

## Dairy Foods

1 Starting December 2003, the California Milk Advisory Board (CMAB) began airing its "Happy Cows" television ad campaign nationwide in an effort to build recognition for:

- a. the state of California
- b. America's dairy farms
- c. Real California Cheese**
- d. their new governor's dairy farm

1 Milk that is quite pungent in advanced stages and is recognized by its "papery" or cardboard sensation initially and a tallowy odor in more advanced stages is:

- a. oxidized**
- b. feed
- c. salty
- d. malty

2 According to USDA annual reports to Congress on the dairy promotion programs,

- a. generic advertising's impacts are negative and significant
- b. generic advertising's impacts are positive and significant**
- c. generic advertising's impacts are negative and insignificant
- d. generic and brand advertising are virtually the same

2 A flavor that resembles the flavor of stale fat and has a soapy taste and a goaty, unclean odor as a result of breaking down of fats in milk is:

- a. rancid**
- b. feed
- c. garlic/onion
- d. salty

3 University of Wisconsin- Madison dairy foods researchers estimate that the cheese industry loses \_\_\_\_\_ annually on defects in cheddar, other American-type, and Swiss cheeses.

- a. \$5 million
- b. \$1 million
- c. Over \$63 million**
- d. \$100,000

3 A flavor seldom found except in pasteurized milk that has been stored too long or stored at a slightly high refrigerator temperature is:

- a. flat/watery
- b. foreign
- c. feed
- d. high acid**

4 In its 2004 US Agriculture briefing book, the Food and Agricultural Policy Research Institute (FAPRI) projected the per capita cheese consumption is expected to:

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- a. grow by 50 pounds between 2004 and 2013
  - b. **grow by two pounds between 2004 and 2013**
  - c. remain the same between 2004 and 2013
  - d. decline by two pounds between 2004 and 2013
- 4 A CMT test appearance with a strong gel formation that tends to adhere to the paddle and forms a distinct central peak would have a Leukocyte count/ml of:
- a. 250,000 to 5,000,000
  - b. 400,000 to 3,000,000
  - c. **over 5,000,000**
  - d. below 200,000
- 5 \_\_\_\_\_ milk is made by removing about 60% of milk's water. It contains not less than 6.5% milk fat and not less than 23% by weight of total milk solids.
- a. Nonfat dry
  - b. Cultured
  - c. **Evaporated**
  - d. Sweetened condensed
- 5 When performing a CMT test, watch for color changes and gel formation. Milk from a normal quarter does which of the following?
- a. **flows freely**
  - b. forms small clumps in a moderate reaction
  - c. has no pattern, simply is a randomly run test
  - d. forms a gelatinous mass clinging together in a strong reaction
- 6 The dairy product that had the highest percent change in per capita sales with an increase of 13.8% in 2002 was:
- a. sour cream
  - b. egg nog
  - c. yogurt
  - d. **flavored milk**
- 6 New Zealand produces \_\_\_ percent of the world's milk.
- a. **2**
  - b. 18
  - c. 33
  - d. 54
- 7 According to data from the 2003 edition of Dairy Facts, about \_\_\_\_\_ percent of the total US milk volume is regulated through the Federal Orders.
- a. **74**
  - b. 55

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- c. 27
  - d. 10
- 7 About \_\_\_ percent of the calcium available in the food supply is provided by milk.
- a. 13
  - b. 56
  - c. **73**
  - d. 87
- 8 A cheese maker from the Netherlands was named World Champion Cheese Maker for his \_\_\_\_\_ entry which scored 98.48 in the championship judging rounds.
- a. Provolone
  - b. **Aged Gouda**
  - c. Muenster
  - d. Swiss
- 8 As it comes from a cow, the solids portion of milk contains approximately 3.7 percent fat and \_\_\_ percent solids-non-fat.
- a. 3
  - b. **9**
  - c. 12
  - d. 15
- 9 The International Dairy Foods Association (IDFA) "strongly supports" the Food and Drug Administration's (FDA) actions to update the existing federal standards of identity for \_\_\_\_\_, but National Milk Producers Federation (MNPF) has "many concerns" about proposed standard changes.
- a. **yogurt**
  - b. sorbet
  - c. ice cream
  - d. ice milk
- 9 Predip is an effective way to improve milk quality. How long must the dip be left on the teat to be effective?
- a. 10 seconds
  - b. **30 seconds**
  - c. 1 minute
  - d. 5 minutes
- 10 The market prices used in the Federal Milk Market Order program to establish class prices of milk are those of:
- a. cottage cheese and ice cream
  - b. **butter, nonfat dry milk, and cheddar cheese**
  - c. fresh milk and cream
  - d. all varieties of cheese

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- 10 How soon after thawing a semen straw should a cow be bred?
- 45 minutes
  - 20 to 30 minutes
  - 15 minutes**
  - 1 hour
- 11 A system of fairly distributing payment among producers in a Federal Milk Market is called:
- Pooling**
  - seasonal incentive
  - take-off, pay-back
  - base-excess pricing
- 11 Hay often heats when it is baled and stored. When the core reaches what temperature should one become concerned?
- 120 degreeed
  - 100 degrees
  - 150 degrees**
  - 300 degrees
- 12 In Federal order markets, milk sold for consumption in liquid form is a Class:
- I**
  - II
  - III
  - IV
- 12 Photoperiod of supplemental lighting has been shown to improve milk production. To be most effective, how long should cows be in dark?
- 6 to 8 hours**
  - 12 hours
  - 16 hours
  - 20 hours
- 13 \_\_\_\_\_ are regulated by a Federal Milk Marketing Order.
- Dairy farmers
  - Milk haulers
  - Milk handlers**
  - None of these
- 13 After the discovery of BSE in the US, what kind of cows were banned from entering the food chain?
- nonambulatory (downer) cows**
  - cows over 30 months of age
  - dry cows

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- d. pregnant cows
- 14 Milk orders, including the pricing and other provisions, become effective only after approval by:
- a. Dairy farmers
  - b. milk processors
  - c. local county agents**
  - d. consumer groups
- 14 How long should calf hutches be left empty between calves to prevent disease spread?
- a. 2 to 3 days
  - b. 10 to 14 days**
  - c. 3 to 4 weeks
  - d. 5 weeks
- 15 The Federal orders of today are based on the Agricultural Agreement Act of:
- a. 1927
  - b. 1937**
  - c. 1956
  - d. 1966
- 15 The two states which account for more than 22% of all regular ice cream produced in the nation are:
- a. Indiana and Minnesota
  - b. Texas and Indiana
  - c. Texas and California
  - d. California and Indiana**
- 16 In January of 2004, the US Patent and Trademark Office (USPTO) granted a patent to Kraft Food Holdings, Inc., for a method for preparing cheese containing:
- a. decreased levels of whey protein
  - b. increased levels of whey protein**
  - c. increased levels of nonfat dry milk
  - d. decreased levels of nonfat dry milk
- 16 In general, US farm operations with milk cows have grown. Continuing a long-term trend, the average herd size of US farm operations with milk cows increased to \_\_\_ head of dairy cows per farm.
- a. 95
  - b. 105**
  - c. 110
  - d. 120
- 17 The Food and Agricultural Policy Research Institute's report of 2003 put per capita cheese consumption at \_\_\_ pounds.    30.8    98.7    5    50

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17 The biggest decline in the number of dairy farms in the US came in the category of those farms with \_\_\_ head of milk cows per farm.

- a. **less than 100**
- b. 110
- c. at lease 200
- d. more than 300

18 Cottage cheese is breaking a long cycle of flat sales and enjoying a revived popularity not seen since the 1970s because of its versatility and the popularity of:

- a. Slim Spa
- b. Slim Fast
- c. Jenny Craig
- d. **low-carbohydrate diets**

18 In 2005, what was the deadline for the EPA's Quality Consent Agreement for dairy farmers?

- a. 1-Jul
- b. 1-Aug
- c. 1-May
- d. 1-Jun

19 According to the American Journal of Hypertension, if every American ate the recommended three to four servings of dairy each day, more than \$200 million could be saved in health care costs over the next \_\_\_ years.

