

2011 NYS District Senior 4-H Dairy Quiz Bowl Contest

Senior Packet 1, Phase A

- 1) In a higher producing, early lactation dairy cow, what happens to her body weight when she enters a negative energy balance phase?

It decreases

- 2) What class of drugs is used when treating udder edema?

Diuretics

- 3) What is passive transfer failure?

Failure to absorb enough antibodies despite being fed adequate levels of IgG at birth.

- 4) What is the limiting nutrient in manure applications under CNMP regulations?

Phosphorus

Senior Packet 1, Phase B

1) Amino acids are the building blocks of true protein. Name the two sources of amino acids for the dairy cow.

Rumen undegradable protein
Rumen microbes

2) Name the four phases of a standard milking equipment cleaning protocol.

Pre-rinse
Chlorinated alkaline cleaning
Acid rinse
Sanitization
(Not Backflush)

3) Name four disadvantages of twinning in dairy cattle.

Reduced milk production during the lactation
Calving difficulties are more frequent
Abortion rates are higher
Twins are often weak at birth
Potential for a freemartin heifer
Increased health problems for the cow

4) Name three diseases that can cause abortions in dairy cattle.

Brucellosis
Vibriosis (Campylobacteriosis)
Chlamydia
IBR
Leptospirosis
Listeriosis
Neospora
Trichomoniasis
Johnes
TB
BVD

Senior Packet 1, Phase C

- 1) If a cow does not clean within 12 hours after calving, what is the name of the condition that occurs?

Retained Placenta

- 2) What does the financial statement Assets minus Liabilities yield?

Net worth

- 3) Which reproductive disease is characterized by huge follicular growth without ovulation?

Cystic Ovarian Disease

- 4) Tarsal hygroma affects bovine locomotion. It also known by what common name?

Swollen Hocks

- 5) Which chromosome, in Holsteins, has been found to be linked to calving difficulties?

Chromosome 18

- 6) What is an ambue bag used for?

To aid newborn calf respiration at birth

- 7) What vitamin can be added to feed to help prevent ketosis?

Niacin

- 8) When calculating somatic cell counts in milk, what type of cells are being counted?

White blood cells

- 9) Who is the president and CEO of the National Milk Producers Federation?

Jerry Kozak

- 10) Grass or alfalfa silages that are ensiled with too much moisture result in the formation of an undesirable organic acid that has a strong odor. What is the name of this acid?

Butyric acid

11) What is the minimum number of mature dairy cows, milking or dry, that qualify a dairy farm as a Medium Concentrated Animal Feeding Operation (medium CAFO)?

200 Cows

12) What part of the cell is known as the powerhouse of the cell because of the amount of energy produced in this part?

Mitochondria

13) In the reproductive tract of a dairy cow, how many uterine horns are there?

Two

14) The broad ligament holds the ovaries and what other structure in their proper position?

Uterus

15) A cup of whole milk contains how many calories?

150

16) What milk component content is determined using the milk cryoscope test?

Water

2011 NYS District Senior 4-H Dairy Quiz Bowl Contest

Senior Packet 2, Phase A

1) Ten percent of pregnancies diagnosed at 30 days since conception will be lost before a full term delivery. If the fetus dies and is expelled after 42d since conception it is called an abortion. What do we call it when it's lost before 42 days?

Embryonic death

2) When talking about dairy cows after calving, what does it mean if a cow is in positive energy balance?

When the amount of energy taken into the body is greater than the amount required by the body.

3) Has the Carbon Footprint per cow Increased, Decreased, or Remained the same since the 1940's?

Decreased

4) What type of mastitis exhibits no detectible change in the udder itself and no observable abnormality of the milk?

Subclinical

Senior Packet 2, Phase B

1) In the dairy industry, name four animal welfare issues being faced by dairy producers.

