

**N. Y. S. 2009 District Senior
Dairy Quiz Bowl Contest**

Senior Packet 1, Phase A

1) Coliform mastitis is the most prevalent form of clinical mastitis in the United States. What is the main bacterium that is causing these infections?

E-coli (HD's 2/10/08, pg. 106)

2) What kind of organism causes bovine leukosis?

A Virus (HD's, 11/07)

3) What vitamin is essential in maintaining healthy tissues growth, and immune response?

Vitamin A (Calf notes # 45)

4) What is the name of the tool or instrument used to determine the quality of colostrum by measuring the specific gravity of it?

Colostrometer

Senior Packet 1, Phase B

1) When evaluating heifer housing, name 3 specific expectations we would want to see in our facilities.

Ensure each heifer has a resting space of 30 sq. ft.
Limit pens to eight heifers or less during transition
Adequate ventilation
Allow each heifer 18 inches of bunk space
Easy access to fresh water
Heifer handling in stress-free to both people and animals
Adequate stall size
Appropriate neck rail height (DHM, 3/08, pg. 30)

2) From the following list put the process of rumination in order: Swallowing, Remastication, Eructation, and Regurgitation.

Regurgitation
Remastication
Swallowing
Eructation (World of Dairy Cattle Nutrition, pg. 7)

3) The Food and Drug Administration has classified all animal medications into three categories; what are the 3 categories?

Over-the-counter
Prescription
Extra-label-use-drug

4) When discussing calf bedding, what is meant by nesting?

The bedding should be deep enough so that the calf can nestle into it and to trap warm air to reduce heat loss and legs are not visible (HD, 2/10/08, pg. 86)

Senior Packet 1, Phase C

1) When it comes to detecting mycoplasma pneumonia in calves, most producers look for what symptom?

Droopy ears (DHM, 2/07, pg. 26)

2) J5 vaccine is used to immunize cows against what type of mastitis?

Coliform mastitis (HD, 2/10/08, pg. 84)

3) If a calf is not willing to drink her colostrum from a bottle, what is a tool you could use to make certain she receives the adequate colostrum as soon as possible?

Esophageal feeder (HD, 1/25/08)

4) Mycobacterium paratuberculosis is the causative agent of what major dairy cattle disease?

Johnes disease (HD, 9/07, pg. 662)

5) In regards to a Comprehensive Nutrient Management Plan, what do the letters EAP stand for?

Emergency Action Plan (NEDB, 1/08)

6) What is the percent recovery rate of sand bedding when using a sand manure separating system?

90% (HD, 12/07)

7) In recent years the U.S. has seen an alarming decrease in the number of agriculture programs in high schools. What is the primary reason cited for this decline?

A shortage of agriculture teachers (8/10/07, pg. 515)

8) What type of muscle cells are responsible for milk let-down?

Myoepithelial

9) What kind of vision do cows have?

Panoramic of more than 300 degrees

10) What term describes how fast food passes through the rumen?

Rate of passage (Animal Feeding and Nutrition)

11) Which nutrient, found in most fertilizers, increases nodulation in alfalfa?

Phosphorous

12) The pancreas secretes digestive enzymes into what part of the digestive system?

Small Intestine (VA study materials)

13) 1885 was when what magazine was first published?

Hoard's Dairyman (VA study materials)

14) What vitamin is needed so the blood can clot after an injury?

Vitamin K

15) What hormone is released by the corpus luteum and supports pregnancy?

Progesterone

16) What is the process called whereby milk is heated to a high temperature for a specific period of time and kills bacteria?

Pasteurization

**N. Y. S. 2009 District Senior
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Senior Packet 2, Phase A

1) What is the main reason to pasteurize waste milk fed to calves?

To reduce the bacteria counts in the milk (Calfnotes)

2) Long day lighting means exposing heifers and cows to how many hours of light a day?

16 to 18 hours (HD, 12/07)

3) Where would you use zinc sulfate, formalin or copper sulfate on the farm?

Foot bath (VA study materials)

4) Manure digesters convert what gas into electricity?

Methane

Senior Packet 2, Phase B

1) Name 3 common mistakes that can occur with the milking system that will have a negative impact on milk quality.

Insufficient pipeline wash temperature
Slow cooling
Insufficient tank washing temperature
Bulk tank blend temperature too high
Forgetting to switch on the cooler (HD's, 1/08)

2) What recent industry development has caused corn prices to go up?