- a. 20
- b. **15**
- c. 10
- d. 5

19 How can one tell if cows have Acidosis?

- a. Low milk fat test, less than 3.0 to 3.3 percent
- b. Diarrhea
- c. Sore hooves- laminitis
- d. **All of these**

20 In \_\_\_\_, Federal Milk Marketing Orders were reformed, and component pricing was introduced.

- a. **2000**
- b. 1995
- c. 1990
- d. 1985

20 To make one pound of butter, it requires approximately \_\_\_ pounds of whole milk.

- a. 22.5

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- b. 21.8**
  - c. 19
  - d. 15.7
- 21 Today, the most popular size of container for fluid milk sold in stores is:
  - a. quart
  - b. half gallon
  - c. gallon**
  - d. pint
- 21 To make one pound of whole milk powder, it requires \_\_\_ pounds of whole milk.
  - a. 7.4**
  - b. 6.7
  - c. 5.5
  - d. 4.7
- 22 The percentage of Grade A milk shipped to plants regulated under Federal Orders in three-fourths of the states is:
  - a. 90%**
  - b. 85%
  - c. 80%
  - d. 75%
- 22 As in past years, the number of milk cows in the US fell by \_\_\_ head in 2003.
  - a. 60,000
  - b. 55,000**
  - c. 51,000
  - d. 45,000
- 23 "Forward contracts" are agreements to:
  - a. sell at a price an amount of milk at a time in the future**
  - b. produce a predetermined amount of milk
  - c. ship to a predetermined location the dairy food ordered within a guaranteed time frame
  - d. purchase a set amount of manufactured dairy product at the time of delivery
- 23 As in past years, the number of milk cows in the US fell in 2003. However, the industry once again increased the national average milk per cow by \_\_\_ pounds, a new national record, which offsets the loss of cow numbers.
  - a. 16,567
  - b. 17,858
  - c. 18,749**
  - d. 19,434

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24 In order for the USDA to provide a support price of \$9.90 per hundred pounds of producer milk, prices are established for butter and nonfat dry milk. The relationship between these two prices is called the:

- a. **butter-powder tilt**
- b. powder-butter formula
- c. fat and nonfat tilt
- d. fat and nonfat formula

24 Nearly \_\_\_ percent of the milk produced in 2003 was used to make either cheese, fluid milk, cream, and related products.

- a. 80
- b. **70**
- c. 60
- d. 50

25 Class III milk is commonly used for:

- a. assuring an adequate supply of milk
- b. milk, nonfat milk, and skim milk
- c. **butter and dry milk products**
- d. cottage cheese and cream products

25 In total, about \_\_\_ percent of the total US milk supply was used to produce fluid milk products in 2003.

- a. **32.2**
- b. 28.4
- c. 33.5
- d. 29.4

26 With what country did the US agree to a trade deal that significantly affected the dairy industry in 2004?

- a. Argentina
- b. Costa Rica
- c. **Australia**
- d. Italy

26 The Dairy Production Stabilization Act of 1983 authorized a national producer program for:

- a. Dairy product promotion
- b. Dairy product research
- c. Nutrition education
- d. **All of these**

27 According to the Food and Nutrition Board of the National Academy of Sciences, all people need at least \_\_\_ milligrams of calcium per day.

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- a. 1,000,000
  - b. 1000**
  - c. 100
  - d. 10
- 27 The most abundant mineral in milk is:
- a. Calcium**
  - b. iodine
  - c. magnesium
  - d. phosphorus
- 28 During the period of 1982 to 1997, packaged fluid milk and related products shipped by the Fluid Milk Industry \_\_\_\_\_ in millions of dollars.
- a. increased**
  - b. decreased
  - c. remained flat
  - d. None of these
- 28 Oxidized flavor in milk is generally caused by:
- a. mastitis
  - b. action of lipase
  - c. exposure to light**
  - d. high storage temperature
- 29 Class IV milk is commonly used for:
- a. butter and dry milk products**
  - b. assuring an adequate supply of milk
  - c. milk, nonfat milk, and skim milk
  - d. cottage cheese and cream products
- 29 Milk with a high leukocyte count can cause:
- a. reduced cheese yield
  - b. increased rancidity
  - c. reduced shelf life
  - d. All of these**
- 30 For every 100 pounds of milk marketed, \_\_\_\_ cents is assessed for dairy promotion and research programs authorized by the checkoff legislation.
- a. 20
  - b. 15**
  - c. 10
  - d. 5
- 30 Milk is approximately \_\_\_\_ percent water and \_\_\_\_ percent solids.

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- a. **87, 13**
  - b. 63, 37
  - c. 95, 5
  - d. 75, 25
- 31 In 1992, what piece of legislation made farmer cooperatives legal?
- a. Sherman Act
  - b. Farm Bill
  - c. Barkley Act
  - d. **Capper-Volstead Act**
- 31 Dairy Facts 2005 reports that the state with the largest number of milk cows (1,725,000) is:
- a. **California**
  - b. Wisconsin
  - c. New York
  - d. Virginia
- 32 Milk over what somatic cell count cannot be legally shipped?
- a. 1,000,000
  - b. **750,000**
  - c. 400,000
  - d. 200,000
- 32 Which of the following fatty acids found in milk have been associated with health benefits in humans?
- a. Constructed Linoleic Acid
  - b. Butyric Acid
  - c. **Conjugated Linoleic Acid**
  - d. Lactic Acid
- 33 Sales of soy milk continue to rise. Despite that growth sales of the product still only account for about \_\_\_ percent of refrigerated milk sales in the US.
- a. 4
  - b. **3**
  - c. 2
  - d. 1
- 33 Milk that is tasteless and lacking the flavor of normal milk is classified as:
- a. Oxidized
  - b. **Flat/Watery**
  - c. Rancid
  - d. High acid

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- 34 On average, mastitis costs farms about how much per case?
- \$251**
  - \$86
  - \$47
  - \$6
- 34 Milk off-flavor is a result of bacterial growth (commonly streptococcus lactis) and will have detectable \_\_\_\_\_ flavor long before it may be classified as sour. Acid Malty Feed Rancid
- 35 In order to get the same amount of calcium as a quart of milk, a consumer would need to eat how many oranges?
- 165
  - 27**
  - 18
  - 1
- 35 Grade A raw milk sampled at the producer farm should have a Standard Plate Count per milliliter of aerobic bacteria that is:
- not more than 100,000**
  - less than 10
  - between 10,000 and 100,000
  - between 100,000 and 1,000,000
- 36 Nearly half of the dairy farms in the US are what herd size?
- 1 to 49 head**
  - 50 to 99 head
  - 100 to 199 head
  - 200 head and larger
- 36 A bulk hauler found the milk bulk tank temperature at the Xylus Dairy Farm to be 65 degrees F. Milking had been completed 3 hours previously. The hauler is correct in:
- expecting the milk to be sour
  - think the sample would have a high bacteria count
  - not pumping the milk into his truck's tanks
  - All of these**
- 37 Which state has the highest milk per cow in the US?
- Massachusetts
  - California
  - Wisconsin
  - Washington**
- 37 Public health standards for quality of Grade A raw milk include:

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- a. **Bacteria count and temperature**
  - b. flavor and color
  - c. weight and age
  - d. none of these
- 38 The serum ELLISA test is used to detect what disease?
- a. Ketosis
  - b. Fatty Liver
  - c. **Johne's**
  - d. Mastitis
- 38 Which group of flavors cannot be detected by odor?
- a. high acid, rancid
  - b. feed, garlic/onion
  - c. **bitter, salty**
  - d. metallic, oxidized, malty
- 39 Multiple component pricing (MCP) is based on:
- a. **water butterfat**
  - b. butterfat
  - c. nonfat solids
  - d. all of these
- 39 Dairymen use stainless steel equipment because:
- a. Surfaces can be polished to a smooth finish
  - b. Surfaces do not corrode easily
  - c. There is little chance for copper to get into milk
  - d. **All of these**
- 40 The Secretary of Agriculture may terminate a marketing order when termination is favored by a majority of the dairy farmers who deliver more than \_\_\_ of the milk to the market.
- a. 25%
  - b. **50%**
  - c. 66%
  - d. 90%
- 40 The sugar of milk that souring bacteria change to acid is:
- a. **lactose**
  - b. sucrose
  - c. casein
  - d. riboflavin
- 41 Mixture of milk and cream containing not less than 10.5% milk fat, but less than 18% milk fat, is the definition of:

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- a. **half-and-half**
  - b. light whipping cream
  - c. light cream
  - d. heavy cream
- 41 Rancidity or lipolyzed flavor in milk results from:
- a. contamination of milk with antibiotics
  - b. contamination of milk with water
  - c. growth of acid producing bacteria
  - d. **action of natural milk enzyme**
- 42 Most recent data shows the most fluid milk was sold in what type of container?
- a. **plastic**
  - b. paper
  - c. glass
  - d. metal (tin) cans
- 42 Somatic cells occur in large numbers in milk when:
- a. milk has not been cooled adequately
  - b. the milking machine is dirty
  - c. **milk from the mastitic glands is placed in the bulk milk truck**
  - d. milk is held a long time at the dairy plant
- 43 The National Milk Producers Federation sponsors a program that is funded by dairy producers to reduce milk supply and increase demand for dairy products. This program is called:
- a. **Cooperatives Working Together**
  - b. Milk Income Loss Contract
  - c. Unified Marketing Plan
  - d. Federal Support Prices
- 43 Milkstone on dairy equipment is often caused by:
- a. the use of hard water for cleaning and rinsing
  - b. failure to use acid-type cleaners on farms that have hard water
  - c. failure to use adequate detergent on farms that have hard water
  - d. **All of these**
- 44 Based on ice cream consumption figures, the second most popular flavor is:
- a. **chocolate**
  - b. vanilla
  - c. cookies and cream
  - d. strawberry
- 44 The California mastitis test is done to:

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- a. see if a cow has an infection
  - b. determine weight and age
  - c. **determine whether mammary glands are inflamed**
  - d. check for bacteria in milk
- 45 What percent of exported US dairy products are sold without a subsidy?
- a. **95%**
  - b. 80%
  - c. 50%
  - d. 0%
- 45 \_\_\_\_\_ off-flavor may be present in milk from cows in late stages of lactation or cows infected with mastitis.
- a. rancid
  - b. bitter
  - c. **salty**
  - d. malty
- 46 Demand for dairy products is typically the lowest in:
- a. spring
  - b. **summer**
  - c. fall
  - d. winter
- 46 Milk with a high somatic cell count can cause:
- a. reduced cheese yield
  - b. increased rancidity
  - c. reduced shelf life
  - d. **All of these**
- 47 What percent of today's youth consumer the recommended amount of dairy products?
- a. 10%
  - b. **30%**
  - c. 50%
  - d. 75%
- 47 To make one pound of cheese, you need approximately \_\_\_\_ pounds of whole milk.
- a. 2.2
  - b. **10**
  - c. 10.6
  - d. 21.8
- 48 Milk that is used to make butter is classified as which class in Federal Orders?

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- a. **Class IV**
  - b. Class III
  - c. Class II
  - d. Class I
- 48 Public health standards for quality of Grade A raw milk include:
- a. **Bacteria Count**
  - b. Flavor
  - c. Protein Content
  - d. All of these
- 49 Milk prices, on average, are the lowest in:
- a. **Spring**
  - b. Summer
  - c. Fall
  - d. Winter
- 49 When a large number of mammary glands yield a weak positive reaction to the California Mastitis Test, what percentage of them will likely be shedding mastitis causing bacteria?
- a. **25%**
  - b. 50%
  - c. 75%
  - d. 90%
- 50 Which element is the basic building block of protein?
- a. **nitrogen**
  - b. phosphorus
  - c. potassium
  - d. zinc
- 50 The off-flavor that is seldom found except in pasteurized milk that has been stored too long is:
- a. foreign
  - b. high acid
  - c. **unclean**
  - d. fat/watery
- 51 In 2006, the two leading varieties of cheese produced in the US were:
- a. American and provolone
  - b. Italian and cheddar
  - c. **cheddar and mozzarella**
  - d. Italian and American
- 51 When the purple color become intense in the CMT, it indicates \_\_\_\_\_ pH in the mammary gland.
- a. neutral

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- b. acidic
  - c. **basic or alkaline**
  - d. the CMT test is not related to pH.
- 52 Milk is what percent water?
- a. **87%**
  - b. 63%
  - c. 58%
  - d. 42%
- 52 Which of the following are required for milk from a dairy farm to be certified organic?
- a. Cows may not have been treated with antibiotics
  - b. Insecticides may not have been used
  - c. The farm must have been audited by a third party
  - d. **All of these**
- 53 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 Drug residues in milk are due to producers treating cattle:
- a. **in an extra-label manner**
  - b. in a manner as the label directs
  - c. in accordance with the FDA's regulations
  - d. All of these
- 54 What is the major cost item on most dairies?
- a. **feed**
  - b. labor
  - c. milking supplies
  - d. A.I. Breeding Supplies
- 54 Which of the following aspects of the Cooperatives Working Together programs are correct?
- a. supports exports of dairy products
  - b. supports periodic herd retirement programs
  - c. funded by voluntary contribution of 10 cents per cwt.
  - d. **All of these**
- 55 A cow's milk fat test that is lower than her protein test may be a sign of what?
- a. **acidosis**

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- b. fatty liver
  - c. displaced abomasums
  - d. Mastitis
- 55 An infection caused by *Mycobacterium paratuberculosis* is more commonly known as:
- a. **Johne's Disease**
  - b. Acidosis
  - c. Ketosis
  - d. Milk Fever
- 56 Which of these is a good nutritional strategy to maintain milk production in hot weather?
- a. feed more grain
  - b. **add more fat**
  - c. increase protein concentrate
  - d. all of these
- 56 The \_\_\_\_\_ region had the highest cheese production in 2006.
- a. **West**
  - b. Atlantic
  - c. Central
  - d. none of these
- 57 In regard to retail prices paid for milk by consumers, Federal Milk Marketing Orders are intended to:
- a. adjust them according to demand
  - b. adjust them according to supply
  - c. **leave them to be determined in the marketplace**
  - d. set them fairly
- 57 While the legal limit for somatic cells in raw milk is 750,000/ml, the average in 2006 had declined below:
- a. 600,000/ml
  - b. 500,000/ml
  - c. 400,000/ml
  - d. **300,000/ml**
- 58 Who pays directly for the operation of Federal Milk Marketing Orders?
- a. **processors of milk (handlers)**
  - b. producers of milk
  - c. the USDA
  - d. consumers of grade A milk
- 58 The Standard of Identity for ice cream requires that it contain a minimum of \_\_\_\_% milk fat.