- Tail docking
- Dehorning practices
- Confinement housing
- Lameness
- Down cow handling
- Vaccinations
- Hormones use
- Injections
- Calf hutches
- Separating newborn calf from its mother

2) Name four calf hood vaccinations that should be considered in a calf and heifer management.

- IBR, BVD, Brucellosis, Clostridia, Malignant edema, Scours, Blackleg, Leptospirosis, PI3, Rabies

3) Name the four categories and the points for those categories on the new 2009 PDCA Dairy Cow Unified Scorecard.

- Frame-15 points
- Dairy Strength-25 points
- Rear feet and legs-20 points
- Udder-40 points

4) Name four methods or field management practices farmers would use to reduce soil erosion.

- Wind breaks
- Cover Crop
- Strip cropping
- Contour cropping
- Terracing
- Grass waterways
- Reduced tillage
- Soil seeding
- No tillage
- Crop rotation

Senior Packet 2, Phase C

1) What is the name for the long-term storage of carbon in soil or plant biomass?

Carbon Sequestration

2) What state team won the 4-H National Dairy Quiz Bowl Competition in 2009?

New York

3) Is the relationship between a cow and the microbial bacteria in her rumen described as a parasitic or symbiotic relationship?

Symbiotic

4) What is the minimum percent fat the butter must contain?

80%

5) What feed ingredient may improve conception rates as it may contribute to larger ovarian follicles capable of producing more estrogen, a large corpus luteum and less embryonic death?

Fats

6) How many classes are featured each year in the Hoard's Dairyman Dairy Judging Contest?

Five

7) Who is considered to be the father of modern genetics?

Gregor Mendel

8) What type of fly is associated with grubs or warbles in cattle?

Heel fly

9) How much does a bushel of soybeans weigh?

60 pounds

10) What is the name of the instrument used to puncture the rumen in cases of bloat?

Trocar

11) What hormone would you give a cow if you wanted to cause the corpus luteum to regress?

Prostaglandin

12) What might your cows diet be lacking if your herd recently experienced a drop in butterfat?

Effective fiber

13) The Pasteurized Milk Ordinance is the name of the document that established standards for what?

Grade A milk

14) What does PFM stand for in the context of feeds and feeding?

Precision Feed Management

15) What is the name given to digestible energy minus the energy lost in urine and gas?

Metabolizable energy

16) Based on surveys, what is the most common reason why farm owners adopted grazing?

Reduced cost

**2011 NYS District Senior 4-H
Dairy Quiz Bowl Contest**

Senior Packet 3, Phase A

1) What type of calf housing is housing in which environmental temperature varies with the outside temperature?

Cold calf housing, Hutches

2) To prevent spoilage on a trench silo, what is the minimum amount of silage that should be removed each day?

6 inches

3) Autotoxicity describes the process in which an established plant produces chemicals that escape into the soil and reduce the establishment and growth of new plants. What is the name of this plant?

Alfalfa

4) What is the term used to describe the movement of nitrate through soils to groundwater?

Leaching

Senior Packet 3, Phase B

1) Name four advantages to dairy producers who have been raising their own replacements, who now go to using a custom heifer grower for raising their replacements.

- Decrease labor requirement
- Increased milking herd management
- Increased facility capacity for milking cows
- Herd expansion without capital investment in use of existing facilities
- Increase feed inventory for milking cows
- Potential for better replacement heifers
- Decrease Carbon Footprint

2) Name four signs of illness in calves

- Poor appetite
- Cough
- Watery manure
- Nasal discharge
- Drooping ears
- Dull eyes
- Lack of energy
- Elevated temperature
- Rough hair coat

3) Name three uses that a farmer or dairy nutritionist would use a forage particle separator for.

- Evaluate whether there is enough fiber in the ration
- Check for over mixing and particle size reduction
- Check ration uniformity
- Determine optimum mixing order of ingredients
- Evaluate if particle size changes with hay quality
- Check for sorting
- Develop baseline particle size information for comparison

4) The MILC program financially compensates dairy producers when domestic milk prices fall below a specified level. What does the acronym MILC stand for and what organization administers the program?

