

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 1, Phase A

- 1) Nitrogen is a major consideration when a dairy nutritionist is formulating dairy rations. Which one of the following is the primary source of nitrogen that is added to the ration: water, fat, limestone, or crude protein?
 - Crude protein

- 2) In reference to dairy cattle genetics, which one of the following describes the term for reliability: a) the accuracy of a genetic valuation, b) the predictability of a genetic valuation, or c) the marketability of a genetic valuation?
 - a) the accuracy of a genetic valuation

- 3) Which one of the following is a disease commonly associated with reproductive failure and abortion in dairy cattle: a) ketosis, b) leptospirosis, or c) coccidiosis?
 - b) Leptospirosis

- 4) Which of the following is the name of the organization that is charged with evaluating genetic traits of dairy cattle: a) World Dairy Expo, b) Dairy Herd Improvement Association, c) Animal Improvement Program Laboratory, or d) Dairy Business Association?
 - c) Animal Improvement Programs Laboratory

Senior Packet 1, Phase B

1) What two nutrients are important for cows and crops, but need to be monitored to keep them from building up in the soil?

- Phosphorus
- Potassium

2) Give 2 examples of a long-term asset and 2 examples of a short term liability.

- Assets: land, buildings
- Liabilities: any bill due in the next 30 days, a calf

3) Name 3 management practices a producer can utilize in their calf program during the cold winter weather to reduce stress and aid the calf in maintaining body temperature.

- Feed more milk or milk replacer
- Feed more often
- Feed higher fat content milk or milk replacer
- Bed with Straw
- Use calf jackets
- Have a place to warm and dry newborn calves

4) Name 3 female reproduction hormones.

- GnRH
- FSH
- LH
- Prostaglandin
- Progesterone
- Estrogen

Senior Packet 1, Phase C

- 1) When during the lactation cycle is it most efficient for a high producing cow to regain her body condition?
 - In late lactation
- 2) Which financial statement is used to determine the profitability of a farm business?
 - Income statement
- 3) What is the term for the stimulation of more than the usual number of ovulations during a single estrus cycle due to the injection of certain hormones?
 - Super ovulation
- 4) The only part of the milking system that touches the cow is what?
 - Inflation or teat cup liner
- 5) In dairy cows, as blood estrogen peaks, it triggers the release of GnRH from which gland?
 - Hypothalamus
- 6) Which acid can be added to a TMR that will slow down the heating process along with hindering the growth of yeast and molds?
 - Propionic
- 7) Where does fertilization of the ova take place?
 - Oviduct
- 8) What is a bovine called after weaning and prior to calving?
 - Heifer
- 9) What term describes the milk-mineral deposit on milk handling equipment?
 - Milkstone
- 10) What is the most common drug causing tissue residues in dairy cattle?
 - Penicillin

11) Which organ secretes a digestive enzyme into the small intestine?

- Pancreas

12) The New York State Department of Agriculture and Markets is alerting all NY dairy producers about the increased presence of what bacteria that is resistant to most antibiotics and zoonotic?

- Salmonella Dublin

13) The financial measure of pounds of milk sold per worker is an important tool for evaluating the productivity of cattle and what?

- Workers

14) What is the term for when a male animal whose testes remain in the body cavity and do not descend into the scrotum?

- Cryptorchidism

15) The microbial fermentation in the rumen produces what main source of energy for the dairy cow?

- Volatile Fatty Acids or VFA's

16) What is the financial statement called that shows the financial position of a business at a moment in time?

- A balance sheet

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 2, Phase A

- 1) What term is used to describe the ability of cows to turn feed energy into milk?
 - Feed efficiency

- 2) First lactation cows are different from multiple lactation cows in the way they partition their feed intake. A larger part of a first lactation cow's feed intake goes where as compared to a multiple lactation cow?
 - Growth

- 3) What is the limiting nutrient in manure application under CNMP regulations?
 - Phosphorus

- 4) MFD is characterized by a drastic reduction in the concentration and yield of milk fat while milk yield and other components remain unaltered. What does MFD stand for?
 - Milk Fat Depression

Senior Packet 2, Phase B

1) Name the two restaurants the National Dairy Check-off program has partnered with to boost cheese sales.