High oil prices/fuel prices
Use of corn for ethanol production (Progressive Dairyman, 3/08, pg. 4)

3) A comprehensive nutrient management plan on your farm should also include an Emergency Action Plan. Name 2 incidences on your farm that would make sense to have an Emergency Action plan for.

Spill plans for manure
Spill plans for wastewater
Waste storage malfunction
Spill plans for pesticides, fuel, oil, or petroleum (NEDB, 1/08, pg. 8)

4) What are 2 ways you can identify BVD in your herd?

Bulk Tank PCR test
Blood Sample
Ear notches (HD's 11/07, pg. 770)

Senior Packet 2, Phase C

1) What is considered the biggest cost of production on a dairy farm?

Feed

2) What practice on a dairy farm is most often used to develop active immunity for the cattle?

Vaccinating

3) A good financial indicator to monitor on the farm is IOFC. What does IOFC stand for?

Income over feed cost (VA study materials)

4) In relation to body temperature, what does TNZ stand for?

Thermoneutral Zone

5) What has been a major debatable issue in this year's presidential election that will greatly affect dairy farmers?

Immigration laws (DT, 1/08)

6) What is the overall management practice all farms should use to prevent the spread of diseases?

Biosecurity (DT, 2/08)

7) A deficiency of this vitamin in the ration can cause an oxidized flavor to develop in milk. What is the name of this vitamin?

Vitamin E (VA study materials)

8) Which state in the U.S. currently produces the most milk?

California

9) What did Alexander Fleming discover 80 years ago?

Penicillin

10) Alfalfa should be harvested with how many days after the vegetative state in the spring and early summer to provide optimum milk production and dairy-quality hay?

10 days (DHM, 1/07, pg. 17)

11) In order for a veterinarian to give you a prescription medication for your animals, the vet must have a valid VCPR. What does VCPR stand for?

Veterinary-client-patient-relationship

12) Hood found an innovative, natural technique called ultra-filtration that removes some of the liquid that makes fat free milk look and taste watery. What is this milk manufactured from HP Hood called?

SimplySmart (HP website)

13) What part of the plant is affected first by copper toxicity in the soil?

The roots (NEDB, 1/08, pg. 89)

14) The massaging action on the teats is controlled by which milking machine component?

Pulsator

15) For the purpose of calculating Cheese Yield Dollars, which type of cheese is used?

Cheddar

16) What is the by-product of the ethanol industry that can be used in dairy rations?

Distillers grain (NEDB, 2/07)

**N. Y. S. 2009 District Senior
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Senior Packet 3, Phase A

1) Autotoxicity is most often a concern in which legume?

Alfalfa

2) Calves need 100 grams of immunoglobulins at the first feeding of colostrum. What is the recommended amount of quality colostrum that should be fed to the calf to get this much passive immunity?

One gallon (DHM, 11/07, pg. 16)

3) RFV combines digestibility and intake estimates into one number for an easy and effective way to identify and market quality hay. What do the initials RFV stand for?

Relative Feed Value (VA study materials)

4) Diagnosis of which metabolic disorder is determined by listening with stethoscope for a pinging sound made when tapping on the cow's left side after her last rib?

DA or Displaced abomasums
Accept bloat also

Senior Packet 3, Phase B

1) Name 4 parts of the cow's reproductive tract.

Vulva, Vagina, Cervix
Uterus, Oviduct, Ovary

2) What are 3 advantages for a producer to use sexed semen?

Biosecurity benefit
Allows for more internal herd growth
Assist in meeting the industry demand for more replacements
More heifers means you could cull more poor performing animals
More heifers means you could have more animals to sell for profit
Genetic offspring of superior animals could improve herd genetics
Reduction in dystocia (DHM, 1/08, pg. 25)

3) Good record keeping when administering drugs to cattle is a must. Name 4 important pieces of information that should be recorded.

ID of animal
Medication used
Dates treated
Dosage or amount given
Route and location of administration
Name of person treating animal
Days to withhold for milk and meat
What you were treating the animal for (Progressive Dairyman, 1/08)

4) Name 4 metabolic diseases in dairy cattle.

Milk fever
Ketosis
Displaced abomasums
Retained placenta
Laminitis (VA study materials)

Senior Packet 3, Phase C

1) Milkmedia has launched a new website that used music and action sports entertainment to reach kids about health, nutrition and exercise. What is this site called?

