

Milk Quality / Dairy Foods Test Bank

Four Classes of Milk

- Class I: Beverage Milk.
- Class II: Soft Manufactured Products (Yogurt, Cream, Cottage Cheese, Ice Cream)
- Class III: Hard Cheeses and Cream Cheese.
- Class IV: Dry Milk Products and Butter

According to the USDA's February 2022 Milk Production Report, what milk per cow state ranking and production value did Michigan achieve in 2022?

- a.) 1st; 27,430 lbs.
- b.) 2nd; 25,957 lbs.
- c.) 3rd; 24,116 lbs.
- d.) 4th; 23,820
- e.) 5th; 24,116 lbs.

According to the USDA's February 2022 Milk Production Report, total U.S. milk production in 2022 was...

- a.) 201.2 million lbs.
- b.) 226 billion lbs.
- c.) 185.4 billion lbs.
- d.) 193.8 million lbs.
- e.) 193.8 billion lbs.

According to the USDA's February 2023 Milk Production Report, total U.S. milk production increased/decreased by _____ in 2022.

- a.) +.1%
- b.) +1.9%
- c.) +.5%
- d.) -.7%
- e.) +.7%

According to the USDA's February 2022 Milk Production Report, Michigan's milk production increased/decreased by _____ in 2022 from 2021.

- a.) -1.3%
- b.) +13%
- c.) +6.0%
- d.) +3.3%
- e.) +.9%

In 2022, the number of U.S. dairy farm operations is _____ farms.

- a.) 36,064
- b.) 65,100
- c.) 42,000
- d.) 50,000

According to the USDA's February 2022 Milk Production Report, there were _____ dairy cows in the U.S. in 2022.

- a.) 3.2 million
- b.) 5.84 million
- c.) 7.42 million
- d.) 9.4 million
- e.) 11.3 million

According to the USDA's February 2022 Milk Production Report, the average U.S. dairy herd size in 2022 was...

- a.) 53 head
- b.) 124 head
- c.) 214 head
- d.) 337 head
- e.) 421 head

According to the USDA's February 2022 Milk Production Report, the average U.S. production per cow was _____ in 2022.

- a.) 24,087 lbs.
- b.) 21,822 lbs.
- c.) 20,532 lbs.
- d.) 24,837 lbs.
- e.) 22,354 lbs.

Based on ice cream consumption figures, the most popular flavor is _____

- a.) Strawberry
- b.) Cookies N' cream
- c.) Vanilla
- d.) Mint Chocolate Chip

Which country or region has the world's largest dairy herd (40,000)?

- a.) China
- b.) European Union
- c.) India
- d.) United States

According to the U.S. Dairy Export Council, in 2019, what dairy product was most frequently exported (by value)?

- a.) Nonfat Dry Milk
- b.) Cheese
- c.) Whey
- d.) Lactose
- e.) Whole Milk Powder

Milk production per cow in the USDA's February 2023 Milk Production Report shows that the leading state in milk per cow was

- a.) Arizona
- b.) Colorado
- c.) Michigan
- d.) New Mexico
- e.) Washington

The USDA reports the state with the largest number of milk cows in 2023

- a.) Wisconsin
- b.) New York
- c.) Pennsylvania
- d.) Virginia
- e.) California

Michigan ranks ____ in total U.S. Milk production.

- a.) 2nd
- b.) 10th
- c.) 6th
- D.) 7th

In 2023, Michigan produced _____ billion pounds of milk.

- a.) 11.4
- b.) 5.05
- c.) 7
- d.) 3.99

True or False:

Raw milk is measured in pounds.

How much does one gallon of milk weigh?

- a.) 2 pounds
- b.) 5.5 pounds
- c.) 7 pounds
- d.) 8.6 pounds

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.) Animal feed cost control
- e.) A, B, and C above

The most abundant mineral in milk is

- a.) Iodine
- b.) Magnesium
- c.) Phosphorus
- d.) Calcium

Oxidized flavor in milk is generally caused by

- a.) High storage temperature
- b.) Action of lipase
- c.) Mastitis
- d.) Exposure to light

Milk with a high leucocyte count can cause

- a.) Reduced shelf life
- b.) Increased rancidity
- c.) Reduced cheese yield
- d.) All of the above

Milk is approximately ____ percent water and ____ percent solids.

- a.) 95, 5
- b.) 75, 25
- c.) 87, 13
- d.) 63, 37

Which of the following fatty acids found in milk have been associated with health benefits in humans?

