

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

**Junior Packet 1, Phase A**

1) Copper sulfate is most commonly used in what on a farm?

Foot bath (VA study materials)

2) What is the name of the forage sampling device that is used to take a hay sample from a round bale?

Bale corer or Hay probe

3) What does the term palatability mean?

The taste or likeability of feed (VA study materials)

4) Where on the dairy farm can sheet plastic and cut tires be found?

Covering a bunker silo (HD, 8/25/07, pg. 590)

## Junior Packet 1, Phase B

1) Milk quality is important to milk processors as well as the dairy farmer. Give 3 reasons why a dairy farmer should always strive for high quality milk.

- Greater profitability
- Increased milk yield
- Larger milk check due to improved milk per cow and premiums
- Reduced labor and labor cost
- Lower culling rate
- Lower treatment cost (VA study materials)

2) Name 4 common materials that can be used for bedding on a dairy farm.

- Newspaper
- Sand
- Manure solids
- Sawdust
- Straw
- Old hay
- Shavings (VA study materials)

3) List 3 advantages to feeding a Total mix ration or TMR.

- Eliminate selective eating
- Consistent ration
- Higher dry matter intake
- Free-choice mineral not needed
- Higher milk production
- Lower % fiber needed in ration
- Easier to balance precisely
- Fewer digestive upsets
- Can feed a variety of by-products

4) Name 3 types of milking parlors.

- Herringbone, Parabone, Parallel, Rotary,
- Side-opening

## Junior Packet 1, Phase C

1) Why are dairy cattle considered to be inefficient grazers?

Because they use their tongues to grasp the material

2) Cows can produce how many gallons of saliva a day?

20 to 35 gallons

3) What is the name of the part of the reproductive tract where growth and development of the calf occurs?

Uterus

4) Who is the Secretary of Agriculture?

Tom Vilsack

5) What year did artificial insemination begin?

1938

6) Why would you put lime onto crop fields?

To increase soil pH (HD, 12/07, pg. 824)

7) Which vitamin is necessary for a healthy immune system and for good reproductive function of a dairy animal?

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

8) What does mastication mean?

Chewing (VA study materials)

9) How many pounds of milk does it take to make one pound of cheese?

10 pounds

10) What is puberty in a heifer?

The point in time when a heifer becomes sexually mature or capable of becoming pregnant (Skill for life)

11) What popular feed stuff is a by-product of sugar beet processing?

Beet Pulp

12) On average, which breed gives birth to the lightest weight calves?

Jersey

13) According to the Center for Disease Control what was identified as the nation's biggest public health issue?

Obesity

14) What is one of the most common disease or health problems in calf barns during the winter months?

Pneumonia (HD, 2/10/08, pg. 86)

15) In a conventional program what percent of a calf milk replacer should be composed of crude protein?

20% (VA study materials)

16) Beta carotene is a precursor of what vitamin?

Vitamin A (VA study materials)

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

**Junior Packet 2, Phase A**

1) If you take a sample of milk from your bulk tank and test it using either the delvotest or the penzyme test, what would you be testing the milk sample for: milk true protein content, antibiotics or milk fat percentage?

Antibiotics (VA study materials)

2) In the reproductive system of a dairy cow, progesterone is the name of the hormone that is secreted by the structure often called the yellow body. Of the following, which is the proper name for this yellow body: Cervix, ovary, follicle, or corpus luteum?

Corpus luteum (VA study materials)

3) In a lactating dairy cow, which of the following is the hormone responsible for causing a cow Not to let her milk down: is it adrenaline, oxytocin, or progesterone?

Adrenalin (VA study materials)

4) What is the name of the substance that is used in a semen tank to freeze semen in straws: is it liquid oxygen, liquid carbon dioxide, liquid nitrogen, or liquid helium?

Liquid nitrogen (VA study materials)

## Junior Packet 2, Phase B

1) What are the five breakdowns for the PDCA scorecard?

Frame, Dairy character, Body capacity,  
Feet and legs, Udder ( HD, 1\10\09\p30)

2) What are 3 ways to maximize feed efficiency on your dairy farm to help increase milk production?

