be applied?

- A. Gypsum
- B. Lime
- C. Sulfur
- D. Iron

9) Soybeans have this type of root system:

- A. Fibrous
- B. Seminal
- C. Tap
- D. Nodal or crown

10) On soybean roots, soybean cyst nematode infections can inhibit the formation of what?

- A. Tap roots
- B. Nitrogen-fixing nodules
- C. Root hairs
- D. Brace roots

11) Which nutrient is a major concern in surface water because it may stimulate algae growth?

- A. Magnesium
- B. Potassium
- C. Phosphorus
- D. Calcium

12) Which of the following is a serious water quality concern?

- A. Nitrogen fertilizer
- B. Phosphorus fertilizer
- C. Sediment
- D. All of these are serious water quality concerns

13) Which statement best reflects the use of GMOs (ex. herbicide resistant crops) in organic agriculture?

- A. Not allowed at all
- B. Allowed on a restricted basis
- C. Allowed for selected crops
- D. No restrictions at all

14) When using an IPM approach to controlling pests, you would:

- A. Use no chemicals
- B. Use chemicals on a limited basis
- C. Use an "organic" approach to control pests
- D. Consider a variety of control measures - crop rotation, biological controls, and chemicals

- 15) Agronomy is the science of:
- A. Soil and soil fertility
  - B. Plants and plant growth
  - C. Environmental sustainability
  - D. All of the above and more
- 16) Which of the following is an annual?
- A. Red clover
  - B. Sweetclover
  - C. Orchardgrass
  - D. Sudangrass
- 17) Which time of application of nitrogen is most efficient as far as plant utilization?
- A. Spring
  - B. Fall
  - C. Winter
  - D. There is no difference
- 18) Which major nutrient is the most mobile in the soil?
- A. Nitrogen
  - B. Potassium
  - C. Phosphorus
  - D. Manganese
- 19) As erosion occurs, the crop productivity potential of a soil:
- A. Decreases as topsoil thins
  - B. Is not affected because we can apply fertilizer to replace lost nutrients
  - C. Is not important because we produce more corn than the market can buy
  - D. Increases as topsoil thins
- 20) Which of the three crops would suffer the most from hail damage shortly after emergence?
- A. Corn
  - B. Oats
  - C. Soybeans
  - D. All three would suffer the same yield loss
- 21) When taking soil samples in a conventional tilled system, one should sample at a depth of:
- A. 2-3 inches.
  - B. 4-5 inches.
  - C. 6-7 inches.
  - D. 9-10 inches.

22) Soil erosion is directly related to:  
A. Amount of plant residue on the soil.  
B. Tillage practices.  
C. Duration and intensity of rainfall.  
D. All of the above.

23) The seed coat of a corn kernel is called the:  
A. Hilum.  
B. Pedicel.  
C. Pericarp.  
D. Scutellum.

24) Switchgrass is established from:  
A. Seed  
B. Cuttings  
C. Plugs  
D. Stolons

25) Aphids normally cause the most damage in what crop?  
A. Alfalfa  
B. Corn  
C. Oats  
D. Soybeans