

2025 Senior NALJA Quiz Bowl Study Guide

What is the term used to describe calving difficulty?

Dystocia

What is the average gestation length of beef cow?

283 days (accept 280-285 days)

Name the first Limousin bull imported to North America.

Prince Pompadour

Bov Import imported two “D” named bulls in 1969 following the success of Prince Pompadour, what were their names?

Dandy and Diplomate

Who is the current NALF President?

Austin Hager

The term for an animal that has two different alleles for a single trait is what?

Heterozygous

What does the acronym SNP stand for in regards to DNA?

Single Nucleotide Polymorphism

A characteristic of an animal that can be measured or observed, such as color or weight, is called what?

Phenotype

What are the two components of a phenotype?

Genetics and Environment

What is the recommended Calcium to Phosphorus ratio in a balanced bovine diet?

2:1

What is the name of the fungus that causes fescue toxicity in beef cattle?

Endophyte

What is the average dressing percentage on a beef carcass?

A. 56%, B. 75%, C. **62%**, D. 45%

Meat is composed of 4 main elements. Which is found in the largest quantity?

A. Protein, B. Fat, C. **Moisture**, D. Ash (Minerals),

What is the weaning weight ratio of an individual whose weaning weight is the same as the group's average?

100

If a calf has a weaning weight ratio of 115, then how much is his adjusted weaning weight above the average as a percentage?

15%

A fertilized female gamete is called what?

Zygote

Where in the female reproductive tract does fertilization occur in cattle?

ampullary-isthmus junction (AIJ)

What is the chemical name for milk sugar?

Lactose

What crucial product used to treat diabetes has no synthetic source, but is made from cattle by-products? ***Insulin***

What three shows make up the Triple Crown?

Cattleman's Congress, American Royal and NAILE

In the first year of the Triple Crown there were two winners from one ranch, what was the name of the

ranch?

Spitz Ranch, Norman, Oklahoma

Who was the first executive vice president of NALF?

Richard "Dick" Goff

Name three other NALF executives.

Mark Anderson, Dr. Robert "Bob" Hough, Dr. Kent Andersen, Dr. John Edwards, Dr. Wayne Vanderwert, Jerry Fitzgerald, Greg L. Martin, Robert "Bob" Vantrease, Dale F Runnion

Where is fat thickness measured when yield grading a beef carcass?

The ribeye muscle between the 12th and 13th rib

What is the common term for intermuscular fat?

Seam fat

What is the name of the first Limousin bull imported permanently into the United States? ***Kansas Colonel***

Who was the first founder member of NALF and served as the NALF President for its first three years? ***Robert "Bob" Purdy***

What disease causes abortions in livestock and can be transmitted to humans?

Brucellosis

What is the common name for Brucellosis?

Bangs disease

True or False. The calving ease code C indicates a caesarean section.

False - C indicates mechanical assistance and D indicates a caesarean section

What is the primary hormone responsible for lactation?

Oxytocin

What hormone is produced by the corpus luteum and maintains pregnancy?

Progesterone

Scours is the common name for what disease?

Cattle diarrhea

Ringworm is caused by what?

Fungi or molds

In embryo transfer technology, what do you call the production of a greater-than-normal number of eggs? ***superovulation***

What hormone is used to stimulate superovulation?

FSH

What is the common name for bovine infectious keratoconjunctivitis?

Pinkeye

What mineral deficiency leads to symptoms known as goiter?

Iodine

What organization do the initials BIF refer to?

Beef Improvement Federation

What does the term EPD stand for?

Expected Progeny Difference

Name the ovarian structure that is responsible for the production of progesterone and has the initials

CL. Corpus luteum

In regards to the ovary, what do the initials FSH stand for?

Follicle Stimulating Hormone

BSEs are recommended to help identify fertile bulls. What does BSE stand for? ***Breeding Soundness Exam***

In regards to the prion disease commonly known as mad cow disease, what does BSE stand for?

Bovine Spongiform Encephalopathy

The FSIS is operated by the USDA. What do the letters FSIS stand for?

Food Safety and Inspection Service

When calculating yield grades on beef carcasses, KPH is a measurement of internal fat. What does KPH stand for?

Kidney Pelvic and Heart

DFD beef is common characteristic of dark cutters. What do the letters DFD stand for? ***Dark, Firm and Dry***

What do the letters DNA stand for?

Deoxyribose Nucleic Acid

Important to the development of bones, what does the chemical symbol Ca stand for? ***Calcium***

When dealing with cholesterol in the bloodstream, what do the letters HDL and LDL stand for?

High Density Lipids, Low Density Lipids

When discussing cattle performance, what does ADG stand for?