- Milk Income Loss Contract
- Administered by Farm Service Agency (FSA)

Senior Packet 3, Phase C

1) What is Roquefort cheese made from?

Sheep Milk

2) What is the name of the enzyme that breaks down cellulose?

Cellulase

3) A change in the normal state of the body or one or more of its organs which disturbs the proper performance of the body function is called what?

A disease, disruption in homeostasis

4) An animal that is infected with a disease but has no clinical symptoms is called a what of the disease?

Carrier

5) In the dairy cow, where are the B-complex and K vitamins produced?

Rumen

6) What is the condition called when a loop of the intestine protrudes from the navel?

Umbilical hernia

7) The highest concentration of nitrates is found where in the plant of drought stressed Corn?

Blackleg

8) How many pounds per day is the recommended daily gain for heifers from 2 months to puberty?

1.75 lbs to 2.0 lbs

9) Genex CRI is a well known bull stud service. What do the initials CRI stand for?

Cooperative Resources International

10) Name the potentially deadly manure gas characterized by a rotten egg smell?

Hydrogen sulfide

11) What is the major symptom of winter dysentery?

Diarrhea

12) Legislation requires that homebuyers who move within one mile of farms be informed that agriculture can be noisy, smelly, and dusty and that farmers have what right?

Right to Farm

13) How many inches of lung space does a large cow require to rise with reasonable comfort?

30 to 40 inches

14) What term describes a quarter of the udder that permanently does not secrete milk?

Blind quarter

15) What marketing tool would be used by someone who owns a commodity such as milk and will sell it sometime in the future if you are trading in the futures market?

Short hedge, hedging

16) What term describes when semen is thawed and then subjected to cool temperatures before reaching the cow?

Cold shock

**2011 NYS District Senior 4-H
Dairy Quiz Bowl Contest**

Senior Packet 4, Phase A

1) What are the main products of carbohydrate digestion by the rumen microorganisms?

Volatile fatty acids

2) Peak milk production usually occurs how many weeks before peak feed intake?

2 to 3 weeks

3) What is the name of the pituitary hormone that is critical in the initiation and maintenance of lactation?

Prolactin

4) What is it called when the blood flow to the teat slows in an effort to protect the teat in cold weather and the teat forms a callous?

Hyperkeratosis

Senior Packet 4, Phase B

1) What is the key characteristic of a third-party animal welfare audit?

It is conducted by an auditing company with no vested interest in the farming operation, yet has knowledge of dairy farming and is based on a set of defensible standards (Hoards, Jan 10, pg. 11)

2) In dairy production management and looking at health records, we would look at mortality rate and morbidity rate. Define mortality rate and morbidity rate.

Mortality rate is the number of dead animals in a given period of time

Morbidity rate is the number of sick animals in a given period of time

3) Some dairy farms are using cloth towels instead of paper towels for prepping teats for milking. When using cloth towels in udder preparation name 3 guidelines that should be followed.

Use a separate towel for each cow

Wash towels in warm water

Do not let damp towels sit between uses because of yeast or mold contamination

Dry towels immediately after washing or add bleach when washing

Size and absorbency of towel

Replace towels when material is worn out

4) Name three tests that milk plants use to determine the quality of raw milk.

Acid degree value

Antibiotic test

Flavor

Freezing point (Cryoscope)

Leukocyte or somatic cell count

Preliminary incubation (PI) count

Sediment test

Standard plate count

Senior Packet 4, Phase C

1) NAAB uses the percent DBH to report calving ease information. What do the initials DBH stand for?

Difficult Births in Heifers

2) The ELISA test that is used to identify cattle with Johne's disease tests bacteria levels in what?

Fecal or manure

3) When referring to milking procedures, the system for sanitizing teat cup liners between milking's using water and sanitizer is called what?

Backflushing

4) What is the more common name for ruminal tympany?

