



Milk Quality and Products

Select the one best answer for each question

QUALITY MILK PRODUCTION

1. A major reason for limiting the use of antibiotics with lactating dairy cows is that antibiotics
 - A. are toxic to cows
 - B. may be found in the milk for many hours after treatment
 - C. are ineffective when they contact milk
 - D. cost more than dairymen can afford

2. A baby dairy animal is called a calf, weighting approximately _____ pounds at birth.
 - A. 20 to 40
 - B. 80 to 100
 - C. 150 to 160
 - D. 200

3. The microbiological standard for unpasteurized Grade A milk is _____ bacteria or less per milliliter of milk.
 - A. 50,000
 - B. 75,000
 - C. 100,000
 - D. 750,000

4. A young female calf is called a heifer. An adult female that has a calf is called a cow. A heifer will give birth to a calf when she is approximately _____ old.
 - A. 9 months
 - B. 12 months
 - C. 24 months
 - D. 36 months

5. To what temperature must a farm bulk tank, or cooling plate, have the capacity to chill milk within two hours of the end of a milking?
 - A. $\geq 50^{\circ}\text{F}$
 - B. $\leq 45^{\circ}\text{F}$
 - C. $\approx 40^{\circ}\text{C}$
 - D. $\leq 42^{\circ}\text{K}$

6. Adulteration of milk with water is unlawful and can be detected by testing for
 - A. titratable acidity
 - B. total milk solids
 - C. a high freezing point
 - D. somatic cells

7. Dairy cows begin to produce milk after giving birth to a calf. This milk production continues for approximately a 10 month period. This 10 month period is called the cow's _____ period.
 - A. lactation
 - B. gestation
 - C. dry
 - D. calving

8. The principal protein in milk is _____.
 - A. whey protein
 - B. casein
 - C. crude protein
 - D. lactoglobulin

9. _____ is an organization that meets biennially in odd-numbered years. The main purpose of the Conference is to deliberate proposals submitted by various individuals from state or local regulatory agencies, FDA, USDA, producers, processors, consumers, etc., who have an interest in ensuring that the dairy products we consume are safe.
 - A. National Conference on Interstate Milk Shipments (NCIMS)
 - B. Food and Drug Administration (FDA)
 - C. AOAC
 - D. United States Dairy Export Council (USDEC)

10. Raw milk somatic cell count must be _____ or less to meet Grade A government standards in the United States.
 - A. 100,000
 - B. 250,000
 - C. 400,000
 - D. 750,000

11. When pasteurizing milk, the minimum that raw milk must be heated to for 15 seconds is
 - A. 111°F
 - B. 121°F
 - C. 161°F
 - D. 171°F

12. The key to boosting milk protein lies largely in getting the correct amino acids to which part of the cow's digestive tract?
 - A. rumen
 - B. small intestine
 - C. omasum
 - D. reticulum

13. The CMT test detects _____ in raw milk.
 - A. bacteria
 - B. red blood cells
 - C. somatic cells
 - D. antibiotics

14. The off-flavor in milk generally caused by exposure to sunlight or fluorescent light is _____.
 - A. rancid
 - B. oxidized
 - C. acid
 - D. malty

15. What were the top three milk producing states during 2018?
 - A. South Dakota, Texas, and New York
 - B. California, Wisconsin, and Idaho
 - C. Wisconsin, New York, and New Mexico
 - D. California, New York, and Texas

16. Post dipping a cow's teats helps control _____.
 - A. contagious pathogens
 - B. milk flow
 - C. hair growth
 - D. antibiotics

17. Failure to sanitize milking equipment immediately before use may result in a
 - A. foreign flavor
 - B. high somatic cell count
 - C. high bacteria count
 - D. high freezing point

18. By volume, milk consists of approximately _____ percent water.
 - A. 3.7
 - B. 50
 - C. 87
 - D. 92

19. To remove fat from milking equipment use _____.
- A. alkaline cleaner in hot water
 - B. alkaline cleaner in cold water
 - C. acid cleaner in cold water
 - D. acid cleaner in hot water
20. What hormone is naturally released by the cow to stimulate milk letdown?
- A. oxytocin
 - B. progesterone
 - C. estrogen
 - D. adrenaline
21. The U.S. dairy industry is increasingly complex, with dynamic trends in consumer preferences, farm production, product manufacturing and government regulations. The U.S. dairy industry is considered to be a _____ a year industry.
- A. \$628 billion
 - B. \$125 billion
 - C. \$500 million
 - D. \$100 million
22. The ability of lipase to attack milk fat and produce a rancid off flavor is enhanced by
- A. feeding cows moldy hay
 - B. excessive agitation of warm raw milk
 - C. exposing milk to sunlight
 - D. poorly cleaned milking equipment
23. _____ is the time after processing during which a dairy product normally remains suitable for human consumption.
- A. Packaged date
 - B. Shelf life
 - C. Product code
 - D. Product life
24. The document used by the U. S. dairy industry that contains the rules for producing today's fresh pasteurized milk supply is
- A. the Code of Federal Regulations
 - B. Standard Methods for the Examination of Dairy Products
 - C. the Grade A Pasteurized Milk Ordinance
 - D. The Codex Alimentarius of the World Health Organization

