

2019 NYS Regional 4-H Beginner Dairy Bowl Contest

Beginner Packet 1, Phase A

1) What is most commonly used to dehorn calves?

Electric

2) How often should a bulk tank be washed?

Every time it is empty

3) Regarding to feed, what do the letters TMR stand for?

Total Mixed Ration

4) *What is the term for the period of time that a cow is in milk?*

Lactation

Beginner Packet 1, Phase B

1) Name 3 signs of illness calves

Coughing

Heavy Breathing

Watery Manure

Droopy Ears

Nasal Discharge

Decreased Appetite

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

Teats

Rear Udder

Fore Udder

Milk Veins

Rear Udder Attachment

Fore Udder Attachment

Milk Wells

Median Suspensory Ligament

3) Name the 6 major breeds of dairy cattle

Brown Swiss

Jersey

Holstein

Milking Shorthorn

Guernsey

Ayrshire

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

Head, heart, hands, health

Beginner Packet 1, Phase C

- 1) What does the acronym SCC stand for in regards to milk quality?
Somatic Cell Count
- 2) What is a more common name for the sire of a calf?
Father
- 3) What percent of milk is water?
85%
- 4) What foodstuff consist of leaves and stems of plants that are relatively high in fiber content?
Roughage
- 5) What is the substance that frozen semen is stored in?
Liquid Nitrogen
- 6) What does it mean if a heifer or a cow is over conditioned?
She is too fat/over weight
- 7) What Vitamin helps maintain healthy skin and vision?
Vitamin A
- 8) What is the main reason to dip a cow's teats after milking?
Prevent or reduce the rate of udder infection
- 9) What is the primary sugar found in milk?
Lactose
- 10) What is it called when a calf is switched from milk or milk replacer to water and dry hay?
Weaning
- 11) What is the process of heating up milk and cooling it down to kill bacteria?
Pasteurization
- 12) The substance limestone contains high amount of what mineral?
Calcium
- 13) What is dystocia?
Difficult calving
- 14) Which stomach compartment of the cow is the largest?

Rumen

15) What is a group of cows called?

A herd

16) Homogenization breaks up what in milk?

Fat globules

Beginner Packet 1, Bonus Questions

1) Name 3 different types of parlors commonly used on dairy farms

Herringbone

Rotary

Parallel

Side Opening

Parabone

2) Name 3 methods commonly used to identify calves

Ear tag

Tattoo

Freeze Branding

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

Breathing

Sweating

Feces

Milk

Urine

4) Name 3 parts of the milking machine

Air tubes

Shell

Pulsator

Claw

Milk Tubes

Beginner Packet 2, Phase A

1) *Ringworm is caused by which of the following: a fungus, bacteria, or virus?*

Fungus

2) A gallon of colostrum is how many quarts?

4 quarts

3) What dairy breed makes up about 90% of the US cow population?

Holstein

4) What is known as a record of ancestry?

Pedigree

Beginner Packet 2, Phase B

1) Name 3 symptoms of clinical mastitis

Flakes

Clots

Hot Quarter

Stringy Milk

Watery Milk

Swollen Quarter

Presence of blood

2) Name 3 major causes of calf scours

Overfeeding

Unsanitary calving conditions

Poor quality colostrum

Poor quality milk replacer

Overcrowding

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

Reticulum

Rumen

Abomasum

Omasum

4) Name 4 pieces of information that you would find on the nutrients label on a gallon of milk

Serving size

Servings per container

Ingredients

Calories

Fat Content

Sodium

Cholesterol

Carbohydrates (Carbs)

Protein

Beginner Packet 2, Phase C

- 1) A footbath should be how many inches deep in order to work properly?
10 inches
- 2) What is the general name for all animals that give birth to live young and suckle their offspring after birth?
Mammals
- 3) What is the process of turning cream into butter called?
Churning
- 4) What is the term describing a sterile heifer born twin to a bull?
A freemartin
- 5) How many teeth does a mature dairy cow have?
32
- 6) What is the name of the first milk that a cow produces after she has calved?
Colostrum
- 7) What is a cow's personal space called?
Flight zone
- 8) What is considered the largest cost for a farmer to produce milk?
Feed
- 9) What is the scientific name for cattle?
Bovine
- 10) Who invented the process of pasteurization?
Louis Pasteur
- 11) Where is the streak canal located in the cow?
Teat
- 12) When is National Dairy Month?
June
- 13) What is the term when a calf is born without horns?
Polled
- 14) What mineral in milk may help prevent the chance of developing osteoporosis?
Calcium
- 15) What stomach compartment in a cow is most like a humans?
Abomasum

16) What is the selling of unwanted or sick animals?