Minimize feed waste at the bunk  
Minimize illness and disease  
Minimize feeding spoil forages  
Ensure proper feed processing  
Group heifer separate from cows  
Balance ration to meet cow's nutrient requirements  
Improve cow comfort  
Reduce lameness  
Proper mixing procedure (DT, 1/08, pg. 30)

3) The use of ultrasound in a reproductive management program can help determine several important things to this program. Name 2 things that can be determined from using ultrasound.

Pregnant or not  
Determine embryonic losses  
Determine sex of embryo  
Monitor cystic ovaries (VA study materials, p. 21)

4) Heat detection aids are used to determine when a cow is in heat. What are 4 heat detection aids that can be used on the farm?

Heat expectancy charts, Tail paint, Tail chalk,  
Pedometers, Pressure sensors, Kamar (trade name)  
Electronic heat detection systems, Detector  
animals/gomer animal (Virginia study materials)

## Junior Packet 2, Phase C

1) Which breed of dairy cattle on average has the lowest percentage of calving difficulty?

Jersey

2) In a DHIA rolling herd average, how many months of production are included?

12 months

3) Dairy animals that are officially recorded in the breed association herd book are called what?

Registered animals

4) Most of what ingredient is removed from skim milk?

Fat

5) Lactating cattle that graze lush grass sometimes develop a severe form of magnesium deficiency that is commonly called what?

Grass tetany

6) When a scouring calf shows mild symptoms of dehydration, what can you feed it in addition to their milk?

Electrolytes

7) What is the name of the first milk produced by the cow immediately after calving that contains immunoglobulin's (antibodies)?

Colostrum

8) In the 2009 Hoards Dairymen judging contest what new breed class was added?

Red and Whites (HD, 2/10/09)

9) What is the term for an infection of the uterus?

Metritis

10) On the PDCA Dairy Cow Unified Score Card, how many points are assigned to the “feet and leg” category?

15

11) In pounds what is the weight of one gallon of whole milk?

8.6 pounds

12) Who is the New York Commissioner of Agriculture?

Patrick Hooker

13) What new reproductive technology can have a negative impact on conception rates?

The use of sexed semen

14) An udder is supported by the median suspensory ligament, the lateral suspensory ligament and what?

Skin (VA study materials)

15) What is residual milk?

The milk remaining in the mammary gland after milking

16) Who is the founder of Hoard’s Dairyman?

W. D. Hoard (HD, 2/10/08, pg. 80)

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

**Junior Packet 3, Phase A**

1) Why is straw better for bedding calves in winter months than shavings are?

Straw is a better insulator and keeps calves warmer than shaving (NEDB, 1/08, pg. 58)

2) Which of the following feeds is a by-product of ethanol fuel production facility: alfalfa, distiller's grain, clover, or fescue?

Distiller's grain

3) Which one of the following often happens to the milk fat test percentage or butterfat test when the lactating dairy cow is fed low levels of effective fiber: it increases, it decreases or it remains the same?

It decreases

4) Which one of the following is the main reason why you should keep newborn calves separated from each other: to reduce labor cost, to reduce fighting among the calves, or to prevent transmission of disease?

To prevent transmission of disease (VA study materials)

## Junior Packet 3, Phase B

1) Name the two different types of proteins that milk replacer can be made from.

Milk protein

Plant protein (HD, 10/10/07, pg. 664)

2) Name 3 calf hood diseases.

Scours

Pneumonia

Umbilical hernia

Umbilical infection

Bloat

White muscle disease (VA study materials)

3) Name the 4 classes of milk and the type of products made within each class.

Class I-Beverage milk

Class II- Soft products, ice cream, cottage cheese, yogurt, fluid cream, soft cheeses

Class III-Cream cheese and Other hard cheeses

Class IV-Butter and dried milk (VA study materials)

4) Rank the following 5 states according to total annual milk production from highest to lowest: New York, Wisconsin, Pennsylvania, California, and Idaho.

1. California

2. Wisconsin

3. New York

4. Pennsylvania

5. Idaho

### **Junior Packet 3, Phase C**

1) When raising a heifer for a project animal, typically when budgeting your expenses, what takes up the largest proportion of your budget?

Feed (Skills for life-Dairy)

2) What are considered the building blocks of proteins?