- McDonalds and Domino's

2) Name 4 factors that are required to determine nutrient requirements of a lactation cow.

- Body weight
- Age
- Milk production
- Fat test
- Stage of lactation
- Reproductive status
- Body condition
- Environmental temperature
- Breed

3) Name 4 off flavors in milk.

- Bitter
- Rancid
- Sour
- Fruity
- Lacking freshness
- Fermented
- High acid
- Oxidized
- Salty
- Watery

4) Name the two simple sugars found in lactose.

- Glucose
- Galactose

Senior Packet 2, Phase C

- 1) The nitrogen concentration in which part of the alfalfa plant rises during drought conditions?
 - Stem
- 2) What is the more common name for ruminal tympany?
 - Bloat
- 3) What is the name of the environmental, unicellular, colorless, chlorophyll-lacking alga that thrives in moist, humid environments with ample organic matter and when it gains access to the mammary gland it causes a mastitis that resists all treatment therapies?
 - Prototheca
- 4) Corn gluten meal is highest in which amino acid?
 - Methionine
- 5) Two thousand pounds of milk should yield about how many pounds of hard cheese?
 - 200 pounds
- 6) What is the most predominant class of immunoglobulins found in bovine colostrum?
 - IgG
- 7) Which cattle disease is transmitted by biting midges?
 - Bluetongue virus (BTV)
- 8) Under CAFO and CNMP programs, how often do soil samples need to be taken and tested from each field?
 - Every 3 years
- 9) Which hormone does the calf secrete from its adrenal glands to initiate calving?
 - Cortisol
- 10) How often are genomic evaluations for bulls released?
 - Once per month

11) What toxin does wilted cherry tree leaves and frosted sedan grasses have in common?

- Cyanide

12) The deficiency of what mineral can cause white muscle disease in calves?

- Selenium

13) What is the name given for an inflammation of the uterine lining?

- Endometritis

14) What does the term morbidity rate mean?

- The number of sick animals over a given period of time

15) What percent of milk is digestible?

- 96% to 98% (anything in this range)

16) Checking the space between a calf's eyeball and eyelid is one method of checking for what condition?

- Dehydration

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 3, Phase A

- 1) The shortage of what element that is normally found in the soil and plants is linked to the disease grass tetany?
 - Magnesium

- 2) Greenhouse gas emissions from dairies have received a lot of attention in recent years. The greenhouse gases connected to animal agriculture are methane, nitrous oxide and what else?
 - Carbon dioxide

- 3) What is the name of the only smooth muscle cells in the udder that oxytocin interacts with?
 - Myoepithelial Cells

- 4) What term describes the return of the uterus to normal function after calving?
 - Involution

Senior Packet 3, Phase B

- 1) Name two ways in which leptospirosis can be spread to dairy animals.
 - Contact with contaminated food
 - Contact with contaminated water
 - Contact with contaminated soil

- 2) Farming operations with grain facilities have been a concern and on OSHA's watch list for years. What does OSHA stand for?
 - Occupational Safety and Health Administration

- 3) What 2 key economic benefits for the dairy herd are the results of keeping cows cool in periods of heat stress?
 - Improved reproduction
 - Maintaining milk production

- 4) NDF consists of 3 components and ADF consists of 2 components. What are the 3 components in NDF and what are the 2 components in ADF?
 - NDF is hemicellulose, cellulose and lignin
 - ADF is cellulose and lignin