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- a. **10**
- b. 12
- c. 15
- d. 16

59 The reason Federal Milk Market Administrators test grade A milk for composition and audit records of purchase by dealers is to:

- a. ensure an adequate supply of milk
- b. help dealers with their business affairs
- c. **ensure fairness in the marketing of milk**
- d. keep the government informed

59 A cryoscope is an important tool that tests for \_\_\_\_\_ in milk.

- a. butterfat
- b. antibiotics
- c. pesticides
- d. **added water**

60 The bacteriological quality of grade A milk is:

- a. the first consideration in pooling milk
- b. a part of the testing by Market Administrators
- c. **not controlled by Federal Orders**
- d. only checked when the milk fails the freezing point test

60 Adulteration of milk with water is unlawful and can be detected by testing:

- a. **for a high freezing point**
- b. by the Babcock test
- c. for boiling point
- d. for total solids

61 Milk classified by used under Federal Orders has different:

- a. bacteria counts
- b. **prices**
- c. fat tests
- d. all of these

61 If one wished to remove water spots, or milkstone from equipment, he/she should use:

- a. **acid cleaner**
- b. iodophor
- c. quaternary ammonium compound
- d. chlorinated alkaline detergent

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62 A milk producer would receive the highest price for milk delivered within a milk marketing order if all of it were to be used to make into:

- a. **fluid milk products**
- b. butter and milk fat
- c. cheddar and mozzarella cheeses
- d. ice cream and yogurt

62 Failure to clean milking equipment before it is sanitized may result in:

- a. detergent flavor in milk
- b. **high bacteria counts**
- c. high somatic cell counts
- d. foreign flavor

63 Federal Milk Marketing Orders describe:

- a. **how payment is to be made to milk producers for milk**
- b. from whom milk is to be purchased by processors
- c. to whom milk is to be sold by producers
- d. grade A sanitary standards

63 According to Cheese Reporter, despite higher feed costs in 2008, US milk production continued to increase, and the year-over-year increase is projected to be about \_\_\_ percent this year, to 189.3 billion pounds.

- a. 10
- b. **12**
- c. 20
- d. 30

64 The milk fat differential used in paying for raw milk is:

- a. a value set to penalize milk producers who have too little fat in their milk
- b. **the value to be added or subtracted per 0.1% of milk fat above or below 3.5%.**
- c. a value established to penalize milk producers who have too much fat in their milk
- d. none of these

64 Chemical sanitizers containing \_\_\_\_\_ are most widely used for sanitizing milking equipment.

- a. fluorine
- b. saline
- c. **chlorine**
- d. iodine

65 The average annual number of pounds of milk produced per cow in the US is approximately:

- a. **20,000**
- b. 15,000
- c. 2,000

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- d. 1,500
- 65 Milk with a high somatic cell count is expected to have a lowered content of:
- casein**
  - whey
  - lipase activity
  - catalase
- 66 On a milk supply utilization basis, from highest to lowest usage, which list reflects quantities of milk needed to make these products?
- cheeses, fluid milk and cream, butter, frozen dairy products**
  - frozen dairy products, cheeses, fluid milk and cream, butter
  - butter, fluid milk and cream, cheeses, frozen dairy products
  - fluid milk and cream, cheeses, frozen dairy products, butter
- 66 Milk production increases for two reasons: there are more cows being milked and those cows are:
- from California
  - more stressed
  - more productive**
  - from cold climates
- 67 According to the USDA, what percentage of milk do our US cooperatives market?
- 100%
  - 86%**
  - 62%
  - 44%
- 67 Milk producers should avoid the use of metals that contain copper for that tend to rust because:
- these conditions promote oxidization of the milk and bacterial contamination**
  - these kinds of equipment are quite costly
  - these metals release radioactive particles
  - they stimulate growth of bacteria
- 68 Which country or region has the world's largest dairy herd?
- European Union
  - India
  - United States
  - Canada**
- 68 Sour milk contains a high amount of:
- conjugated linoleic acid
  - lactic acid**
  - sulfuric acid

## Dairy Foods

69 According to a report compiled by the Institute for Food Technologists, \_\_\_\_\_ is now America's favorite at-home snack.

- a. **yogurt**
- b. ice cream
- c. cheese
- d. chocolate milk

69 The major result of storing milk cold is the:

- a. stopping of all bacterial growth
- b. killing of all bacteria
- c. **slowing of bacterial growth**
- d. killing of all microorganisms

70 Organic milk makes up about \_\_\_\_% of US milk sales.

- a. 1.8
- b. **3.4**
- c. 16.7
- d. 24.8

70 Somatic Cell Score (SCS) is expressed in somatic cell score units. Just like with somatic cell counts, \_\_\_\_\_ numbers are better for somatic score.

- a. **lower**
- b. higher
- c. even
- d. medium

71 Flavored milk sales were boosted in 2003 by new innovative products put out by the milk industry facing an increasingly competitive beverage marketplace. \_\_\_\_\_ milk dominates the flavored milk category.

- a. coffee
- b. mocha
- c. **chocolate**
- d. vanilla

71 Expect a feed flavor in milk when:

- a. milk is not cooled immediately after milking
- b. agitation during cooling is too vigorous
- c. **cows are milked soon after eating succulent pastures or silage**
- d. agitation during cooling is too slow

72 A major reason the federal government establishes minimal farm milk prices is

- a. to insure that all dairymen have a market for milk
- b. to insure that all processors have adequate milk for manufacture of butter and cheese

## Dairy Foods

- c. **to insure an adequate supply of pure and wholesome milk for the consumer**
  - d. to provide federal control of the production of milk
- 72 Metallic/oxidized flavor of milk is unlikely to occur if milk is:
- a. **protected from exposure to light and copper**
  - b. protected from exposure to dust and heat
  - c. cooled quickly to less than 40 degrees
  - d. not adulterated with water and antibiotics
- 73 Federal milk marketing orders do not control
- a. grade A milk standards of production and processing
  - b. to whom milk is sold
  - c. from whom milk is purchased
  - d. **Any of these**
  - e. to whom milk is sold and from whom milk is purchased
- 73 The natural lipase enzyme contained in all raw milk is kept away from milk fat globules, thus preventing development of rancidity because the:
- a. major protein, casein, ties up the lipase
  - b. **fat globule membrane, a protective layer, covers the fat globules**
  - c. fat globules are too small to attract the enzyme until they are homogenized
  - d. enzyme has to be activated by the heat of pasteurization
- 74 The market price used in the Federal Milk Mark Order program to establish class prices of milk are those of
- a. All varieties of cheese
  - b. Cottage cheese and ice cream
  - c. Fresh milk and cream
  - d. **Butter, nonfat dry milk and cheddar cheese**
- 74 What stomach is a magnet typically used to remove metal objects that cause hardware disease?
- a. omasum
  - b. abomasum
  - c. **reticulum**
  - d. rumen
- 75 Which time of year is demand for dairy products typically the lowest?
- a. **summer**
  - b. spring
  - c. fall
  - d. winter
- 75 Body conditioning is one way to measure cow health. What is the ideal score for a milking cow?
- a. 4

## Dairy Foods

- b. 1
- c. 3**
- d. 5

76 Who pays directly to the U. S. D. A. Milk Market Administration for the operation of Federal Orders?

- a. processors of the milk**
- b. milk producing farmers
- c. retail sellers of the milk
- d. consumers

76 What field vegetable can be a cheap replacement for soybean meal and corn grain?

- a. Almonds
- b. Sugar beets
- c. Sweet corn
- d. Field peas**

77 The decision of a milk hauler to accept or reject milk at the producing farm

- a. must always be confirmed by tests for acidity
- b. depends on knowledge of milk quality and ability to smell off odors**
- c. must be made the day before pickup is scheduled
- d. depends on knowledge of milk quality and ability to smell off odors; must always be confirmed by tests for acidity
- e. depends on knowledge of milk quality and ability to smell off odors; must be made the day before pickup is scheduled

77 Most recent data shows the most fluid milk was sold in what type of container?

- a. Paper
- b. Plastic**
- c. Glass
- d. metal (tin) cans

78 There are four classes of milk under federal orders and they provide for

- a. payment for milk according to its quality
- b. classification according to the relative safety of each class
- c. payment for milk according to its end use**
- d. payment for milk according to its cost of production