Amino Acids (HD< 12/07, pg. 835)

3) What part of the cow's stomach is known as the honeycomb?

Reticulum

4) What is the condition in which large amounts of gas is trapped in a calf's stomach and the stomach gets big?

Bloat

5) What dairy product is made by heating milk along with a substance called rennet?

Cheese

6) How often do most heifers and cows come into heat?

Usually every 21 days (Accept 18-24 days)

7) What is the name of the milk sugar found only in milk?

Lactose

8) In the 4 compartments of the cow's stomach, what is the primary function of the omasum?

Remove water

9) What organ produces sperm?

Testes

10) What is the term for a sterile heifer born twin to a bull?

Freemartin

11) A sire provides what percentage of the inheritance of any offspring?

50%

12) One effective tool to help control mastitis is taking a BTC. What does BTC stand for?

Bulk tank sample

13) EPA does studies to see the effect of pollution on the environment. What does EPA stand for?

Environmental Protection Agency (NEDB, pg. 7 of EPA air study)

14) What is the one nutrient that all calves should have access to at all times?

Water (DT, 3/08)

15) What is the name of the metabolic disorder that can occur after calving as a result of a calcium deficiency?

Milk fever or parturient paresis

16) Using medications in ways other than what is stated on the label can be legal under the direction of a veterinarian and is often abbreviated ELDU. What does ELDU stand for?

Extra-label drug use

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

**Junior Packet 4, Phase A**

1) In a dairy cow, which of the following is the name of the opening that the digesta flows through as it enters the omasum: is it the colon, jejunum or reticulo-omasal orifice?

Reticulo-omasal orifice (VA study materials)

2) The milking machine function that alternates vacuum and atmospheric pressure in the space between the teat cup shell and the liner is called the regulator, pulsator, or the compressor?

Pulsator (VA study materials)

3) In reference to dairy calf management, which of the following describes what morbidity rate is: the number of sick animals in a certain period of time, the average daily gain of the animals, or the number of death losses?

The number of sick animals in a certain period of time  
(VA study materials)

4) The release of an egg from a follicle is described by which of the following terms: palpation, parturition, or ovulation?

Ovulation (VA study materials)

## Junior Packet 4, Phase B

1) Name three places on a calf body where pathogenic (disease causing) organisms can gain entry into the calf's body.

Mouth  
Nose  
Navel (DHM, 07)

2) What are 4 advantages of using artificial insemination on your dairy farm instead of using a herd bull or natural service?

Better disease control  
Genetic improvement  
Safety  
Easier to prove bulls  
Less expensive than keeping a bull  
Better records keeping of breeding dates  
Use of better bulls  
Larger selection of bulls to use

3) 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

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

Milk  
Cheese  
Yogurt

## Junior Packet 4, Phase C

1) What is the term for the process where in the presence of sunlight, chlorophyll-containing plants convert carbon dioxide and other elements into simple carbohydrates, with oxygen also being produced?

Photosynthesis

2) Rascal Flatts have become part of a promotion for milk where the winner gets to sing with the band live on stage. These milk cartons will be seen in school lunches. What is the name of this promotion?

Milk rocks (DHM, 2/08, pg. 46)

3) How many days is recommended for a cow's dry period?

40 to 60 days

4) Most of the time when a cow is cystic, she is constantly showing signs of what?

Estrus or heat

5) What do we call the social order established by a group of heifers?

Pecking order

6) In a newborn calf, which stomach compartment has the largest relative size as a percentage of the total stomach capacity?

Abomasum

7) In the process of artificial insemination on a dairy cow, what section of the reproductive tract does the inseminating rod pass through before the semen is deposited?

Cervix

8) Undulant fever is a disease that people can get by drinking milk from cattle infected with what disease?

Brucellosis (VA study materials)

9) What is the last segment of the digestive tract that undigested feedstuff passes through?

Large intestine

10) The milk producing cells in the udder are called what?

Alveoli

11) What is the technical term for the liquid which seeps from a silo?

Leachate

12) Name the device that registers the motion of cows and indicates increased activity levels when they are in estrus?

Pedometer

13) According to the Journal of Dairy Science, cows that are robotically milked produce less of which hormone which interferes with milk let down?

