

2008 Senior District Dairy Quiz Bowl Contest

Senior Packet 1, Phase A

1) What is the recommended crude protein content for calf starter?

18-22 %

2) Which compartment makes up 25% of the newborn calf's stomach capacity and 80% of the mature cow's stomach?

Rumen

3) IOFC is a good financial indicator to monitor. What does IOFC stand for?

Income over feed cost

4) Your herd has recently dropped in butterfat, what might your diet be lacking?

Effective Fiber

Senior Packet 1, Phase B

1) Foot problems can have a big impact on a dairy: name 4 things that can be affected by cows with foot problems.

- Increase cost of trimming
- Increased vet bill/medication costs
- Decreased dry matter intakes
- Decreased milk production
- Trouble with heat detection
- Increase in injuries
- Increase in cull rates
- Decrease in body condition
- Decrease in locomotion

2) Name 4 advantages of feeding a TMR?

- Eliminate selective eating or reduce sorting
- Consistent ration
- Higher dry matter intake
- Free-choice minerals not needed
- Higher milk production
- Lower percent fiber needed in ration
- Easier to balance precisely
- Fewer digestive upsets
- Can feed a variety of by-products
- Decrease in labor used for feeding
- Can feed unpalatable ingredients easier

3) Name the 4 main processes a mature cow uses her feed for.

Growth, Maintenance, Production, and Reproduction

4) Name 3 of the 5 most important relocation decision factors for new dairies.

- Availability of water
- Availability of land for manure handling
- Availability of land for feed production
- Average mailbox price for milk
- Quality of fresh water
- Complexity of laws governing nutrient regulations
- Labor source available
- Location to urban areas
- Type of land base-soil
- Facilities

Senior Packet 1, Phase C

1) What is the common name for keratoconjunctivitis?

Pinkeye

2) How many calories are in one cup of 2% reduced fat milk?

120 calories

3) Milk is what percent water?

87 %

4) When was the first commercial cheese factory established in New York?

1851

5) What does RFV stand for in regards to dairy cattle nutrition?

Relative Feed Value

6) Which First Lady created a sensation by serving ice cream as a dessert at an inaugural ball?

Dolly Madison at the second inaugural ball (Dairy trivia)

7) What is the normal respiration rate for a dairy cow?

30 breaths per minute (accept 25 to 40)

8) At what % of her mature body weight should a first calf heifer be bred?

50-55 % (Journal of dairy science, FASS)

9) When making baleage, how soon after baling should round bales be wrapped?

Within 2 hours (HD's, pg. 319)

10) What is metritis an infection of?

The Uterus (HD's, 12/06, pg. 840)

11) In the dairy cow's reproductive tract, where does fertilization of the ova take place?

Oviduct

12) What is the name of the document that established the standards for Grade A milk?

Pasteurized Milk Ordinance (PMO)

13) Which volatile fatty acid (VFA) produced in the rumen is a precursor for glucose?

Propionate

14) What does oxytocin do in the dairy cow?

It initiates milk let down

15) What is the benchmark for Standard Plate Count?

< 10,000 CFU/ml

16) What do we call the first streams of milk stripped from the udder prior to milking?

Foremilk

**2008 Senior District
Dairy Quiz Bowl Contest**

Senior Packet 2, Phase A

1) Which normally occurs first in a lactating cow, peak milk production or peak feed intake?

Peak milk production

2) What common foot problem is characterized by an infection of the soft tissue of the interdigital skin, usually caused by a mix of bacteria commonly present in soil and manure and causes lameness, swelling, foul odor due to tissue decay between the toes, along with a fever?

Foot Rot (DHM, 8/06, pg. 2 of Hoofprints)

3) What is the term used to describe the physical characteristics and performance of an individual?

Phenotype

4) Which type of vacuum pump typically reduces energy cost, a variable speed pump or a conventional vacuum system?

Variable Speed (HD's, 10/06)

Senior Packet 2, Phase B

1) Name 4 sources of environmental bacteria in dairy herds.

Mud
Soil
Water
Feces
Bedding
Dust
Air
Feed
Equipment

2) Name 4 symptoms for clinical mastitis?

