



ARIZONA NATIONAL *Livestock Show*



LIVESTOCK SKILL-A-THON

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ARIZONA NATIONAL LIVESTOCK SHOW

Livestock Skill-a-Thon

RESOURCE GUIDE

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ARIZONA NATIONAL LIVESTOCK SHOW

Livestock Skill-a-Thon

Please refer to the most recent rules for contest details.

<https://www.anls.org/wp-content/uploads/2021/11/2021-Full-Premium-Book-10.26.21-For-Web.pdf>

2021 CONTEST ROTATION SCHEDULE

JUNIOR CONTEST: (350 TOTAL POINTS POSSIBLE)

Team Rotations-

1. Animal Care (10 Swine Ear Notch Identifications) – 50 points possible
2. Livestock Judging– 50 points possible
3. Bovine Palpation Practicum – 50 Points possible

Individual Rotations-

1. Meat ID (10 Cuts – Retail Names Only) – 50 points possible
2. Breed ID (10 Breeds) – 50 points possible
3. Equipment ID (10 Items) – 50 points possible
4. Feed ID (10 items) – 50 points possible

SENIOR CONTEST: (430 TOTAL POINTS POSSIBLE)

Team Rotations-

1. Quality Assurance (Medication Label and Injection Practicum) – 50 points possible
2. Livestock Judging (Group Card with Questions) – 60 points possible (Questions will give 10 bonus points)
3. Bandaging Practicum – 50 points possible

Individual Rotations-

1. Knowledge Test (25 Questions from Arizona National Livestock Show Test Bank) – 50 points possible
2. Meat ID (20 Cuts with 10 Questions on Primal/Wholesale Names, Species Identification) – 60 points possible
3. Breed ID (20 Breeds with 10 Questions on Origination and Breed Characteristics) – 60 points possible
4. Feed ID (18 Feed Samples and 7 hay samples to ID) – 50 points possible

EQUIPMENT ID

A.I. Gun
Antiseptic Applicator
Beef Cattle Frame Stick
Breeding Catheter
Cattle Clippers
Cattle Straw
Cauterizing Tail Docker
Elastrator
Electric Fence Tester
Electronic I.D. Tag
Emasculator
Ewe Spoon
Foot Rot Shears
Implant Gun
Intravenous Set
Knife Steel
Lamb Tube Feeder
Nasal Cannula
Nipple Waterer
Oral Bolus Gun
Pig Obstetrical Forceps
Pig Resuscitator
Pistol Grip Syringe
Prolapse Ring Retainer
Rumen Magnet
Shearer's Screwdriver
Swine AI Breeding Spirette
Transfer Needle

FEED/FEEDSTUFFS

Blood Meal
Buckwheat
Complete Pelleted Feed
Cracked Corn
Gluten Meal
Dehydrated Alfalfa Meal Pellets
Dicalcium Phosphate
Distillers Grain
Dried Sugar Beet
Dry Molasses
Elastrator
Fish Meal
Ground Limestone (Calcium Carbonate)
Hay Cube
Pulp Dried Whey
Soybean Hulls
Soybean Meal
Steam Rolled Barley
Steam Rolled Oats
Trace Mineral Salt
Urea
Wheat Bran
Wheat Middlings
White Salt
Whole Grain Oats
Whole Grain Wheat
Whole Kernel Corn