Adrenaline or epinephrine

14) There has been a rise in the price of corn due to the construction of what type of operations which are heavily dependent of corn?

Ethanol

15) What is the name of the feed component found in plant cell walls that is not digestible by the cow?

Lignin

16) What is the name of the muscle found in the teat that's main function is best described by keeping the teat end closed and helps prevent organisms from entering the udder?

Sphincter muscle

**N. Y. S. 2008 District Junior  
Dairy Quiz Bowl Contest**

**Junior Packet 5, Phase A**

1) Which of the following is the main component of adipose tissue: carbohydrates, fat, protein, or minerals

Fat

2) The deficiency of the trace mineral selenium has been associated with which of the following diseases in calves: white muscle disease, cryptosporidiosis, enterotoxaemia, or mycoplasma?

White muscle disease

3) Which of the following describes the process of flushing fertilized eggs from donor cows and implanting them in recipient cows or heifers: artificial insemination, ultrasound imaging, embryo transfer or gestation?

Embryo transfer

4) Of the following which is most often used as a source of calcium in dairy cattle rations: sodium selenite, calcite limestone, vitamin c or monensin?

Calcite limestone

## Junior Packet 5, Phase B

1) Pneumonia is a common disease in young calves. In regards to a calf management program, give 3 reasons that would predispose a calf to contracting pneumonia?

- Poor ventilation
- High humidity
- Dirty pens
- Drastic temperature changes
- Poor nutrition
- Overcrowding
- Wide range of ages in a pen

2) What are 2 functions of saliva in a dairy cow?

- Moistens food
- Lubricated food
- Acts as a buffer
- Provides fluid base for many nutrients
- Provides the proper environment for bacterial growth
- Buffer

3) Name 3 factors that may affect the nutritive value of manure.

- Type of feeds fed
- Ration mixture
- Method of collection
- Method of storage
- Amount of feed, bedding and water added
- Time of application
- Method of application
- Soil characteristics
- Crops and climate

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

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

## Junior Packet 5, Phase C

1) When the abomasums twists out of normal position, what do we call this health condition?

Displace abomasums or DA, twisted stomach

2) If your Veterinarian advised you to drench your cow with propylene glycol, what metabolic disorder are you trying to treat or prevent?

Ketosis or acetonemia

3) What has the greatest effect on the concentration of fiber in a growing plant?

Stage of maturity of the plant

4) What are the building blocks of lipids?

Fatty acids (HD, 9/25/07, pg. 632)

5) Why has rubber flooring become more common in freestalls?

Cow comfort or foot and leg health (HD, 8/25/07, pg. 748)

6) During milk processing, vitamins are added after the milk is homogenized. What is the name of the step when vitamins are added?

Fortification

7) How many seconds after teat stimulation should a milking unit be attached?

45 to 90 seconds

8) What is the condition that can occur in calves when they drink their milk too fast and some fluid enters the lungs instead of the digestive tract?

Aspiration pneumonia

9) What is the term used to describe a heifer that is too fat?

Overconditioned

10) What does it mean when a heifer is said to be “polled”?

She is born without horns

11) Mycotoxins are a source of what in feed?

Molds

12) On the PDCA dairy cow unified score card, what is the value percentage for the evaluation of body capacity?

10%

13) Name the hormone that causes a cow or heifer to come into heat?

Estrogen

14) What do the initials NDF stand for on a feed analysis report?

Neutral detergent fiber

15) What trace mineral is needed for thyroid hormone synthesis and if it is deficient in the diet causes goiter?

Iodine

16) Mortellaro’s disease, strawberry foot and digital dermatitis are all names for what common foot ailment?

Hairy heel warts

**N. Y. S. 2008 District Junior  
Dairy Quiz Bowl Contest**

**Junior Packet 6, Phase A**

1) Bovine Leukemia Virus (BLV) does not affect which organ:  
Brain, uterus, spinal cord, or heart

Brain (VA study materials, p. 28)

2) Which one of the following would be a good choice to provide additional fiber  
in a dairy ration; corn grain, barley grain, soybean meal, or cottonseed hulls?