Bloat

5) On the average each pound of additional dry matter intake will yield how many pounds of additional milk?

2.5 pounds

6) A financial statement that shows a business' assets, liabilities and its net worth at a specific point in time is called what?

Balance sheet

7) What is the name of the new social media program created through dairy producers checkoff dollars that allow producers to tell their story firsthand through the power of the web?

MyDairy

8) Fear or pain will cause what hormone to enter a cow's blood stream?

Adrenaline

9) Why is manure run-off or leaching a problem in fields where the manure is applied in the fall?

No growing crop to uptake manure nutrients

10) What do we call the most probable price an asset should bring during a sale occurring under normal market conditions?

Fair market price

11) Too much rapidly available sugar and starch can result in what disease?

Acidosis

12) The purebred Dairy Cattle Association unveiled a new scorecard in 2009. Which 2 categories on the previous scorecard became one?

Body Capacity and Dairy Character

13) Which compartment of the ruminant stomach functions to trap foreign objects such as wire or nails that may be eaten?

Reticulum

14) What percentage of their mature weight should first calf heifers weigh?

85%

15) What feed value are you determining by multiplying the nitrogen content of a feed by 6.25?

Crude protein

16) What hormone is secreted by the corpus luteum?

Progesterone

2011 NYS District Senior 4-H Dairy Quiz Bowl Contest

Senior Packet 5, Phase A

1) What is the product of removing cells from an embryo and growing them into an identical animal?

Cloning

2) What is the period of increased growth rate that follows a growth restriction imposed early in a heifer's life called?

Compensatory growth

3) What is the measure of how well cows turn feed into milk?

Feed efficiency

4) A plan for the land application of manure and fertilizer to meet crop needs is called what?

Nutrient Management Plan

Senior Packet 5, Phase B

1) In area of farm business management name three of the four necessary economic inputs for a dairy operation.

Land
Labor
Capital
Management

2) Name 4 breeds of dairy cattle and give their country of origin.

Ayrshire-Scotland
Brown Swiss-Switzerland
Guernsey-Isle of Guernsey
Holstein-Holland or the Netherlands
Jersey-Isle of Jersey
Milking Shorthorn-England

3) Inbreeding can decrease mature equivalent milk production by 60 to 80 pounds per lactation for each percent increase in inbreeding. Give three consequences of inbreeding.

Decreased general vigor
Decreased production
Decreased reproductive performance
Increased calf mortality
Increasing similarity between animals
Mature size is smaller
More recessive genes exposed
Slower growth rate

4) Name the two most important management practices done on the farm that can reduce foot problems for dairy animals.

Foot baths
Foot trimming

Senior Packet 5, Phase C

1) What do we call a financial statement that show's a business' income and expenses for a specific time period?

Income statement

2) What type of gas do anaerobic digesters burn?

Methane

3) The acid detergent fiber content of a high producing cow's ration should be what percentage?

18-21%

4) What condition are we referring to in a cow's udder anatomy if the teats point out too much?

Strutting

5) What is the 18-carbon fatty acid present in milk, particularly from cows grazing on pastures, and has been found to have anticarcinogenic effects?

CLA or Conjugated linoleic acid

6) What is the process called that destroys any disease-producing bacteria that might be present in raw milk?

Pasteurization

7) In milk processing, what is the process called that assures that milk and dairy products will be uniform in protein and fat content?

Standardization

8) Pinpointing areas in your business which are doing well and those areas where improvements are needed is also known as what farm business management term?

Benchmarking

9) What is the name for the producer-led effort to build consumer trust and confidence in the dairy industry's commitment to animal well-being?

National Dairy Animal Well-Being Initiative

10) The period of pregnancy which begins at fertilization and ends with birth is called what?

Gestation

11) What is the name of the hormone that the calf triggers in response to stress to initiate parturition?

Cortisol

12) Name the disease in dairy cattle that is caused by mycobacterium paratuberculosis.

Johne disease

13) When corn grain is made into ethanol, what is the name for the by-product produced?