Flakes
Clots
Stringy milk
Presence of blood
Swollen quarter
Hot Quarter
Off-feed

3) What are the 4 phases of silage fermentation?

Aerobic phase
Anaerobic phase
Stable phase
Feeding phase

4) Protein can be classified in two categories, RDP and RUP. What do the letters stand for and where are they broken down in the cow?

RDP-Rumen Degradable protein
RUP- Rumen Undegradable protein
RDP is broken down in the rumen and RUP is broken down in the small intestine

Senior Packet 2, Phase C

1) In regards to genetic evaluations, what is Service Sire Stillbirth?

Indicates the rate at which the bull's calves will be born alive

2) What do the letters CFU stand for in reference to standard plate count benchmarks measured in CFU/ml?

Colony Forming Units

3) What is the name of the categorized list of accrual incomes and expenses for a specified period of time?

Income Statement (DFBS)

4) 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

5) Which compartment of the ruminant stomach functions to squeeze fluid out of the digesta and also is known as "manypiles"?

Omasum

6) Which disease does the milk ring test conducted on milk samples screen for?

Brucellosis or Bangs disease

7) Where are the muscular rings found in the reproductive tract of a dairy cow?

Cervix

8) Purchasing what is the single-largest portion of a dairy's operating budget?

Feed (DHM, 4/07, pg. 6)

9) What is the term for the process called that changes cream to butter?

Churning

10) What is the name of the teen-focused program put out by the Milk Processor Education Program (MILKPEP) that remains an integral part of teen outreach program to let them know the importance of drinking milk?

Body by Milk ([www. Milkpep.org](http://www.Milkpep.org))

11) Who is the U.S Secretary of Agriculture?

Tom Vilsack

12) What is the best way to provide passive immunity to newborn calves?

Feeding adequate amount of colostrum

13) The formation of which volatile fatty acid is a result of fermentation of starch in the rumen?

Propionate

14) What would be the advantage of adding potassium sorbate to refrigerated colostrum?

It's a food preservative that reduces bacterial growth or to keep it fresh (DHM, 4/17/07)

15) White muscle disease can help be prevented by what vitamin?

Vitamin E

16) An injection given to a dairy animal under the skin is called what type of injection?

Subcutaneous injection

2008 Senior District Dairy Quiz Bowl Contest

Senior Packet 3, Phase A

1) What is the name of the method of having large fans on one end wall of the barn and air being forced through the barn to the other end?

Tunnel ventilation (HD's, 2/10/07, pg. 112)

2) Which mineral is associated with the prevention of goiter?

Iodine

3) What is the name of the hormone produced by the ovary that makes cows come into heat?

Estrogen

4) In order for a veterinarian to give you a prescription medication for you to use on your animal, the veterinarian must have a valid VCPR. What does VCPR stand for?

Veterinary-client-patient-relationship (DHM, 4/07, pg. 62)

Senior Packet 3, Phase B

1) For the first time in 20 years, sales of fluid milk grew 1.6 % according to USDA data. A portion of the credit for that increase goes to single serve milk sales in 2 key places-Name the 2 key places

Schools
Fast-food restaurants (DHM, 4/07, pg. 48)

2) Give 4 advantages of using artificial insemination instead of natural service.

Safety
Better disease control
Better record keeping
Genetic improvement
Easier to prove bulls
Less expensive than keeping a bull
Variety in selection of bulls to use
Select sire for specific traits

3) Name 2 types of sawdust.

Green
Kiln-dried

4) When batch pasteurizing colostrum, at what temperature and for how long should colostrum be pasteurized for an acceptable pathogen kill and still have quality colostrum?

140 F
60 minutes (DHM, 2/06)

Senior Packet 3, Phase C

1) In the USDA food pyramid, how many servings of dairy products per day are recommended for people?

3

2) What is the name of the term for any disease that can be transmitted to man via contact with animal pathogens?

Zoonosis

3) What is the name of the tiny, finger-like projections which line the wall of the rumen?

Papillae

4) Define feed efficiency in terms of milk production.

Pounds of milk per pound of dry matter intake

5) What does the MUN test measure in milk?

Level of urea nitrogen found in milk, milk urea nitrogen

6) What does CLA stand for?