Cottonseed hulls (VA study materials)

3) Which of the following is the name of the condition that can exist in a cow after  
calving when an excessive amount of lymph fluid accumulates between the skin  
and the secretory tissue of the udder; is it ketosis, bloat, udder edema, or metritis?

Udder Edema (VA study materials)

4) During digestion, which one of the following is an enzyme that functions to  
break down fats or lipids; amylase, lactase, lipase, or peptidase?

Lipase (VA study materials)

## Junior Packet 6, Phase B

1) Cows need to drink 30-35 gallons of water each day. What 4 signs show that cows are NOT drinking enough water?

Reduced Feed Intake  
Firm, Dry Manure  
Reduced Urinating  
Loss of Body Weight  
Sunken Eyes  
Pinched Skin does not fall back quickly  
Cows drinking from puddles or urine pools  
(HD, 5/25/08/p370)

2) List three body parts found only on a cow's HIND leg.

Hock  
Stifle  
Thigh (website)

3) What two breeds have their National Breed headquarters located in Beloit, Wisconsin?

Brown Swiss and Milking Shorthorn (VA study materials)

4) What are three types of storage facilities for silage?

Bunker silo, Trench silo, Upright/tower silo, Oxygen limiting Silo, Plastic bag (VA study materials, 11)

## **Junior Packet 6, Phase C**

1) E coli, salmonella, cryptosporidium, and coccidian can all cause what disease in calves?

Scours (HD, 9/25/08/p603)

2) When a cow enters a negative energy balance she can develop a metabolic disease that often times includes a sweet smell to their breath. Which disease does she have?

Ketosis (HD, 3/25/08/p210)

3) When an injection is given subcutaneously, where is the material deposited?

Under the skin (VA study materials)

4) Of the four classes of milk products, to which one does butter belong?

Class IV (VA study materials, p. 35)

5) In the area of dairy cattle reproduction, what does GnRH stand for?

Gonadotropin Releasing Hormone (VA study materials, p.18)

6) Hardware disease occurs in which stomach compartment?

Reticulum (VA study materials, p. 7)

7) In what season of the year is the condition known as the retained placenta most likely to occur?

Summer (VA study materials, p. 19)

8) Electric, hot iron, tube or spoon, and gougers are all used to do what to calves?

Dehorn them (HD, 2/25/08/p158)

9) How many federal milk marketing orders are there?

11 (HD, 1/25/09/p53)

10) What do the letters APHIS stand for?

Animal and Plant Health Inspection Service (VA study materials, p. 3)

11) It is recommended that this solution be painted or dipped on the calf's navel soon after birth to prevent infection.

7% iodine solution (VA study materials, p. 25)

12) When referring to a pedigree, what do the initials C.T.P.I. stand for?

Cow Type Production Index

13) In the area of dairy cattle reproduction, what does FSH stand for?

Follicle Stimulating Hormone (VA study materials)

14) What year did the American Dairy Association form in?

1940 (VA study materials)

15) The material that is found in the small intestine is called what?

Chyme (VA study materials)

16) What breed of dairy cattle tend to have the lowest somatic cell count?

Ayrshire (HD, 07, pg. 9)

**N. Y. S. 2008 District Junior  
Dairy Quiz Bowl Contest**

**Junior Packet 7, Phase A**

1) Pinkeye is most prevalent during which one of the following seasons:  
Winter, spring, summer, or fall

Summer (VA study materials, p. 30)

2) From the following list which is another name for Bang's disease is; bloat,  
displaced abomasums, coccidiosis, or brucellosis

Brucellosis (VA study materials, p. 28)

3) What does it mean when a heifer is polled; she is a freemartin, she is a crossbred,  
or she was born without horns

She was born without horns (VA study materials)

4) In a dairy cow, which for the following normally occurs second during the  
lactation cycle, peak feed intake or peak milk production?

Peak feed intake (VA study materials)

## Junior Packet 7, Phase B

1) What are three things to consider when selecting a calf as a project animal?

Age  
Breed  
Health  
Pedigree  
Conformation (VA study materials, p. 8)

2) Give two terms that describe a heifer or cow that is unable to become pregnant

Sterile  
Barren  
Freemartin (VA study materials, p. 21)

3) Name three reasons or causes that could make a cow to go lame.