Milk Rocks

2) When dealing with drugs for dairy cattle, what do the letters ELDU stand for?

Extra Labeled Drug Use

3) Neospora is known to cause which reproductive problem in cows?

Abortion (HD, 10/07, pg. 686)

4) What is the recommended level of fat in a lactating cows ration?

5 to 7 %

5) What is the technical term use for an abnormal or difficult birth?

Dystocia

6) During which season of the year is the demand for milk the highest?

Fall

7) New for the 2008 fair season, all cattle exhibited at NY county fairs and the State Fair must be negative to an approved test appropriate to detect what?

Bovine Viral Diarrhea Persistent infection (BVD-PI)
(Not just BVD needs to have the PI with it)

8) A four-footed, hoofed, even-toed, and cud chewing mammal, which have a stomach consisting of four divisions or chambers is called a what?

Ruminant

9) From which ovary does ovulation most often occur?

Right

10) How many pounds of milk does it take to make a gallon of ice cream?

12 pounds (www.dairytrivia.com)

11) The California Mastitis test measures what in the milk?

Somatic cell count (HD, 12/07, pg. 835)

12) What vitamin is most available from drinking milk?

Vitamin D (DHM, 3/07, pg. 14)

13) What is endotoxin overload in calves caused by?

Reaction to vaccines or a vaccination shortly after inoculation (DHM, 9/07, pg. 50)

14) What causes bovine spongiform encephalopathy (BSE) or mad cow disease?

Prions (DHM, 4/07, pg. 46)

15) What is the name of the largest dairy milk marketing cooperative in the United States?

Dairy Farmers of America (DFA) (VA study materials)

16) Injection of what can help treat anaphylactic shock?

Epinephrine or Antihistamine or Corticosteroids

**N. Y. S. 2009 District Senior
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Senior Packet 4, Phase A

1) Why are straws of sexed semen less likely to produce a pregnancy than sexed semen?

The amount of sperm per dose is limited with sexed semen compared to unsexed semen (HD, 1/25/08, pg. 47)

2) Microenvironment when referring to calves would be considered a hutch or animals in an individual pen. What would be an example of a macro environment?

Whole barn or entire group or pad of hutches (NEDB, 1/08)

3) When measuring a dairy farms competitiveness and business management, an important tool for evaluating the productivity of workers and cattle is measured by what?

Pounds of milk sold per worker

4) What happens to the pH of the rumen when a cow has acidosis?

The pH decreases

Senior Packet 4, Phase B

1) What are the two main nutrients that regulators are trying to balance in the soil for top production?

Nitrogen
Phosphorus (DT, 11/07, pg. 8)

2) Name 4 methods of dehorning calves on your farm.

Caustic paste
Electric or Gas burning dehorers
Gouging or scooping the horns
Saw or Horn Clipper

3) Cows and microbes actually have a mutually beneficial relationship: Name three things the microbes give the cow.

Labor to digest feed
A source of protein
A source of VFA's
Ability to digest forage

4) Name 3 factors to consider when evaluating housing for transitioning weaned calves into group pens?

Ventilation
Bunk space
Water
Resting space
Bedding
Stocking rate (DHM, 3/08)

Senior Packet 4, Phase C

1) Based on the January 2008 USDA genetic summaries, which breed remains first for productive life among the six dairy breeds evaluated in the United States?

Jersey (Jersey Journal, 3/08, pg. 63)

2) When talking farm finances, what are fixed cost?

Those cost associated with the running of the farm that do not change, that are constant. (HD, 1/25/08, pg. 55)

3) What is the definition of a gestation period?

The time between conception (mating) and parturition (giving birth)

4) What is a group of cattle called?

A herd

5) Functional proteins in colostrum may be damaged during what process?

Pasteurization

6) What do we call the poison produced by microorganisms that kill cells?

Toxins (VA study materials)

7) Deccox is added to calf feed to prevent what?

Coccidia (Calf notes)

8) Grade A milk that is used to make ice cream is classified into which class?

Class 2

9) What is the natural end-product of rumen fermentation and feed digestion?

Methane

10) What vitamin is produced by the rumen microbes?

Vitamin B (NEDB, 10/07, pg. 15)

11) What seems to be the best way to house calves but is often more management and labor intensive?

Individual housing or hutches

12) What classification of drugs may be helpful in controlling udder edema?

Diuretic

13) What must be fed with calf starter to help with rumen development in baby calves?

