

## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 1, Phase A

1) The bush of hair at the end of a cow's tail is called what?

- A switch

2) What is the name of the process in which the cow relaxes and releases the milk in the udder so it can be milked out?

- Milk letdown

3) What dairy breed, on average, has the highest milk production?

- Holstein

4) What usually happens to a cow's milk production as somatic cell count increases?

- Production decreases

## Novice Packet 1, Phase B

1) Name two options for storage of excess colostrum.

- Freezing
- Refrigerate
- Ferment
- Add preservative acid

2) Name 3 signs that you would see or hear if a cow was in heat.

- Restless
- Bellowing
- Following and smelling other cows
- Mounting other cows
- Standing to be mounted
- Discharge of clear mucous from vulva
- Vulva red and swollen

3) Spell the dairy breed G-u-e-r-n-s-e-y.

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

- Quantity
- Quality
- Timing
- Cleanliness

## Novice Packet 1, Phase C

- 1) What dairy breed makes up about 90 % of the U.S dairy cow population?
  - Holstein
- 2) What do we call a cow's natural buffer?
  - Saliva
- 3) Any act, omission or neglect done by a person or organization that causes or permits unnecessary pain, suffering or death to an animals is called what?
  - Animal abuse
- 4) What is the name of a type of barn and stall in which the animal is free to come and go?
  - Freestall
- 5) What is the name of the first milk produced by the cow after she gives birth?
  - Colostrum
- 6) What is the food called that a cow regurgitates and re-chews?
  - Cud
- 7) The storage unit used to hold milk on the farm is called what?
  - Bulk Tank
- 8) In reproduction what does AI stand for?
  - Artificial insemination
- 9) What stomach compartment of the dairy cow is also known as the fermentation vat?
  - Rumen
- 10) An adult cow has how many incisor teeth?
  - 8
- 11) What is the name for a doctor of animals?
  - Veterinarian
- 12) Where would you find dewclaws on a dairy cow's body?
  - Foot
- 13) Why should a teat dip be used on a dairy cow after milking?
  - To reduce or prevent udder infection

14) What country did the Brown Swiss cow come from?

- Switzerland

15) A by-product called whey is produced from making what?

- Cheese

16) A cow has how many pasterns?

- 4

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**Novice Packet 2, Phase A**

- 1) What is the name of the time for a dairy cow when she is not producing milk and usually is about 60 days?
  - Dry period
  
- 2) What is meant by the term grade dairy cow?
  - An animal not registered with any breed association
  
- 3) What happens to the nutrient value of high moisture corn with the growth of mold in it?
  - It decreases, or is less palatable
  
- 4) An excess of calcium fed during the dry period can result in what metabolic disorder at freshening?
  - Milk fever

## Novice Packet 2, Phase B

1) Name 3 of the 5 digestive system functions in a dairy cow?

- Food intake
- Storage
- Digestion
- Absorption
- Elimination of waste

2) Name the six major breeds of dairy cows.

- Ayrshire
- Brown Swiss
- Jersey
- Holstein
- Milking Shorthorn
- Guernsey

3) Name 3 parts of a dairy cow's mammary system.

- Teats
- Rear Udder
- Fore udder
- Rear udder attachment
- Fore udder attachment
- Milk veins
- Milk wells
- Median suspensory support ligament

4) Name 3 important factors to consider when choosing a dairy calf as a project animal.

- Age
- Breed
- Health
- Pedigree
- Conformation
- Cost/price
- Housing

## Novice Packet 2, Phase C

1) What do we call the act of taking a young calf off of milk as their main source of nutrition?

- Weaning

2) What is the name of the fungus infection that attacks the hair follicles and outer layer of skin, and appears in a circle?

- Ringworm

3) How many gram of fat are in fat free milk?

- 0 grams

4) Animals that have hooves and chew their cud are called what?

- Ruminants

5) What is the normal dairy cow's body temperature?

- 101 degree F (accept 101 to 102.5)

6) In months, what is the ideal age for a heifer to have her first calf?