Abscess  
Foot rot  
Infection  
Injury  
Soft sole syndrome  
Trimming too close (VA study materials, p. 29)

4) Name 3 methods commonly used to identify calves.

Eartags  
Freeze branding  
Photos  
Sketch  
Tattoo (VA study materials, p. 25)

## **Junior Packet 7, Phase C**

1) What part of the cow does laminitis affect?

Hooves or feet (VA study materials)

2) Co-synch and Ovsynch are two examples of what?

Estrous synchronization programs (DHM, 1/2009/p18)

3) What is a standard operating procedure?

A clear set of instructions that anyone even without experience can follow and read (NEDB, Aug/08/p22)

4) Sexual reproduction starts with special cells called gametes that each parent produces. In females, these cells are called what?

Eggs (DHM, p.15)

5) Why would a necropsy be performed?

To determine the cause of death (DHM, 05/08/p.30)

6) What type of container is best for freezing colostrum?

A gallon Zip-lock bag (HD, 9/25/08, p. 603)

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

Feed Efficiency (HD,

8) ADG is a tool to measure how well your calf is growing. What does ADG stand for?

Average Daily Gain (HD, 1/25/09/p60)

9) In the dairy cow, what is the name of the gland that produces the hormone oxytocin?

Pituitary gland (VA study materials)

10) What type of milking parlor has the cows set up on a rotating, circular platform and allows the milker to stay in one position?

Rotary parlor

11) What disease are we trying to prevent by dipping the teats in a special solution following milking?

Mastitis (VA study materials)

12) What is the most important factor to consider in determining when to breed a heifer for the first time?

Body size (VA study materials, p. 26)

13) Milk Futures are traded for money on what exchange?

Chicago Mercantile Exchange (HD, 7/08/p459)

14) At a minimum, how many times per year should your milking system be evaluated by a certified service technician or veterinarian?

Once a year

15) What is the term for diseases that can be passed between animals and humans?

Zoonotic diseases

16) For feed analysis, what do the initials ADF stand for?

Acid detergent fiber

**N. Y. S. 2008 District Junior  
Dairy Quiz Bowl Contest**

**Junior Packet 8, Phase A**

1) True or false: The number one reason for culling in U.S. herds is reproduction.

True (VA study materials, p. 21)

2) True or false: Scours and pneumonia are the leading causes of death in young calves.

True (VA study materials, p. 26)

3) True or false: Bloat is the condition when a cow can belch.

False (VA study materials, p. 28)

4) True or false: Scours is a disease in calves characterized by diarrhea, dehydration and unthriftiness.

True (VA study materials, p. 30)

## Junior Packet 8, Phase B

1) Udder rot is a Staph infection of the skin. List 3 management practices you would use to prevent udder rot.

Clip or singe udder hair  
Keep bedding dry under cow (no moisture)  
Reduce udder swelling (edema)  
Wash hands or change gloves after treating a cow with udder rot (HD, 4/25/08/p323)

2) Name three common names given for the three stages of a female dairy animal's life from birth to motherhood.

Calf, Heifer, Cow (VA study materials)

3) Give 4 reasons why a dairy farmer would cull a cow from the herd.

Low production, Mastitis, Reproduction, Udder, Poor feet and legs, Disease, Injury, Disposition (VA study materials, p. 44)

4) Give 3 symptoms of the metabolic disorder called milk fever.

Cow goes down or can't get up  
Rapid heart beat  
Dilated eyes  
Below normal body temperature  
Cow lays with her head and neck in an S shape  
Cow's ears are cold to touch  
Cow sticks her tongue out when touched and asked to get up  
(VA study materials, p. 29)

## **Junior Packet 8, Phase C**

1) What is the term for a female dairy animal that has not yet had a calf?

Heifer

2) How many molars do cows have in their upper jaw?

12 (website)

3) When applying teat dip, what part of the teat should be covered in dip?

Entire teat (NEDB, 12/08/p6)

4) What is the name of the milk-mineral deposit that accumulates on milk handling equipment?

Milk stone (VA study materials, p. 13)

5) What hormone is necessary for the maintenance of pregnancy?

Progesterone (VA study materials, p. 18)

6) When predipping teats prior to milking, how much contact time is recommended?

