2015 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?

**Chad Settje**

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?

*All-American Futurity, American Royal and National Western Stock Show*
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_

What is the term for difficult labor causing difficulty in delivering the fetus?

_Dystocia_

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**

In regards to food safety, what do the initials HACCP stand for?

**Hazard Analysis Critical Control Points**

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**

For parentage verification, NALF uses microsatellite or STR markers. What does STR stand for?

**Short tandem repeats**

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**
At about 38 days into gestation the placental membranes begin to attach to the uterine wall. This Cotyledon/Caruncle junction is collectively known as what?

**Placetome or button**
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?

21,727 (accept 21,000 – 22,000)

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 veneral 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 microrganisms 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 regress the corpus luteum triggering the onset of estrus?

*prostaglandin*

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

*Curly calf syndrome*

What is the common name for contractual 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?

- a. It is always expressed
- b. It always occurs in homozygous pairs
- c. It only occurs in heterozygous pairs
- d. 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 World*

Who is the editor of the Limousin World?

*Jennifer Scharpe*

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*

Where is subcutaneous fat located?

*Under the skin*

What is another name for intramuscular fat?

*Marbling*

Who is the current President of NALF?

*Chad Settje*

Who is the current President of NALJA?

*Randee Corns*
What is the letter prefix used in 2015?

*C*

A sterile heifer born twin to a bull is called what?

*Freemartin*

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*

A disease in cattle that causes abortion of hairless calves and can be transmitted to humans in the form of Undulant Fever is known as what?

*Brucellosis or Bang’s Disease*

Which grain is higher in protein, wheat or corn?

*Wheat*

What city and state is North American Limousin Foundation located?

*Englewood, 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*

How long is the average gestation in Limousin cattle?

*283 days (Accept 280-290)*

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*

Which of the following would have the greatest average daily gain if placed in a feedlot: Heifers, Bulls or Steers?

*Bulls*

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*

True or False. A genetic defect will show up each time two carriers are mated.

*False*

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**

What is the common name for genetic muscular hypertrophy in beef cattle?

**Double muscling**

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*

Where is the 2014 National Junior Limousin Show and Congress going to be held?  
*Amarillo, TX*

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 you should dehorn your project steer?  
*True*

What should a finished steer ready to butcher weigh?  
*1250 to 1350 pounds*

True or false fiber is hard to digest?  
*True*

What do you call high energy source feeds?  
*Carbohydrates*

Name the 4 parts of a ruminant’s stomach in order.  
*Rumen, Reticulum, Omasum, Abomasum*

What is another name for yield grade?  
*Cutability*

How many days does a cow’s estrous cycle last?  
*21 days*

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*

A characteristic of an animal that can be measured or observed, such as its color or weight is its______?  
*Phenotype*
What is the recommended Calcium to Phosphorus ratio in a balanced bovine diet?

2:1

How many linear feet of bunk space does a market beef animal require?

2 to 3 feet

If a show stick is used by a beef showmen to apply pressure behind the dew claw, what direction will the calf likely move his foot?

Forward

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 is the normal pulse rate for cattle?

60-70 beats per minute

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

What is the minimum recommended resting area for a market beef animal?

25 square feet

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

Very thin

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

9

Bos Indicius are commonly known as humped cattle; what is the classification for non-humped cattle?

Bos Taurus

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

Angus

Name two of the four compartments of a ruminant stomach.

Abomasum, Omasum, Rumen, Reticulum

Which of the four stomach compartments is most similar to a human stomach?

Abomasum

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*

Cattle should be tied with what type of knot?

*Slip or Quick Release*

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*

How often does a cow having normal estrous cycle show heat?

*18-21 days*

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*

The first milk produced when a cow calves is what?

*Colostrum*

What does colostrum contain that regular milk does not?

*Anti-bodies*

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, Tarentaise*

What is a cryptorchid?

*A bull that has one testicle retained in his body.*

When a cow has twins that a heifer calf and a bull calf what is the name for the common problem associated with the heifer calf?

*Freemartin*
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 is the recommended age heifer should calve for the first time in months?

24 months

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

Trimester

Name the quality grades for cattle less than 30 months of age at harvest?

Prime, Choice, Select and Standard

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 year was the North American Limousin Foundation established?

1968

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

To what temperature should ground beef be cooked?

160 degrees Fahrenheit

In reference to beef carcasses, what do the letters KPH stand for?

Kidney, pelvic & heart fat

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

Water

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

Salt