- 24 months (22 to 24)

7) Corn meal is made from what part of the corn plant?

- Corn kernels

8) What is the sugar found in milk called?

- Lactose

9) The orange triangle sign found on the back of a hay wagon or silage wagon means what?

- Slow moving vehicle

10) What is another more common name for the subcutaneous abdominal veins in the dairy cow?

- Milk vein

11) An infection in the udder is called what?

- Mastitis

12) What is the name of the tool used to administer a pill orally to a dairy animal?

- Balling gun

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

- Lactic acid

14) The spot located directly behind a cow is called her what?

- Blind spot

15) Which breed is smallest of the 6 major dairy breeds?

- Jersey

16) What is the name of the factory where milk can be standardized, clarified, pasteurized, homogenized, fortified, and sorted into containers for shipment?

- Milk processing plant



## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 3, Phase A

1) When breeding a heifer, what is the most important factor used in deciding when to breed her?

- Size

2) A herbivore is an animal that eats only this.

- Plants

3) Romano, Parmesan, and Mozzarella are all types of what?

- Cheese

4) What are supernumerary ?

- Extra teats

### Novice Packet 3, Phase B

1) Name 3 pieces of information you would find on your animals registration paper.

- Name
- Sire
- Dam
- Date of birth
- Owner
- Breeder
- Grandsire
- Grand dam
- Sex
- Registration number

2) In the Northeast, what season is hardest on a cow's milk production and why?

- Season is summer
- Why is because of the heat

3) Name 4 external parts of a dairy cow's head.

- Poll
- Eyes
- Muzzle
- Ears
- Jaw
- Forehead
- Nostril

4) Name the 4 compartments of the mature dairy cow's stomach.

- Reticulum
- Rumen
- Abomasum
- Omasum

### Novice Packet 3, Phase C

- 1) What is generally considered the best material for covering a bunker silo?
  - Plastic
- 2) What do we call plants that are seeded each year and whose growth is complete in one crop year?
  - Annual
- 3) The acronym SCC stands for what?
  - Somatic Cell count
- 4) What hormone causes milk let-down?
  - Oxytocin
- 5) A sterile heifer born twin to a bull is called what?
  - Freemartin
- 6) How many front teeth does a dairy cow have?
  - None
- 7) What is the percentage of water found in milk?
  - 87%
- 8) What is the average number of days between heat cycles for a dairy cow?
  - 21 days ( +/- 3 days)
- 9) The process of turning cream into butter is called what?
  - Churning
- 10) When a calf is born, what is the normal delivery position?
  - Front feet first and then head
- 11) What is the name of the medication that is put in all four of a cow's teats to help prevent mastitis when she becomes a dry cow?
  - Dry cow treatment
- 12) What is the name used for the period of time when a cow is milking?
  - Lactation
- 13) What does it mean if a calf is born polled?
  - Born without horns

14) What does mastication mean?

- Chewing

15) In gallons, how much water does a cow drink in one day?

- 30 to 50 gallons

16) What term describes mating two purebred animals of different breeds?

- Crossbreeding

## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 4, Phase A

1) The crop alfalfa is which of the following: a grass, a legume or a grain?

- A legume

2) What does a pH of 4 indicate?

- Acidic condition

3) Why is it important to feed new born calves colostrum?

- Helps to protect against disease because of the antibodies

4) Why would a veterinarian use electric burners on a calf?

- Dehorning

## Novice Packet 4, Phase B

1) What do the 4-H's stand for in the 4-H pledge?

- Head, heart, hands, and health

2) Name 2 different types of milking parlors.

- Herringbone
- Parabone
- Parallel
- Rotary
- Side opening
- Flat barn

3) Name 3 types of storage facilities for silage.

- Bunker silo
- Trench silo
- Upright or tower silo
- Ag bag
- Oxygen limiting silo (harvester)

4) Name 4 parts of the cow's digestive system.