Distiller's grains

14) What are Fumonisin and Zearalenone an example of?

Mycotoxins

15) For most dairy farms, what is the largest operating expense?

Feed

16) On a dairy farm, what is the CMT test used for?

To detect mastitis

2011 NYS District Senior 4-H Dairy Quiz Bowl Contest

Senior Packet 6, Phase A

- 1) What type of crop shields the soil to reduce erosion, adds organic matter, and capture nutrients otherwise lost by runoff? Annual, cover crop, perennials winter shield?

Cover crop

- 2) The protozoal organism *Cryptosporidium parvum* causes an illness known to many as Crypto. Crypto is a common cause of what ailment in calves?

Diarrhea or scours

- 3) What stage of maturity do most farmers try to harvest first-cut alfalfa?

Late-bud stage

- 4) NDF represents the bulk of the fiber in forages. What does NDF stand for?

Neutral detergent fiber

Senior Packet 6, Phase B

1) Name two types of cows that are at a greater risk of having milk fever?

Jerseys, fat cows, old cows

2) A new animal care program was unveiled in 2010 and is called National Dairy FARM Program. What do the letters FARM stand for?

Farmer Assuring Responsible Management

3) What are the three critical factors in colostrum management?

Quantity, Quality and Timing

4) Name the two structural carbohydrates that a cow can use as a source of energy.

Cellulose and Hemicellulose

Senior Packet 6, Phase C

- 1) What hormone suppresses other hormones during the estrus cycle and promotes pregnancy?

Progesterone

- 2) What term describes a hemoparasitic or blood-borne disease?

Anaplasmosis

- 3) The price for milk of average composition and is a weighted average for the market is called what?

Mailbox milk price

- 4) An animal that is infected with a disease, but has no clinical symptoms is called a what of the disease?

Carrier

- 5) What famous dairy painting was given a face-lift in 2010?

Foster Mothers of the Human Race

- 6) At the 2010 Annual National Milk Producers Federation meeting the group voted to support a gradual reduction in SCC from 750,000 cells to what level of cells?

400,000 Cells

- 7) Over 68% of U.S dairy operations are infected with Mycobacterium avium paratuberculosis, the organism that causes what disease?

Johne's disease (USDA Newsletter winter 2011)

- 8) There are how many million cows in the U.S for 2010?

9.1 million

- 9) The importation of cattle from Europe was stopped in 1905 by what disease?

Hoof and Mouth Disease

- 10) In an embryo transfer program in cattle, what hormone is injected to cause superovulation?

Follicle Stimulating Hormone (FSH)

11) The American Dairy Science Association publishes a scientific publication that is called the what?

Journal of Dairy Science

12) What is the more technical term used for heavy bleeding?

Hemorrhaging

13) The measure of how well cows turn feed into milk is known as what?

Feed Efficiency

14) What ice cream chain has launched a new line of ice cream treats called Bright Choices?

Baskin-Robbins

15) What is the name of the foundation for all pricing under federal orders?

Basic Formula Price

16) The sex of a calf is determined by which parent?

Father, male or sperm

**2011 NYS District Senior 4-H
Dairy Quiz Bowl Contest**

Senior Packet 7, Phase A

1) Which of the following minerals is a cation that contributes to the dietary cation-anion difference: iodine, calcium, chlorine, or potassium?

Potassium

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

Insulin

3) Which of the following best describes casein: the primary fat found in milk, the primary protein found in milk, or the primary carbohydrate found in milk?

The primary protein found in milk

4) What type of feed additives are sodium bicarbonate and magnesium oxide?

Buffers

Senior Packet 7, Phase B

1) Name three items that are important in tractor safety.

- Lighting
- Slow moving vehicle sign
- PTO shield
- Roll over protection
- Seat belt
- Tires

2) Name three tools a dairy producer can use to diagnose mastitis.