Water

14) When working in the area of financial management, what is the statement used to measure the profitability of the business by measuring all sales receipts and expenses used?

Income statement (DB business mgt. Materials)

15) One way to measure adequate colostrum absorption and antibody status in a newborn calf is by measuring the total serum protein with a refractometer. With a refractometer, how many grams per deciliter is an acceptable reading for adequate antibody transfer.

5.5 g/dl (DHM, 8/07, pg. 12)

16) Which field of science deals with the study of insects?

Entomology

**N. Y. S. 2009 District Senior
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Senior Packet 5, Phase A

1) If you take a sample of milk from your bulk tank and test is using the delvotest or the penezyme test, what are you testing for in the milk?

Antibiotics

2) If your herd's heat detection rate is 30%, and your herd's conception rate is 40%, what is your herd's pregnancy rate?

12%

3) What is the difference between an intensified milk replacer and a conventional milk replacer?

More protein in the intensified milk replacer (DHM, 10/07, pg. 56)

4) Sexed semen is recommended for use in which group of dairy cattle?

Heifers

Senior Packet 5, Phase B

1) List 4 examples of assets on a farm.

Cows, Land, equipment, tractors, buildings, cash, feed, lumber, stocks and bonds, co-op equity

2) Name 4 of the 10 Federal Milk Marketing Orders.

Northeast, Mideast, Appalachian
Southeast, Florida, Upper Midwest
Central, Southwest, Pacific Northwest
Arizona-Las Vegas (VA study materials)

3) The most effective time to treat subclinical udder infections is at dry-off or during the dry period. Name 3 advantages to treating subclinical mastitis at dry-off verses during lactation.

Cure rate may be higher
Higher doses of antibiotics can be used safely
Retention time of the antibiotics can be used longer
Risk of contaminating the bulk tank saleable milk with drug residue is reduced
Tissue damage by mastitis may be regenerated before freshening
Dry treatment has a higher dose of antibiotics in one treatment (Dairy World, March/April, 08)

4) What are 3 examples of on-farm biosecurity management practices that can be utilized in a dairy producer's calf care program?

Discard and sort colostrum from disease infected cows ei:
Johnes
Avoid nose to nose contact
Work with sick calves last
Wear nitrile gloves
Wash hands frequently
Sanitize equipment
Each calf has her own pail
Don't mix different age groups of calves (DHM, 1/25/08, pg. 68)

Senior Packet 5, Phase C

- 1) What 2 word term represents 1 metric ton of carbon dioxide (or its equivalent) that is either removed from the atmosphere or is prevented from being emitted?

Carbon Credits

- 2) What is the name of the California company that has the largest single-site cheese operation in the world?

Hilmar

- 3) The piece of equipment that divides solid manure components from the liquid is called what?

Manure separator

- 4) According to the Pasteurized Milk Ordinance (PMO), what is the minimum standard for solids-not-fat of homogenized whole milk?

8.25%

- 5) How many pairs of chromosomes do dairy cattle have?

30 pairs

- 6) What is the name of the enzyme that is added to milk to make cheese?

Rennet

- 7) When referring to pasteurization of calf milk, what does the acronym HTST stand for?

High Temperature short time

- 8) What is the name of the term for a farm's unique identification number that is part of the National Animal Identification System?

Premises ID

9) Subclinical rumen acidosis occurs when a cow's rumen pH drops below what level?

5.8

10) Which component of Net Merit calculations is a measure of longevity?

Productive Life

11) In a high producing dairy cow, what happens to her body weight when she enters a positive energy balance phase?

It increases

12) Milk futures can be traded how many months into the future?

24 months

13) What is responsible for the secretion of the cellulose enzyme in ruminants?

Rumen microbes

14) What is the function of the feed additives sodium bicarbonate and magnesium oxide?

Buffer

15) What is the most important nutrient that all living things need?

Water

16) When discussing feeds, what is the term used to describe the amount of feed left after if all the water is removed?

Dry matter

**N. Y. S. 2009 District Senior
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Senior Packet 6, Phase A

1) As the percentage of corn silage in the ration increases, what occurs with the urine output; does it increase, decrease or stay the same?

Decreases

2) What is the term used to describe forages that are seeded each year and whose growth is completed in one crop year?

Annuals

3) What hormone is found in CIDR vaginal inserts?

Progesterone

4) In a dairy cow, where are dietary starches broken down by bacteria?