Senior Packet 3, Phase C

- 1) Dairy Cattle are most comfortable when the environmental temperature is within a certain range. What is this temperature range called for dairy cattle?
 - Thermo neutral zone
- 2) The loss of water from the soil surface as well as water used by the plant during transpiration is known as what?
 - Evapotranspiration
- 3) What is the industry recommendation for the IgG level of colostrum to provide adequate antibody transfer?
 - 50 mg/ml
- 4) When a dairy animal is adjusting to a new feed source it can take up to how long for the rumen bacteria to adapt?
 - 2 weeks
- 5) Amylase and sucrose are examples of enzymes that aid in facilitating what process in a cow?
 - Digestion
- 6) What is the name for the mineral component of a feed?
 - Ash
- 7) What is a CIP system typically used for on most farms?
 - To wash milking equipment or the tank
- 8) What term is used to describe the use of flame to remove udder hair?
 - Singeing or flame clipping
- 9) The dietary intake of which element abbreviated P is excreted in manure?
 - Phosphorus
- 10) The Babcock test evaluates levels of which milk component?
 - Fat

11) What part of the milking system creates the alternating vacuum and air?

- Pulsator

12) How many inches deep should a footbath solution be to ensure adequate coverage of the foot area?

- 4 to 6 inches

13) In order to kill bacteria in a batch pasteurizer, you have to have the temperature at 145 F for how long?

- 30 minutes

14) What plant is used to produce snaplage?

- Corn

15) What category of disease-causing organism's does coccidian belong?

- Protozoa

16) Generally speaking, first calf heifers will peak at what percent of the mature cow's peak production?

- 75% to 80%

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 4, Phase A

- 1) Which is larger, a 16 gauge needle or 18 gauge needle?
 - 16 gauge

- 2) When is the best time to feed anionic salts to dairy cows to help prevent milk fever: a) at the beginning of the dry period, b) during the 2 weeks before calving or c) during the 3 weeks after calving?
 - b) During the 2 weeks before calving

- 3) Of the following terms, which refers to scours or diarrhea in calves: a) enteritis, b) acetonemia, or c) brucellosis
 - a) Enteritis

- 4) Of the following, which one is the most common bacterium that causes chronic mastitis: a) Klebsiella, b) Strep Uberis, c) Staph aureus or d) E.coli
 - c) Staph aureus

Senior Packet 4, Phase B

- 1) Name the 4 classes of immunoglobulins in colostrum.
 - IgG
 - IgA
 - IgE
 - IgM

- 2) Write this down. A cow is consuming 120 pounds of actual (as-fed) of a TMR each day. This TMR contains 40% moisture. How many pounds of dry matter is the cow consuming per day?
 - 72 pounds

- 3) Name 3 assets that might be found on a dairy farm?
 - Cows
 - Equipment
 - Real estate
 - Cash and savings account
 - Feed inventory
 - Supplies
 - Buildings
 - Land

- 4) Name 4 key factors that should be considered and are characteristic of good calf housing.
 - Clean
 - Dry
 - Draft free
 - Well-ventilated
 - Away from older animals
 - Feed and water availability
 - Appropriate housing space

Senior Packet 4, Phase C

- 1) What is the maximum percent fat that a milking cow ration should contain?
 - 8%
- 2) What trait is most genetically correlated with productive life in a dairy animal?
 - Daughter pregnancy rate or DPR
- 3) What is the name of the metabolic disorder that is common in cows that are overweight at freshening and they metabolize the fat on their backs and a sweet odor is often notable to their breath?
 - Ketosis
- 4) What is the name of the absorptive tissue that lines the small intestine?
 - Villi
- 5) What is the name for the time period in which the reproductive status of the cow is pregnant?
 - Gestation
- 6) How many carbons are in CLA or Conjugated Linoleic acid?
 - 18 carbons
- 7) What is the term for an animal's ability to transmit its characteristics to its offspring with a high degree of success?
 - Prepotent
- 8) What percent crude protein is typically found in corn silage?
 - 8 to 10 %
- 9) What is the most common type of cell found in connective tissue?
 - Fibroblasts
- 10) Name the dairy cooperative that produced the greatest member milk volume?
 - DFA or Dairy Farmers of America

11) With the new technology of robotic milking centers how many cows are estimated for one robot unit?

- 60 to 70 cows

12) How many inches of stubble should remain in the field after forage is cut?

- 3 to 4 inches

13) What does the label non-lactating dairy cattle on a drug mean in regards to herd health management?