*****Pictures of additional equipment in subsequent pages**

BEEF EQUIPMENT

Beef Halter



Curry Comb



Dehorning



Nose Lead



Scotch Comb



Hoof Trimmers

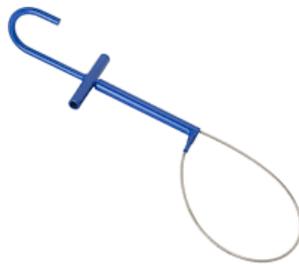


SWINE EQUIPMENT

Ear Notchers



Hog Snare



Needle Teeth Clippers



SHEEP EQUIPMENT

Hoof Trimmers



Lamb Boot



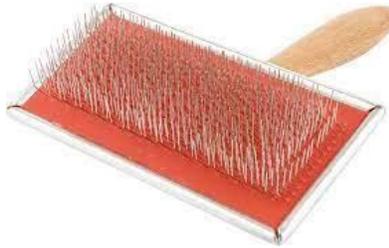
Ram Marking Harness



Sheep Shears



Wool Card



Drench Gun



ALL-SPECIES EQUIPMENT

Disposable Syringe



Drench Gun



Ear Tag Pliers



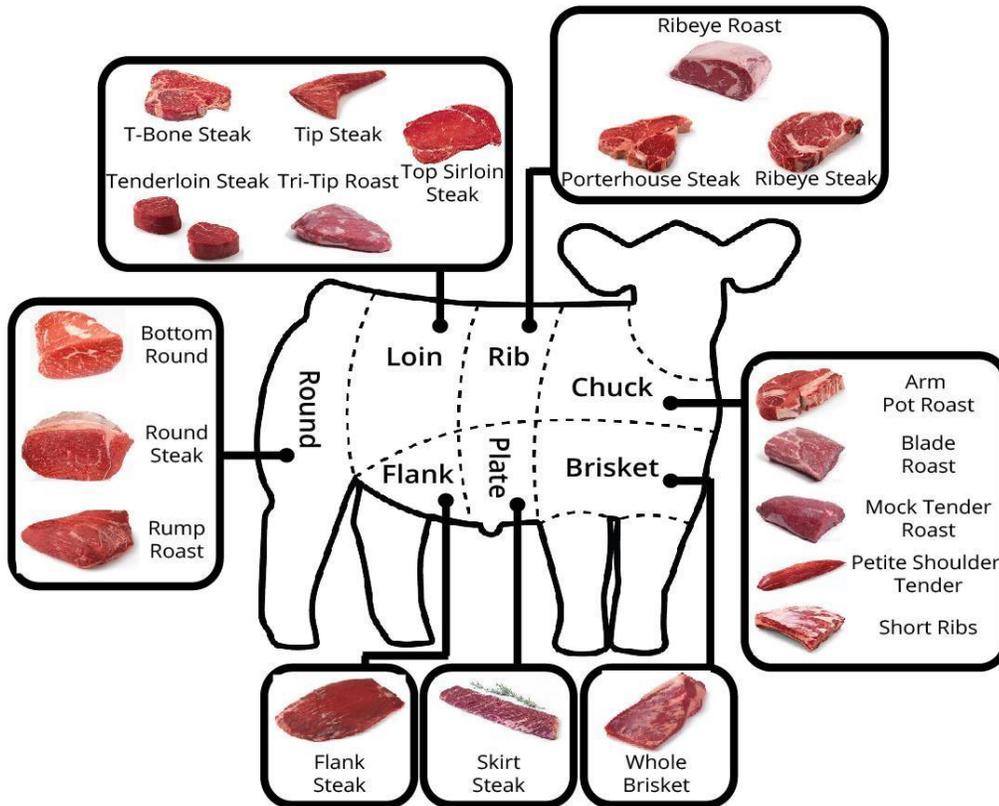
Scalpel



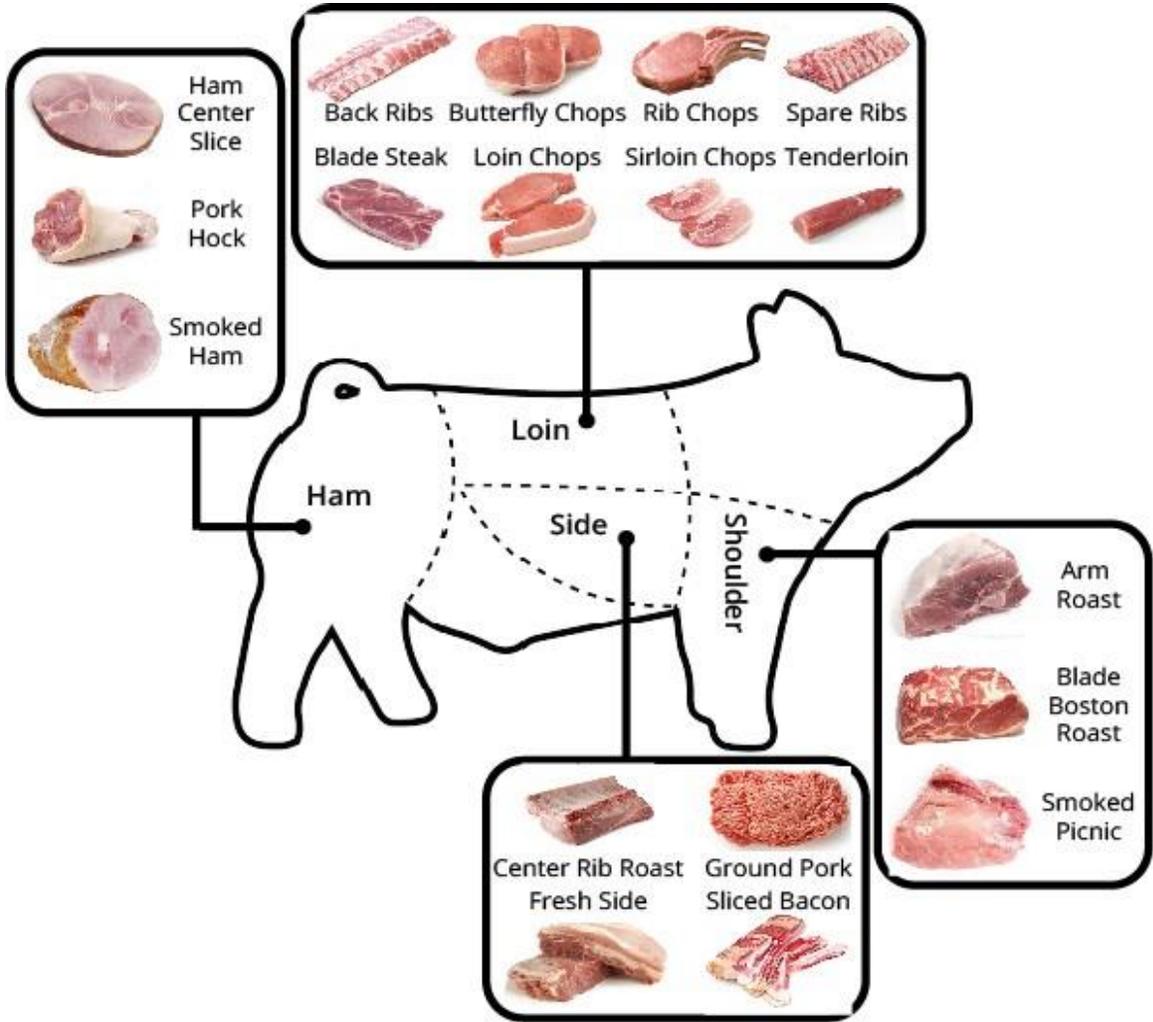
Test Tube



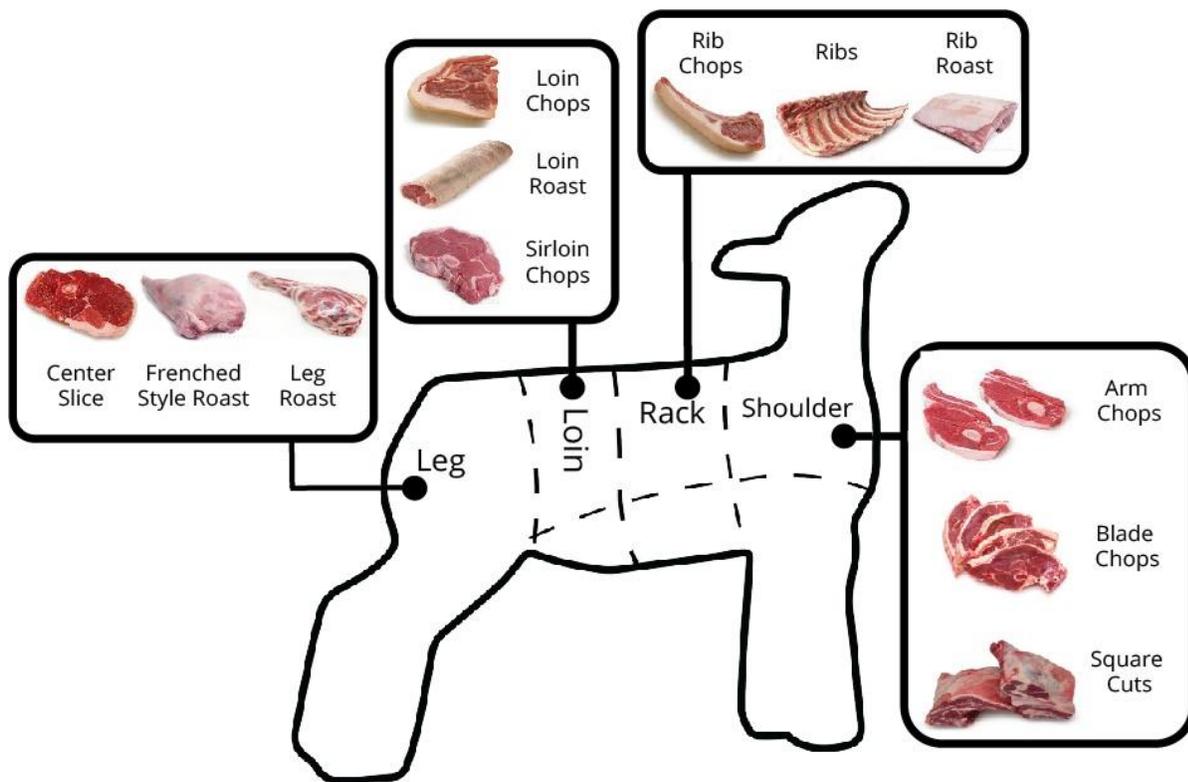
BEEF MEAT CUTS



PORK MEAT CUTS



LAMB MEAT CUTS



BREED IDS

BEEF CATTLE BREED ID

- *Bos Taurus*
 - **(Aberdeen) Angus**
 - Origins
 - Developed in the early part of the 19th century from the polled and predominantly black cattle of Northeast Scotland.
 - Characteristics
 - Naturally polled, predominantly black but also seen in red.
 - Adaptable, early maturing, resistant to harsh weather, easy calving



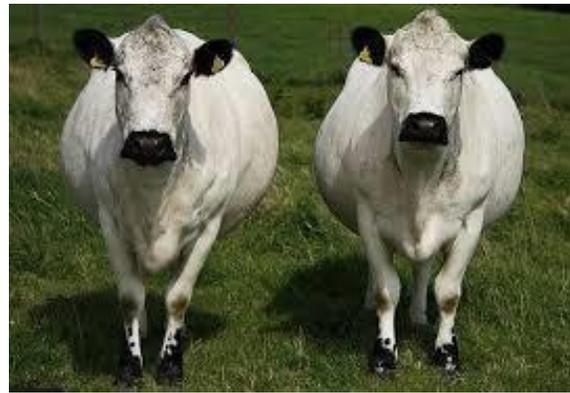
- **Red Angus**
 - Origins
 - Red Angus has the same origins as the Aberdeen Angus.
 - Originally, it was brought in by the Vikings from Europe and introduced to England and Scotland, these cattle were small, dun-colored, and polled.
 - Characteristics
 - Similar in conformation to the Aberdeen Angus
 - Medium in size, beefy carcass, red in color with pigmented skin.



○

British White

- Origins
 - One of the oldest breeds in Britain with direct links with the ancient indigenous wild white cattle of Britain.
 - Originated in Whaley Abbey, Lancashire.
- Characteristics
 - Large framed, naturally polled, dual-purpose
 - White in color with black points and skin pigmented pink or blue.



○ **Charolais**

- Origins
 - Originated in west-central France.
 - White cattle were first noticed in the region as early as 878 A.D., and were popular in markets by the sixteenth and seventeenth centuries.
- Characteristics
 - White in color with a pink muzzle and pale hooves, horned, long bodied, good milking
 - Medium to large frame, short broad head, deep broad body.