- CMT plate
- Culturing
- Electrical conductivity
- Minnesota Easy culture system
- Strip cup
- Minimum inhibitory concentration
- SCC

3) Losses from metritis can be both economical and biological. Name 4 losses a farm incurs for each case of metritis.

- Decline in fertility
- Increased days open
- Loss of milk production
- Increased labor costs
- Increased drug costs
- Increased culling rate

4) List 5 items that a judge looks for when judging a fitting and showing contest.

- Animal's condition
- Cleanliness of animal and exhibitor
- Clipping
- Grooming
- Appearance of exhibitor
- Leading the animal
- Posing the animal
- Showing or presenting the animal to best advantage
- Poise
- Alertness
- Attitude of exhibitor

Senior Packet 7, Phase C

- 1) The immunity a calf gets from its mother through colostrum is classified as what type of immunity?

Passive immunity

- 2) What color is nitric acid?

Colorless

- 3) In farm business management and economics, heifers account for what percentage of the total farm expenses on many dairy operations?

15% to 20%

- 4) Manure digesters can convert which gas into electricity?

Methane

- 5) What is the term for the excess of income less expenses when income is greater than expenses?

Profit

- 6) What is the name given to mineral elements that have a positive charge?

Cation

- 7) What is the zona pellucida?

Gelatin-like capsule surrounding the ovum or egg

- 8) What is the term used to describe a substance that has high pH values?

Alkaline or Basic

- 9) The area of transition between the skin and the hoof of the cow is called what?

Coronary Band

- 10) What is the name of the bacteria that causes "circling disease" in cattle?

Listeria

11) Which professional sports league is partnering with the dairy check off to promote child nutrition and fitness?

NFL-National Football League

12) What does morbidity rate indicate?

Number of sick animals over a period of time

13) What is the primary digestive activity of the large intestine?

Absorption of water

14) Where would you find toxins, if a calf was suffering from septicemia?

Blood

15) What is the financial term used for money spent or resource depleted for the production of business sales products?

Expense

16) A diet rich in milk actually can help shield against what common human stomach problem?

Ulcers

2011 NYS District Senior 4-H Dairy Quiz Bowl Contest

Senior Packet 8, Phase A

- 1) What is the term used to define the loss of feed from the point of harvest or delivery to what is actually consumed by the cows?

Feed shrink

- 2) True or False: The goal of genomic testing is to predict which cows will perform the best.

False-The goal is to predict which animals will transmit best set of genes to next generation

- 3) What is the purpose of using tube coolers and plate coolers on a dairy farm?

Cool the milk prior to entering the bulk tank

- 4) Propionate, butyrate, and acetate are volatile fatty acids. What volatile fatty acid is used by the liver to make glucose?

Propionate

Senior Packet 8, Phase B

- 1) Name the two organizations that are involved in the Unified National Strategy for Animal Feeding Operations.

USDA
FDA

- 2) Name the two gases that are released into the air when a cow belches.

Carbon Dioxide
Methane

- 3) Name two of the three major supports to the cow's udder.

Median suspensory ligament
Lateral suspensory ligament
Skin

- 4) Name 3 factors that influence the amount of water consumed by dairy cattle.

Body size
Environmental temperature
Water temperature
Water quality
Relative humidity
Diet
Milk production

Senior Packet 8, Phase C

- 1) In the area of farm business management, what is the name for financial responsibilities that will fall due within one year of the date of the balance?

Current liabilities

- 2) What is the name of the enzyme that breaks down cellulose?

Cellulase

- 3) What milk component content is determined using the milk cryoscope test?

Water

- 4) In the dairy cow, where are the B-complex and K vitamins produced?

Rumen

- 5) The highest concentration of nitrates is found where in the plant of drought-stressed corn?

Lower stalk

- 6) How many pounds does a bushel of corn weigh?

56 pounds

- 7) If the composting environment is correct, approximately how many months will it take to decompose a mature dairy cow carcass?

6 to 8 months

- 8) In regards to global warming, what do the initials GGE stand for?