- It is for use on cows that have never previously produced milk for human consumption

14) The current US Secretary of Agriculture is who?

- Tom Vilsack

15) How many days does mammary involution take?

- 20-30 days

16) Mycobacterium avium subspecies paratuberculosis(MAP) is the causative agent of what common dairy cattle ailment?

- Johne's

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 5, Phase A

- 1) What is the predominant acid in anaerobically fermented corn silage?
 - Lactic acid (accept lactate)

- 2) peNDF is an important nutritional term for rumen health. What does peNDF stand for?
 - Physically effective neutral detergent fiber

- 3) A cow has produced 5 bull calves in the past 5 years and she is about to deliver her sixth calf. What is the probability that this will also be a bull calf?
 - 50%

- 4) What is the common term for what can develop in the rumen of a dairy cow when we feed her too much grain and not enough effective fiber?
 - Acidosis

Senior Packet 5, Phase B

- 1) If a herd's conception rate is 50%, what percentage of the cows should be pregnant after two services?
 - 75%

- 2) Name 4 causes of hyperkeratosis in dairy cows.
 - Long duration milking times
 - Inclement weather
 - Long pointed teats
 - Increased age of cows
 - High production
 - Chemical irritation

- 3) Name 2 end-products of manure that is digested in an anaerobic digester.
 - Biogas
 - Bedding from the solids
 - Liquid fertilizer
 - Solids can be used in soil mixes

- 4) Name the two major methods of pasteurization and the time and temperature of both.
 - High temperature-short time at 161 * F for 15 seconds
 - Batch (holding) at 145* F for 30 minutes

Senior Packet 5, Phase C

- 1) In the area of genomics, what is a SNP (pronounce snip)?
 - A genetic variation in DNA
- 2) In regards to energy metabolism in an early lactation dairy cow, what is the term for when she is losing body weight?
 - Negative energy balance
- 3) Farms need to establish SOP's for all areas of its operation and for the employees. What do the letters SOP stand for?
 - Standard Operating Procedures
- 4) When is the most efficient and cost effective time to treat mastitis if possible?
 - At dry-off time
- 5) How many days are there typically in a dairy cow's voluntary waiting period?
 - 60 days
- 6) An electrical current greater than one-half volt resulting from improper grounding that can shocks cows is known as what?
 - Stray voltage
- 7) In addition to carbon dioxide, what other main gas is formed in the rumen?
 - Methane
- 8) What temperature should wash water be during the detergent wash cycle of the milking pipeline?
 - 145 to 165 degree F
- 9) Which nutrient run-off causes algae growth in surface water?
 - Phosphorus
- 10) What is the layman's term for high density, short duration grazing?
 - Mob-grazing

11) What condition is described by the thickened or jagged ring of keratin around the teat end?

- Hyperkeratosis

12) What milk spoiling bacteria was recently identified by researchers at Cornell University?

- Paenibacillus

13) Above what somatic cell count is a cow considered to have some sort of mastitis infection?

- 200,000 cells/ml

14) What is the medical term for a difficult calving?

- Dystocia

15) What does the animal health acronym BRSV stand for?

- Bovine Respiratory Syncytial Virus

16) High levels of potassium in dry cow diets can cause what metabolic disorder in cows following calving?

- Milk fever

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 6, Phase A

1) What is the only part of the female reproductive tract you will see from the outside of the dairy cow?

- Vulva

2) What is the name of the high energy, low protein feed that is a good source of calcium and a by-product of cheese making?

- Whey

3) What is the name of the technology or procedure used by a veterinarian to determine if a cow is pregnant and can be done at 25 days into gestation?

- Ultrasound

4) What is most commonly spread on fields to help achieve the proper pH?

- Lime

Senior Packet 6, Phase B

1) Name the 4 minerals that are found in a DCAD (Dietary Cation-anion difference) ration.

- Sodium (NA)
- Potassium (K)
- Chloride (CL)
- Sulfur (S)

2) What are the 2 largest expenses on most dairy farms?