78 Molds growing on corn and other feed grains may produce

- a. bactericides
- b. fungicides
- c. mycotoxins
- d. aflatoxins**

## Dairy Foods

- 79 Why are some assets, depreciated in accounting practices?
- They last more than one year**
  - Expense costs over more years
  - Supply and demand
  - Unified Marketing Plan
- 79 For every pound of dry matter, cows should consume how much water?
- 25 to 30 pounds
  - 1 to 2 pounds
  - 10 to 15 pounds
  - 4 to 5 pounds**
- 80 Based on ice cream consumption figures, the second most popular flavor is
- Strawberry
  - Chocolate**
  - cookies and cream
  - vanilla
- 80 The breakdown of milk fat that releases fatty acids in milk and causes the rancid or lipolyzed off flavor develops fastest when
- Cows are consuming fresh pasture grasses
  - Bacterial counts are high
  - Fat is partially churned so lipase can attack the fat**
  - Cows are in their highest phase of milk production
- 81 What percent of exported U.S. dairy products are sold without a subsidy?
- 95%**
  - 0%
  - 50%
  - 80%
- 81 Which of the following fatty acids found in milk have been associated with health benefits in humans?
- Butyric Acid
  - Oleic acid
  - Conjugated Linoleum Acid**
  - Lactic Acid
- 82 Under Federal milk marketing orders Class III milk is used to make
- all of these
  - cottage cheese butter and dry milks
  - ice cream
  - ripened cheeses**

## Dairy Foods

- 82 How many years does it take for a dairy farm to fully transition to certify organic?
- 1
  - 3**
  - 5
  - 7
- 83 What percent of today's youth consume the recommended amount of dairy products?
- 10%
  - 30%**
  - 50%
  - 75%
- 83 What technology destroys 90 percent of BST found in milk?
- hormonization
  - Pasteurization
  - homogenization**
  - reverse osmosis
- 84 In 2007, the U.S. achieved a record for dairy exports. What amount was exported?
- \$13 billion
  - \$33 billion
  - \$333 billion
  - \$3 billion**
- 84 Stainless steel equipment is used to produce and process milk because
- Surfaces do not corrode easily
  - Surfaces can be polished to a smooth finish
  - All of these**
  - There is little chance for copper to get into milk
- 85 Milk marketing cooperatives
- are not permitted by Federal Orders
  - provide marketing power for dairy farmers**
  - operate only outside Federal Orders
  - are controlled by Federal Orders
  - are private businesses owned by corporations
- 85 Rancidity or lipolyzed flavor in milk results from
- Action of a natural enzyme of milk that splits fatty acids from milk fat**
  - Growth of acid producing bacteria
  - Release of amino acids from casein
  - Contamination of milk with antibiotics
- 86 Milk that is used to make butter is classified as which class in Federal Orders?

## Dairy Foods

- a. Class I
  - b. Class II
  - c. **Class IV**
  - d. Class III
- 86 What method of manure application is best to fully utilize nutrients, reduce risk of runoff, and lower odor complaints?
- a. flood application
  - b. broadcasting
  - c. surface application
  - d. **injecting**
- 87 What national beverage chain announced they would switch from whole milk to 2 percent in all of its stores by the end of the year?
- a. Krispy Kreme
  - b. **Starbucks**
  - c. Dunkin Donuts
  - d. Caribou Coffee
- 87 At refrigerated temperatures, butter will begin to lose some of its natural flavor after how long?
- a. Within 2 months
  - b. **Within 6 months**
  - c. Within 1 year
  - d. Butter will not lose its natural flavor when stored properly
- 88 What is the top dairy county in the U.S. based on the amount of milk marketed?
- a. **Tulare, California**
  - b. Merced, California
  - c. Lancaster, Pa
  - d. Stearns, Minn.
- 88 Why do protein and amino acids go hand in hand?
- a. Amino acids and proteins need to be found in a 2:1 ratio in all diets
  - b. Proteins are the building blocks of amino acids
  - c. **Amino acids are the building blocks of protein**
  - d. Proteins link to amino acids in bone formation
- 89 In federal order markets, milk sold for consumption in fluid form is
- a. **Class I**
  - b. Class II
  - c. Class III
  - d. Class IV

## Dairy Foods

- 89 When performing a CMT test, watch for color changes and gel formation. Milk from a normal quarter does which of the following?
- Forms a gelatinous mass clinging together in a strong reaction
  - Forms small clumps in a moderate reaction
  - Turns a deep purple color
  - Flows freely without change in viscosity**
- 90 Milk covered by Federal orders is often known as \_\_\_\_\_ or milk eligible for fluid use.
- "Grade A"**
  - Manufacturing grade
  - "Grade B"
  - "Grade F"
- 90 Antibiotics that may be found in milk are there most likely because
- they were used to preserve the milk
  - cows ate feed containing it
  - milk was not withheld from the bulk tank long enough after treatment of a cow**
  - the veterinarian prescribed the medication
- 91 According to a report compiled by the Institute for Food Technologists, \_\_\_\_\_ is now
- Yogurt
  - Cheese ice cream
  - America's favorite at-home snack.**
  - chocolate milk
- 91 New food pyramid guidelines recommended how many servings of dairy products per day?
- 5
  - 4
  - 3**
  - 2
- 92 Milk is what percent water?
- 87 percent**
  - 63 percent
  - 58 percent
  - 42 percent
- 92 The greatest damage to the cow caused by mechanical milking is due to
- Milking too fast
  - Using too low vacuum
  - Leaving the machine on too long**
  - Milking too slowly

## Dairy Foods

- 93 In regards to commodities, what best defines hedging?
- Taking no action
  - The act of buying and selling stock
  - The act of buying and selling commodities
  - The act of protecting yourself against price possibilities**
- 93 Which of the following are required for milk from a dairy farm to be certified organic?
- Cows may not have been treated with antibiotics
  - Insecticides may not have been used
  - The farm must have been audited by a third party
  - All of these**
- 94 According to the Food and nutrition Board of the National Academy of Sciences, all people need at least \_\_\_\_\_ milligrams of calcium per day.
- 1,000,000
  - 1,000**
  - 100
  - 10
- 94 Antibiotics are not permitted in milk because
- some persons are hypersensitive to certain antibiotics**
  - they artificially lower bacteria counts
  - off flavors are produced
  - fat becomes rancid
- 95 In regard to prices paid by consumers for milk, federal milk marketing orders are intended to leave them to be determined in the marketplace
- set them fairly on a monthly basis**
  - adjust them according to consumer purchasing patterns
  - adjust them according to total farm milk production
  - adjust them according to both supply and demand
- 95 What disease is caused by a worm that is taken up as larvae by cattle eating grass, penetrates the gut, and eventually matures to adult form in the respiratory tract?
- heartworm
  - tuberculosis**
  - trichinosis
  - lungworm
- 96 Pooling in Federal Milk Marketing Orders is
- a system of fairly distributing payment among milk processors in a market**
  - the comingling of milk from two or more producers

## Dairy Foods

- c. the comingling of milk from two or more markets
  - d. a system of paying producers within a market according to uses of the milk
  - e. none of these
- 96 Which of these is a good nutritional strategy to maintain milk production in hot weather?
- a. Feed more grain
  - b. Increase protein concentration
  - c. Milk slower
  - d. **Add more fat**
- 97 The fat-soluble vitamins found in milkfat are
- a. **A, D, E and K**
  - b. A, D, B2 and B12
  - c. niacin and riboflavin
  - d. B2, B3, B6 and B12
- 98 The components of milk responsible for richness and sweetness, in this order, are
- a. minerals and milk sugar
  - b. **milk fat and lactose**
  - c. casein and lactic acid
  - d. curds and whey
- 99 Failure to sanitize milking equipment after cleaning may result in
- a. high somatic cell counts
  - b. malfunction of the milking machine
  - c. **unexpected spoilage of the milk**
  - d. dirty sediment pads
- 100 Lactose is the principal \_\_\_\_\_ in milk.
- a. fat
  - b. protein
  - c. **carbohydrate**
  - d. mineral
- 101 An example of a fermented food is \_\_\_\_\_.
- a. **cheese**
  - b. applesauce
  - c. bologna
  - d. coffee
- 102 What is a major cost of the actual milking process?
- a. equipment
  - b. medicine
  - c. **labor**

## Dairy Foods

d. barns

103 Milking cows three times per day will increase total milk production from 6 percent to \_\_\_\_\_ percent when compared to milking two times per day.