Conjugated linoleic acid (Virginia study materials, pg.3)

7) Locomotion scoring is performed on a scale of 1 to 5. What does the score of 1 represent?

A cow that stands and walks normally

8) In most dairy cows, what percentage of the cow's milk production is made by her rear udder?

60% (Dairy cattle judging made easy interactive cd)

9) What is the ideal moisture content of a TMR?

40%-55% (DHM, 11/07, PG. 32)

10) What is the most common acid found in well-fermented silage?

Lactic acid

11) What is the first step you should always make in the decision making process?

Identify the problem (DHM, 11/07, pg. 14)

12) This reproductive problem occurs in bulls when one or both of the testes fail to descend into the scrotum?

Cryptorchidism

13) The duodenum, jejunum and ileum are the names of the three sections of what part of the digestive system?

Small intestine

14) In milk that is sold in the U.S., what is the maximum somatic cell count allowed?

750,000

15) What is the nation's largest dairy cooperative?

DFA-Dairy Farmers of America

16) One of the 3 categories the Food and Drug Administration has classified animal medications into is Prescription. What is the definition of a prescription medication?

The label contains the wording "Federal Law prohibits this drug to use by or on the order of a licensed veterinarian. (DHM, 4/07, pg.62)

2008 Senior District Dairy Quiz Bowl Contest

Senior Packet 4, Phase A

1) For the most part, cows prefer to lie in free stalls with mattresses, mattresses covered with shavings, or deep bedded sand?

Deep bedded sand (HD's, pg. 357)

2) Which of the following best describes the Ovsynch program; a nutrition management program, a reproductive management program or a vaccination program?

A reproductive management program

3) Of the following, which one is the most costly form of mastitis; chronic, acute, clinical or subclinical

Subclinical

4) When a cow is superovulated and the resulting developing embryos are transferred to unrelated recipient cows, the calves that are born will be identical, unrelated or full siblings?

Full siblings

Senior Packet 4, Phase B

1) What are the three main ways that an animal can contract Johne's disease and which of the three is typically the common route of infection?

Fecal-oral
Consuming colostrum or milk with infected lymphocytes from infected animals
Vertical

Fecal-oral is the most common route of infection

2) Name 4 feeds that are considered high in energy for a cows diet.

Corn silage
Steam-flaked Corn
Small grain silage
Beet pulp
Barley
Sorghum
Citrus pulp
Bakery waste
Cottonseed
Soy (World of Dairy Cattle Nutrition, pg. 11)

3) Name the 3 dairy products that are being promoted with the 3-A-Day slogan.

Milk
Cheese
Yogurt

4) If a cow has udder sores which are those smelly sores between a cow's hind leg and her udder, what are 2 of the 3 steps in caring for those udder sores?

Clean the infected area with warm water
Dry it with a clean towel
Apply a talc or cornstarch base powder (DHM, 8/06, pg. 12)

Senior Packet 4, Phase C

1) Cows have an acute sense of smell; they can smell something up to how many miles away?

6 miles (Dairy trivia & milk facts)

2) On the average, cows drink how many gallons of water a day?

35-50 gallons (Dairy trivia & milk facts)

3) What is the name of the gland in dairy cows that produces oxytocin?

Hypothalamus

4) A deficiency of which vitamin can cause rickets in young animals, and a softening of bones in older animals?

Vitamin D

5) Hipmeters and hear-girth tapes are growth monitoring tools used to estimate what in heifers?

Bodyweight (DHM, 2/07, pg. 46)

6) When should the newborn calf receive its first feeding of colostrum?

As soon as possible, preferably within the first 30 minutes of life

7) What vitamin is needed so that blood can clot after an injury?

Vitamin K

8) If you test your water and get a positive test for fecal coliforms, what bacterium is very likely to be in your water?

E. coli

9) What is the general term for an organism that lives in and at the expense of a larger host organism?

Parasite

10) What term describes as a process in which established alfalfa plants produce chemicals that escape into the soil and reduce establishment and growth of new alfalfa?

Autotoxicity

11) One of the 3 categories the Food and Drug Administration has classified animal medications into is Over-the-counter or OTC. What is the definition of an OTC medication?

