2011 Lab Practical Questions

VEGETATIVE WEED ID

1. This weed is _____

CROP GROWTH AND DEVELOPMENT

2. The wheat plants shown here are currently at which of the following growth stages:

   A) jointing
   B) flag leaf emergence
   C) boot stage
   D) heading
   E) flowering (anthesis)
   F) physiological maturity

NUTRIENT DEFICIENCY

3. The purple coloration on the leaves of this corn plant are typical of a deficiency of:
   A) Nitrogen
   B) Phosphorus
   C) Potassium
   D) Iron
   E) Sulfur

CROP GROWTH AND DEVELOPMENT

4. Shown above are three warm season Kansas crops just emerging. Assume we have a freeze tonight that kills most of the tissue down to just above the soil surface, but not below ground. Based on their seedling emergence pattern and early growth habit, which of the crop shown would have the **best chance** of regrowing and producing a normal crop?

   A) Cotton
   B) Corn
   C) Soybean
   D) All of them should recover equally well
   E) None of them will be able to recover

PLANT STRUCTURE – DICOT LEAVES

5. The proper description of the leaf type an arrangement for this plant is:
   A) Simple leaf, alternate arrangement
   B) Simple leaf, opposite arrangement
   C) Palmately compound leaf, alternate arrangement
   D) Palmately compound leaf, opposite arrangement
   E) Pinnately compound leaf, alternate arrangement
   F) Pinnately compound leaf, opposite arrangement

CROP PRODUCTS and CROP QUALITY

6. Which of the above hay samples would likely have the highest percent protein?

   ANSWER: A, B, C, or D

CROP DISEASE

7. This soybean disease is:

A) pod and stem rot
B) bacterial blight
C) bean pod mottle virus
D) rust
E) Phytophthora root rot
F) gray leaf spot

FERTILIZER

8. Which is of the above fertilizers would be a source of <u>phosphorus</u>?

   ANSWER: A, B, C, or D

PESTICIDE APPLICATION

9. Shown above are four flat fan sprayer nozzle tips. At standard 40 psi pressure, which of them would have the **<u>lowest</u>** nozzle delivery rate?

   ANSWER: Write the **<u>color</u>** or number from the correct nozzle tip.

EQUIPMENT

10. This piece of equipment is a (an) _____

VEGETATIVE WEED ID

11. This weed is _____

RECTANGULAR SOIL SURVEY

12. The correct legal description of the area labeled “C” in section 10 of T2N R3W and the appropriate number of acres in this area is:

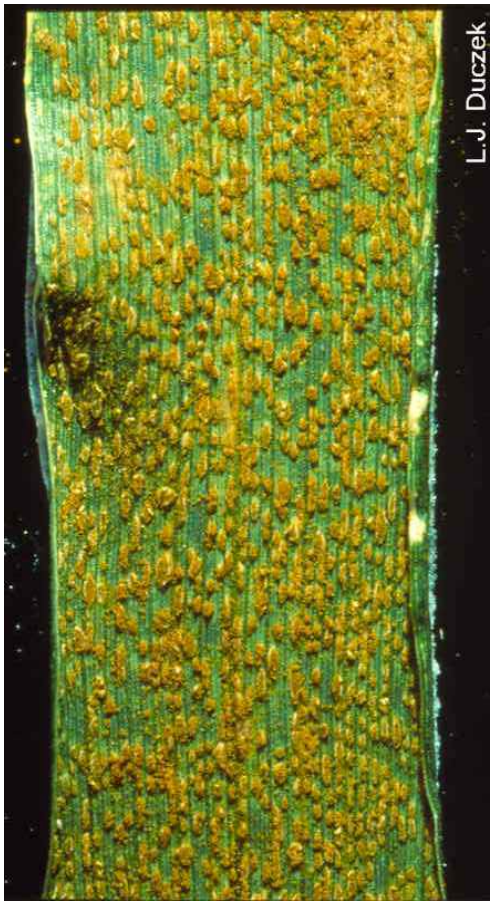
A) SW ¼ of NW ¼ = 40 acres
B) N ½ of W ½ = 40 acres
C) W ½ of SW ¼ = 80 acres
D) NW ¼ of SW ¼ = 80 acres
E) SW ¼ of SE ¼ = 40 acres
F) NW ¼ of SW ¼ = 40 acres

CROP GROWTH AND DEVELOPMENT

13. The growth stage of this corn plant is:

A) V 2
B) V 3
C) V 4
D) V 5
E) VT
F) R 1

CROP DISEASE



14. This wheat disease is

A) loose smut of wheat
B) barley yellow dwarf virus
C) wheat streak mosaic virus
C) wheat scab
D) stem rust of wheat
E) leaf rust of wheat

VEGETATIVE WEED ID

15. This weed is _____

USE THE KANSAS CROP PLANTING GUIDE

16. The recommended plant population for dryland grain sorghum in the 26-32 inch rainfall zone of Kansas is _____ plants per acre.