- a. 40
- b. 30
- c. **20**
- d. 10

104 The udder contains \_\_\_\_\_ that manufacture the milk.

- a. oxytocin
- b. proteins
- c. fat
- d. **alveoli**

105 \_\_\_\_\_ is a combination of organic and inorganic material.

- a. **Milkstone**
- b. Sediment
- c. Off flavors
- d. none of the answers listed

106 During which month is the consumption of fluid milk at its lowest level?

- a. **November**
- b. July
- c. May
- d. June

107 The highest milk production occurs in the months of \_\_\_\_\_ and \_\_\_\_\_.

- a. **May; June**
- b. June; July
- c. July; August
- d. August; September

108 Dairy farmers in the United States produce more than \_\_\_\_\_ billion dollars worth of milk each year.

- a. 11
- b. **21**
- c. 31
- d. 41

109 What type of vegetable is a grazing forage crop in many parts of the world but is not common place in the United States?

- a. **turnips**
- b. beets

## Dairy Foods

- c. potatoes
  - d. radish
- 110 The cryoscopic freezing point test is used with milk to determine
- a. titratable acidity
  - b. adulteration with water**
  - c. fat content
  - d. nonfat milk solids content
- 111 When it comes to fertilizing fields, what three nutrients are known as the "secondary nutrients?"
- a. calcium, sulfur, and magnesium**
  - b. nitrogen, phosphorus, potassium
  - c. potassium, phosphorus, and zinc
  - d. calcium, nitrogen, and water
- 112 A fluid milk product that contains at least 8.25% nonfat milk solids and no more than 0.5 gram of fat in a single serving of 8 fluid ounces is called
- a. nonfat milk**
  - b. reduced fat milk
  - c. milk
  - d. lowfat milk
- 113 Milk stone on dairy equipment is often caused by
- a. The use of hard water for cleaning and rinsing
  - b. Failure to use acid-type cleaners on farms that have hard water
  - c. Failure to use adequate detergent on farms that have hard water
  - d. all of the answers listed**
- 114 What household cleaning agent has been found to cut odor in livestock manure by USDA-ARS scientists?
- a. dish soap
  - b. window cleaner
  - c. borax**
  - d. baking soda
- 115 Milk is composed of about 87 percent water and what percent carbohydrates?
- a. 30 percent
  - b. 5 percent**
  - c. 3 percent
  - d. 0.5 percent
- 116 Cracks and blisters of rubber inflations of milking machines

## Dairy Foods

- a. **BOTH trap milk solids and bacteria and suggest to the user that the inflations do a poor job of massaging the teats**
- b. cause milk to sour within a few minutes trap milk solids and bacteria
- c. suggest to the user that the inflations do a poor job of massaging the teats
- d. cause milk to sour within a few minutes and trap milk solids and bacteria

117 According to the American Veterinary Medicine Association, what is the preferred method of dehorning cows?

- a. caustic paste
- b. cauterizing veins
- c. **disbudding**
- d. gauging

118 The milk flavors that cannot be detected by odor are

- a. metallic/oxidized and malty
- b. high acid and rancid
- c. **bitter and salty**
- d. feed and garlic/onion

119 What is the largest cost on most US dairy farms?

- a. **fuel**
- b. labor
- c. veterinary fees
- d. feed

120 Milk that is low in milkfat is likely to have the flavor

- a. salty
- b. **flat/watery**
- c. bitter
- d. unclean

121 In cows, salmonellosis infections are most common in those that have calved within

- a. 2 days
- b. **10 days**
- c. 20 days
- d. 50 days

122 What prolific plant is now being researched as a tool in removing nitrogen and phosphorus from manure effluent?

- a. **algae**
- b. moss
- c. burdocks
- d. none of the answers listed

## Dairy Foods

- 123 Adulteration of milk with water, salt or sugar is unlawful and can be
- for a rancid flavor
  - for an abnormal freezing point**
  - with the acidity test
  - for nonfat solids
- 124 Compounds found in what common cooking ingredient have been associated with decreases in acetate, increases in propionate and decrease in methane production?
- garlic**
  - salt
  - flour
  - thyme
- 125 During the production process, the heat exchanger must heat raw milk to a minimum of \_\_\_\_\_ for at least 15 seconds in holding tubes before the milk is cooled.
- 100 degrees F
  - 161 degrees F**
  - 200 degrees F
  - 212 degrees F
- 126 Which is NOT a characteristic in the appearance of manure in a group of cows experiencing rumen acidosis?
- tiny pieces of grain in manure greater than 1/4 inch
  - loose and shiny manure with small air bubbles
  - a pile of shaving cream, having three to six ring and standing about 1/2 inches with a dimple in the middle**
  - pieces of fiber greater than 1/2 inch
- 127 What type of crop shields the soil to reduce erosion, add organic matter and capture nutrients otherwise lost by runoff?
- cover crop**
  - perennials
  - winter shield
  - annual
- 128 During hot weather, milk filters should be changed every \_\_\_\_\_ hours to prevent bacteria from growing in the filters.
- two**
  - four
  - six
  - eight

## Dairy Foods

129 The milking machine is a major source of mastitis pathogen transmission. Studies show that once an infected cow has been milked, the next \_\_\_\_\_ cows milked with the same unit are at risk of contamination.

- a. ten to twelve
- b. six to eight**
- c. two to three
- d. two to five

130 Leaky air hoses or inflations of milking machines are undesirable because

- a. the milk inspector may find them and debit the inspection sheet
- b. noises they create cause cows to "hold up" their milk
- c. they may cause vacuum to fluctuate**
- d. milk may leak onto the floor

131 When did commercial in vitro fertilization become available to dairy producers?

- a. 1990s**
- b. 1920s
- c. 1960s
- d. 1970s

132 The minimum concentration for hypo-chloride sanitizers for use on dairy equipment is approximately \_\_\_\_\_ parts per million.

- a. 50,000
- b. 5
- c. 50
- d. 5000**
- e. 500

133 The first uniform scorecard for dairy cattle was approved by the Purebred Dairy Cattle Association in what year?

- a. 1986
- b. 1952
- c. 1943**
- d. 1937

134 A major reason the federal government establishes minimal farm milk prices is

- a. to insure an adequate supply of pure and wholesome milk for the consumer.**
- b. to provide federal control of the production of milk.
- c. to insure that all dairymen have a market for milk.
- d. to insure that all processors have adequate milk for manufacture of butter and cheese.

135 Federal milk marketing orders DO NOT control

- a. to whom milk is sold.

## Dairy Foods

- b. from whom milk is purchased.
- c. grade A milk standards of production and processing.
- d. any of the answers listed**

136 The market price used in the Federal Milk Mark Order program to establish class prices of milk are those of

- a. cottage cheese and ice cream.
- b. fresh milk and cream.
- c. butter, nonfat dry milk and cheddar cheese.**
- d. all varieties of cheese.

137 Geographically a Federal milk marketing order covers

- a. the entire continental U.S.**
- b. each individual state from boundary to boundary.
- c. markets within regions where milk is produced.
- d. individual counties and cities within their limits.