- **Chianina**

- Origins

- May be one of the oldest breeds of cattle in existence.
- Bred primarily in the west central part of Italy.

- Characteristics

- One of the largest framed breeds of cattle.
- Short hair that varies from white to steel grey, black skin, black mucosa, well-defined muscling, long legs, valued for draft and meat production.



- **Gelbvieh**

- Origins

- Originated in the three Franconian districts of Northern Bavaria in Southern Germany.
- It was once a triple purpose bred (milk, meat, draft)

- Characteristics

- Reddish gold to russet or black in color, strong skin pigmentation, fine hair, ideal in temperate to arid conditions
- Medium to large in size, long body, above average muscling, medium to late maturing, docile disposition
- It was once a triple purpose bred (milk, meat, draft)



- **Braunvieh**

- Origins

- Braunvieh is a German word meaning 'Brown Cattle.'
- There were at least 12 types of brown cattle found in the mountains of Switzerland during the 1600s, including the Braunvieh

- Characteristics

- Dual purpose breed
- Various shades of brown, predominantly mousy brown, but ranging from light brown with grey to very dark brown.
- Skin is pigmented, black muzzle, and dark hard hooves.



- **Hereford**

- Origins

- Origin of the Hereford has been lost over time. Generally agreed that it was founded along the border of England and Wales.

- Characteristics

- Bred for high yield beef and efficiency of production.
- Dark red-yellow, white face, crest, dewlap, underline.
- Known for their vigor and foraging ability, and longevity



- **Black Hereford**

- Origins
 - Derived mainly from Red Hereford cattle with some mix from black Angus cattle.
- Characteristics
 - Like red Herefords, black Herefords are known for their feed efficiency and docile temperament.
 - Black in color with a white head and underline



- **Miniature Hereford**

- Origins
 - Developed over the last 30 years by selective breeding of stock that was originally imported to the US from England in the early 19th century.
- Characteristics
 - The only difference between a Hereford and a Miniature Hereford is the height.
 - The miniature has the same body profile in terms of proportion to a full-sized Hereford.



- **Limousin**

- Origins

- Originated in the West of the Massif Central between Central and South West France, a rainy region with harsh climatic conditions and poor granite soil.
 - Limousin cattle evolved into a breed of unusual sturdiness, health, and adaptability.

- Characteristics

- Large and strong-boned frame, small head, broad forehead.
 - Originally golden-red in color, coloration has evolved to include black genes



-

- **Maine Anjou**

- Origins

- The breed origination in the northwestern part of France at the beginning of the 19th century.

- Characteristics

- Large size and easy fattening, horned or polled
 - Originally dark red with white markings, modern Maine Anjou cattle are black in color and can have white markings.



- **Shorthorn**

- Origins

- Evolved over the last two centuries from Teeswater and Durham cattle found originally in the Northeast of England.
 - Breed was used primarily as a dual-purpose breed

- Characteristics

- Come in three colors: Red, White, and Roan. Red cattle may be solid red or have white markings and they can be horned or polled.
 - Excellent rate of gain, good feed conversion, increased marbling, and tenderness.



- **Simmental**

- Origins

- History dates back to the Middle Ages. Early records indicate that they were the result of a cross between large German cattle and a smaller breed from Switzerland.
 - Original selection in Europe included milk, meat, and draft.

- Characteristics

- Originally colors varied from gold to red with white. Modern Simmental are black, may have white on underline of face.
 - Generations of selective breeding, with the objective of maximizing milk and beef production at a minimum cost, have created a highly adaptable, heavily muscled, and well conformed breed.



- **Longhorn**

- Origins

- The Texas Longhorn was fashioned entirely by nature in North America. Hybrids of Spanish and English cattle.
 - Stemming from ancestors that were the first cattle to set foot on American soil almost 500 years ago, it became the sound end product of 'survival of the fittest.'

- Characteristics

- Color varies extremely widely, usually variegated color pattern, slow to mature, reproductive period is twice as long as that of other breeds.
 - Natural resistance to most common cattle diseases and parasites.
 - Most notable for horn size which can reach 100 inches.



- *Bos Indicus*

- **Brahman**

- Origins

- Originated from *Bos Indicus* cattle from India, the "sacred cattle of India."
 - Bred in United States beginning in 1885.

- Characteristics

- Large hump over top of the shoulder and neck.
 - Vary in color from very light grey or red to almost black.
 - Good mothers, hardy, adaptable, heat tolerant.



- ***Santa Gertrudis***

- Origins
 - Developed in South Texas brush country.
 - Referred to as America's original beef breed.
- Characteristics
 - Red in color, short slick coat, red pigmented skin
 - Broad, strong, well-muscled, may be polled or horned



SWINE BREED ID

- **Berkshire**

- Origins
 - Named after Berkshire County, England, where they were first discovered.
 - First brought to the US in the 1820's.
- Characteristics
 - Terminal Breed
 - Medium size, black with six white points (four white socks, white snout, and white tipped tail), erect ears, well marbled, palatable meat



- **Chester White**

- Origins
 - Originated in Chester County, Pennsylvania around 1815-1818.
 - Developed using strains of large, white pigs common to the Northeast US and a white boar imported from Bedfordshire County, England.
- Characteristics
 - Dual purpose breed
 - Versatile, most durable of white breeds
 - Solid white, drooping ears



- **Duroc**

- Origins

- In 1812, early large “Red Hogs” were bred in New York and New Jersey.
 - Large litters and the ability to grow quickly were prominent characteristics.