Approved for sale to anyone by a licensed dealer and must only be used as the label indicates. (DHM, 4/07, pg. 62)

12) Manure digesters convert what gas into electricity?

Methane

13) Why is it important to identify and cull any animals persistently infected with BVD?

They are a reservoir for BVD on the dairy

14) Deans Foods rejects milk from what type of animals even though USDA has said that milk and meat from these animals are safe?

Cloned (DHM, 4/07, pg. 52)

15) Lameness on dairies can be a major issue for farms. Heel warts, foot warts, hairy heel warts, strawberry foot, raspberry heel and Mortellaro's diseases are the common names used to identify what foot health problem?

Digital dermatitis (DHM, 8/06, Hoofprints, pg. 2)

16) Where should semen be deposited when using artificial insemination (AI) on a dairy cow or heifer?

Uterine body (Virginia materials)

2008 Senior District Dairy Quiz Bowl Contest

Senior Packet 5, Phase A

1) What happens to the pH of corn silage in a silo during a proper fermentation process; it increases, it decreases or it does not change

It decreases (Virginia materials)

2) President Bush has called on Americans to cut their gasoline consumption by 20% over the next 10 years and alternative fuels such as ethanol are a vital part of that strategy. Until new technology comes along, what crop will ethanol production continue to take a big chunk out of in our nation?

Corn (DHM, 4/07, pg. 26)

3) Do high levels of NEFA's or non-esterfied fatty acids in a cow's blood stream indicate a negative or positive energy balance?

Negative (DHM, 2/07, pg. 30)

4) Name the device that registers the motion of cows and indicates increased activity levels when they are in heat.

Pedometer

Senior Packet 5, Phase B

1) The Food and Drug Administration has classified all animal medications into 3 major categories. Name the 3 categories that medications are classified as.

Over-the counter (OTC)
Prescription
Extra-label-use drug (DHM, 4/07, pg. 62)

2) There is a newly released genetic evaluation that rates Holstein sires on their ability to produce live calves. It is known as the new tool to reduce stillbirths or know as Stillbirth Genetic Evaluation. What are the 2 evaluation components for stillbirth sire evaluation?

SSB-genetic merit of the service sire to produce live calves
DSB-How well his daughters deliver live calves (DHM, 8/06, pg. 28)

3) Burger King, the Nation's second largest quick serve restaurant chain, now offers these two similar products in re-sealable, 8 ounce plastic bottles. What is the product?

Hershey's lowfat white and chocolate milk (DHM, 8/06, pg. 48)

4) What are the three primary volatile fatty acids produced in the rumen?

Acetate
Propionate
Butyrate (Virginia materials)

Senior Packet 5, Phase C

1) Name the by-product that results from the cheese manufacturing process.

Whey (Virginia materials)

2) Oxytocin is released in the pituitary gland and arrives at the mammary gland via the blood stream. How long is the period of time between stimulation and milk let down?

One minute (HD, 2/06, pg. 131)

3) Non-traditional business arrangements offer new and existing producers a way to share a piece of the dairy industry pie. What is this non-traditional dairy business structure called?

A share-milk arrangement (DHM, 2/07, pg. 40)

4) New research shows that cutting alfalfa in a wide swath allows you to make high-quality alfalfa silage in how many days?

One day (DHM, 4/07, pg. 34)

5) Chromosomes are found in the nucleus of the cell. How many pairs of chromosomes do dairy cattle have?

30 pair (Virginia materials)

6) Which part of the reproductive tract is a sphincter-like structure that relaxes during calving or parturition?

Cervix

7) According to research, robotically milked cows produced less of which hormone which interferes with milk letdown?

Adrenaline or epinephrine

8) In 1997, what agency banned the feeding of certain mammalian-based proteins to ruminants?

FDA (Food and Drug Administration)

9) What are the structures that develop on the uterus that attach to the placenta?

Carnuncles

10) Which nutritional disease is most often associated with laminitis?

Acidosis

11) What is the most abundant mineral in the body?

Calcium

12) Staphylococcus aureus and what other bacteria are the two major contagious mastitis causing organisms in U.S. dairy cattle?