- Mouth
- Esophagus
- Rumen
- Reticulum
- Omasum
- Abomasum
- Small intestine
- Large intestine
- Colon
- Rectum

## Novice Packet 4, Phase C

- 1) What vitamin do calves obtain by being exposed to sunlight?
  - Vitamin D
- 2) In a newborn calf, what stomach compartment is the largest in total volume?
  - Abomasum
- 3) What hygiene practice is the single most important measure for preventing the spread of a disease from animals to humans?
  - Hand washing
- 4) What substance is frozen semen stored in?
  - Liquid nitrogen
- 5) What color should a dairy showman wear in the show ring?
  - White
- 6) When looking at a dairy animals pedigree, what is the term used for an animal's father?
  - Sire
- 7) What is a newborn calf's navel often dipped with?
  - 7% tincture iodine
- 8) What is the name of the gas that is produced by manure digesters and can be converted in electricity?
  - Methane
- 9) Lice are the most troublesome during what season of the year?
  - Winter
- 10) Homogenization breaks up what in milk?
  - Fat globules
- 11) What connects the fetus to the navel and carries nutrients between the mother's body and the fetus?
  - Umbilical cord
- 12) What does it mean if a feed is palatable to a dairy animal?
  - The animal likes it and will eat it
- 13) What is dystocia?
  - Difficultly calving

14) What vitamin in milk helps maintain normal vision and skin?

- Vitamin A

15) An animal known as an herbivore only eats what?

- Plants

16) What does it mean if we say a heifer is over conditioned?

- She is too fat



## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 5, Phase A

- 1) Where is the best place on a cow to give an intravenous injection?
  - Jugular vein on the neck
- 2) Where do you deposit the material when an injection is given IM
  - Into the muscle
- 3) What is the most common disease caused by staph aureus, strep ag, and klebsiella?
  - Mastitis
- 4) On average, cows have a flight zone of how many feet?
  - 5 feet

## Novice Packet 5, Phase B

1) Name two things that the milk-hauler does before pumping our milk on the truck?

- Check the temperature of the milk,
- Measures the amount in the tank (lbs.),
- Checks milk for "off" odors,
- Removes a sample of the milk for future testing.

2) Name 3 parts of the milking machine.

- Shell
- Inflation
- Air tubes
- Claw
- Milk tubes
- Pulsator

3) Give the common name for the 3 different stages of a female dairy animal from birth through milk production.

- Calf
- Heifer
- Cow

4) Name 4 things that a judge looks for in a fitting and showmanship class.

- Animal's condition
- Cleanliness
- Clipping
- Grooming
- Appearance of exhibitor
- Leading of the animal
- Posing of the animal
- Showing the animal to best advantage
- Poise, alertness and attitude of the showman

## Novice Packet 5, Phase C

- 1) What is considered the largest cost to the producer for milk production?
  - Feed
- 2) What is the term used to describe animals that give birth to live young and they can suckle their offspring after birth?
  - Mammal
- 3) When doing embryo transfer in dairy animals, what is the name given to the animal that has an embryo transferred into her from another cow?
  - Recipient
- 4) The term gestation is the term used to describe the length of what?
  - Pregnancy
- 5) Which stomach compartment is largest on a mature dairy cow?
  - Rumen
- 6) What is the term used on an animal's pedigree for that animal's mother?
  - Dam
- 7) What is the number of recommended daily servings of dairy products per day for people?
  - 3 servings
- 8) Limestone contains high amounts of what mineral?
  - Calcium
- 9) What do we call the condition in the cow when the abomasum twists out of the normal position?
  - DA or displaced abomasum
- 10) What does the "Real Seal" mean?
  - It means the product it appears on is a genuine dairy product.
- 11) What is a group of cattle called?
  - A Herd
- 12) What is the name of the farmer magazine that has the dairy cattle judging contest on the cover?
  - Hoard's Dairyman

13) What is the name of the substance in colostrum that provides protection against diseases through passive immunity?

- Antibodies or immunoglobulins

14) In days, what is the standard length of a dairy cow's lactation?

- 305 days

15) On the PDCA scorecard, which category is worth the most points?

- Udder or Mammary

16) If a farmer said he was feeding an 18% dairy feed, what does the 18% refer to about the feed?