- Characteristics

- Terminal Breed
 - Reddish-brown and light golden to dark-red, large-frame, medium length, muscular, drooping ears.
 - Tend to be one of the least aggressive breeds, large litters, quick to grow.



- **Hampshire**

- Origins

- Originated in Hampshire, Wessex, UK in 1832

- Characteristics

- Terminal Breed
 - Erect ears, black body with a white belt around the middle covering the front legs.
 - Muscled and rapid growers, longevity, lean, high carcass quality



- **Hereford**

- Origins
 - Originating in the United States, the Hereford was created from a synthesis of Duroc, Poland China.
 - First developed in 1920-1925.
- Characteristics
 - Dual purpose breed
 - Selected for both performance and its unique red-brown and white coloration that resembles Hereford cattle.
 - Emphasized early maturation, grain efficient, large litters, excellent mothers.



- **Landrace**

- Origins
 - Established from the Danish Landrace that had its origin in 1895.
- Characteristics
 - Solid white in color, ears are large, drooped and slanted forward.
 - Noted for ability to farrow and raise large litters, length of body, high percentage of carcass weight
 - Crosses well with other breeds, Maternal Breed



- **Pietrain**

- Origins
 - Developed in Pietrain, Belgium around 1950-51
- Characteristics
 - Medium size, erect ears, white with black spots, rings with light pigmentation that carries white hair.
 - Lean, extremely muscular, production oriented, carries the Porcine Stress Syndrome gene.
 - Terminal Breed



- **Poland China**

- Origins
 - Developed between 1835 and 1870 in Butler and Warren counties, Ohio by crossing Polish pigs and Big Chinas.
- Characteristics
 - Black with a white face and feet and a white-tipped tail, drooped ears
 - Known for their large size, excellent feeders, quiet disposition, sound feet and legs
 - Terminal Breed



- **Spotted**

- Origins
 - Descended from the Spotted Hogs which trace their ancestry to the original Poland China
- Characteristics
 - Black and white spots with no red or brown tints, drooping ears
 - Fast-gaining, feed efficient, early maturing.
 - Terminal Breed



- **Tamworth**

- Origins
 - Originated in Ireland, brought to Tamworth, England in 1812 where its name is derived.
 - One of the oldest and purest breeds
 - English breed of hog that was of distinctly "bacon-type."
- Characteristics
 - Rugged, thrifty, lean-type hog.
 - Excellent mothers, long deep sides, known for having excellent foot structure and good skeletal system.
 - Colors range from a pale gingery to dark mahogany red.



- **Yorkshire**

- Origins
 - Developed in the county of York, England.
 - The first Yorkshires in the United States were brought into Ohio around 1830.
- Characteristics
 - White in color with erect ears
 - Maternal breed
 - Productive and performance oriented, durable mothers



SHEEP BREED ID

- **Meat Breeds**

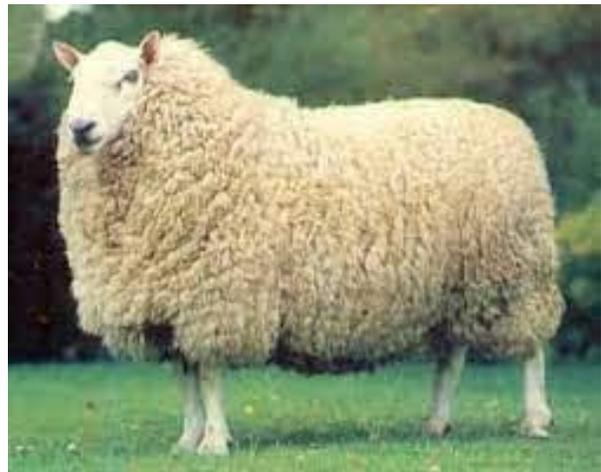
- **Cheviot**

- **Origins**

- In the Cheviot Hills, on the border of England and Scotland.

- **Characteristics**

- Distinctive white face, wool-free head and legs, pricked ears, black muzzle and black feet
- Highly alert, long-wool breed, hornless, reasonable frame.
- Thrived in the bleak, windswept conditions with their easy lambing and fast maturity.



- **Dorset**

- **Origins**

- During Spain attempt to conquer England, Merino sheep were brought into the Southwest England and were crossed with the horned sheep of Wales, producing a desirable all-purpose sheep.
- This breed of sheep began to spread over Dorset, Somerset, Devon and most of Wales and were called the Horsed Dorsets.

- **Characteristics**

- Solid white sheep, medium size, good body length and muscle conformation. Fleece is very white, strong, close, and free from dark fiber.
- Ewes are good milkers, good mothers, and multiple births are not uncommon.



- **Hampshire**

- Origins

- Acquired its name from the agriculture county of Hampshire in Southern England where they were developed.

- Characteristics

- Large, open faced, active, mild disposition.
 - Ears and face should be dark of color and practically free of wool from the eyes down. An unbroken wool cap should extend from the neck over the forehead. Legs below the knee and hock should be relatively free of wool.



- **Montadale**

- Origins

- Developed in the 1930s by E.H. Mattingly, a Midwestern commercial lamb buyer.
 - Mattingly selected the Cheviot and Columbia breeds as the basis for his project.