Rumen

Senior Packet 6, Phase B

1) Once we find the sick cows in our herd, we then need to determine what to do with them. Performing a physical exam on a sick cow can help to determine what we might do to treat them. Name 4 pieces of equipment you would need to have to perform a physical exam.

Thermometer
Stethoscope
Urine ketone strips
Milk ketone test strips
Rectal sleeves and lube
Cultural vials for milk, manure
Blood tubes and needles
CMT plate and solution (DHM, 3/08, pg. 54)

2) Cheese is classified according to its consistency. Name the 4 classes.

Soft
Semi-soft
Hard
Very Hard

3) Name the 4 basic elements that are present in all proteins.

Carbon
Hydrogen
Oxygen
Nitrogen

4) The S.T.A.R. method is recommended when preparing for an interviewing with a potential employee. What does the acronym S.T.A.R. stand for?

Situation
Task
Action
Result

Senior Packet 6, Phase C

1) According to an EPA report agriculture accounts for 7.4 percent of all GGE in the U.S. What do the letters GGE stand for?

Greenhouse Gas Emissions

2) For every 1% decrease in Crude protein, how many pounds of manure are decreased?

2 pounds

3) What bull stud has 7 as its code?

Select Sires

4) What is the recommended crude protein content for a good calf starter?

18-22 %

5) Who is the current United States Agriculture Secretary?

Tom Vilsack

6) In 2008, what was the most frequently cited label claim among new food products?

Kosher

7) What is formed when glucose and galactose combine?

Lactose (VA study materials)

8) What structure connects a muscle to a bone?

Tendon

9) If the moisture of hay silage reaches over 70%, what acid will most likely be produced during fermentation?

Butyric acid

10) At what SCC level will a CMT begin to show a positive quarter??

Above 400,000 (HD, 1/10/09/p20)

11) What is the term for the condition in which bacteria from local infections enter the blood stream and have systemic effects on the animal?

Septic or Sepsis

12) Anhydrous ammonia is used to make which component of fertilizer??

Nitrogen (HD, 2/10/09/p86)

13) What test is used to measure the amount of soil present in milk?

Sediment test

14) In 2007 a team from USDA and the Quality Milk Production Services determined which type of mastitis is most common on dairy farms?

Staphylococcus aureus or Staph aureus

15) What is the definition of the term lactation? (VA study materials, p.13)

The period of time when a cow is in milk

16) What is the technical term for an infection of the lung tissue?

pneumonia

**N. Y. S. 2009 District Senior
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Senior Packet 7, Phase A

1) Why should you pasteurize colostrum before feeding it to calves?

To kill harmful bacteria (DHM, 2/09/p15)

2) A stillborn calf is not just a calf born dead; it's a calf that is either born dead or dies within how many hours after birth?

48 hours (DHM, 10/08, p. 42)

3) What is the term for changing a calf's diet from milk or milk replacer to water and dry feed?

Weaning

4) What is the legal limit for bacteria counts in raw milk in the United States?

100,000 cells/ml

Senior Packet 7, Phase B

1) What do the initials FPT stand for in the area of newborn calves and what does it mean?

FPT=Failure of passive transfer and it means the absorption of IgG was not adequate

2) Name 4 different sizes in cc disposable syringes generally come in.

3cc, 5cc, 12cc, 20cc, 35cc, and 60cc (DHM, 2/09, p. 54)

3) Name 4 ways to help control heifer feed cost.

- Minimize shrinkage and storage waste
- Avoid weigh-backs and wasted feed at the bunk
- Avoid overfeeding protein, minerals and vitamins
- Procure forages that result in an inexpensive ration; look at total ration cost rather than just individual forage cost.
- Minimize heifer maintenance cost
- Purchase ingredients that result in the least expensive ration while still providing the needed nutrients.
- Consider limit-feeding when appropriate (DHM, 6/08, p. 8)

4) Name 3 organs that are affected by Bovine Leukemia Virus (BLV)

Heart

Digestive organs

Uterus

Spinal cord (VA study materials, pg. 28, 2008)

Senior Packet 7, Phase C

1) What is the process by which microorganisms are engulfed by white blood cells?

Phagocytosis

2) What hormone is critical in the initiation and maintenance of lactation?

Prolactin

3) The small projections that line the wall of the small intestine are called what?

Villi

4) When pasteurizing milk using the high temperature, short timed method milk is heated to 160 F for how many seconds?