- a.) Oleic Acid
- b.) Conjugated Linoleic Acid
- c.) Butyric Acid
- d.) Lactic Acid

Milk that is tasteless and lacking the flavor of normal milk is classified as

- a.) High Acid
- b.) Rancid
- c.) Oxidized
- d.) Flat/Watery

Milk off-flavor is a result of bacterial growth (commonly streptococcus lactic) and will have detectable _____ flavor long before it may be classified as sour.

- a.) Acid
- b.) Malty
- c.) Feed
- d.) Rancid

Grade A raw milk sampled at the producer farm should have a Standard Plate count per milliliter of aerobic bacteria that is

- a.) Less than 10
- b.) Between 10,000 and 100,000
- c.) Not more than 100,000
- d.) Between 100,000 and 1,000,000

A bulk hauler found the bulk milk tank temperature at the Xylus Dairy Farm to be 65° F, Milking had been completed 3 hours previously. The hauler is correct in?

- a.) Expecting the milk to be sour
- b.) Thinking the sample would have a high bacteria count
- c.) Not pumping the milk into his truck's tanks
- d.) All of the above
- e.) Both A and B

Public health standards for quality of Grade A raw milk include

- a.) Flavor and color
- b.) Bacteria count and temperature
- c.) Weight and age
- d.) All of these
- e.) None of these

Which group of flavors cannot be detected by odor?

- a.) Bitter, salty
- b.) High acid, rancid
- c.) Feed, garlic/onion
- d.) Metallic/oxidized, malty

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 the above

The sugar of milk that souring bacteria change to acid is

- a.) Lactose
- b.) Sucrose
- c.) Casein
- d.) Riboflavin

Rancidity or lipolyzed flavor in milk results from

- a.) Growth of acid producing bacteria
- b.) Contamination of milk with water
- c.) Contamination of milk with antibiotics
- d.) Action of natural milk enzyme

Milk stone on dairy caused by

- a.) The use of hard water for cleaning and rinsing
- b.) Failure to use sufficient acid-type cleaners on farms have hard water
- c.) Failure to use adequate detergent on farms that have hard water
- d.) All of the above

The California mastitis test is done to

- a.) See if a cow has an infection
- b.) Check for bacteria in milk
- c.) Determine whether mammary glands are inflamed
- d.) Determine weight and age

Off- flavor may be present in milk from cows in late stages of lactation of cows infected with mastitis

- a.) Salty
- b.) Rancid
- c.) Bitter
- d.) Malty

Under regulations of Federal Orders, quality of grade A milk is

- a.) Only checked if there is excess milk
- b.) A part of the testing by Market Administrators
- c.) The first consideration in pooling milk
- d.) Not controlled by Federal Orders

Which situation describes milk production in the United States since 1980?

- a.) Amount produced increased
- b.) Amount per cow increased
- c.) Number of cows decreased
- d.) Both A and B
- e.) A, B and C are correct

_____ consists of a mixture of milk and cream containing not less than 10.5 percent milk fat but less than 18 percent milk fat.

- a.) Cultured milk
- b.) Half and half
- c.) Sour cream
- d.) Heavy cream

The Milk Regulatory Equity Act, signed into law on April 11, 2005 amends which of the following acts?

- a.) Federal Food and Cosmetic Act
- b.) Agricultural Marketing Agreement Act of 1937
- c.) The Butter Act
- d.) The Freedom Information Act
- e.) The Freedom Production Stabilization Act of 1983

Which of the following is not covered by a standard of identity?

- a.) Pasteurized Process Cheese Spread
- b.) Pasteurized Process Cheese Food
- c.) Pasteurized Process Cheese
- d.) Pasteurized Process Cheese Product
- e.) Pasteurized Process Pimento Cheese

_____ content was a new labeling requirement in January 2006

- a.) Unsaturated fat
- b.) Saturated fat
- c.) Trans fat
- d.) Poly fat

The year that Federal Milk Marketing Orders were reformed and component pricing introduced was

- a.) 1937
- b.) 1964
- c.) 1993
- d.) 1995
- e.) 2000

The two most popular single varieties of cheese in the US are

- a.) Cheddar and Swiss
- b.) Colby and Mozzarella
- c.) Cheddar and Mozzarella
- d.) Colby and Parmesan

Which product listed below contains no dairy ingredients?

