

Equine Science Test Nutrition and Pasture Management

1. Digestive System Matching

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|--------------------|-------|---|
| a. mouth | _____ | Digests fiber, absorbs minerals. |
| b. esophagus | _____ | 70 feet long, digests protein, fat, and |
| c. stomach | _____ | carbohydrates. |
| d. small intestine | _____ | Food is ground and mixed with saliva. |
| e. cecum | _____ | 2-4 gallon capacity, acids break down food. |
| f. large intestine | _____ | About 5 feet long, doesn't allow reverse |
| | _____ | peristalsis. |
| | _____ | Bacteria produce enzymes for digestion, |
| | _____ | vitamins absorbed. |

2. A _____ is the amount of food fed to a horse in _____ hour period.
3. Name three things to consider about an individual horse when deciding what and how the horse should be fed.

4. Rules of Feeding

- a. Feed little and _____.
- b. Plenty of _____.
- c. According to age, size, and _____.
- d. Make all _____ gradually.
- e. Keep to a regular feeding _____.
- f. Feed only _____ hay and grains.
- g. Clean, fresh _____ available _____.
- h. _____ available free choice, preferably trace mineral.
- i. Do not _____ right after feeding.
- j. Be aware of each horse's individual _____ habits.

5. List the six classes of nutrients.

6. _____ is responsible for growth, development, and repair of body tissue.
7. Lipids is another name for _____.
8. _____ provide the chief source of energy.

9. 70% of the body is _____.
10. Vitamins can be _____ soluble or _____ soluble.
11. Two minerals essential for correct bone development are _____ and _____.
12. The average 1,000 lb. idle, mature horse needs _____ kcal. of energy per day.
13. COB is often known as sweet feed because it usually contains molasses as well as _____, _____, and _____ which make up its initials.
14. _____ meal is very high in protein (40-50%) and is an excellent source of amino acids and phosphorous.
15. Good, clean _____ will weigh at least 36 lbs/bu.
16. _____ bran is high in phosphorous and is a good laxative.
17. Alfalfa hay is high in what mineral?
18. Which are higher in proteins, legumes or grasses?
19. Define what a legume is and make sure you tell what element they put back into the soil.
20. Pelleted feed, if made from high quality ingredients, has the advantage of providing _____ nutrition.
21. Vitamin A contains carotene which is good for _____ and is available in green, leafy plants.
22. The Calcium : Phosphorous ratio should be balanced at about 1.5 : _____ for optimal bone development.
23. Trace _____ are essential to body functions in very small amounts.
24. Energy is measured in Kilocalories which is equal to _____ calories.

25. An example of a roughage is _____.
26. An example of a concentrate is _____.
27. Hays are divided into two categories, _____ and _____.
28. Alfalfa, clover, and lezpedeza are _____.
29. Name two grass hays.
30. Which grain is very high in energy?
31. _____ is the grain most commonly fed to horses.
32. Match the % of protein needed in the diet to the type of horse.
- | | | |
|-----------------------|-------|--------|
| a. Lactating Mare | _____ | 16-18% |
| b. Idle, Mature Horse | _____ | 12-14% |
| c. Stallion or Foal | _____ | 18-20% |
| d. Horse at Hard Work | _____ | 10-12% |
33. Fats or lipids are a source of concentrated _____ and _____ acid.
34. If too much carbohydrate is provided in the diet, the horse will become _____.
35. Vitamin K helps in _____ blood.
36. Vitamin _____ helps in healing cuts and wounds.
37. Found in wheat germ oil, vitamin _____ aids in fertility and, in conjunction with selenium, may prevent tying up.
38. Vitamin D is available through exposure to _____.
39. Protein is composed of _____ acids, of which lysine and methioneine are two.
40. Fats are the source of linoleic acid which makes the _____ shiny. They are a concentrated source of _____.
41. Carbohydrates are converted in the body to glucose, a simple _____ which is carried through the bloodstream to the muscles.

42. _____ in the large intestine are necessary for carbohydrate digestion.
43. You should provide your horse a minimum of _____ gallons of _____ water every day.
44. T/F Vitamins A, D, E, and K and can be stored in the body.
45. The _____ complex vitamins may affect a horse's appetite and ability to absorb nutrients.
46. _____ are inorganic compounds. One essential one is salt.
47. A high fat content may make food more _____. (Yummy)
48. Hay should be cured to a safe _____ content to prevent it from becoming _____ or from spontaneous combustion.
49. Legumes fix _____ in the soil.
50. _____ hay is cut green without harvesting the grain.
51. A grass hay often grown with legumes, such as alfalfa or clover, is _____.
52. Lucerne hay in Europe would be known as _____ in the U.S.
53. When balancing a ration, both qualitative and _____ requirements must be met.
54. Pastures should be _____ to a height of 3-4" to keep the grasses uniform and more palatable.
55. Lanes between adjoining horse pastures reduce the risk of _____ from horses fighting across the fence line.
56. Only well _____ manure should be spread on pastures.
57. Horses need shelter primarily from what element?
58. _____ pastures helps aerate the soil and break up manure clumps which exposes parasite eggs to sunlight, heat, or cold.

59. The best way to maintain optimal pastures is to practice _____ grazing.
60. _____ wire, rope or tape can be used alone as fencing or with other fencing materials to keep horses from leaning over fences.
61. _____ is not suitable horse fencing.
62. T/F Woven wire, pipe, wood, and electric fencing all make good horse fences.
63. Cows are often pastured with horses or on a rotational basis in horse pastures. Why is this good for a pasture?
64. Salt and fresh _____ must be available in your horse's pasture.
65. Name one poisonous plant.
66. Compare hand feeding and self-feeding.
67. What feeding practices should be avoided to keep your horse from getting laminitis?

Extra Credit:

Feeding horses is both a science and an art. After gaining knowledge in equine nutrition, it is wise to remember the old Arabic saying, "_____".