- The protein content of the feed

## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 6, Phase A

- 1) True or False: Pasture, hay and silage make up the concentrate portion of a cows ration.
  - False
- 2) True or False: Dry cows should be fed a ration that is identical to that fed to the high producing milking cow.
  - False
- 3) True or False: Ringworm is caused by roundworm infestation
  - False
- 4) True or False: Class III dairy products include butter, dried milk powder, and hard cheese
  - True

## Novice Packet 6, Phase B

1) Name 3 symptoms of a cow with clinical mastitis.

- Flakes
- Clots
- Hot quarter
- Stringy milk
- Watery milk
- Swollen quarter
- Presence of blood

2) Name 3 ways a dairy cow excretes or loses water.

- Breathing
- Sweating
- Feces
- Milk
- Urine

3) What are the two primary gases produced in the rumen?

- Methane
- Carbon dioxide

4) Name 3 different kinds of bedding that can be used on a dairy farm.

- Straw
- Sand
- Old hay
- Sawdust
- Mattresses
- Old corn stalks
- Paper

## Novice Packet 6, Phase C

- 1) What are the building blocks of true proteins?
  - Amino Acids
- 2) What is the most reliable way of knowing the nutrient content of forages?
  - Forage testing
- 3) Which fast food chain uses the most milk in the U.S?
  - McDonalds
- 4) What is the name for an infection of the uterus in a cow?
  - Metritis
- 5) What is the general term used to describe a situation where a piece of metal has been swallowed by a cow or heifer and collects in the reticulum?
  - Hardware disease
- 6) What is the material that must be cleaned out of a newborn calf's nose and mouth called?
  - Mucous
- 7) What season does pinkeye occurs most often?
  - Summer
- 8) What is a cow's natural buffer?
  - Saliva
- 9) Why would you groove floors in a free stall?
  - To prevent slipping
- 10) What is the process called that is done to milk to destroy harmful bacteria?
  - Pasteurization
- 11) Where in the body is calcium stored?
  - Bones and teeth
- 12) Why might a dairy farmer use crayon on the tail head of a cow?
  - Heat detection
- 13) Where is the medial suspensory ligament found on a dairy cow?
  - The Udder

14) What is the danger to a person when entering an upright silo too soon after filling?

- Toxic silo gases

15) What do we call an animal that another organism live on as a parasite?

- Host

16) When the rumen in the dairy animal is distended with gases of fermentation, what do we call this condition?

- Bloat



## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 7, Phase A

1) What part of the alfalfa plant has the highest percent protein?

- The leaves

2) What is the name of the paper that accompanies a purebred animal and certifies his or her parentage?

- Registration paper

3) When talking about a dairy cow, what does the term open mean?

- She is not pregnant

4) What direction do you move when leading an animal in the show ring?

- Clockwise

## Novice Packet 7, Phase B

1) Name 2 different forages.

- Corn silage
- Haylage
- Balelage
- Shredlage

2) Name 3 methods commonly used to identify calves.

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

3) Name the 3 main purposes for which cattle are used across the world.

- Meat
- Milk
- Labor

4) Give 3 reasons why a dairy farmer might cull or remove a cow from his herd.

- Unhealthy
- Mastitis
- Reproduction
- Feet and leg issues
- Disposition
- Age
- Low production

## Novice Packet 7, Phase C

1) What is the name of the dried forage that is baled and fed to cows?

- Hay

2) Milk that is straight from the cow and not processed is called what?

- Raw milk

3) If a cow is bellowing and trying to mount other cows along with allowing other cows to mount her, we would say she is what?

- In heat or estrus

4) What is it called when an egg is released from the cow's ovary?

- Ovulation

5) When looking at a cow what body part is located between the cow's hip bones and pin bones?

- Thurls

6) What does the acronym ADA stand for?

- American Dairy Association

7) What colors is the Ayrshire breed known for?

- Red and White ( Reddish brown)

8) What does it mean when you see a 3X printed on an animal's production records?

- She is milked 3 times a day

9) What does the American Dairy Association do?