- a.) Gelato
- b.) Sherbet
- c.) Custard
- d.) Sorbet

Cooperatives Working Together is a program to bolster milk prices and is funded by

- a.) The USDA
- b.) Milk Handlers
- c.) Participating Dairy Farms
- d.) A national dairy check-off assessment

USDA reports a milk-feed price ratio that inflates the price of one pound of milk divided by the price of one pound of a 16% complete feed. The milk- feed price ratio typically ranges from

- a.) 1.0 to 1.5
- b.) 2.5 to 3.5
- c.) 5.0 to 6.0
- d.) 7.0 to 8.0

Milk in Class I receives the highest price in the market and includes products such as fluid whole milk and

- a.) Butter
- b.) Ice cream
- c.) Cottage cheese
- d.) Skim milk

The dairy product with the highest volume imported to the U.S. is

- a.) Cheese
- b.) Casein
- c.) Butterfat
- d.) Cream
- e.) Yogurt

A CMT test appearance with a strong gel formation that tends to adhere to paddle and forms a distinct central peak would have a somatic cell count of_____ per milliliter.

- a.) Below 200,000
- b.) 150,000-500,000
- c.) 800,000-5,000,000
- d.) Over 5,000,000

The abundant material in milk that is essential for bone development is

- a.) Iodine
- b.) Magnesium
- c.) Phosphorus
- d.) Calcium

Milk with a high somatic cell count can cause

- a.) Reduced shelf life
- b.) Increased rancidity
- c.) Reduced cheese yield
- d.) All of the above

The California Mastitis Test detects_____ in raw milk.

- a.) Bacteria
- b.) Foreign matters
- c.) Somatic cells
- d.) Red blood cells

When performing a CMT test, watch for color changes and gel formation. Milk from a normal quarter does which of the following?

- a.) Forms a gelatinous mass clinging together in a strong reaction
- b.) Flows freely without change in viscosity
- c.) Forms small clumps in a moderate reaction
- d.) Turns a deep purple color

The off-flavor that is seldom found except in pasteurized milk that has been stored too long is

- a.) Foreign
- b.) Unclean
- c.) High acid
- d.) Feed
- e.) Fat/watery

When the purple color becomes intense in the CMT, it indicates the _____ pH in the mammary gland.

- a.) Basic or alkaline
- b.) Neutral
- c.) Acidic
- d.) Not related to change

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 the above

Besides the most common human diseases caused by pathogens in raw milk, E coli, Salmonella and Listeria, which of the following diseases may be transmitted to humans through consumption of raw milk?

- a.) Tuberculosis
- b.) Q-Fever
- c.) Pneumonia
- d.) Only A and B

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 to the FDA's regulations
- d.) All of the above

Which of the following aspects of the Cooperatives Working Together programs are correct?

- a.) Funded by voluntary contribution of 10 cents per cwt
- b.) Supports periodic herd retirement programs
- c.) Supports export of dairy products
- d.) All of the above

An infection caused by Mycobacterium paratuberculosis is more commonly known as

- a.) Acidosis
- b.) Johne's Disease
- c.) Ketosis
- d.) Milk Fever

While the legal limit for somatic cells in raw milk is 750,000/ml, the average in 2016 had declined below _____ /ml

- a.) 600,000
- b.) 550,000
- c.) 400,000
- d.) 330,000
- e.) 200,000

The Standard of Identity for ice cream requires that it contain a minimum of _____% milk fat

- a.) 10
- b.) 12
- c.) 14
- d.) 16

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

- a.) 10
- b.) 100
- c.) 1,000
- d.) 1,000,000

_____ 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.) Cultured
- b.) Nonfat dry
- c.) Evaporated
- d.) Sweetened condensed

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

- a.) Butter, nonfat dry milk and cheddar cheese
- b.) Cottage cheese and ice cream
- c.) Fresh milk and cream
- d.) All varieties of cheese

Milk covered by Federal order is often known as _____ or milk eligible for fluid use.

- a.) Grade A
- b.) Manufacturing grade
- c.) All milk in the market regardless of grade
- d.) Both manufacturing grade and Grade A milk in all markets

Antibiotics are prohibited in milk because

- a.) they illegally preserve the milk
- b.) some people are hypersensitive (react adversely) to them
- c.) they can inhibit growth of "good" bacteria used in making cheese
- d.) both B and C

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

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

If one wishes to remove water spots, or milk stone from equipment he/she should use

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

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

Chemical sanitizer most widely used for sanitizing milking equipment is?

- a.) bromine
- b.) saline
- c.) iodine
- d.) chlorine
- e.) fluorine

Fluid milk contains an average of _____ percent total solids.