Culling

Beginner Packet 2, Bonus Questions

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

Straw

Sand

Old hay

Sawdust

Mattresses

Paper

2) Name 3 things that can cause diseases in animals

Viruses

Bacteria

Parasites

Poor nutrition

Genetic defects

Poor environmental conditions

3) *Name 3 other cloven-hooved animals, other than cows*

Goats

Sheep

Pigs

Camels

4) Name 3 types of flies commonly found on dairy farms

House fly

Stable fly

Face fly

Horn fly

Heel fly

Deer fly

Beginner Packet 3, Phase A

1) *What structures carry blood from the body back to the heart?*

Veins

2) When doing embryo transfer, what is the cow called that the embryos come from?

Donor

3) What parent determines the sex of a calf?

Sire, bull or father

4) In regard to milk quality what do the letter CMT stand for?

California Mastitis Test

Beginner Packet 3, Phase B

1) Name 3 liquid milk products

Whole Milk

Low fat milk (1%)

Reduced fat milk (2%)

Fat free milk (skim)

Chocolate milk

Buttermilk

Cream

Half & Half

2) What are the 2 main gases produced in the rumen?

Carbon Dioxide

Methane

3) Name 3 types of silage storage systems

Upright Silos

Harvestore units

Bunk silos

Trench silos

Bags

Wrappers

Tube silo

4) Name three reasons for culling a dairy cow from the herd.

Low production

Mastitis

Reproduction

Udder

Feet and legs

Disease

Injury

Disposition

Beginner Packet 3, Phase C

- 1) What is dehydration?
Lack of water
- 2) Why might a farmer feed a cow a magnet?
Treat for hardware disease
- 3) What is the hormone that makes a cow let her milk down?
Oxytocin
- 4) What is an infection of the udder called?
Mastitis
- 5) What is the small stick called that frozen semen is contained in?
Straw
- 6) The dewclaws are found on which part of the cow?
Foot
- 7) What dark, liquid feed added to dairy cattle rations improves taste and helps reduce dustiness?
Molasses
- 8) In regard to reproduction, what does the acronym AI stand for?
Artificial Insemination
- 9) What is the name for the bush of hair at the end of a cow's tail?
The switch
- 10) Metritis is an infection of what part of the cow's reproductive tract?
Uterus
- 11) What federal class of milk is fluid milk marketed in?
Class 1
- 12) What does the acronym USDA stand for?
United States Department of Agriculture
- 13) What is higher in protein content: soybean meal or corn meal?
Soybean meal
- 14) What season of the year are lice most troublesome?
Winter
- 15) What is the meat from a young calf called?

Veal

16) Which breed of dairy cattle arrived in the US in 1822 from Scotland?

Ayrshire

Beginner Packet 3, Bonus Questions

1) What are 3 critical factors in colostrum management?

Quantity

Quality

Timing

Cleanliness

2) What are the three places that a pathogen can enter a calf's body?

Mouth

Navel

Nose

3) Name 3 organ systems found in the cow's body

Circulatory

Respiratory

Nervous

Digestive

Reproductive

Skeletal

Muscular

Endocrine

Integumentary

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

Age

Breed

Health

Pedigree

Conformation

Cost/price

Housing

Beginner Packet 4, Phase A

1) What is the name of the tool used to give a cow a pill or administer a magnet?

Balling gun

2) Milk production is the lowest during what season?

Summer

3) What year was the milk bottle invented?

1884

4) *What is another name for the Corpus Luteum?*

Yellow Body

Beginner Packet 4, Phase B

1) Name the 2 main crops that are grown to feed cows in the United States

Corn

Alfalfa

2) Name 3 factors that affect how much water a calf will drink

Growth/body size

Air temperature

Calf health

Feed intake

Weather

3) Name 3 pieces of information you can find on a cow's registration paper.