- It coordinates the Dairy Industry's advertising and marketing.

10) NYSCHAP stands for what?

- New York State Cattle Health Assurance Program

11) What food stuff consists of leaves and stems of plants that are relatively high in fiber content?

- Roughage

12) What are the units called when breaking a large grazing area into smaller sections?

- Paddocks

13) What do you call the condition in a cow that has a body temperature of 103 degrees Fahrenheit?

- Fever

14) What is the food a cow is given where everything is mixed together so each bite is the same and the mix meets all of the animal's nutritional needs?

- TMR – total mixed ration

15) Who invented the Pasteurization process?

- Louis Pasteur

16) What word describes the cutting or selling of unwanted or poor quality animals from the herd?

- Culling

## 2014 N.Y District Novice 4-H Dairy Quiz Bowl Contest

### Novice Packet 8, Phase A

1) If a feed contains 40% dry matter, what percentage of the feed is made up of water?

- 60%

2) The wall of the small intestine, are lined with small projections called what?

- Villi

3) What month is national ice cream month?

- July

4) The Milking Shorthorn is from what country?

- England

## Novice Packet 8, Phase B

1) Name 4 different pieces of information you would find on the nutrition label on a container of milk

- Serving size
- Servings per container
- Ingredients
- Calories
- Fat content
- Cholesterol
- Sodium
- Carbs
- Protein
- Where processed
- Size of container

2) Name the 3 of the 5 major categories of evaluation on the Dairy Cow Unified Score Card.

- Frame
- Dairy Character
- Body Capacity
- Udder
- Feet and Legs (PDCA)

3) Fawn is an acceptable color for which 2 major dairy breeds?

- Guernsey
- Jersey

4) Name 3 things that can cause diseases in animals

- Viruses
- Bacteria
- Parasites
- Poor nutrition
- Genetic defects
- Poor environment

## Novice Packet 8, Phase C

1) Where do heel flies lay their eggs?

- On the lower legs of the cow

2) What do we call the bugs in the cow's stomach that help digest forages?

- Rumen bugs

3) What disease are you trying to prevent if you are using a separate towel to wash or clean the udder of each cow prior to milking.

- Mastitis

4) What do you call the small individual calf buildings that are popular for housing young calves outside?

- Calf hutch

5) Which dairy product is made by fermenting milk and cream with bacteria cultures?

- Yogurt

6) Which compartment of the cow's stomach is where the majority of the feed fiber is digested by microorganisms?

- Rumen

7) Which vitamin is routinely added to milk?

- Vitamin D

8) What infection causes milk somatic cell counts to increase?

- Mastitis

9) What does the acronym PDCA stand for?

- Purebred Dairy Cattle Association

10) What is the technical term for calving?

- Parturition

11) Give the name of the compartment of the ruminant's stomach that absorbs water and minerals and sometimes is called many piles?

- Omasum

12) Why do you put iodine on a calf's navel soon after birth?

- To seal the entrance from disease causing organisms

13) Your cow's back looks like it has marbles under the skin. What parasite does it have?

- Grubs

14) How many teeth does a cow have?

- 32

15) What is the most common complaint from school children on how milk is served?

- Too warm

16) How many pasterns does a calf have?

- 4



## Extra Questions-2014 N.Y State 4-H Novice Dairy Quiz Bowl Invitational

1) Which dairy breed discriminates against white hair?

Brown Swiss

2) Why shouldn't you use the same shovel for handling feed and manure?

To prevent contaminating the feed

3) What is the name for a dairy animal's personal space?

Flight zone

4) How many pounds does a gallon of milk weigh?

8.6 pounds

5) What is the name of the storage structure used to store feed and allows it to ferment?

A silo

6) What is another name for diarrhea in calves?

Scours

7) What organ of the cow carries the fetus or calf during pregnancy?

Uterus

8) How many quarts are in a gallon of milk?

4 quarts

9) What hormone is at peak levels at the onset of standing heat?

Estrogen

10) What is used to wipe teat dip off of teats before putting the milking machine on?

- Cloth or paper towels