- a.) 9
- b.) 11
- c.) 13
- d.) 15
- e.) 17

Milk with a high somatic cell count is expected to have a lowered content of _____.

- a.) catalase
- b.) lipase activity
- c.) whey
- d.) casein

Milk production increases for two reasons: there are more cows being milked and those cows are _____.

- a.) more stressed
- b.) from cold climates
- c.) from California
- d.) more productive

Milk producers should avoid the use of metals that contain copper or that tend to rust because

- a.) these conditions promote oxidation of the milk and bacterial contamination
- b.) these kinds of equipment are quite costly
- c.) these metals release radioactive particles
- d.) they stimulate the growth of bacteria

Sour milk contains a high amount of

- a.) free fatty acids
- b.) sulfuric acid
- c.) lactic acid
- d.) conjugated linoleic acid

The major result of storing milk cold is the

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

A bulk milk hauler detected a sour odor in the raw milk in a farm bulk tank. Upon further examination he/she was likely to find

- a.) a high somatic cell count
- b.) water had been added to the milk
- c.) that the milk had been exposed to pesticide
- d.) that the temperature of the milk was high

Somatic Cell Score (SCS) is expressed in somatic cell score units. Just like with somatic cell count _____ numbers are better for somatic score.

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

Expect a feed flavor in milk when

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

Metallic/oxidized flavor of milk is unlikely to occur if milk is

- a.) protected from exposure to dust and heat
- b.) protected from exposure to copper, sun light and fluorescent light
- c.) cooled quickly to less than 40°F
- d.) not adulterated with water and antibiotics

The natural lipase enzyme contained in all raw milk is kept away from milk fat globules, thus preventing development of rancidity because the

- a.) fat globule membrane, a protective layer, covers the fat globules
- b.) the major protein, casein, ties up the lipase
- c.) fat globules are too small to attract the enzyme until they are homogenized

Cooperatives Working Together (CWT) is the program that aims to strengthen and stabilize milk prices by balancing supply and demand.

- a.) state – funded
- b.) farmer – funded
- c.) federal – funded
- d.) none of the above

How long should Calf hutches be left empty between calves to prevent disease spread?

- a.) 2 to 3 days
- b.) 3 weeks
- c.) 10 to 14 days
- d.) 1 month

What stomach is a magnet typically used in to remove metal objects that cause hardware disease?

- a.) abomasum
- b.) omasum
- c.) reticulum
- d.) rumen

Body condition scoring is one way to measure cow health. What is the ideal score for a milking cow?

- a.) 1
- b.) 3
- c.) 4
- d.) 5

In regard to retail prices paid for milk by consumers, Federal Milk Marketing Orders are intended to

- a.) leave them to be determined in the marketplace
- b.) adjust them according to demand
- c.) adjust them according to supply
- d.) set them fairly

Who pays directly for the operation of Federal Milk Marketing Orders?

- a.) producers of the milk
- b.) the U. S. Department of Agriculture
- c.) retail store owners
- d.) processors of the milk (called handlers)
- e.) consumers of grade A milk

The bacteriological quality of grade A milk is

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

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 the product in which it ends up

Milk classified by use under Federal Orders has different

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

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

The Federal Orders of today are based on the Agricultural Agreement Act of

- a.) 1927
- b.) 1937
- c.) 1956
- d.) 1966

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.) a value established to penalize milk producers who have too much fat in their milk
- c.) the value to be added or subtracted per 0.1% of milk fat above or below 3.5%
- d.) all of the above
- e.) none of the above

On a milk supply utilization basis, from highest to lowest usage, which list reflects quantities of milk needed to make these products?

- a.) Frozen dairy products, cheeses, fluid milk and cream, butter
- b.) Fluid milk and cream, cheeses, frozen dairy products, butter
- c.) Cheeses, fluid milk and cream, butter, frozen dairy products
- d.) Butter, fluid milk and cream, cheeses, frozen dairy products

The practice that fairly distributes payments for milk among the producers in a given Federal Milk Marketing Order is called

- a.) classified pricing
- b.) pooling
- c.) support pricing
- d.) differential pricing
- e.) distributive payments

Since 1984, dairy farmers have been contributing _____ cents for each hundredweight of milk they sell to fund state and national dairy promotion programs. (Check off)

- a.) 10
- b.) 15
- c.) 25
- d.) 35

What percent of exported U.S. dairy products are sold without a subsidy?