- Characteristics

- Small head, open face, clean legs, heavy fleece, prolific, good mothers, strong, healthy and vigorous.
 - Bare legs and heads with white wool and black nostrils and hooves.



- **Oxford**

- **Origins**

- Breed of domestic sheep from the United Kingdom developed in the 1830s in Oxford County, England.
- Created by crossing the Hampshire, Cotswold, and Southdown sheep.

- **Characteristics**

- Large bodied, polled
- Black or brown face and legs covered in white wool with a short fleece.



- **Romney**

- **Origins**

- Traces beginnings to the marshy area of Kent in England in the 1800s.
- Evolved from medieval long wool types.

- **Characteristics**

- Large-sized breed, wide head, large prominent eyes, wide and deep chest,
- Can be either white or colored, generally open-faced with long wool that grows over the legs in full.



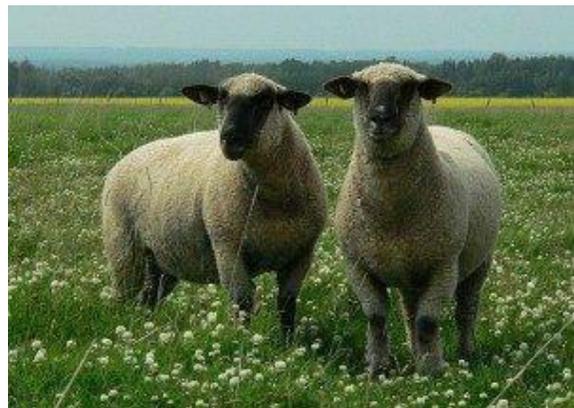
- **Shropshire**

- **Origins**

- Dual-purpose breed of domestic sheep from the United Kingdom.
 - Originated in the hills of Shropshire, and North Staffordshire, England.

- **Characteristics**

- Medium to large sized breed with stylish carriage, covered in fine dense wool.
 - Robust, wide and deep chest, well-fleshed, symmetrical
 - Can be open faced or have some wool along eye channels



- **Southdown**

- **Origins**

- Developed in Sussex, England during the late 1700 and early 1800s.
 - Best suited for farm flock production

- **Characteristics**

- Small to medium sized breed with gray to mouse-brown face and lower legs and is polled.
 - Early maturing breed, good lambing ability, average milk production.
 - Adaptable to varied and wet climates, best suited for farm flock production.



- **Suffolk**

- Origins

- Result of crossing Southdown rams on Norfolk Horned ewes.
- Adapted for traveling great distances for food, developing a superbly muscular body

- Characteristics

- Large framed sheep, polled, dark face and legs, fine boned.
- Derives meatiness and quality of wool from the old original British Southdown.



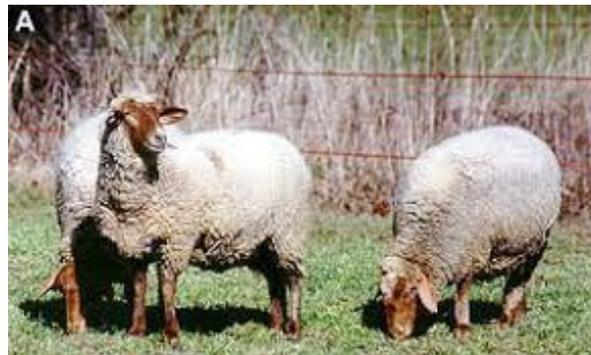
- **Tunis**

- Origins

- Evolved from a number of importations of fat-tailed sheep from Africa and the Middle East in the late 18th and early 19th centuries.

- Characteristics

- Born red or tan in color, sometimes with a white spot on the forehead and tip of the tail. Gradually turn white as the wool grows, however the hair on the face and legs retain their red color.



- **Wool Breeds**

- **Columbia**

- **Origins**

- Developed by the United States Department of Agriculture as a true breeding type to replace cross breeding on the range.
 - In 1912, rams of the long wool breeds were crossed with high quality Rambouillet ewes to produce large ewes yielding more pounds of wool and more pounds of lamb.

- **Characteristics**

- Large frame, phenomenal growth, hornless, heavy white fleece
 - Superior mothering ability, heavy milk production, lambs make larger gains on grass and less feed, more pounds of wool and pounds of lamb.



- **Corriedale**

- **Origins**

- Developed in New Zealand and Australia during the late 1800s' from crossing Lincoln or Leicester rams with Merino females.

- **Characteristics**

- Dual-purpose sheep. Large framed, polled with good carcass quality.
 - Solid white, black nose and hooves, heavy wool cap



- **Cotswold**

- **Origins**

- Long wool sheep breed developed on the Cotswold Hills in the west of England.
 - Sheep have been known in this region since the time of the Roman Conquest 2,000 years ago, and the breed may descend in part from the white sheep brought to England from the Romans.

- **Characteristics**

- Large framed sheep, efficient grazers, known for their docile dispositions, excellent mothers.
 - Primarily solid white, however black Cotswold have begun to appear recently. Fleece is long, thick, and curly. Polled



- **Finnsheep**

- **Origins**

- Native to Finland, were first imported to North America by the University of Manitoba, Canada in 1966.
 - Considered to be several hundred years old, descending from the Mouflon that live in the wild on Sardinia and Cosica.