Strep Ag (Streptococcus agalactae)

13) Pneumonia is a disease in which organ system?

Respiratory

14) Lutalyse and Estrumate are products that contain which hormone?

Prostaglandin

15) Which volatile fatty acid is most involved in milk fat synthesis?

Acetic (Acetate)

16) What is the general term for any living disease-producing agent?

Pathogen

2008 Senior District Dairy Quiz Bowl Contest

Senior Packet 6, Phase A

1) What is sexed semen?

Semen that has been mechanically manipulated to contain higher than normal concentrations of x or y bearing sperm (DHM, 1/08, pg. 25)

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

Premise ID

3) Why is washing calf equipment with hot water, detergent, or a chlorinated cleaner important?

Kill disease causing organisms and keep calves healthy (Dairyman, 3/07, pg. 29)

4) Which of the following is least digestible for the dairy cow: cellulose, hemicellulose or lignin?

Lignin

Senior Packet 6, Phase B

1) Give three disadvantages of twinning in dairy cattle.

Reduced milk production
Calving difficulties more frequent
Higher abortion rates
Twin calves can often be weak and less thrifty after birth
Potential for freemartin
Increase in health disorders at calving or shortly after calving (VA Study materials 08, pg. 19)

2) When a cow belches, what 2 gases are released into the air?

Carbon dioxide (CO₂)
Methane (VA study guide)

3) Name 4 core viruses that dairy animals would be vaccinated against.

IBR, BRSV, PI3, BVD Types I & D, 5-way leptospirosis combination, vibriosis and trichomanasis, multivalent clostridial vaccine, ecoli, pasturella (HD, 4/10/07, pg. 264)

4) What two states is New York working with to enhance their dairy industries?

Pennsylvania
Vermont (NEDB, 1/08)

Senior Packet 6, Phase C

1) A by-pass protein which is a protein that passes through the rumen of a ruminant animal and is unchanged by microbes is also known as what?

Rumen undegradable protein

2) Which one of the 4 compartments of the ruminant stomach secretes acid?

Abomasum

3) What is the term used to describe a tractor that has decreased in value due to age, wear, or use?

Depreciation (NEDB)

4) A digestive upset in cattle where large amounts of gas are trapped in the rumen is called what?

Bloat

5) Who is the new New York State Commissioner of Agriculture and Markets?

Patrick Hooker

6) What does acronym NYSCHAP stand for.

New York State Cattle Health Assurance Program

7) What would you be testing for if you were to ear-notch your calves and send the samples to a laboratory?

Persistently infected BVD animals (DHM, 3/06)

8) What are the energy compounds produced by microorganisms via the fermentation of carbohydrates?

Volatile fatty acids

9) When do we normally start feeding dairy cows a “transition diet”?

2 to 3 weeks before the calving date (Virginia materials)

10) What is the cluster of milk producing cells in the udder called?

Alveoli

11) When can an animal become persistently infected (PI) with BVD?

First 125 days of gestation

12) In animal health and prevention, what do the letters MLV stand for in regards to vaccines?

Modified live virus (vaccine)

13) What crop is grown for ethanol fuel production?

Corn (HD's, 1/08, pg. 129)

14) Who is the chair of the agriculture committee in the U.S House of Representatives?

Collin Peterson (HD, pg. 530, July/August 07)

15) Which state has the fewest dairy farms in the U. S.?

Hawaii (HD, pg. 165, March/ April 07)

16) At least how many hours per day should a cow be lying down to provide adequate health and milk production?

12 to 14 hours (HD, 1/10/08, pg. 26)

2008 Senior District Dairy Quiz Bowl Contest

Senior Packet 7, Phase A

1) The milk test that tests raw milk and gives an indication of the total number of aerobic bacteria present in the milk at the time of pick-up on the farm is called what?

The Standard Plate count (SPC) (HD, 1/10/08, pg. 19)

2) During digestion, what enzyme is responsible for breaking down fats or lipids?

Lipase

3) What plant is now being used to help tackle coliform mastitis? Is it tobacco, marijuana, corn, or venus fly trap?

Tobacco (HD, 2/10/08, pg/ 106)

4) What is the main characteristic of non-ambulatory cattle?