- a.) 0%
- b.) 50%
- c.) 80%
- d.) 95%

According to USDA, what percentage of milk do our U.S. cooperatives market?

- a.) 44%
- b.) 62%
- c.) 86%
- d.) 100%

Milk prices on average are the lowest in

- a.) Summer
- b.) Fall
- c.) Winter
- d.) Spring

In Federal Order markets, milk sold for consumption in fluid form is

- a.) Class I
- b.) Class II
- c.) Class III
- d.) Class IV

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

- a.) Jenny Craig
- b.) Low-carbohydrate diets
- c.) Slim Fast
- d.) Spa Slim

The Dairy Export Incentive Program is used by USDA to subsidize the exports of

- a.) fluid milk & butter
- b.) ice cream & butter
- c.) cheese & butter
- d.) nonfat dry milk & butter

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

The national program known as Cooperatives Working Together (CWT) increases amounts of milk products exported from the United States by

- a.) Assuring that safety standards are met
- b.) Providing quality control to manufactures
- c.) Providing export bonuses to sellers
- d.) Clearing shipments of products during inspections by receiving countries.

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.) Milk Income Loss Contract
- b.) Federal Support Price
- c.) Cooperatives Working Together
- d.) Unified Marketing Plan

Demand for dairy products is typically the lowest in

- a.) Spring
- b.) Summer
- c.) Fall
- d.) Winter

Milk that is used to make butter is classified as which class in Federal Orders?

- a.) Class I
- b.) Class II
- c.) Class III
- d.) Class IV

Which element is the basic building block of protein?

- a.) Nitrogen
- b.) Phosphorus
- c.) Potassium
- d.) Zinc

Milk is what percent water?

- a.) 42 percent
- b.) 58 percent
- c.) 63 percent
- d.) 87 percent

Milk used to make cheese would be priced in what Federal Order class?

- a.) Class I
- b.) Class II
- c.) Class III
- d.) Class IV

What is the major cost item on most dairies?

- a.) feed
- b.) labor
- c.) milking supplies
- d.) A.I. breeding supplies

A cow's milk fat test that is lower than her protein test may be a sign of what?

- a.) Acidosis
- b.) Fatty liver
- c.) Displaced abomasum
- d.) Mastitis

Which of these is a good nutritional strategy to maintain milk production in hot weather?

- a.) feed more grain
- b.) increase protein concentrate
- c.) add more fat
- d.) all of the above

U.S. milk over what somatic cell count cannot be legally shipped in the U.S.?

- a.) 200,000
- b.) 400,000
- c.) 750,000
- d.) 1,000,000

What piece of legislation made farmer cooperatives legal?

- a.) Sherman Act
- b.) Capper-Volstead Act
- c.) Farm Bill
- d.) Barkley Act

To be labeled grade A made with organic ingredients, a dairy product must contain _____% or more organic ingredients.

- a.) 100
- b.) 90
- c.) 80
- d.) 70

A cryoscopy is an important tool that tests for _____ in milk.

- a.) butterfat
- b.) antibiotics
- c.) pesticides
- d.) added water
- e.) pro vitamin "D"

About _____ of the calcium available in our food supply is provided by milk and milk products.

- a.) 5%
- b.) 50%
- c.) 70%
- d.) 95

Stainless steel equipment is used to produce and process milk 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 the above

Organic milk makes up about what percent of U.S. milk sales?

- a.) 1.8
- b.) 9.5
- c.) 16.7
- d.) 24.8

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.) beets
- b.) potatoes
- c.) radish
- d.) turnips

Antibiotics are not permitted in milk because

- a.) they do not preserve milk
- b.) they cause off flavors
- c.) fat rises to the surface
- d.) some persons have adverse reactions to certain antibiotics

Oxidized flavor in milk is generally caused by

- a.) Growth of bacterial
- b.) Enzymatic breakdown of milk fat
- c.) Pumping of milk
- d.) Exposure to sunlight or fluorescent light

The cryoscopic freezing point test is used with milk to determine

- a.) adulteration with water
- b.) treatable acidity
- c.) fat content
- d.) nonfat milk solids content

To make one pound of cheese, it takes approximately _____ pounds of whole milk.

- a.) 21.8
- b.) 2.2
- c.) 10.0
- d.) 10.6

When it comes to fertilizing fields, what three nutrients are known as the “secondary nutrients”?