Name

Sire

Dam

Date of birth

Owner

Breeder

Grandsire

Grand dam

Sex

Registration number

4) Name 2 adjectives that can describe the ideal udder and rear udder attachment

High and Wide

Beginner Packet 4, Phase C

- 1) How much does a gallon of milk weigh?
8.6 lbs.
- 2) What position do calves drink from a bottle the best?
Standing up
- 3) What is the name of the skin disease that is caused by the Bovine Papilloma Virus?
Warts
- 4) What is the condition called when a cow's rumen is filled with gas?
Bloat
- 5) What is the condition called when a cow has a body temperature of 103 degrees Fahrenheit or more?
Fever
- 6) What is another term used for an animal's mother?
Dam
- 7) What is known as the gold standard for bedding?
Sand
- 8) A plant that must be reseeded every year is called what?
Annual
- 9) When referring to farm equipment, what do the letters PTO stand for?
Power Take Off
- 10) What is the technical term for calving or freshening?
Parturition
- 11) What term is used to describe an animal that only eats plants
Herbivore
- 12) What is another name for the subcutaneous abdominal veins in the dairy cow?
Milk veins
- 13) What is the standard length of a dairy cow's lactation in days?
305
- 14) What is the official state snack of New York?
Yogurt
- 15) What is the condition called in a cow when the abomasum twists out of the normal position?

DA or Displaced Abomasum

16) What is the name for the feed by-product that is recovered when cheese is made?

Whey

Beginner Packet 4, Bonus Questions

1) Name 3 different dairy products

Milk

Ice cream

Yogurt

Cheese

Butter

Cottage Cheese

Sour Cream

Cream Cheese

Frozen yogurt

Nonfat dry milk

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 the vulva

Vulva red and swollen

3) Name 3 types of common calf housing

Hutches

Elevated stalls

Pens

Cold Calf housing system

Counter slope system/barn

Individual pens in barn

4) Give the common name for the 3 different stages of a female dairy animal birth to milk production

Calf, heifer, cow

Beginner Packet 5, Phase A

1) Which breed of dairy cattle has the longest gestation period?

Brown Swiss

2) What part of the plant normally has the highest protein content?

Leaves

3) What hormone is at peak levels when a cow is in standing heat?

Estrogen

4) What does mastication mean?

Chewing

Beginner Packet 5, Phase B

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

Water Absorption

Storage of waste materials

2) Name 4 external parts of a dairy cow's head?

Poll

Eyes

Muzzle

Ears

Jaw

Forehead

Nostril

3) Spell A-Y-R-S-H-I-R-E

4) Name 3 different types of non-permanent cow identifications

Neck straps

Ear tags

Ankle straps

Crayons

External electronic devices

Brisket tags

Beginner Packet 5, Phase C

- 1) What is the condition called when excess fluid collects in the udder?
Udder edema
- 2) What stomach compartment of the cow is known as the 'many plies'?
Omasum
- 3) What is the name for milk that has not been pasteurized or processed?
Raw
- 4) What is the indigestible portion of a plant called?
Lignin
- 5) What is the common disease that causes a cow's eye to become red and swollen and is often spread by flies?
Pinkeye
- 6) What does it mean if a dairy cow is 'open'?
She is not pregnant
- 7) What beverage is scientifically recommended for refueling after a workout?
Chocolate Milk
- 8) What is the most effective way to prevent rabies in cattle?
Vaccination
- 9) What is a balling gun used for?
To give a cow a pill
- 10) When looking at a dairy cow's production records, what does the term 3x mean?
She is milked 3 times a day
- 11) Which breed of dairy cattle has the lowest rate of dystocia?
Jersey
- 12) How much colostrum should a calf receive in the first feeding?
3-4 quarts or 8-10% of its body weight
- 13) What is the process of heating milk to kill bacteria called?
Pasteurization
- 14) What is the name of the primary protein found in milk?
Casein
- 15) Mycotoxins found in feed are caused by what?

Molds

16) What piece of farm equipment is used to narrow the swath for a baler and to move the wetter material at the bottom of the windrow through the outside?

Rake or Merger

Beginner Packet 5, Bonus Questions

1) Name 3 different materials that a halter can be made of

Leather

Rope

Chain

Nylon

2) Name 3 potential causes of mastitis

Failure to dip teat

Faulty milking equipment

Improper dry cow treatment

Poor housing/environment

Poor milking practices

Poor sanitation

3) Name 3 ways for testing pregnancy in cows

Palpation

Testing hormones in milk

Testing hormones in blood

Ultrasound

4) Name 3 methods of giving medicine to a cow

Oral

Topical

Injection

Intra mammary injection

Intramuscular

Intravenous

Subcutaneously

Beginner Packet 6, Phase A

1) Romano, parmesan, and mozzarella are all types of what?

Cheese

2) On average, cows have a flight zone of how many feet?

5 feet

3) What is used as the reference point to determine the height of the udder floor?

Hock

4) What is the term used to refer to the height of a calf or a cow at the withers and hips?