Average daily gain

In regards to feed efficiency, what does RFI stand for?

Residual feed intake

When dealing with feeds and nutrition, what do the letters TDN stand for?

Total digestible nutrients

In reference to nutrition, what does VFA stand for?

Volatile Fatty Acid

In regards to animal health, what does PI3 stand for?

Parainfluenza 3

What does BVD stand for?

Bovine viral diarrhea

What is the approximate maximum live age for carcasses to qualify for A maturity?

30 months

What is the maximum age that for cattle to qualify for export to Japan?

20 months

What is the basic classification for non-humped cattle?

Bos taurus

This breed of cattle originated in the Tuscany province of Italy. It originally was gray with a black muzzle and switch and has been used as both a draft and meat animal.

Chianina

What do seminiferous tubules produce?

Sperm

What organ of the bull's reproductive system is responsible for concentration, storage, maturation and transportation of sperm cells?

Epididymus

What is the external portion of the female bovine reproductive tract?

Vulva

In a cow's reproductive tract at the end of each oviduct is a thin cup-like membrane. The purpose of this membrane is to catch ovum or eggs after ovulation. What is the name of this thin cup-like membrane?

Infundibulum

What vitamin is generally considered to be adequately provided for as long as cattle are exposed to sunlight?

Vitamin D

Vitamin D is one of four fat soluble vitamins. Name the other three.

Vitamins A, E and K

Name the two possible active ingredients in stocker cattle growth implants used in addition to those that may be found in calf growth implants.

Estradiol, trenbolone acetate (testosterone is also acceptable)

How many cattle did the North American Limousin Foundation register last fiscal year?

13,400 (accept 13,000 – 14,000)

When was the first French Limousin Herdbook established?

November 1886

In females, what disease can cause endometritis (infection of inner lining of the uterus), resulting in failure to conceive and death of the embryo.

Vibriosis

What disease is caused by protozoan organism which results in a venereal disease, occasional abortions and pyometra?

Trichomoniasis

What supplies the digestive enzymes necessary for the breakdown of plant cellulose and hemicellulose in cattle?

Rumen microbes

Name the four measured factors used to formulate yield grades.

Fat thickness, Ribeye area, Carcass Weight, and KPH - kidney, Pelvic, Heart fat

Bacteria, Viruses, and Fungi are all categories of microorganisms which pose potential health threats to cattle. To which of these categories can we attribute Foot Rot in cattle?

Bacteria

What disease causes repeat breeders, low grade uterine infectious, abortions, mastitis, and occasionally systemic infection in cattle?

Leptospirosis

What is the instrument utilized to castrate bull calves in a bloodless method that crushes the blood and nerve supply?

Burdizzo

At about 38 days into gestation the placental membranes begin to attach to the uterine wall. These raised areas of attachment located on the uterine wall are called what?

Caruncles

What is the approximate age range of a carcass with a maturity level of C?

42-72 months

If a homozygous polled bull is mated to heterozygous polled cows, what percentage of the offspring should be polled?

100%

Which trait has the highest heritability - ribeye area, calving ease or weaning weight? **Ribeye area**

Name the compartments of a ruminant stomach.

Rumen, reticulum, omasum and abomasum

Which compartment is the most similar to a human stomach?

abomasum

Where is subcutaneous fat located?

Under the skin

What is another term for intramuscular fat?

Marbling

What is the primary method of semen collection for use in breeding soundness examinations? **electroejaculation**

In the male reproductive system, what is the name of the transportation tubes that connect the epididymis to the urethra?

Vas deferens

In a cow's reproductive tract, what separates the uterus and vagina?

Cervix

What hormone regresses the corpus luteum triggering the onset of estrus?

prostaglandin

What is the common name for the deleterious genetic defect arthrogyposis multiplex?

Curly calf syndrome

What is the common name for contractural arachnodactyly?

Fawn calf

Genetic muscular hypertrophy is the scientific name for what condition?

Double muscling

What protein is associated with the F94L gene in Limousin cattle

Myostatin

What term denotes the rupture of a follicle?

Ovulation

On average, how long after cessation of estrus does ovulation occur?

30 hours (accept 24-36 hours)

What is a cryptorchid?

An animal with one or both testicles retained in the body

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

Freemartin

What is the minimum level of marbling required to qualify for the Choice quality grade? **Small**

Name the two major types of connective tissue found in beef muscle.

Collagen and elastin

What is true about a dominant gene in Limousin cattle?

- It is always expressed
 - It always occurs in homozygous pairs
 - It only occurs in heterozygous pairs
 - It is always more dominant in bulls
- a. It is always expressed**

When does a cow typically have the highest energy requirement?

2 months after calving

What is the best term to use when referring to a calf's female parent?