- a.) calcium, nitrogen, and water
- b.) calcium, sulfur, and magnesium
- c.) nitrogen, phosphorus, potassium
- d.) potassium, phosphorus, and zinc

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.) milk
- b.) low-fat milk
- c.) nonfat milk
- d.) reduced fat milk

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

What household cleaning agent has been found to cut odor in livestock manure by USDA-ARS scientists?

- a.) baking soda
- b.) borax
- c.) dish soap

Milk is composed of about 87 percent water and what percent carbohydrates?

- a.) 0.5 percent
- b.) 3 percent
- c.) 5 percent
- d.) 30 percent

Cracks and blisters of rubber inflations of milking machines

- a.) cause milk to sour within a few minutes
- b.) trap milk solids and bacteria
- c.) suggest to the user that the inflations do a poor job of massaging the teats
- d.) both A and B
- e.) both B and C

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

- a.) caustic paste
- b.) cauterizing veins
- c.) gouging
- d.) disbudding

How many years does it take for a dairy farm to fully transition to become certified organic?

- a.) 1
- b.) 3
- c.) 5
- d.) 7

The milk flavors that cannot be detected by odor are

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

Milk that is low in milk fat is likely to have the flavor

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

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

Which of the following is an example of value-added agriculture?

- a.) a farm that markets an "Ozark brand" of cheese
- b.) purchasing milk from a local producer
- c.) using a custom heifer raiser
- d.) drinking raw milk

A major reason for having Federal Milk Marketing Orders is to

- a.) prevent disease out breaks
- b.) assure an adequate milk supply over the long-run of time
- c.) improve the nutrition of consumers
- d.) make dairying profitable

Farm marketing cooperatives have been in existence since the early

- a.) 1800's
- b.) 1900's
- c.) 1700's
- d.) 1920's

Federal Milk Marketing Orders affect prices consumers pay for fresh milk in grocery stores by

- a.) adjusting them according to demand
- b.) adjusting them according to supply
- c.) leaving them to be determined in the marketplace
- d.) setting them only once yearly

Who pays the U.S.D.A. Agricultural Marketing Service for the operating costs of Federal Orders?

- a.) Milk producers
- b.) Milk processors/ handlers
- c.) Retail store owners
- d.) Customers who buy milk

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

- a.) algae
- b.) moss
- c.) burdocks

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

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

Compounds found in what common cooking ingredient have been associated with decreases in acetate, increases in propionate, and decrease in methane production?

- a.) salt
- b.) flour
- c.) thyme
- d.) garlic

During the production process, the heat exchanger must heat raw milk to a minimum of _____ degrees for adequate pasteurization.

- a.) 100 °F
- b.) 161 °F
- c.) 200 °F
- d.) 212 °F

Which is NOT characteristic in the appearance of manure in a group of cows experiencing rumen acidosis?

- a.) tiny pieces of grain in manure greater than ¼ inch
- b.) loose and shiny manure with small air bubbles
- c.) pieces of fiber greater than ½ inch
- d.) a pile of shaving cream, having three to six ring and standing about ½ inches with a dimple in the middle

What type of crop shields the soil to reduce erosion, add organic matter, and capture nutrients otherwise lost by runoff?

- a.) annual
- b.) cover crop
- c.) perennials
- d.) winter shield

During hot weather, milk filters should be changed every _____ hours prevent bacteria from growing in the filters.

- a.) two
- b.) four
- c.) six
- d.) eight

What method of manure application is best to fully utilize nutrients, reduce risk of runoff, and lower odor complaints?

- a.) injecting
- b.) broadcasting
- c.) surface application
- d.) flood application

Studies show that once an infected cow has been milked, the next _____ cows milked with the same unit are at risk of contamination.

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

Leaky air hoses of inflations of milking machines are undesirable because

- a.) noises they create cause cows to "hold up" their milk
- b.) milk may leak onto the floor
- c.) they may not allow the inflations to properly massage the teats
- d.) the milk inspector may find them and debit the inspection sheet

True or False: There are antibiotics in the milk within the milk supply.

False: Milk from a cow treated with antibiotics, to treat an illness, never makes it to the milk supply.

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

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

The greatest damage to the cow caused by mechanical milking is due to

- a.) milking too fast
- b.) leaving the machine on too long
- c.) using too low vacuum
- d.) milking too slowly

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?