138 Who pays directly to the U.S.D.A. Milk Market Administration for the operation of Federal Orders?

- a. retail sellers of the milk
- b. consumers
- c. processors of the milk**
- d. milk producing farmers

139 Most recent data shows the most fluid milk was sold in what type of container?

- a. Plastic**
- b. Glass
- c. Metal (tin) cans
- d. Paper

140 There are four classes of milk under Federal Orders and they provide for

- a. classification according to the relative safety of each class.
- b. payment for milk according to its quality.
- c. payment for milk according to its cost of production.
- d. payment for milk according to its end use.**

141 Which nation leads the world in the number of cows and water buffalo used for milk production?

- a. India**
- b. United States
- c. Germany
- d. Holland

## Dairy Foods

- 142 Based on ice cream consumption figures, the second most popular flavor is
- chocolate.**
  - strawberry.
  - cookies n' cream.
  - vanilla.
- 143 What percent of exported U.S. dairy products are sold without a subsidy?
- 95%**
  - 0%
  - 50%
  - 80%
- 144 For all of 2010, U.S. cheese production was up \_\_\_\_\_ percent from 2009.
- 3.3**
  - 0.5
  - 10.5
  - 7.3
- 145 What percent of today's youth consume the recommended amount of dairy products?
- 50%
  - 75%
  - 30%**
  - 10%
- 146 Butter made in 2010 was down \_\_\_\_\_ percent.
- 0.7**
  - 10.2
  - 15.7
  - 20.2
- 147 In a milk market with four classes of milk, Class III milk is used to make
- cottage cheese and cream products.
  - cheese.
  - fluid products.**
  - butter and dry products.
- 148 Dairy Facts compared the number of milk-producing farms in 1994 to the number in 2008. Which of the following provides the respective numbers (1994 to 2008)?
- 148,140 to 67,000
  - 368,200 to 67,000
  - 67,000 to 368,000**
  - 3,682 million to 670,000

## Dairy Foods

149 What national beverage chain announced they would switch from whole milk to 2 percent in all of its stores?

- a. **Starbucks**
- b. Krispy Kreme
- c. Dunkin Donuts
- d. Caribou Coffee

150 Compared to other commodity groups, dairy leads the way in the number of operators lacking health insurance. Overall, what percentage of operators lack health insurance?

- a. 40 percent
- b. **50 percent**
- c. 60 percent
- d. 70 percent

151 According to Dairy Facts, since 1950 annual milk production per cow in the United States has increased from (rounded to nearest thousand pounds)

- a. **5,000 to 17,000.**
- b. 5,000 to 20,000.
- c. 8,000 to 24,000.
- d. 4,000 to 5,000.
- e. 4,000 to 10,000.

152 Milk covered by Federal Orders is often known as \_\_\_\_\_ or milk eligible for fluid use.

- a. **"Grade A"**
- b. "Grade F"
- c. Manufacturing grade
- d. "Grade B"

153 According to a report compiled by the Institute for Food Technologists, \_\_\_\_\_ is now America's favorite at-home snack.

- a. ice cream
- b. chocolate milk
- c. **yogurt**
- d. cheese

154 One of the reasons that Dietary Guidelines for Americans, by law, are updated every \_\_\_\_\_ years is that new research unveils new knowledge about how nutrition affects health and well-being.

- a. two
- b. three
- c. four
- d. **five**

155 In regards to commodities, what best defines hedging?

## Dairy Foods

- a. **The act of protecting yourself against price possibilities**
  - b. The act of buying and selling commodities
  - c. Taking no action
  - d. The act of buying and selling stock
- 156 According to the Food and Nutrition Board of the National Academy of Sciences, all people need at least \_\_\_\_\_ milligrams of calcium per day.
- a. 1,000,000
  - b. **1,000**
  - c. 100
  - d. 10
- 157 In regard to prices paid by consumers for milk, Federal Milk Marketing Orders are intended to
- a. set them fairly on a monthly basis
  - b. adjust them according to consumer purchasing patterns
  - c. adjust them according to total farm milk production
  - d. adjust them according to both supply and demand
  - e. **leave them to be determined in the marketplace**
- 158 Pooling in Federal Milk Marketing Orders is
- a. **a system of fairly distributing payment among milk processors in a market.**
  - b. a system of paying producers within a market according to uses of the milk.
  - c. the comingling of milk from two or more producers
  - d. the comingling of milk from two or more markets
  - e. none of the answers listed
- 159 What is a major reason for limiting the use of antibiotics with lactating dairy cows?
- a. Antibiotics are ineffective when they contact milk
  - b. **Antibiotics may be found in the milk for many hours after treatment**
  - c. Antibiotics cost more than dairymen can afford
  - d. Antibiotics are toxic to cows
- 160 The ideal cleaning agent for removing milkstone from equipment surfaces is which of the following?
- a. **Acidic detergent**
  - b. Phosphate
  - c. Chelating agent
  - d. Surfactant
- 161 The microbiological standard for Grade A milk is \_\_\_\_\_ bacteria or less per milliliter of milk.
- a. 750,000
  - b. **100,000**
  - c. 75,000
  - d. 50,000

## Dairy Foods

162 What is the principal protein in milk?

- a. **Casein**
- b. Whey protein
- c. Crude protein
- d. Lactoglobulin

163 As produced at the farm, milk from Holstein cows is expected to contain approximately \_\_\_\_\_% milkfat and \_\_\_\_\_% nonfat milk solids, respectively.

- a. 2.7; 8.7
- b. **3.7; 8.7**
- c. 8.7; 3.7
- d. 8.7; 2.7

164 Raw milk somatic cell count must be \_\_\_\_\_ or less to meet Grade A standards in the United States.

- a. **750,000**
- b. 400,000
- c. 250,000
- d. 100,000

165 The activity/inactivity of which enzymes the basis for confirming the adequacy of pasteurization of milk?

- a. Peroxidase
- b. Lipase
- c. **Phosphatase**
- d. Catalase

166 A milk product that contains at least 8.25% nonfat milk solids and 3.25% milk fat and has been heated to at least 161 degrees F for at least 15 seconds is referred to which of the following?

- a. **Pasteurized milk**
- b. Lowfat milk
- c. Skim milk
- d. Reduced fat milk

167 The CMT test detects which of the following in raw milk?

- a. Antibiotics
- b. Bacteria
- c. **Somatic cells**
- d. Red blood cells

168 What is the name of the off-flavor in milk that is generally caused by exposure to sunlight or fluorescent light?

- a. **Oxidized**

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- b. Acid
- c. Malty
- d. Rancid

169 Raw milk somatic cell count must be \_\_\_\_\_ or less to meet exports standards required by European Union (EU).

- a. 750,000
- b. 400,000**
- c. 250,000
- d. 100,000

170 \_\_\_\_\_ is the major mineral nutrient found in milk and is readily absorbed by the body.

- a. Potassium
- b. Phosphorus
- c. Calcium**
- d. Magnesium

171 By volume, milk consists of approximately \_\_\_\_\_ percent water.

- a. 92
- b. 87**
- c. 50
- d. 3.7

172 A primary cause of milkstone on equipment is which of the following?

- a. The use of acid cleaners in dairies having hard water
- b. Failure to use adequate detergent in dairies that have hard water**
- c. The use of soft water for cleaning and rinsing
- d. all of the answers listed

173 The high acid flavor in milk is caused by which of the following?

- a. High storage temperature**
- b. Exposure to sunlight
- c. Contamination with copper
- d. Growth of somatic cells

174 The ability of lipase to attack milk fat and produce a rancid off flavor is enhanced by which of the following practices?

- a. Exposing milk to sunlight
- b. Poorly cleaned milking equipment
- c. Excessive agitation of warm raw milk**
- d. Feeding cows moldy hay

175 Which of the following is the document used by the U.S. dairy industry that contains the rules for producing today's fresh pasteurized milk supply?