15 seconds

5) What breed of dairy cattle has the highest rate of inbreeding?

Jersey

6) Name the carbohydrate or milk sugar found in milk.

Lactose

7) Which milking machine component controls the massaging action on the teats?

Pulsator

8) What hormone blocks the oxygen receptors?

Adrenaline

9) What is the name of the farm owned milk marketing cooperative focused on securing markets and bringing value to our members beyond a milk check?

Dairy Farmers of America (DFA) (DHM, 2/09, p. 22)

10) To stay ahead of the environmental curve and the regulations coming at dairy farmers a tool to help navigate the road to compliance is a CNMP; what do the letters in CNMP stand for?

Comprehensive nutrient management plan (DHM, 10/08, p. 25)

11) In the area of calf management, what is the name of the handheld device that measures total protein in a blood plasma sample?

Refractometer (DHM, 10/08, p. 12)

12) What is the name of the most desirable acid produced during ensiling?

Lactic acid (VA study materials 08, p. 12)

13) One of the problems to a more widespread use of RFID tags is that each tag needs its own reader. What does the acronym RFID stand for?

Radio frequency identification device (DHM, 1/07, pg. 15)

14) What is the tool called that allows you to predict the quantity of forage dry matter available in each grazing paddock and determines the quality?

Grazing Wedge (DHM, 3/07, pg. 62)

15) What type of mastitis is Klebsiella?

Environmental (NEDB, 1/08, pg. 16)

16) What tissue is monitored for residual drug levels at time of slaughter?

Kidneys

**N. Y. S. 2009 District Senior
Dairy Quiz Bowl Contest**

Senior Packet 8, Phase A

1) Which milk pricing system takes into consideration protein, butterfat, somatic cell, and volume when figuring milk price?

Multiple Component Pricing (HD, 1/25/08/p53)

2) Seldom do these cause illness, but they do have a profound effect on the growth rate of heifers during their first year on pasture. What are they?

Internal Parasites (Dairy Cattle Profit, Principles, Page 82)

3) What disease is caused by the Bovine Papilloma Virus (BPV)

Warts

4) The bodies' ability to absorb calcium is enhanced by which vitamin?

Vitamin D

Senior Packet 8, Phase B

1) Name 4 items a drug label must have on it.

What conditions the drug treats
What dosage to give
How to give the drug
Time between doses
Number of doses in treatment
Meat and milk with holding times
Which types of animals the drug is approved for (HD, 9/08/p.
569)

2) Name 4 factors that influence the amount of water a cow will consume in one day.

Body size
Environmental temperature
Water temperature
Relative humidity
Breed
Diet
Milk production
Water quality (VA study materials, p. 9)

3) Name 3 microminerals required by dairy cows.

Cobalt, Copper, Iodine, Iron,
Manganese, Selenium, Zinc (VA study materials, 9)

4) What are the two most limiting amino acids in dairy cattle nutrition?

Lysine
Methionine (VA study materials, p.8)

Senior Packet 8, Phase C

1) What is the name of the form used in compliance with immigration laws?

I-9 (HD 2007, p. 564)

2) New York is the number one producer of what dairy product?

Cream cheese

3) How much fat is in one eight-ounce glass of skim milk?

0 grams

4) How much does the average case of mastitis cost a dairy farmer?

\$380 (DHM, 2/09, p. 6)
Accept \$350 to \$400)

5) Which farm business financial indicator tracks all of the money that flow's in and out of the farm business and includes all expense items except depreciation?

Cash Flow (HD, 5/10/08/p347)

6) What is the term for the number of animals grazed per acre on a pasture?

Stocking Rate (HD, 5/10/08/p332)

7) What do the initials EQIP stand for?

Environmental Quality Incentive Program (VA study materials, p. 3)

8) What is the recommended temperature of water for washing bulk tanks, lines, and other milking equipment?

160 F (VA study materials, p.13)

9) What is chyme?

The feed material found in the small intestine (VA study material, p. 7)

10) This measurement of energy in feedstuffs is defined as the total energy in a feedstuff minus the energy lost in feces.

Digestible energy (VA study materials, 9)

11) A mature dairy cow produces how much saliva per day?

50 to 80 quarts (VA study materials, p. 32)

12) What is it called when a cow's uterus turns inside out and protrudes from the vulva after calving?

Prolapsed Uterus (HD, Yr End07P834)

13) Mainstream Berretta Joy is the world milk production leader in which breed?