- a.) tuberculosis
- b.) heartworm
- c.) trichinosis
- d.) lungworm

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

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

Failure to sanitize milking equipment after cleaning may result in

- a.) unexpected spoilage of the milk
- b.) high somatic cell counts
- c.) malfunction of the milking machine
- d.) dirty sediment pads

Sour milk is characterized by its content of a high amount of

- a.) sanitizing chemical
- b.) products of fat breakdown – free fatty acids
- c.) products of lactose breakdown – lactic acid
- d.) products of protein breakdown – amino acids

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
- c.) to insure an adequate supply of pure and wholesome milk for the consumer
- d.) to provide federal control of the production of milk

Federal milk marketing orders **do not** control

- a.) to whom milk is sold
- b.) from whom milk is purchased
- c.) grade A milk standards of production and processing
- d.) any of these
- e.) both A and B

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

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

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

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

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

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

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

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

In a milk market with four classes of milk, Class III milk is used to make

- a.) fluid products
- b.) cottage cheese and cream products
- c.) hard cheese and cream cheese
- d.) butter and dry products

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

In regards to commodities, what best defines hedging?

- a.) Taking no action
- b.) The act of buying and selling stock
- c.) The act of protecting yourself against price possibilities
- d.) The act of buying and selling commodities

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

Pooling in Federal Milk Marketing Orders is

- a.) the comingling of milk from two or more producers
- b.) the comingling of milk from two or more markets
- c.) a system of fairly distributing payment among milk processors in a market
- d.) a system of paying producers within a market according to uses of the milk
- e.) none of the above

In what year was June Dairy Month started to celebrate the dairy industry and its contributions to society?

- a.) 1887
- b.) 1937
- c.) 1969
- d.) 1995

_____ products are eligible for Dairy Export Incentive Program (DEIP).

- a.) Fluid milk
- b.) Butter
- c.) Ice Cream
- d.) Sour Cream

The practice that distributes payments for milk among the producers within a specific Federal Milk Marketing Order is called

- a.) pool pricing
- b.) classified pricing
- c.) support pricing
- d.) differential pricing
- e.) distributive payments

The reason that testing of milk is done in laboratories of the USDA Milk Market Orders is

- a.) to assure safety of the supply
- b.) to provide accurate accounting for amounts of milk solids sold in the order
- c.) to make sure food and drug law is followed
- d.) to provide data for the US Statistical Reporting Service

What is a major reason for limiting the use of antibiotics with lactating dairy cows?

- a.) antibiotics are toxic to cows
- b.) antibiotics may be found in the milk for many hours after treatment
- c.) antibiotics are ineffective when they contact milk
- d.) antibiotics cost more than dairymen can afford

The microbiological standard for Grade A milk is milk.

- a.) 750,000
- b.) 100,000
- c.) 75,000
- d.) 50,000

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

- a.) 8.7 and 3.7
- b.) 8.7 and 2.7
- c.) 3.7 and 8.7
- d.) 2.7 and 8.7

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

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

- a.) phosphatase
- b.) lipase
- c.) peroxidase
- d.) catalase

Chemical sanitizers containing which of the following are most widely used for sanitizing milking equipment?

- a.) bromine
- b.) saline
- c.) iodine
- d.) chlorine

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°F for at least 15 sec. is referred to as which of the following?

- a.) reduced fat milk
- b.) pasteurized milk
- c.) low fat milk
- d.) skim milk

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

- a.) bacteria
- b.) red blood cells
- c.) somatic cells
- d.) antibiotics

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

- a.) rancid
- b.) oxidized
- c.) acid
- d.) malty

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

Lactose is the principal _____ in milk

- a.) carbohydrate
- b.) fat
- c.) protein
- d.) mineral

_____ is the major mineral nutrient found in milk and is readily absorbed by the body.

- a.) potassium
- b.) phosphorus
- c.) magnesium
- d.) calcium

A primary cause of milk stone on equipment is which of the following?

- a.) failure to use adequate detergent in dairies that have hard water
- b.) the use of acid cleaners in dairies having hard water
- c.) the use of soft water for cleaning and rinsing
- d.) all of the above

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

- a.) growth of somatic cells
- b.) high storage temperature
- c.) exposure to sunlight
- d.) contamination with copper

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

- a.) feeding cows moldy hay
- b.) excessive agitation of warm raw milk
- c.) exposing milk to sunlight
- d.) poorly cleaned milking equipment

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?

- a.) Code of Federal Regulations
- b.) Standard Methods for the Examination of Dairy Products
- c.) Grade A Pasteurized Milk Ordinance
- d.) Codex Alimentarius of the World Health Organization

What are the two most important diseases of cattle transmissible to man through milk?