CROP STRUCTURE - SEEDLINGS

17. The structure marked by the white pin is called the:

A) Mesocotyl
B) Cotyledon
C) Hypocotyl
D) Coleoptile
E) Radicle

HERBICIDE LABEL

18. The signal word on this herbicide label is: _____

SEED BAG LABELS

19. Shown are three standard tags that may be found on pedigreed seed regulated by state crop improvement associations. The correct order of generation of production for these three seed classes is:

A. Certified → Registered → Foundation
B. Foundation → Certified → Registered
C. Registered → Certified → Foundation
D. Certified → Foundation → Registered
E. Foundation → Registered → Certified
F. Registered → Foundation → Certified

CROP INSECT

20. This insect is

A) corn earworm
B) green cloverworm
C) corn rootworm
D) fall armyworm
E) black cutworm
F) European corn borer

VEGETATIVE WEED ID

21. This weed is _____

EQUIPMENT

22. This piece of equipment is a(n)_____.

CROP INSECT

23. This insect is:

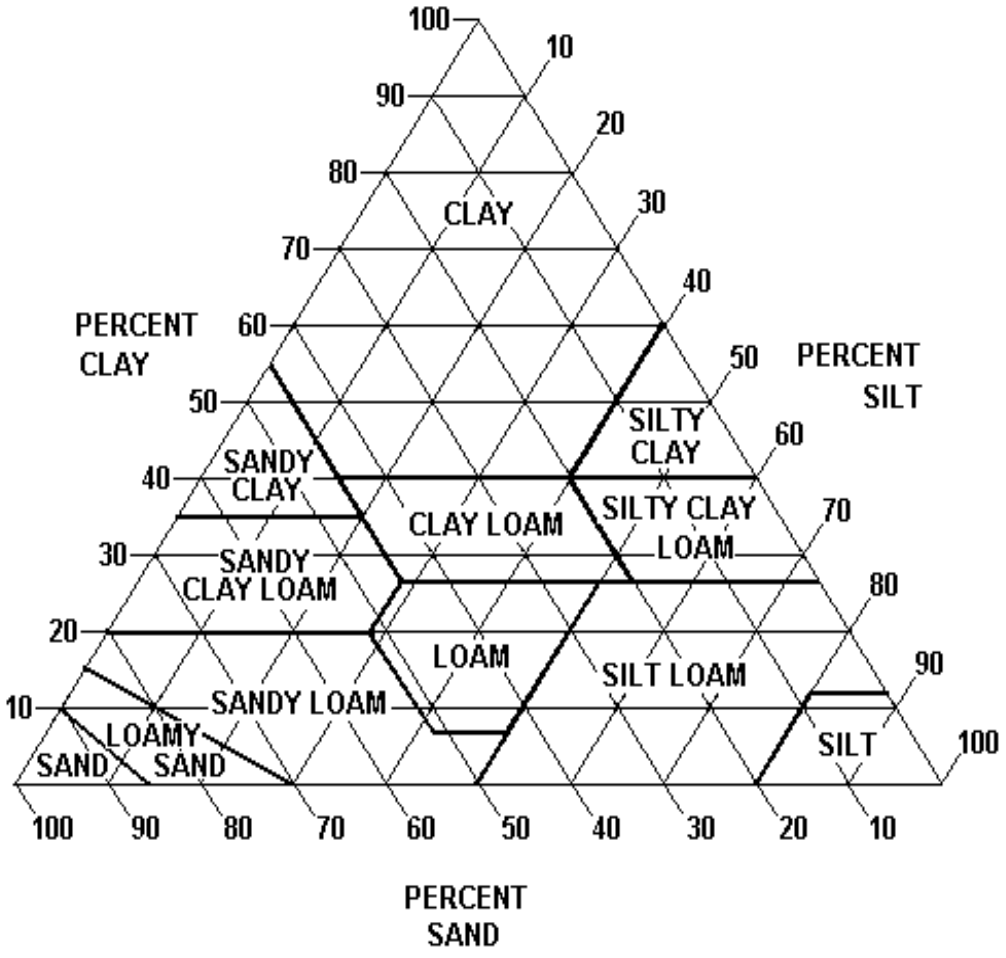
A)	alfalfa weevil	D)	chinch bug
B)	lady beetle	E)	aphid
C)	blister beetle	F)	lacewing

CROP PRODUCTS and CROP QUALITY

24. Which of the above wheat samples would typically be used to make the food product displayed?

ANSWER: A, B, C, or D

SOIL TEXTURE



25. The correct soil textural class for a soil with 30 % clay, 60 % silt, and 10 % sand is a _____.

CROP DISEASE

26. This corn disease is:

A)	gray leaf spot	D)	ear rot
B)	Northern corn leaf blight	E)	corn smut
C)	Gibberella stalk rot	F)	blue eye mold

CROP PRODUCTS

27. What <u>crop</u> is the above feed ingredient made from?

A) Corn
B) Wheat
C) Alfalfa
D) Soybean
E) Cotton

CROP INSECT

28. This insect is:

A) blister beetle
B) bean leaf beetle
C) green cloverworm
D) chinch bug
E) alfalfa weevil
F) stinkbug

SOIL AMENDMENTS

29. Which of the above materials is ag lime used to raise the pH of acidic soils?

ANSWER: A, B, C, or D

PLANT STRUCTURE – DICOT FLOWERS

30. How many **SEPALS** does each flower have? _____

(You may touch the flowers to count the sepals)