- **Characteristics**

- Common for a ewe to give birth to three, four, even five lambs at a time.
 - Lambs are often small but are vigorous at birth and grow well.
 - Most often white, but are seen in all colors, solid or spotted, wool is medium to fine. Usually polled, dual purpose breed



- **Lincoln**

- Origins

- Said to be the result of crossing the Leicester and the coarse native sheep of Lincolnshire in the early 1900s.

- Characteristics

- Large sized breed with a deep body, straight and strong in the back and covered thickly in wool as mature sheep.
 - May be completely white in color, but can also be shades of black, charcoal, gray and silver.
 - Heavy long fleece, Dual purpose breed



- **Merino**

- Origins

- Founded in Spain near the beginning of the 12th century.

- Characteristics

- Known for excellent, fine wool quality
 - Medium-sized with white legs and faces



- **Rambouillet**

- Origins

- Originated with Spain's Merino flocks, which were known to have the world's finest wool.

- Characteristics

- Largest of fine wool sheep, white face and legs, heavy fleece
 - Well known for its wool, but also for its meat, both lamb and mutton.



- **Shetland**

- Origins

- Small, wool-producing breed of sheep originating in the Shetland Isles, Scotland.
 - Part of the Northern European short-tailed sheep group and is closely related to the extinct Scottish Dunface.

- Characteristics

- One of the smallest wool-producing breeds, polled and horned, finely boned, small erect ears
 - Noted for fine, soft wool, show almost all possible colors, however solid white, reddish-brown, or black are the most common



- **Hair Breeds**

- **Katahdin**

- **Origins**

- A breed of hair sheep developed in the United States at the Piel Farm in north central Maine in the 1950s.

- **Characteristics**

- Hardy, adaptable, low maintenance sheep, produces superior lamb crops, lean meaty carcasses. Can be any color or color combination.
 - Medium-sized, efficient, bred for utility and for production.
 - Exceptional mothering ability and lambing ease.
 - Their smooth hair coat allows them to tolerate heat and humidity well, and are significantly tolerant of internal and external parasites, requiring only minimal parasite treatment.



- **Dorper**

- **Origins**

- South African mutton breed developed in the 1930s from the Dorset Horn and the Blackheaded Persian.

- **Characteristics**

- Adaptable, does well in various range and feeding conditions
 - Easy to care for, required minimum labor.
 - Its skin covering is a mix of hair and wool and will drop off naturally if not shorn to keep tidy.



GOAT BREED ID

- **Angora**

- Origins
 - Originated in the district of Angora in Asia Minor.
 - Dates back to early biblical history
- Characteristics
 - Bucks have a pronounced spiral to their horns, which comes back and away from their head.
 - Slender, elegant, and light framed. Small milk breed, produces lustrous fiber known as mohair.
 - Except for the face, the breed is entirely covered in a coat of long ringlets of fine mohair. The face and coat are normally white, but black, brown, and grey also occur.



- **Boer**

- Origins
 - An improved indigenous breed with some infusion of European, Angora, and Indian goat breeding many years ago.
 - Researchers agree that the indigenous populations were probably from the Namaqua Hottentots and are from southward migrating Bantu tribes of South Africa.
- Characteristics
 - Primarily a meat goat with several adaptations to the region in which it was developed.
 - Largest meat breed goat
 - Horned breed with lop ears and showing a variety of color patterns, however white with a reddish-brown head and ears is most common.



- **Kiko**

- Origins
 - Breed of meat goat originating from New Zealand.
 - Developed in the 1980s by crossbreeding local feral goats with imported dairy goat bucks.
- Characteristics
 - Generally solid white or cream in color, however darker colors, including black, can be seen.
 - Rapid growth, meat breed
 - Tolerant of rustic conditions, resistant to internal parasites.



- **Mytonic**

- Origins
 - Also known as the Tennessee fainting goat is an American breed of meat goat.
 - Four goats of this breed were brought to Tennessee in the 1880s.
- Characteristics
 - Characterized by myotonia congenita, a hereditary condition that may cause it to stiffen or fall over when startled.
 - Size and qualities vary widely.
 - Meat Breed



- **Pygmy**

- Origins
 - Small goats of African origin.
 - Between 1930 and 1960, the breed was imported to the United States.
- Characteristics
 - Short legs and head, well-muscled, stocky body.
 - Dished head, broad forehead, erect ears, and horned.
 - Meat goat. Mostly used as pets



- **Saanen**

- Origins
 - Originates in the historic region of Saanen and the neighboring Simmental, both in the Bernese Oberland, in the southern part of the Canton of Bern, in Western Switzerland.
- Characteristics
 - White skin and short white coat
 - May be horned or polled
 - Tassels or waddles may be present
 - Ears are erect and point upwards and forwards.
 - Milk Breed



- **Spanish**

- Origins

- Developed through natural selection from goats first placed in Texas in the early 1540s by Spanish explorers.

- Characteristics

- Can be any color or color pattern. Moderate in size and growth rate.
 - Especially tolerant of difficult conditions and forage well on local plants. Used often from meat and brush clearing
 - Spanish does are prolific milk producers for the moderate growth rate of their kids.
 - Meat breed





- Name: _____
- Club: _____
- Contestant #: _____

LIVESTOCK SKILL-A-THON: TEAM ACTIVITY

‘BOVINE PREGNANCY CHECK’ SCENARIO (50 POINTS TOTAL)

You work in a small community vet clinic and you and your coworkers have been called out to do a farm visit. When you arrive, the farm owner informs you that they need a cow preg-checked. Neither you nor your coworkers are very experienced with bovine pregnancy checks and your clinic’s large animal veterinarian is unavailable for the day.