- Feed
- Labor

3) Name 3 of the 5 phases of silage fermentation.

- Aerobic phase, Anaerobic phase, lactic acid phase, Stable phase, feed out phase

4) What are 3 symptoms of Acute mastitis?

- High fever
- Thin watery milk
- Hot quarter
- Swollen quarter

Senior Packet 6, Phase C

1) What happens to the phosphorous that a cow consumes that is above the NRC requirements for her?

- It is excreted in manure (HD, Feb 2013)

2) Once every how many years is it recommended that all crop fields be sampled for soil pH and fertility?

- 3 to 4 years (HD, March 2013)

3) How is net worth or equity calculated?

- Total assets minus total liabilities

4) Where is the place or time to apply bacteria inoculants to silage?

- At the chopper during chopping

5) One of the different forms of milk that is being fed to calves is called acidified milk. Why is the milk acidified?

- To slow down/ stop bacterial growth and kill disease pathogens

6) When cows calve, their dry matter intakes lag behind their energy needs and puts them in what kind of metabolic balance?

- Negative energy balance

7) What vitamin plays a role in coagulation of blood?

- Vitamin K

8) On the PDCA Scorecard, what is the amount of points given for dairy strength?

- 25 points

9) What is the name of the substance that can reduce changes in pH?

- Buffer

10) What is the ideal rumen pH?

- 6.2 to 6.8

11) During the summer months farms need to have enough fan capacity to achieve air speed of how many miles per hour to cool the cows?

- 10 to 12 mph

12) What component causes the yellow color in milk from certain breeds of dairy cattle?

- Beta Carotene

13) Nearly 93% of the milk in the U.S is below what somatic cell count which is necessary for international trading markets?

- 400,000 somatic cell count

14) What is the first organ to receive blood from the small intestines?

- The liver

15) In 2012, what country was number one in exporting milk and milk products?

- New Zealand

16) What does NADC stand for?

- National Animal Disease Center

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 7, Phase A

1) What is the name for a crop that is planted to shield the soil from erosion, add organic matter, and captures nutrients otherwise would be lost to runoff?

- Cover crop

2) The number of times per minute that the pulsator opens and closes is known as what?

- Pulsation rate

3) Adequate amounts of what is necessary in a cow's diet for maintaining rumination, buffering the rumen contents, and efficiently digesting forages and grain components in the diet?

- Effective Fiber

4) At calving time, a cow's labor is divided into how many stages?

- 3 stages

Senior Packet 7, Phase B

1) Name the two major environmental factors that impact the amount of heat stress a dairy cow undergoes.

- Temperature
- Humidity

2) Name 3 signs of Mycoplasma bovis infection.

- Inner ear infection
- Discharge from eyes and nose
- Increase respiration
- Fever
- Arthritis
- Mastitis
- Frequent hacking cough

3) Name 3 recommended protein sources for milk replacer.

- Casein, dried skim milk, dried whey, dried whey product, dried whey protein concentrate, modified wheat protein, protein modified soy flour, soy protein concentrate, soy protein isolate

4) Name 4 commonly used methods for identifying calves.

- Tattoo
- Ear tag
- Freeze branding
- Photo
- Sketch

Senior Packet 7, Phase C

- 1) Where can a cow get calcium from besides in her feed?
 - Her bones
- 2) What group of people believe that animals are not ours to own, enjoy or use in any way?
 - Animal Rights Activists
- 3) How many weeks are fungicides effective for?
 - 2 to 3 weeks (DHM, May 2012)
- 4) The process by which materials are added to enhance the size or weight of a seed is known as what?
 - Pelleting
- 5) Which type trait has the highest heritability in a dairy cow breeding program?
 - Stature
- 6) What does polled mean?
 - Naturally born without horns
- 7) What is the component in forages is not digestible by the dairy cow?
 - Lignin
- 8) Name the most common grain fed to dairy cows in the United States.
 - Corn
- 9) Glucose and galactose combine to form what disaccharide?
 - lactose
- 10) What is used as the reference point to determine the height of the udder floor?
 - The hock
- 11) In which stomach compartment are you most likely to find an ulcer?
 - Abomasum

12) Which organ secretes prostaglandin?