15 to 30 seconds (National Mastitis Council)

7) What is the name of the feed component found in plant cell walls that is not digestible by the cow?

Lignin (VA study materials)

8) Klebsiella is known as a type of what?

Mastitis causing bacteria (HD, May/June 08, p. 371)

9) When referring to a dairy cow diet, what do the letters TMR stand for?

Total Mixed Ration

10) A Kamar detector placed on the rump of a cow will help the dairy farmer do what?

Detect heat or estrus

11) In looking over your DHI records, you notice that the milk somatic cell counts are increasing in your herd. What disease problem does this often indicate?

Mastitis

12) What is the main reason why a dairy producer would give a dairy heifer a special magnet that will stay in her reticulum?

To help prevent hardware disease

13) How many pairs of ribs does a dairy cow have?

13 pairs (VA study materials)

14) What is the tool that can be used on the farm to test serum protein levels in calves?

Refractometer

15) What is the best plant developmental stage in which to harvest grass?

Boot Stage (HD, 8/07, pg. 590)

16) What is the name of the whitish line that appears on a corn kernel as it matures?

Milk line (HD, 8/25/07, pg. 574)

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

1) The cow will secrete approximately how much of the antibodies from her own bloodstream into the colostrum?

50% (Dairy World, 2/08, pg. 17)

2) In the area of mastitis management, what does CMT stand for?

California Mastitis test

3) One group of mammals eats meat and are called carnivores. What is the group that eats grass and grains called?

Herbivores

4) What breed of dairy cow came to the United States from Holland?

Holsteins

5) What is another name for Vitamin C?

Ascorbic acid

6) What management practice helps prevent navel ill in newborn calves?

Dipping the navel with iodine or recommended  
disinfectant

7) What are carbohydrates converted to in the rumen?

Volatile fatty acids or VFA's

8) Name the small projections that line the wall of the small intestines.

Villi

9) In what season are problems with lice most likely to occur?

Winter

10) What is parturition?

Calving

11) When referring to milk quality, what do the initials SCC stand for?

Somatic Cell count

12) What is the main reason why calves should be individually housed?

To prevent the spread of disease

13) How many pounds of calf starter grain should a calf be eating at the time of weaning?

1.5 to 2 pounds

14) What is the sticky, waxy substance in the streak canal that helps prevent organisms from entering the mammary gland?

Keratin

15) What color clothing is usually required for showing dairy animals?

White

16) What trade mark is put on products to assure the customer that the product they are purchasing is a genuine dairy product?

Real Seal

17) In the ruminant digestive system, name the first section of the small intestine that is connected to the abomasums?

Duodenum

18) The mineral matter present in feed is called what?

Ash

19) What is the primary function of the small projections called villi that line the wall of the small intestine?

Absorb nutrients

20) What does acronym NYSCHAP stand for.

New York State Cattle Health Assurance Program

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

Kill disease causing organisms and keep calves healthy

22) What part of the cow does laminitis affect?

Hooves or feet

23) In reference to feeding guidelines for dairy animals, what does NRC stand for?

National Research Council

24) In a bull's stud code, the letters indicates the breed. Which breed does the letter X in the code represent?

Crossbred (HD, 12/07, pg. 8170)

25) Saliva is enriched with what compound that acts as a buffer in the cow to regulate rumen pH?

Sodium bicarbonate

26) What type of milking parlor positions the cows on an angle to the milk alley?

Herringbone

27) Deficiency of what vitamin causes rickets?

Vitamin D

28) What is the maximum number of cc's or milliliters that should be administered per intramuscular injection site?

10 cc or ml

Team Questions: Extra

1) What are the 2 main functions of the large intestine?

Water absorption  
Storage of waste materials

2) Name 3 types of storage facilities for silage.

Bunker silo  
Trench silo  
Upright or tower silo  
Oxygen limiting silo  
Plastic bags

3) What are 2 things that can be tested to determine if a cow has Johnes disease or not?

Fecal cultures  
Blood sampling

4) The dairy cow is the most common source of milk in the United States, but in other countries, other animals most often provide people with milk. Name 4 other animals that can be used for their milk production.

Goat  
Sheep  
Camel  
Water buffalo  
Yak  
Reindeer  
Human