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- a. Codex Alimentarius of the World Health Organization
  - b. Code of Federal Regulations
  - c. **Grade A Pasteurized Milk Ordinance**
  - d. Standard Methods for the Examination of Dairy Products
- 176 What are the two most important diseases of cattle transmissible to man through milk?
- a. **Tuberculosis and Brucellosis**
  - b. Scarlet fever and Q fever
  - c. Tuberculosis and Anthrax
  - d. Brucellosis and Scarlet fever
- 177 The temperature of cooled milk on the producing farm must be kept below which of the following degrees?
- a. **45 degrees F**
  - b. 40 degrees F
  - c. 35 degrees F
  - d. 32 degrees F
- 178 The Standard Plate Count of milk detects which of the following?
- a. **Number of living bacteria in a sample**
  - b. Percentage of fat in a sample
  - c. Somatic cell count of a sample
  - d. Titratable acidity of a sample
- 179 The two most common tests for determining milk quality are \_\_\_\_\_ and \_\_\_\_\_.
- a. somatic cell count and odor
  - b. **somatic cell count and standard plate count**
  - c. standard plate count and color
  - d. flavor and titratable acidity
- 180 One gallon of milk weighs approximately \_\_\_\_\_ pounds.
- a. 10.1
  - b. **8.6**
  - c. 7.8
  - d. 5.5
- 181 In 2012 the number of dairy farm operations dropped below \_\_\_\_\_ farms.
- a. **125,000**
  - b. 100,000
  - c. 75,000
  - d. 50,000
- 182 Poor quality forage will cause \_\_\_\_\_ to decrease significantly.
- a. **Fat percentage**

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- b. Casein percentage
- c. Somatic cells
- d. Bacteria counts

183 When a producer's three-month somatic cell (SCC) rolling mean exceeds 400,000, what type of request must be submitted to AMS in an effort to keep the milk eligible for export to the EU?

- a. Degrade
- b. Derogation**
- c. Premium denial
- d. Re-inspection

184 Which portion of the milking procedure is recommended because it flushes potential mastitis-causing bacteria from the teat canal, allows you to observe early signs of clinical mastitis and helps promote milk letdown?

- a. Forestripping**
- b. Predipping
- c. Drying
- d. Postdipping

185 In a Federal Milk Marketing Order the first buyers of milk are typically referred to as \_\_\_\_\_.

- a. producer processors
- b. cheese makers
- c. handlers**
- d. milk haulers

186 A Federal Milk Marketing Order is not authorized unless two-thirds of the affected \_\_\_\_\_ milk to the proposed marketing area approves its implementation.

- a. handlers processing
- b. dairy cooperatives supplying
- c. producers supplying**
- d. cheese processors manufacturing

187 The actual milk check amount received by a dairy farmer is called the \_\_\_\_\_.

- a. milk-feed ratio price
- b. mailbox price**
- c. cooperative bonus premium
- d. Federal Order price

188 Under Federal Orders milk is priced based on the finished dairy product in which it is used. This is called \_\_\_\_\_.

- a. minimum pricing
- b. maximum pricing
- c. creative pricing
- d. classified pricing**

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- 189 Which country is the world leading dairy exporter?
- China
  - European Union (EU)
  - New Zealand**
  - United States
- 190 According to the USDA Dairy Products summary, Wisconsin has the most manufacturing plants with 210. Which state has no manufacturing plants?
- Wyoming**
  - Arkansas
  - Mississippi
  - Tennessee
  - Utah
- 191 Fluid milk use per person has reached its lowest level since tracking began in 1909. How many pounds of fluid milk are currently being used per person per year?
- 86
  - 201**
  - 312
  - 515
- 192 From 2000 to 2010 average protein and solids-not-fat levels in raw milk have \_\_\_\_\_.
- increased**
  - decreased
  - remained the same
  - been like a roller coaster up and then down
  - inconsistent
- 193 To make one pound of whole milk cheese requires approximately \_\_\_\_\_ pounds of whole milk.
- 5
  - 10**
  - 20
  - 40
- 194 Severe drought affected U.S. dairy farmers during 2012. What country is experiencing a severe drought in 2013 that is causing a major affect on dairy prices throughout the world?
- New Zealand**
  - EU
  - Australia
  - Brazil
- 195 Marketing cooperatives often offer incentives to dairy farmers for producing milk having which of the following special characteristics?

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- a. low bacteria count
- b. high protein content
- c. low somatic cell count
- d. none of the answers listed
- e. all of the answers listed**

196 U.S. Milk Production in 2012 represented a major industry achievement by crossing the \_\_\_\_\_ pounds of milk threshold.

- a. 1 billion
- b. 10 billion
- c. 100 billion
- d. 200 billion**

197 The major margin of milk income verses \_\_\_\_\_ cost for dairy farm operations is being considered in the farm bill.

- a. feed**
- b. fuel
- c. replacement heifer
- d. mastitis

198 The check off-funded \_\_\_\_\_ mission is to enhance demand for U.S. milk products and ingredients by securing access and assisting suppliers to meet global market needs.

- a. U.S. Department of Agriculture Grading's (USDA)
- b. Dairy Management, Inc.'s (DMI)
- c. U.S. Dairy Export Council's (USDEC)**
- d. Federal Milk Marketing Orders' (FMMO)

199 Chobani Yogurt's announcement to build its next plant in Twin Falls, Idaho had an immediate impact on the state's milk prices. Chobani is known for what type of yogurt?

- a. Greek**
- b. Swiss
- c. Organic Yogurt
- d. drink

200 The state that produces the most milk in the United States but does not participate in the federal milk marketing order program is \_\_\_\_\_.

- a. California**
- b. New York
- c. Pennsylvania
- d. Minnesota
- e. Wisconsin

201 "Over-order payments" or "super pool prices" are obtained for milk producers by \_\_\_\_\_.

- a. dairy farmers

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- b. the federal milk market administrator
  - c. milk marketing cooperatives**
  - d. milk processors
- 202 The top three milk producing states for 2012 in the U.S. were \_\_\_\_\_.
- a. Wisconsin, Minnesota and New York
  - b. Missouri, Illinois and Wisconsin
  - c. California, Wisconsin and Idaho**
  - d. Illinois, California and Wisconsin
  - e. California, Wisconsin and New York
- 203 The \_\_\_\_\_ is a voluntary program to help score your farm's animal welfare practices against the industry recommendations. It is operating as a partnership of the National Milk Producers Federation and Dairy Management, Inc.
- a. National Dairy Check Off program
  - b. Agriculture's Animal and Plant Health Inspection Service (APHIS) Animal Welfare Act (AWA)
  - c. National F.A.R.M. program (Farmers Assuring Responsible Management)**
  - d. People for the Ethical Treatment of Animals (PETA)
- 204 Most dairy cows are milked two to 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
- 205 The number of Federal milk marketing orders in the United States is \_\_\_\_\_.
- a. ten**
  - b. equal to the number of states
  - c. equal to the number of states within the continental limits
  - d. more than 30
- 206 The \_\_\_\_\_ concentration in the bulk milk tank helps the producers monitor the efficacy of their feeding programs.
- a. somatic cell
  - b. antibiotic
  - c. milk urea nitrogen (MUN)**
  - d. bacteria
- 207 To distribute moneys fairly among producers supplying milk to a market, milk market orders provide \_\_\_\_\_.
- a. supply-demand equalization
  - b. a board of commissioners
  - c. a producer settlement fund**

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- d. a milk cooperative

208 Mastitis has severe economic consequences. The high somatic cell count causes a decrease in cheese yield and the bacteria causes a/an \_\_\_\_\_ in the lactose (milk sugar).

- a. increase
- b. decrease**
- c. gram-negative infection
- d. denaturation

209 The actual cost of producing dairy products that is used in the Class III and IV pricing formula is called the \_\_\_\_\_.

- a. milk allowance**
- b. milk-feed ratio price
- c. cooperative bonus premium
- d. Federal Order price

210 Prices paid by handlers are identical in all federal orders for milk utilized in the manufactured product categories; however, milk used in Class I varies by location. The highest price paid for Class I milk is in the \_\_\_\_\_ region of the United States.

- a. Southeast**
- b. Midwest
- c. Northwest
- d. Northeast