Stature

Beginner Packet 6, Phase B

1) Name 3 parts of the cow's reproductive tract

- Vulva
- Vagina
- Cervix
- Ovaries
- Oviduct
- Uterus

2) Name 2 reasons cattle should be dehorned

- Prevent injury to other animals
- Prevent injury to other people
- Space – animals with horns require more space to eat
- Horned animals will have difficulty fitting heads into headlocks/certain spaces

3) Name 2 different types of forages

- Corn Silage
- Haylage
- Balelage
- Shredlage

4) Name 3 functions of saliva

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

Beginner Packet 6, Phase C

- 1) What percent fat is found in skim milk?
0%
- 2) What term describes mating two purebred animals of different breeds?
Crossbreeding
- 3) The solid portion of cheese is called what?
Curds
- 4) In what part of the dairy cow's digestive system do fiber digesting microbes live?
Rumen
- 5) What illness is a calf likely to develop if she is raised in a drafty environment?
Pneumonia
- 6) What is a lagoon used for on a dairy farm?
Manure storage
- 7) What is the most popular type of cheese used on pizza?
Mozzarella
- 8) What is the name for the membranes of pregnancy that pass out of the cow after she gives birth?
Afterbirth or placenta
- 9) How long is the average estrous cycle in a dairy cow?
21 days (19 -23 days is acceptable)
- 10) Acidosis can be caused by feeding cows too much of what kind of feed?
Grain
- 11) What is the name used for the area in front of a cow that is necessary for her to easily stand up?
Lunge space
- 12) Where is a subcutaneous injection given?
Under the skin
- 13) What hormone is necessary for the maintenance of pregnancy?
Progesterone
- 14) How long is a cow's gestation period?
280 days or 9 months

15) What do you call the mixture of regurgitated food in a cow?

Cud

16) Is Bovine Viral Diarrhea or BVD caused by a virus or bacteria?

Virus

Beginner Packet 6, Bonus Questions

1) Name 3 functions of the digestive system

Food Intake

Storage

Digestion

Absorption

Elimination of Waste

2) Name 3 types of dewormers

Boluses

Pills

Paste

Drenches

Injectables

3) Name 3 heat detector aids to help identify cows that are in heat

Chalk markers

Tail paint

Kamar detectors

Pedometers

Rump mounted patches

Solution monitors

4) Name 3 of the 6 classes of nutrients

Water

Carbohydrates

Protein

Fat

Vitamins

Minerals

Beginner Packet 7, Phase A

1) How many incisor teeth does an adult cow have?

8

2) What are the small projections that line the small intestine?

Villi

3) Where do heel flies lay their eggs on cows?

On the lower legs of the cow

4) What color clothing is correct for a showmanship class at a cattle show?

White

Beginner Packet 7, Phase B

1) Name 3 potential by-products that can be used in feedstuffs

Cottonseed hulls

Dried brewers' grain

Cottonseed meal

Soybean meal

Distillers' grains

Peanut meal

Citrus pulp

2) Name 3 things that the milk-hauler does before pumping the milk from the bulk tank into the milk truck

Checks the temperature

Takes a sample of the milk for testing

Check milk for off odors

Measures the amount of milk in the tank

Agitates the milk before taking the sample

3) Name 3 factors that can affect the quality of hay

The kind of hay

Fertilizers

Age of maturity when it is cut and harvested

How well it is dried after cutting and before harvesting

Storage

Handling

4) Which of the following is not a real dairy product? Ice cream, yogurt, cheese or cool-whip?

Cool-Whip

Beginner Packet 7, Phase C

- 1) How many days after calving will a cow exhibit her first behavioral estrous?
20-72 days
- 2) What disease can result from a deficiency in either Vitamin E or Selenium?
White Muscle Disease
- 3) Why should hospital cows and maternity cows be housed separately?
To avoid the spread and infection of diseases
- 4) What is the term that is defined as the building blocks of protein?
Amino Acid
- 5) What country did the Holstein breed originate from?
Netherlands, North Holland, or West Friesland
- 6) If a cow is said to be cystic, what does this mean she has difficulty doing?
Getting bred back, conceiving, cycling
- 7) What direction do you move when leading a dairy animal in the show ring, clockwise or counter clockwise?
Clockwise
- 8) What part of the cow does a calf develop in?
Uterus
- 9) What are the fundamental units of all body tissues called?
Cells
- 10) What city and state is the World Dairy Expo held in?
Madison, WI
- 11) Cows with sore feet and long toes are suffer from what?
Laminitis
- 12) What is the most important nutrient a cow needs to live?
Water
- 13) What stomach compartment is closest to the heart and is known as the honeycomb?
Reticulum
- 14) How long can you keep colostrum frozen?
1 year

15) What structure in the body connects muscle to bone?