Dam

In what units is scrotal circumference measured?

Centimeters

What are the building blocks for proteins?

Amino Acids

What is the name of the protective covering of thick skin covered with hair, which surrounds the testes? ***Scrotum***

What is the name of the official publication of NALF?

Limousin 365

What condition can usually be cured by dropping a magnet into the ruminant stomach? ***Hardware disease***

How many compartments are in the ruminant stomach?

4

Male cattle that have been castrated are called what?

Steers

What hormone is produced by the testes?

Testosterone

Who is the current President of NALJA and where are they from?

Eliza Truel, Oklahoma

What is the letter prefix used in 2021?

J

Small horns that are not attached to the skull, but by the skin only are referred to as? ***Scurs***

In a beef cow, which compartment of the stomach has the greatest volume?

Rumen

What is the term used to describe a specific animal's ancestry or lineage?

Pedigree

Which grain is higher in protein, wheat or corn?

Wheat

What state is the North American Limousin Foundation located in?

Colorado

Warts are caused by what type of organism?

Virus

Muscle and fat are the two of three major tissues in an animal's carcass. Name the third. ***Bone***

What is the name of the first milk that a cow gives after calving?

Colostrum

What is the name of young female cattle that have not calved yet?

Heifer

Weaning weights are adjusted to how many days of age?

205

Among Angus, Hereford and Limousin, which would you expect to have the highest incidence of cancer

eye?

Hereford

To prevent infections, a newborn calf should have its navel dipped in what solution? ***Iodine***

Name three methods of cow identification.

Ear tags, hot brands, freeze brands, tattoos, neck chains, brisket tags

What do the initials USDA stand for?

United States Department of Agriculture

What chemical substance is semen stored in?

Liquid Nitrogen

In common terminology, hip heights adjusted for age are used to calculate what? ***Frame score***

What sex chromosomes will a male calf have?

XY

What do the letters MOE stand for?

Medal of Excellence

Bloat can be detected visually on which side of an animal's body?

Left

What is another name for a surrogate mother in an embryo transfer program?

Recipient cow

What quality grade has the highest degree of marbling?

Prime

What do broad, flat, white ribs on a carcass indicate?

Old maturity

What does MARC stand for?

Meat Animal Research Center

Age of puberty of a female is related to what measurement taken on her sire?

Scrotal Circumference

What is the primary sense a cow uses to recognize her calf?

Smell

What is the scientific name for the afterbirth expelled post calving?

Placenta

What is the practice of feeding a calf a grain ration while it is still nursing?

Creep feeding

Which is dominant, the gene for horned or the gene for polled?

Polled is dominant

What livestock disease is abbreviated using the letters FMD?

Foot and Mouth Disease

If a heterozygous black bull is mated to heterozygous black cows, what percentage of the calves are expected to be red?

25%

What is the common name for feeds that are high in energy and low in fiber?

Concentrates

Name two of the four factors that determine USDA Yield Grades.

Carcass Weight, Fat Thickness, Ribeye Area, % KPH Fat

In carcass terms, what do the letters REA stand for?

Ribeye Area

Name two carcass traits commonly measured using ultrasound scanning.

Ribeye Area, Fat Thickness, Percent Intramuscular Fat, Rump Fat

A group of cattle of the same sex and within the same percentage Limousin group that were born within a 90-day period, managed alike and weighed on the same date is called what?

Contemporary group

In NALF's genetic evaluation program, what do the letters ACC represent?

Accuracy

What do you call a Limousin animal that can be traced entirely back to Limousin parentage and has 100% for its actual Limousin percentage?

Fullblood

What is an animal sired by a Fullblood Limousin bull out of a registered Angus cow designated as? ***50% Lim-Flex (accept Lim-Flex)***

Who is the current Executive Director of NALF?

Mark Anderson

True or False. A bull that is horned, but has 2 polled parents, likely carries the polled gene even though he is horned.

False. He is homozygous horned.

In cattle, in what trimester does the fetus gain the majority of its weight?

Last

True or False. An Angus bull with a + 100 Yearling Weight EPD is equivalent to a Limousin bull with a +100 Yearling Weight EPD.

False

How many directors are on the NALJA Board?

10

What does colostrum contain that regular milk does not?

Anti-bodies

What is another name for heterosis?

Hybrid vigor

If the cattle market is bullish, prices are expected to increase, decrease or stay steady? ***Increase***

What three pieces of information can be obtained from a registered Limousin tattoo? ***Herd prefix, animal ID number, year of birth***

True or False. Calves are born with a functional rumen.

False

In terms of birthing, what is the name of the condition that occurs when a calf is presented tail first? ***Breech birth***

If a cow is bred A.I. on January 1st, in what month is she due?