25. The major cause of salty flavor in milk is _____.
- A. the large intake of salt by the cow
 - B. mastitis
 - C. exposure to sunlight
 - D. bacteria
26. The two most important diseases of cattle transmissible to man through milk are
- A. scarlet fever and Q fever
 - B. tuberculosis and anthrax
 - C. brucellosis and scarlet fever
 - D. tuberculosis and brucellosis
27. Marketing cooperatives often offer incentives to dairy farmers for producing milk having which of the following special characteristics?
- A. low volume milk production per cow
 - B. low protein content
 - C. high somatic cell count
 - D. low bacteria count
28. Even when there are no clinical signs, a cow's milk production begins to decline when its somatic cell count is greater than how many cells/ml?
- A. 100,000 cells/ml
 - B. 200,000 cells/ml
 - C. 400,000 cells/ml
 - D. 750,000 cells/ml
29. When feeding distillers grains in dairy feed rations, there are concerns regarding the supply of protein building blocks. What are the building blocks of protein?
- A. DNA
 - B. carbohydrates
 - C. nitrogen
 - D. amino acids
30. Milk is a major nutritional source of which mineral that combined with vitamin D and exercise builds strong bones and teeth?
- A. calcium
 - B. iron
 - C. phosphorous
 - D. potassium



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QUALITY MILK PRODUCTION KEY

Question	Answer	Standard	Standard	Standard
1.	B			
2.	B			
3.	C			
4.	C			
5.	B			
6.	C			
7.	A			
8.	B			
9.	A			
10.	D			
11.	C			
12.	B			
13.	C			
14.	B			
15.	B			
16.	A			
17.	C			
18.	C			
19.	A			
20.	A			
21.	A			
22.	B			
23.	B			
24.	C			

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25.	B			
26.	D			
27.	D			
28.	B			
29.	D			
30.	A			



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MILK MARKETING

31. What piece of US legislation made farmer cooperatives legal?
 - A. Sherman Act
 - B. Capper-Volstead Act
 - C. Farm Bill
 - D. Barkley Act

32. With few exceptions U.S. commercial disappearance of dairy products in 2018 was better than 2017 levels. However, products that fell short of the 2017 levels were significant. Two of these products were _____.
 - A. cheese and butter
 - B. yogurt and cheese
 - C. butter and fluid milk
 - D. nonfat dry milk and skim milk powder

33. A Federal Milk Marketing Order is not authorized unless two-thirds of the affected _____ the proposed marketing area approves its implementation.
 - A. dairy cooperatives supplying milk to
 - B. producers supplying milk to
 - C. cheese processors manufacturing with milk from
 - D. handlers processing milk in

34. Under the Federal Milk Marketing Orders, Class I milk is the highest priced utilization. In 2018, the highest Class I price was in the _____ federal milk order.
 - A. Upper Midwest
 - B. Northeast
 - C. Southeast
 - D. California

35. Milk has more protein than you may think. An 8-ounce glass of real milk has _____ times more protein than plant-based beverages, like almond “milk”. In addition, milk protein is a complete protein, while most plant protein sources are missing some of the amino acids your body needs.
 - A. 2
 - B. 8
 - C. 20
 - D. 31

36. A Federal milk order is a regulation, issued by _____, which places certain requirements on the first buyers of milk from dairy farmers within a certain geographical area.
- A. the Secretary of Agriculture
 - B. Congress
 - C. each state's Governor
 - D. state legislatures
37. Federal Milk Marketing Orders are a _____ program that defines the terms under which handlers of milk within a specific marketing order purchase milk from dairy farmers.
- A. mandatory
 - B. congressionally required
 - C. elected
 - D. voluntary
38. _____ cheese is the nation's biggest cheese category reflecting amazing production growth. Every single month during 2018 this cheese topped 2017 monthly production totals.
- A. Cheddar
 - B. Swiss
 - C. Edam
 - D. Mozzarella
39. One gallon of milk weighs approximately _____ pounds.
- A. 5.5
 - B. 7.8
 - C. 8.6
 - D. 10.1
40. What is the name of the USDA program that pays dairy farmers that signed up if the margin of the monthly measures for the price of milk and the cost of feed is less than \$9.50?
- A. Margin Protection Program
 - B. Whole herd buy out
 - C. Dairy Margin Coverage
 - D. Dairy Support Price