- a.) Scarlet fever and Q fever
- b.) Tuberculosis and Anthrax
- c.) Brucellosis and Scarlet fever
- d.) Tuberculosis and Brucellosis

The temperature of cooled milk on the producing farm must be kept below ____ legal standard; ____ industry standard?

- a.) 45°F; 40°F
- b.) 47°F; 45°F
- c.) 35°F; 40°F
- d.) 32°F; 35°F

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

The two most common tests for determining milk quality are _____ and _____.

- a.) standard plate count and color
- b.) flavor and titratable acidity
- c.) somatic cell count and standard plate count
- d.) somatic cell count and odor

Poor quality forage will cause _____ to decrease significantly.

- a.) somatic cells
- b.) bacteria counts
- c.) fat percentage
- d.) casein percentage

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.) premium denial
- c.) re-inspection
- d.) derogation

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.) pre dipping
- b.) drying
- c.) post dipping
- d.) fore stripping

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

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

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

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

The actual milk check amount received by a dairy farmer is called the _____.

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

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

Which country is the world leading dairy exporter?

- a.) United states
- b.) New Zealand
- c.) China
- d.) European Union (EU)

According to the USDA Dairy Products summary, Wisconsin has the most manufacturing plants with 203. Which state has no manufacturing plants?

- a.) Arkansas
- b.) Mississippi
- c.) Tennessee
- d.) Utah
- e.) Wyoming

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

- a.) dry whole milk
- b.) ice cream
- c.) mozzarella cheese
- d.) pasteurized bottled fluid milk
- e.) butter

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? (2012)

- a.) 86
- b.) 169
- c.) 312
- d.) 515

To make one pound of whole milk cheese requires approximately_____ pounds of whole milk

- a.) 5
- b.) 10
- c.) 20
- d.) 40

Severe drought affected U.S dairy farmers during 2012. What country is experiencing a severe drought in 2013 that is causing a major effect on dairy prices throughout the world?

- a.) Australia
- b.) Brazil
- c.) New Zealand
- d.) EU

Milk marketing cooperatives

- a.) provide marketing power for dairy farmers
- b.) are not permitted by the Federal Milk Marketing Orders
- c.) control Federal Milk Marketing Orders
- d.) operate only outside the Federal Milk Marketing Orders system

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

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

"Over-order payments" or "super pool prices" are obtained for milk producers by

- a.) milk processors
- b.) milk marketing cooperatives
- c.) dairy farmers
- d.) the federal milk market administrator

The top three milk producing states for 2015 in the U. S. were

- a.) Missouri, Illinois, and Wisconsin
- b.) Illinois, California, and Wisconsin
- c.) California, Wisconsin, and New York
- d.) California, Wisconsin, and Idaho
- e.) Wisconsin, Minnesota, and New York

The _____ is a 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 F.A. R. M. program (Farmers Assuring Responsible Management)
- b.) National Dairy Check Off program
- c.) Agriculture's Animal and Plant Health Inspection Service (APHIS)
- d.) Animal Welfare Act (AWA)
- e.) People For the Ethical Treatment of Animals (PETA)

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

The number of Federal milk marketing orders in the United States is

- a.) equal to the number of states
- b.) equal to the number of states within the continental limits
- c.) more than 30
- d.) ten

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

- a.) aid handlers with their business affairs
- b.) ensure fairness in the marketing of the milk
- c.) ensure an adequate supply of pure and wholesome milk for the consumer
- d.) keep the government informed

The _____ concentration in the bulk milk tank helps the producers monitor the efficacy of their feeding programs.

- a.) antibiotic
- b.) bacteria
- c.) milk urea nitrogen (MUN)
- d.) somatic cell

To distribute moneys fairly among producers supplying milk to a market, milk market orders provide

- a.) a milk cooperative
- b.) a producer settlement fund
- c.) supply-demand equalization
- d.) a board of commissioners

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.) denaturation
- b.) decrease
- c.) increase
- d.) gram-negative infection

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

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

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

Current issues changing information or 'extra questions':

The state that produces the most milk in the United States but does not participate in the federal milk marketing order program is *(Considering the formation of another federal order.)*

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

What is the largest cost on most U.S. dairy farms? – Feed and Fuel are the top 2.

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

UHT on a milk carton stands for what?

- a.) Ultra Heat Treated
- b.) Ultra Homogenized Treated
- c.) Under Homogenized Tested
- d.) Unified Heat Thermostat