- Uterus

13) What is the name of the bacteria that causes circling disease in cattle?

- Listeria

14) In genetics, what is known as the units of inheritance?

- Genes

15) Lactase is the enzyme required to digest what?

- Lactose

16) What is the name for the recent advancement in corn silage processing that shreds the corn plant longitudinally while also shattering the corn kernel?

- Shredlage

2014 District Senior Dairy Quiz Bowl Contest

Senior Packet 8, Phase A

1) Somatic cell counts are not associated with udder and leg hygiene: True or False

- False

2) Limestone is an excellent source of calcium: True or False

- True

3) A cation is a negatively charged ion or particle: True or False

- False

4) The Delvo test and the Penzyme test are used to detect somatic cell counts in milk: True or False

- False

Senior Packet 8, Phase B

1) Name the two most leading causes of death in young calves.

- Scours
- Pneumonia

2) Name 4 items commonly seen on a forage analysis report.

- Dry Matter
- Crude protein
- Soluble protein
- Total digestible nutrients
- Net energy lactation
- ADF
- NDF
- Ash

3) Name two contagious mastitis causing pathogens.

- Staph Aureus (staphylococcus Aureus)
- Strep Ag (Streptococcus agalactiae)
- Mycoplasma species

4) Name 2 out of the 3 countries that imported the most dairy heifers from the U.S. in 2013.

- Russia
- Turkey
- Mexico

Senior Packet 8, Phase C

- 1) Why would positive pressure tubes be used in cow and calf barns?
 - Ventilation or air flow
- 2) Which nutrient are amino acids the building block of?
 - Protein
- 3) The villi line what section of the intestinal track?
 - Small intestine
- 4) What family of water soluble vitamins do choline, folic acid, and riboflavin belong to?
 - B Vitamins
- 5) What is the general name for any dairy product that has bacteria added as part of its process?
 - Cultured
- 6) How many cells are there in an embryo after 4 cell divisions?
 - 16
- 7) When is the most costly period in raising heifers?
 - Pre-weaning or when they are on milk
- 8) What gives milk its white color?
 - Casein
- 9) What class does drinkable yogurt fall into?
 - Class I
- 10) What is the recommended maximum time a cow should be standing in the holding area before being milked?
 - 1 hour
- 11) The muscular lining of the uterus is called what?
 - Myometrium

12) In crop management, what does the acronym TLC stand for?

- Theoretical length of cut

13) Give the name of the gland that produces prostaglandin for the cow.

- Uterus

14) In a male animal where is mature sperm stored?

- Epididymis

15) What is the name of the geneticist who used pea plants to study inheritance?

- Gregor Mendel

16) What is the recommended temperature to thaw semen?

- 95 to 98 degrees F

2014 NY State Dairy Bowl Extra Questions

- 1) How is net farm income calculated?
 - Revenue or income- expenses
- 2) What acid is produced by the abomasum?
 - Hydrochloric Acid
- 3) What does the term mortality rate mean?
 - The number of animals that have died over a period of time
- 4) Domino's pizza has come up with a new strategy in recent years to increase sales of their pizzas. As it relates to cheese, what did they do?
 - Put more cheese on their pizzas
- 5) What metabolic disorder can be treated with propylene glycol?
 - Ketosis
- 6) In the life cycle of a fly, how many days does it take for a fly to grow from an egg to an adult?
 - 10 days
- 7) What volatile fatty acid produced by the rumen is used by the liver in the dairy cow to make glucose?
 - Propionate
- 8) What muscle keeps the teat end closed and helps prevent organisms from entering the udder?
 - Sphincter muscle
- 9) If we have good weather and rainfall conditions for forage growth, what is the other factor that has the most effect on the quality of the forage?
 - Stage of maturity at harvest
- 10) In humans, what is caused by a lack of the enzyme lactase in the small intestine?
 - Lactose intolerance
- 11) After peak milk production is attained, the cow's milk production starts to decline. What is the rate of decline or the steepness of the slope of the milk production curve called?