41. _____ is an effective natural choice exercise recovery drink due to its powerful nutrient package that supplies the nutrition the body needs after a workout. It has carbohydrates to help refuel the body; protein to help reduce muscle breakdown and stimulate growth; and fluid and electrolytes to aid in rehydration. Drinking it after resistance training has been shown to increase the body's ability to make new muscle and may help improve body composition.
- A. Chocolate milk
 - B. Greek yogurt
 - C. Gatorade
 - D. Whey protein concentrate
42. The trading fees paid by other countries to import dairy products into the United States are called _____.
- A. Import fees
 - B. Export expenses
 - C. Margin prices
 - D. Tariffs
43. The Federal Milk Marketing Orders primary objective is to provide
- A. a framework to make buying and selling of milk a more orderly process
 - B. ensure fairness in the marketing of the milk
 - C. help handlers with their business affairs
 - D. keep the government informed
44. Children's bodies and minds develop quickly, so they need all the nutrition they can get. Yet, more than half of the elementary school-aged children do not get enough calcium. Milk is the answer. One 8-ounce glass of milk provides ____ of the daily minimum allowance of calcium.
- A. 100 %
 - B. 60 %
 - C. 30 %
 - D. 15 %
45. What is the major milk production cost on most dairy farms?
- A. calf care
 - B. labor
 - C. milking supplies
 - D. A.I. breeding supplies
46. The current United States Secretary of Agriculture is _____ .
- A. Sonny Bono
 - B. Sonny Perdue
 - C. Tom Vilsack
 - D. Ann M. Veneman

47. A milk producer would receive the maximum price for milk delivered within a milk marketing order if all of it was used to make _____ .
- A. dry whole milk
 - B. ice cream
 - C. mozzarella cheese
 - D. pasteurized milk
48. Which of the following flavors of ice cream is the most popular, by sales volume?
- A. Chocolate
 - B. Vanilla
 - C. Strawberry
 - D. Butter Pecan
49. To make one pound of butter requires approximately ___ pounds of whole milk.
- A. 8
 - B. 12
 - C. 22
 - D. 44
50. According to the U.S. Dairy Export Council _____ received the most dairy products exported from the United States in 2018.
- A. Japan
 - B. Mexico
 - C. Canada
 - D. China
51. Over half of the top 50 U.S. dairy cooperatives belong to an organization that is dairy farmers' chief lobbying voice in the nation's capital. What is the name of the organization?
- A. International Dairy Federation
 - B. Dairy Farmers of America Federation
 - C. National Milk Producers Federation
 - D. International Dairy Foods Association
52. Milk used to make ice cream would be priced in what Federal Order class?
- A. Class I
 - B. Class II
 - C. Class III
 - D. Class IV

53. Which state, which did not participate in the Federal Milk Marketing Order program, voted to implement a new Federal order starting in November of 2018?
- A. Montana
 - B. Idaho
 - C. California
 - D. Pennsylvania
54. Under several Federal Milk Marketing Orders, milk is priced based on the amount of
- A. water and free fatty acids
 - B. mastitis and aflatoxins
 - C. bacteria counts of milk and antibiotics
 - D. fat, protein, and other solids
55. The annual production of milk for the United States during 2018 was 218 billion pounds, which was _____ 2017.
- A. higher than
 - B. lower than
 - C. equal to
 - D. unchanged from
56. What is the name given to the system utilized by the Federal Milk Marketing Orders that sets producer prices based on the finished dairy product in which the milk was used?
- A. Market pricing
 - B. Classified pricing
 - C. Creative pricing
 - D. Hedge pricing
57. Which two countries in the world produce the largest volume of cow's milk?
- A. United States and New Zealand
 - B. Germany and Russia
 - C. United States and China
 - D. United States and India
58. Most dairy cows are milked two or three times per day. On average, a cow will produce _____ gallons of milk each day.
- A. 1 to 2
 - B. 6 to 7
 - C. 15 to 16
 - D. 20 to 21

59. The actual milk check amount received by dairy farmers is called the _____.
- A. milk-feed ratio price
 - B. cooperative bonus premium
 - C. Federal Order price
 - D. mailbox price
60. Milk marketing cooperatives
- A. provide marketing power for dairy farmers
 - B. control Federal Milk Marketing Orders
 - C. are not permitted by the Federal Milk Marketing Orders
 - D. operate only outside the Federal Milk Marketing Orders system



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Feb-20

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Question	Answer	Standard	Standard	Standard
31.	B			
32.	D			
33.	B			
34.	C			
35.	B			
36.	A			
37.	D			
38.	D			
39.	C			
40.	C			
41.	A			
42.	D			
43.	A			
44.	C			
45.	B			
46.	B			
47.	D			
48.	B			
49.	C			
50.	B			
51.	C			
52.	B			
53.	C			
54.	D			

[Type here]

55.	A			
56.	B			
57.	D			
58.	B			
59.	D			
60.	A			