Animals that are unable to move on their own (NEDB, 1/08)

Senior Packet 7, Phase B

1) The average gestation length for dairy cows varies from 276 to 292 days. Name 3 possible things that could contribute and cause the length to vary.

- Age of cow
- Breed of cow
- Sex of calf
- Number of calves she is carrying
- Season of the year
- Health
- Plain of nutrition
- Animal is carrying twins (VA study materials, 07)

2) Name 3 sources of Klebsiella mastitis.

- Udder surface
- Feces
- Bedding
- Manure on legs
- Alley ways
- Pools of standing water infected with feces (NEDB, 1/08, pg. 16)

3) Name 5 different meat cuts.

- Round, Sirloin, Bottom sirloin, Rib, Tenderloin, Short loin, Shank, Top Sirloin, Chuck, Flank, Brisket, Plate (HD, 1/10/08, pg. 30)

4) What are the 2 most telling symptoms of Johnes?

- Chronic diarrhea
- Rapid weight loss (HD, 10/10/07, pg. 662)

Senior Packet 7, Phase C

1) What does NE£ stand for?

Net energy of lactation

2) What injection is given to cows at the beginning of Presynch reproduction program?

Prostaglandin, PG or lutalyse

3) What is the best way to detect ketosis in cows?

Urine or milk test to detect ketosis (DHM, 7/06, pg. 12) Not smell because not everyone can smell it.

4) One of the 3 categories the Food and Drug Administration has classified animal medications into is Extra-label-use drug. What is the definition of a extra-label-use medication?

These drugs can be used other than as labeled with the order or prescription of a veterinarian. (DHM, 4/07, pg. 62)

5) Who developed the butterfat test in 1890?

S. M. Babcock (VA Study materials, 07)

6) What is the most common bacterium causing chronic mastitis?

Staphylococcus aureus (HD, 3/07, pg. 166)

7) When using X sexed semen, what are the odds of getting a heifer calf?

90% (DHM, 1/08, pg. 25)

8) What does RC stand for when concerning genetic codes?

Red hair color

9) What hormone stimulates milk production?

Prolactin

10) What does PPP stand for when referring to environmental problems?

Pollution prevention plan (HD, 1/25/08, pg. 51)

11) What is the average price per unit for sexed semen?
\$35-\$40 (HD, 1/25/08, pg. 68)

12) Name a magazine that offers side by side articles in English and Spanish.

Dairy Herd Management

13) One thing an ELISA test is used to detect is Johne's disease. What do the letters in the acronym ELISA stand for?

Enzyme-linked immunosorbent Assay (VA study materials)

14) What are biofuels made from?

Plant materials

15) Through the NLSM program, white and flavored milk is available in plastic, resealable bottles on the school meal line. What does NLSM stand for?

New Look of School Milk (HD, pg. 659, 2007)

16) What is the milk-mineral deposit on milk handling equipment called?

Milk stone (VA study materials)

**2008 Senior District
Dairy Quiz Bowl Contest**

Senior Packet 8, Phase A

1) When using a locomotion score what are you doing?

Grading a cows lameness (HD, 1/10/08, pg. 19)

2) Aspiration pneumonia occurs when calves do what?

Drink too fast and some of the fluid enters the lungs instead of the digestive tract

3) For the most part, how many days after calving does a cow's reproductive tract return to normal?

20 to 45 days (VA study materials)

4) In the OvSynch program, what hormone is injected on day eight?

Prostaglandin

Senior Packet 8, Phase B

1) Good record keeping when administering drugs to cattle is a must. Name 3 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)

2) Name 4 pieces of information that is printed on a straw of semen.

- Bull's name
- Bull's registration number
- Bull's breed
- Bull's code number with AI company
- AI company code

3) Dietary Cation-anion difference is helpful tool in milk fever prevention. What are 3 of the 4 elements used to calculate DCAD?

- Sodium
- Potassium
- Chlorine
- Sulfur (VA Study materials)

4) Name 4 factors that affect the nutritive value of manure.

- Type of feed in the ration
- Method of collection
- Method of storage
- Amount of added feed, bedding and water
- Time of application
- Soil characteristics
- Crops and climate (VA Study materials)

Senior Packet 8, Phase C

1) What are plant eating animals called?