Jersey (VA study materials, p. 33)

14) What diseases have conditions that are not caused by an infectious agent but by an upset in the cow's normal physiologic state?

Metabolic

15) What is the disease caused by a small mobile protozoan found only in the reproductive tract of the bull or cow and results in infertility and abortion?

Trichomoniasis

16) What is the general name for a compound that kills unwanted weeds?

Herbicide

**Extra Questions for 2009 District Senior
Dairy Quiz Bowl Contest**

1) At what height should alfalfa fields be cut to maximize quality and tonnage?

2 inches (HD, 4/07, pg. 252)

2) What is the biggest “red flag” for animal welfare organizations associated with dairy farming?

Tail docking (HD, 07, pg. 207)

3) How many essential amino acids are there?

10

4) One method to evaluate the health of your herd is to calculate your turnover rate. What is the formula that is used to determine this number?

Turnover rate= # of cows that leave/average # of cows in the herd over a given period of time X 100 (DHM, 11/07, pg. 25)

5) What does it mean if a calf is persistently affected with BVD?

She had the virus present in her body when her immune system started working. Her body recognizes it as a normal part of her body, usually shows no signs but sheds large amounts of the virus

6) How is organic milk different from conventional milk?

It is different in the way it is produced, handled and processed but the safety and nutrition is the same.

7) On what day must a heifer be born to be the oldest possible animal in the winter heifer calf and winter yearling classes?

December 1st

8) In which organ does most of the digestion and absorption of fat occur?

Small intestine

9) What is the science called that deals with hormones and their actions?

Endocrinology

10) Lutalyse and estrumate are products that contain which hormone?

Prostaglandin

11) What is the disease in humans is a weakening of the bones through the loss of calcium and other minerals?

Osteoporosis

12) What is the three letter acronym that indicates 100 pounds of milk?

CWT

13) What linear type trait is measured relative to the udder floor's distance from the hock?

Udder depth

14) What is the two-word term used to describe heifers sired by the same bull and born to the same cow at different times?

Full sisters or full siblings

15) Amylase and sucrase are examples of what protein compounds that aid in digestion?

Enzymes

16) Define feed efficiency in terms of milk production.

Pounds of milk per pound of dry matter intake

17) What is the latest term used for how far the food you eat travels from where it is produced to where you purchase it?

Food miles

18) Minerals that cows need in small amounts are known as what?

Trace minerals (Genex Genetic trends, 1/08. pg. 8)

19) Which nutritional disease is most often associated with laminitis in dairy cows?

Acidosis

20) What is the name of the nutritional disorder that can occur in cattle grazing on lush pasture that are fed a diet that is deficient in magnesium?

Grass Tetany (VA study materials)

21) What is the name of the process where milk secreting tissue regresses after a cow has become a dry cow?

Involution

22) The abomasums will produce what acid?

Hydrochloric acid

23) Which hormone is produced by the pancreas and promotes mammary growth and cell division?

Insulin

24) What is the name of the scientific publication that is published by the American Dairy Science Association?

Journal of Dairy Science

25) A snapshot of a businesses financial situation is also known as a what?

Balance sheet

26) According to the United States Dept. of Agriculture, for the first time in the 74 year history of this program, all 50 states including Puerto Rico and the Virgin Islands, have simultaneously achieved _____ free status.

Brucellosis (Jersey Journal, Pg 14)

27) Milk fever is most common in which breed of dairy cattle?

Jersey

28) What is another name for Fat-free milk?

Skim or non fat milk (Milk facts)

Extra Team Questions-Senior

1) Give two signs of metritis.

Fever, foul smell, red-brown watery discharge for the uterus

2) What are 3 animal welfare issues that are faced by dairy producers in the industry?

Tail docking, dehorning practices, confinement housing, lameness, down cow handling, vaccinations, hormones/injections, calf hutches (HD, 2/07, 207)

3) Lameness is caused by 2 types of problems infectious and non- infectious.
Name 1 type of infectious foot problem and 1 type of non- infectious foot problems.

Infectious-digital dermatitis, heel erosion, foot rot, interdigital dermatitis, hairy heel warts

Non-infectious- sole ulcer, white line disease, thin soles, overgrowth, bruising (HD, 1/08, pg. 8)

4) List 4 examples of assets on a farm.

Cows, Land, equipment, tractors, buildings, cash, feed, lumber, stocks and bonds, co-op equity