Greenhouse gas emissions

- 9) Based on studies at Cornell University, researchers discovered that injecting what into fluid milk and cottage cheese inhibits bacterial growth and extends shelf life?

Carbon dioxide

- 10) In dairy production management, what term describes the average number of days between the latest two calving dates for all cows in the herd?

Calving interval

11) What acid is produced from silage that has undergone normal fermentation and is characterized by a green-brown color and a slightly sweet odor?

Lactic acid

12) The loss of what mineral in the feces of a calf with diarrhea is the main cause of dehydration?

Sodium

13) What is another name for red blood cells?

Erythrocytes

14) This index is used to determine cow comfort by measuring the number of cows lying down. What is this?

Stall Usage Index

15) In what season are milk sales the highest?

Fall (students are going back to school).

16) An SOP is a document that has directions on how to perform a task on the farm like feeding colostrum to a calf. What does SOP stand for?

Standard Operating Procedure

Extra Questions for 2011 NYS District Senior 4-H Dairy Quiz Bowl Contest

- 1) What compartment of the ruminant stomach has a mucus lining to protect the surface from hydrochloric acid?

Abomasum

- 2) Milk is the victory drink for what race each year?

Indianapolis 500

- 3) According to the AVMA, the condition in which animals experience good health, are able to effectively cope with their environment, and are able to express a diversity of species-typical behaviors is known as what?

Animal Welfare or Animal well-being

- 4) In farm business management and economics, heifers account for what percentage of the total farm expenses on many dairy operations?

15 to 20 %

- 5) 17) What milk class does butter belong in?

Class IV

- 6) What foot health problem is being describe by heel warts, foot warts, hairy heel warts, strawberry foot, raspberry heel and Mortellaro's disease are the common names used to identify what foot health problem?

Digital dermatitis

- 7) A deficiency of blood calcium related to an imbalance of calcium, phosphorus, and vitamin D is the cause of what metabolic disorder?

Milk fever

- 8) What is the most reliable way of knowing the nutrient content of forages?

Forage testing

- 9) What is a milk allowance referring to in milk processing?

Cost of turning milk into cheese

10) A large and complex protein material that is capable of causing disease and that reproduces only inside a host cell is called what?

Virus

11) In what year was the cattle genome sequenced?

2004

12) How many kilocalories of energy are provided in one gram of fat?

9 kilocalories

13) What is the name for forages cut and chopped in the field and fed directly to livestock?

Green chop

14) What is the name for the small electric currents that flow through the electrical grounded-neutral system and pass through a cow's body adversely affecting her behavior and performance?

Stray Voltage

15) On average, there are how many days between heat periods in dairy cows?

21 days

16) What is the process of determining where genes are located on individual chromosomes?

Gene mapping

17) For most cows, the automatic take-offs should come off when milk flow drops below how many pounds?

1.5 to 2.2 pounds

18) Organic nitrogen must be converted to ammonium or what type of nitrogen before it can be used by plants?

Nitrate

19) Name the virus that causes small blisters on the teats followed by sores and scabs and is spread by the milker.

Cow pox

20) What term describes the highest point in a cow's lactation curve?

Peak milk production

Team: Extra questions 2011 District Senior Dairy Quiz Bowl

- 1) What percentage of a calf's stomach is the rumen and what percentage of the cow's stomach is rumen?

25% of calf's stomach is rumen
80% of a cow's stomach is rumen

- 2) Give 4 examples of a farm's assets.

Cows
Land
Equipment
Tractors
Buildings
Cash
Feed
Lumber
Stocks and bonds
Co-op Equity

- 3) Name 3 important factors that lead to good bunk density when packing.

Delivery rate of forage,
Packing layer thickness
Packing equipment weight
Packing time
Dry matter

- 4) For business planning for a farm operation, a SWOT analysis is an important part. What does SWOT stand for?

Strengths, weaknesses, opportunities, threats