- Persistency

12) What component of milk is estimated by the milk cryoscope test?

- Water

13) What is the name of the first section of the small intestine that is connected to the abomasum?

- Duodenum

14) What is the term for the total amount of energy that a feed contains?

- Gross energy

15) What is the name for the process in which legume plants like alfalfa and clover convert atmospheric nitrogen into nitrogenous compounds that are useful to the plants?

- Nitrogen fixation

16) After puberty, heifers are less feed efficient leading to gaining a greater percentage of what compared to lean tissue?

- Fat

17) When packing a silage bunk it is critical to reduce its exposure to which element found in air?

- Oxygen

18) During a National F.A.R.M. (Farmers Assuring Responsible Management) evaluation it is recommended that 90% of the cows score between a 2.0 and 4.0 in which category?

- Body condition score

19) Which acid is produced by the fermentation of starch in the rumen by rumen bacteria?

- Butyric acid

20) Which state tends to purchase the most feed among the top 6 dairy states?

- Idaho

21) Which state won the 2012 North American 4-H Dairy Quiz Bowl contest held in Louisville, KY?

- New York

22) What are the button like structures on the placenta called?

- Cotyledons

23) When artificially inseminating a cow, what part of the reproductive tract is the target for depositing semen?

- Uterine body

25) What is the area in a nutrient management plan called that allows for the slowdown of runoff and filtration of water in runoff?

- A Buffer strip

26) How long can frozen colostrum be safely stored?

- 1 year

27) In the reproductive field of dairy animals, what does the acronym SCR stand for?

- Sire Conception Rate

28) What is added to fat free milk to whiten the milk?

- Titanium dioxide

29) When a cow re-swallows her cud, where does it go?

- To the rumen

30) What hormone is found in a CIDR vaginal insert?

- Progesterone

31) What can be used to accelerate the ensiling process?

- Inoculants

32) What is the technical name for the excess fluid accumulation in the udder?

- Edema

33) What is the recommended time a TMR should be mixed for after the last ingredient is added to get a consistent mix?

- 2 to 3 minutes

34) Research has shown that cows are affected by THI as low as 68 degrees F. What does THI stand for?

- Temperature Humidity Index

35) Based on new research, what vitamin has been found to delay and lessen the severity of mastitis infections?

- Vitamin D

36) What is the name for the part of the estrous cycle that follows estrus when ovulation occurs?

- Metestrus

37) What is the best use for the liquid portion of digested manure?

- Fertilizer

38) What is the name of the financial tool that is used by producers that compares your dairy's performance to other similar dairies?

- Benchmarking

39) What is the behavior being described when a cow manipulates her TMR ration preferring small grain particles and discriminating against longer forage components?

- Sorting

40) On dairy farms, problem breeder cows are often coded in their records as a DNB after a certain number of services without getting pregnant. What does DNB stand for?

- Do Not Breed

Team:

1) Name two viruses that can cause respiratory problems or pneumonia in calves.

- IBR (infectious bovine rhinotracheitis)
- PI3 (Para influenza -3)
- BVD(Bovine viral diarrhea)
- BRSV (Bovine Respiratory Syncytial virus)

2) There are certain factors that influence how dairy producers determine their voluntary waiting period on their farm for rebreeding cows. Name 3 possible factors that could affect or influence the voluntary waiting period.

- Postpartum uterine involution
- Postpartum uterine health
- First service pregnancy rate
- Cow health
- Milk yield/production level
- Lactation number

3) Name 3 milk quality tests performed on a tank of milk.

- Antibiotic test
- Flavor
- Freezing point (cryoscope test)
- Leukocyte count (SCC)
- PI count
- Sediment test
- Standard plate count

4) Calculate your heifer's average daily body weight gain (ADG) if she weighs 100 pounds at birth and 500 pounds at 200 days.

- 2.0 pounds ADG