

NORTH CAROLINA FFA ASSOCIATION
2004 DAIRY FOODS CAREER DEVELOPMENT EVENT
Written Test

Instructions: Read each question carefully and circle the best answer for each question.

1. During pasteurization, milk is heated to a minimum temperature of _____ Fahrenheit for _____ minutes and then is promptly cooled.
 - A. 200°, 20
 - B. 130°, 55
 - C. 150°, 40
 - D. 145°, 30

2. As it comes from the cow, the solids portion of milk contains approximately 3.7 percent fat and _____ percent solids-not-fat.
 - A. 7
 - B. 8
 - C. 9
 - D. 10

3. Milk from cows is approximately _____ percent water and _____ percent solids.
 - A. 87, 13
 - B. 70, 30
 - C. 13, 87
 - D. 30, 70

4. Off- flavors of milk can be caused by which of the following factors:
 - A. health of the cow
 - B. bacteriological action
 - C. feed consumption of the cow
 - D. all of the above

5. The _____ proteins constitute about 18 percent of the protein content of milk.
 - A. casein
 - B. whey
 - C. fat globule membrane
 - D. none of the above

6. Light cream contains between _____ and _____ percent milkfat.
 - A. 10, 50
 - B. 15, 35
 - C. 18, 30
 - D. 25, 45

7. When performing a CMT, it is recommended that the foremilk be drawn from each ____ into separate cups of a four- cup plastic paddle.
- A. quarter
 - B. storage tank
 - C. cow
 - D. none of the above
8. Cows in the late stages of lactation and are infected with mastitis may present a ____ milk flavor.
- A. sweet
 - B. salty
 - C. bitter
 - D. flat-watery
9. Clinical mastitis make up about ____ percent of all cases in dairy herds.
- A. 10
 - B. 20
 - C. 70
 - D. 100
10. A cow with sub-clinical mastitis _____.
- A. produces milk that is thick and ropy
 - B. produces milk with a strong odor
 - C. is hard to detect and diagnosis
 - D. all of the above
11. The sediment standards (58.2731) are determined by _____.
- A. American Milk Council
 - B. North Carolina Dairymen
 - C. United States Department of Agriculture
 - D. Food and Drug Administration
12. The hormone produced by a dairy cow to promote milk letdown is _____.
- A. Progesterone
 - B. Prolactin
 - C. Estrogen
 - D. Oxytocin
13. The country with the highest milk production per cow is _____.
- A. Sweden
 - B. United States
 - C. Japan
 - D. New Zealand

14. Homogenization is the disintegration of the _____ in milk in order to reduce the separation of cream.
- A. fat globules
 - B. casein
 - C. whey
 - D. water
15. Milk stones or calculus deposits harbor _____, which impair the quality and shorten the storage life of milk.
- A. bacteria
 - B. chemicals
 - C. nutrients
 - D. dirt
16. The CMT reagent, when added to the milk, reacts with a part of the _____, forming a gel.
- A. milk fat
 - B. leukocytes
 - C. casein
 - D. erythrocytes
17. A long-term method of improving milk quality is to select bulls using selection indexes based on _____.
- A. breed
 - B. weight at maturity
 - C. somatic cell scores
 - D. semen viability
18. The only way a cow can be infected with mastitis is to have bacteria enter the mammary system via the _____.
- A. blood stream
 - B. ingestion
 - C. teat end opening
 - D. all of the above
19. Which of the following are examples of feed products that may alter milk flavor:
- A. green grass
 - B. alfalfa hay
 - C. turnips
 - D. all of the above

20. _____ is found only in milk and contains all the essential amino acids.
- A. whey
 - B. fat globules
 - C. curds
 - D. casein
21. When you test all lactating animals monthly using the CMT and keeping good records, you can expect the following benefit(s):
- A. milk loss reduced
 - B. better service from your vet
 - C. reduced feed costs
 - D. A and B
22. The equipment that milk flows through must be cleaned and sanitized in order to prevent the _____.
- A. growth of bacteria
 - B. clotting of milk
 - C. backup of milk flow
 - D. none of the above
23. Factors other than infection that can cause an increase in milk leukocyte numbers and an increased reaction to the CMT is:
- A. cows in mid- lactation
 - B. periods of estrus
 - C. proper milk vacuum
 - D. change in forages
24. Bacteria that threaten milk quality require _____ to survive.
- A. sunlight
 - B. bleach
 - C. food
 - D. agitation
25. The _____, passed in 1994, requires mandatory nutritional labeling.
- A. Food and Agriculture Act
 - B. Nutrition Labeling and Education Act
 - C. Food Safety Education Act
 - D. Nutrition Labeling and Education Bill