Tendon

16) How many gallons of water does a dairy cow consumer per day?

30-50 gallons

Beginner Packet 7, Bonus Questions

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

Age

Breed

Health

Pedigree

Confirmation

Cost/Price

Housing

2) There are 7 heifer classes in a dairy show, name 3 of the classes

Spring heifer calf

Winter heifer calf

Fall heifer calf

Summer yearling

Spring yearling

Winter yearling

Fall yearling

3) Name 3 of the 4 classes of cheese

Soft

Semi-soft

Hard

Very hard

4) A cow's day consists of five major activities: eating, standing and what other 3 activities?

Laying down

Milking

Drinking

Beginner Packet 8, Phase A

1) What is the most popular flavor of ice cream in America?

Vanilla

2) What is the most commonly used for of heat detection among dairy producers?

Visual observation

3) What is the number one reason for culling a cow from the herd?

Lack of reproduction

4) Which has more calories: 8 oz. of fat free milk or 8 oz. of skim milk?

Same number of calories

Beginner Packet 8, Phase B

1) True or False: The liver does not properly function when a cow has ketosis.

True

2) What are 2 reasons why cows should lick off calves after they are born?

Clean calf

Dry calf

Stimulate calf breathing

3) Name 3 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 the best advantage

Poise, alertness, and attitude of showman

4) What are the two types of parasites that can affect an animal?

External

Internal

Beginner Packet 8, Phase C

- 1) What hygiene practice is the single most important measure for preventing the spread of a disease from animals to humans?
Hand washing
- 2) What is the name of the farmer magazine that has dairy cattle judging contest and was first published in 1885?
Hoard's Dairyman
- 3) What does the 'Real Seal' indicate?
The product it is found on is a genuine dairy product
- 4) What is located between the dew claw and the hoof of a dairy cow?
Pastern
- 5) What country did the Brown Swiss come from?
Switzerland
- 6) How many front teeth does a cow have?
None
- 7) If a feed contains 40% dry matter, what percentage of the feed is made up of water?
60%
- 8) An excess of calcium fed during the dry period can result in what metabolic disorder at freshening?
Milk fever
- 9) The spot located directly behind a cow is called her what?
Blind spot
- 10) What is a more common name for eructation?
Belching
- 11) What is the ideal age for a heifer to have her first calf?
22-24 months
- 12) How many chambers are in the heart of a cow?
4
- 13) Why should a calf's navel be treated with iodine after birth?
To help reduce the chance of infection
- 14) What country did the Jersey breed originate from?

Isle of Jersey

15) Which portion of the plant does grain generally come from?

Seed

16) What mineral in milk has been linked to weight loss?

Calcium

Beginner Packet 8, Bonus Questions

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

Meat, Milk, Labor

2) Name 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) Name 3 other cloven-hooved animals, other than cows

Goats

Sheep

Pigs

Camels

4) Name 3 characteristics used to determine dairy character.

Sharpness of withers

Open, flat ribs

Clean, free of flesh throughout

In-curving thigh

Long, lean neck

2019 NYS Regional Beginners Dairy Quiz Bowl Extra Questions

- 1) What is located between the dew claw and the hoof on a dairy animal?
Pastern
- 2) How are lice spread from one animal to another?
Direct contact with infected animal
- 3) What is another more common name for the subcutaneous abdominal veins in the dairy cow?
Milk vein
- 4) What is a newborn calf's navel often dipped with?
7% tincture iodine
- 5) What is the name for a bull calf that has been castrated?
Steer
- 6) What connects the fetus to the navel and carries nutrients between the mother's body and the fetus?
Umbilical cord
- 7) 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
- 8) What is the material that must be cleaned out of a newborn calf's nose and mouth called?
Mucous
- 9) What part of the corn plant is corn meal made from?
Corn kernels
- 10) Why would you groove floors in a free stall?
To prevent slipping
- 11) What does the orange triangle sign on the back of a wagon mean?
Slow moving vehicle
- 12) What does the term palatability mean?
The taste or likeability of feed
- 13) What popular feed stuff is a by-product of sugar beet processing?
Beet Pulp

14) Beta carotene is a precursor of what vitamin?

Vitamin A

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

Grass tetany