Herbivores

2) What is the name of the condition that occurs when not enough fluids are absorbed from the intestinal tract in a baby calf that has scours?

Dehydration (VA study materials)

3) What are the building blocks of true proteins called?

Amino Acids

4) Distillers grain is a by-product feed which results from the production of what?

Ethanol (VA study materials)

5) Cystic cows show constant signs of what most often?

Estrus, heat

6) What do we call it when a group of heifers establish a social order?

Pecking order (HD, 12/07)

7) What is the most common indicator for determining how composting is progressing?

Temperature (Ag Nutrient Magazine)

8) What is the metabolic disorder that often occurs when a dairy cow eats too much grain?

Acidosis (VA study materials)

9) What hormone is produced by the pancreas that promotes cell growth and division?

Insulin (VA study materials)

10) What is the name of the contractile tissue that forces milk out of the alveoli upon action of oxytocin?

Myoepithelium

11) What do the letters FASS stand for?

Federation of Animal Science Societies (VA study materials)

12) In what year was the PDCA formed?

1940 (VA study materials)

13) Stud code 29 belongs to which AI organization?

ABS Global (USDA sire summary)

14) Toxins are found where in a calf's system if she is suffering from septicemia?

Blood (Progressive Dairyman, 1/1/08)

15) Beta-carotene is found in plants and converted to retinol by the cow and is the precursor to which vitamin?

Vitamin A (HD, 11/07, pg. 767)

16) What reproductive term is defined as death of a calf just before, during or within 24 to 36 hours of calving?

Stillbirth (HD, 8/10/07, pg. 535)

2008 Senior District Dairy Quiz Bowl Contest-Extra Questions

1) What is the name of the process where milk secreting tissue regresses after an animal ends its lactation?

Involution

2) Oxytocin is involved in milk let down and parturition. What is its role during parturition?

Cause uterine contractions

3) Name the disorder that causes animals to breathe rapidly, stagger and experience muscle trembling while having a magnesium deficiency.

Grass tetany

4) What is meant by the work genotype?

Animal's genetic make-up

5) It is most efficient for a dairy cow to regain body condition during what stage of the lactation cycle?

Late lactation (VA study materials)

6) Why is it so important for producers to reduce a cow's fear on a dairy?

Cows that are afraid will produce less milk (DT, 5/06)

7) In reference to dairy and livestock farms what does CAFO stand for?

Concentrated Animal Feeding Operations (VA study materials)

8) In the dairy cow's reproductive tract, where does fertilization of the ova take place?

Oviduct

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

High Temperature short time (VA study materials)

10) Approximately what percent solids in found in normal milk?

13%

11) An important measure of your dairy's nutrition program has become monitoring feed efficiency. How do you calculate feed efficiency?

Divide milk production by dry matter intake

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

Fall (VA study materials)

13) What is the vascular tissue in the uterus which allows exchange of nutrients and waste products between the mother and fetus?

Placenta

14) Of the following feeds, alfalfa, fescue, distillers grain and clover, which is a by product of an ethanol fuel production facility?

Distiller grains

15) What science involves the ability of plant or animal breeders to transfer one or more genes from one species and insert them into another?

Transgenic

16) What is the common term for nuclear transfer?

Cloning

17) What term is defined as body conformation suitable for efficient milking and management, allowing cows to live a long life and express their inheritance for high milk production?

Functional type

18) What ionophore was approved for use in lactating dairy cows by the FDA in 2004?

Monensin or Rumensin

19) What is the name of the term that refers to practices that prevent the introduction or spread of diseases on the farm?

Biosecurity

20) What buffering compound is routinely added to dairy cow rations to help prevent acidosis?

Sodium bicarbonate

Team Questions:

1) Protein can be classified in two categories, RDP and RUP. What do the letters stand for and where are they broken down in the cow?

RDP-Rumen degradable protein

RUP-Rumen undegradable protein

RDP is broken down in the rumen and RUP is broken down in the small intestine

2) Name 3 of the 5 stages of the reproductive process in cattle.

Ovulation

Insemination

Fertilization

Gestation

Parturition