October

True or False. Performance information reported on Limousin cattle which are eligible for registration but not actually registered contributes to calculations of EPDs.

True

In what country did Limousin cattle originate?

France

When was NALJA formed?

1973

What do the letters NCBA stand for?

National Cattlemen's Beef Association

Of the 4 compartments of a ruminant's stomach, which is also known as the honeycomb? **Reticulum**

What year were Limousin first imported into North America?

1968

What is the normal pulse rate for cattle?

60-70 beats per minute

What are the grades of beef for young market animals?

Prime, Choice, Select, Standard

What is the name for the lip-curling reflex exhibited by bulls when they smell a cow in heat? **Flehming response**

How many months after calving will a beef cow normally come into heat?

1½ to 2 months

What are cattle that naturally lack horns called?

Polled

What basic nutrient is found in the largest quantities in an animal's body?

Water

The estrous cycle of a beef cow lasts how long?

18-23 days

What is the proper approximate rectal temperature in cattle?

101-102 degrees Fahrenheit

What type of injection goes directly into the muscle?

Intramuscular

What is the recommended age a heifer should first calve?

2 years old

True or false fiber is hard to digest?

True

What do you call high energy source feeds?

Carbohydrates

What is another name for yield grade?

Cutability

A pelvis in a cow can grow up to how many years?

5 years

A combination of one dominant and one recessive gene is termed what?

Heterozygous

What is the recommended Calcium to Phosphorus ratio in a balanced bovine diet?

2:1

Porterhouse steak comes from what beef wholesale cut?

Loin or short loin

What are two factors which may influence body temperature in a healthy animal? **Weather, exercise, disease, excitement, time of day**

What four factors can be used to determine an animal's EPDS

Its own data, Parents Data, Offspring data, Genetic makers

What causes dark cutting beef?

Long term stress period prior to slaughter

A cow with a body condition score of 1 would be considered what?

Extremely thin, the answer "thin" will not be taken as correct

What score would be assigned to a cow that is Extremely Fat.

9

Name the most common breed of bos Taurus cattle in the United States.

Angus

What three pieces of information do you need to know to determine an animal's frame score? ***Hip Height, Age, Sex***

Is a mature cow that has the same frame score as a mature bull the same hip height as the bull? ***No***

A steer is defined as being what?

A castrated male

At what point does a heifer become a cow?

When she has her first calf

What are the five USDA Yield grades given to beef cattle?

YG 1,2,3,4,5

Quality Grades are given based on the animals maturity and what other factor?

Marbling

Intravenous injections are given where?

In the vein

According to BQA Guidelines where should intramuscular injections be given? ***In the muscle in the neck***

If a breeder would like to produce a LimFlex that is 50% Limousin NALJF % and they own a Purebred female' what are their two breed options for sires?

Angus and Red Angus

Name the fungus that gets into the hide & develops a rough skin condition where the hair drops out in round patches.

Ringworm

Subcutaneous injections are given where?

Under the skin

What is the term for the period of time between when a cow is bred and when she calves? ***Gestation***

If a homozygous polled bull is turned out with a herd of horned cows what percentage of the calf crop will have horns?

0%

What do the letters ET stand for?

Embryo Transfer

What do the letters AI stand for?

Artificial Insemination

About how long after a heifer is in standing heat should she be bred?

12 hours

What is the three letter word that describes a bolus of regurgitated food common to ruminants?

Cud

What is the common name for cattle diarrhea?

Scours

Parturition is the formal name for what process?

Calving

Dystocia is also known as what?

Abnormal or difficult labor

The continental breeds of cattle were developed on what continent?

Europe

Name two continental breeds of cattle.

Limousin, Gelbvieh, Charolais, Chianina, Maine-Anjou, Saler, Simmental, Tarentiase

The target body condition score for a cow prior to calving is what?

5 to 6

What is the number scale associated with Body condition scoring.

1 to 9

What is the male sex hormone called?

Testosterone

What word refers to one-third of a cow's gestation period?

Trimester

Define Dressing Percentage.

Hot carcass weight divided by live weight

What is the name given to meat from cattle that are less than nine months of age at the time of harvest? ***Veal***

Why are beef carcasses aged?

To improve tenderness

What is the term used to describe a genetic combination where both genes are the same? ***Homozygous***

What is another word for hybrid vigor?

Heterosis

What is the most important nutrient in an animal's diet?

Water

What nutrient, when fed to cattle, will increase their water consumption?

Salt

What is BQA?

Beef Quality Assurance

What does IVF stand for?

In Vitro Fertilization

Is sexed semen stored in 1/2 cc straw or 1/4 cc straw?

1/4 cc