With your team, plan out a procedure to check the cow for pregnancy. Then, once your procedure is planned, each member of your team must use the palpation dummy to check the cow for pregnancy. Use proper gloving while palpating. You will be scored on how you determine the cow’s pregnancy and your teamwork as a group.

<i>Criteria</i>	Points Possible	Points Earned
<i>The four students work together (with equal effort) to create a procedure.</i>	10	
<i>All four students participate in the palpating.</i>	10	
<i>Each student calls the cow correctly pregnant or open.</i>	20	
<i>Each student demonstrates correct gloving technique.</i>	10	
TOTAL POINTS	50	



- Name: _____
- Club: _____
- Contestant #: _____

LIVESTOCK SKILL-A-THON: TEAM ACTIVITY

'BANDAGING' PRACTICUM (50 POINTS TOTAL)

You and your team work in a small community vet clinic and you have been called on a farm check. Once you arrive, the ranch hand tells you that he has two injured sheep that need treatment. One, a 3-year-old ewe that cut both of her front legs on some barbed wire fencing, is a now healed. The large animal veterinarian from your clinic has already been out to suture and treat this ewe when she was injured, but the bandages need to be removed. The second sheep is a yearling ram that was bitten by a neighbor's dog. Your clinic's veterinarian has already treated this buck when he was originally bitten, but the ram has managed to tear off the bandages and re-open the wounds.

You and your team must split into pairs and treat the two sheep at the same time. One sheep needs bandages removed on two legs while the other needs re-banded on two legs. Decide which team member will do each leg on each animal. Note your animal's ID number and what treatment was performed on each animal in the "Animal Record". Be sure to include the Contestant #s for both members that worked on the same sheep. The team that removes bandages will be given bandage scissors and gloves and will be graded on their removal technique. The team the applies bandages will be given gloves, cleaning supplies, and fresh bandages and will be graded on their application.

<i>Criteria for All</i>	<i>Points Possible</i>	<i>Points Earned</i>
Team works together (with equal effort) to determine what each team member does and all participate in the scenario.	5	
Note the treatment that was performed on each sheep in the "Animal Record".	10	
Cleans up work area.	5	
<i>Bandage Application Criteria</i>		
Gently swipe the area clean with fresh gauze soaked in a chlorhexidine solution (clean the wound up and down, then side to side, then in circles) before patting dry with dry gauze.	5	
Unroll the Vet-Wrap in a loose roll around hand and cut to appropriate length. Apply fresh gauze to the wound and gently wrap over the wound and gauze with unrolled Vet-Wrap. Should be able to fit two fingers comfortably between the animal's leg and bandaging tape.	10	
<i>Bandage Removal Criteria</i>		
Keep the bandage scissors' blade flush against the leg and keep the tip raised upward in contact with the bandage.	5	
Gently cut the bandages away from the leg and removed old bandages and gauze.	10	
TOTAL POINTS	50	



- Name: _____
- Club: _____
- Contestant #: _____

LIVESTOCK SKILL-A-THON: TEAM SCENARIO

‘MEDICATION INJECTION’ PRACTICUM (50 POINTS TOTAL)

You run a small family farm raising a flock of 30 Shropshire ewes and lambs. While you are out feeding for the night, you notice four of your sheep have diarrhea and seem to be extremely stiff and are limping slightly. You recognize this immediately to be White Muscle Disease. Of the affected sheep, one is pregnant with lambs and one is a market lamb headed to slaughter in 30 days. The only appropriate medication you have on hand is Bo-Se, but you have enough needles and syringes to doctor the affected sheep immediately.

Sheep 1	Pregnant with lambs, weighs 165 lbs
Sheep 2	Market lamb heading to slaughter in 30 days, weighs 180 lbs
Sheep 3	Open and dry ewe, weighs 150 lbs
Sheep 4	Ram, weighs 230 lbs

Read the given label for Bo-Se and determine a treatment plan for your affected sheep. Using the Bo-Se label, calculate the correct dosage for each sheep’s weight and if the medication should be given subcutaneous, intramuscular, or intravenous. Write out your treatment plan in the “Animal Record”. Once you have determined a treatment plan, draw out the appropriate dosage of Bo- Se to give to each sheep. Each member of your team will dose one sheep (orange).

Criteria	Points Possible	Points Earned
<i>Team works together (with equal effort) to determine treatment plan.</i>	10	
<i>Determines an appropriate treatment plan for each sheep, including calculating the appropriate amount of medication for each sheep. Note this treatment plan in the “Animal Record”.</i>	10	
<i>Clean top of bottle with an alcohol wipe. Insert the appropriate air to the bottle of Bo-Se before drawing out the correct amount into the syringe. Remove air from syringe and inject orange intramuscularly (at a 90-degree angle).</i>	20	
<i>Correctly recap and remove needle from syringe, then place in sharps container after use.</i>	10	
TOTAL POINTS	50	

TRUE OR FALSE SAMPLE QUESTIONS

Please circle the correct answer.

1. True/False: Market lambs can eat grass and be ready for slaughter without eating grain. **(T)**
2. True/False: Sheep may safely graze in the yard since ornamentals shrubs and bushes are not poisonous to sheep. **(F)**
3. True/False: Mastitis is a respiratory disease. **(F)**
4. True/False: A three-year old slaughter wether will have a break joint. **(F)**
5. True/False: A lamb should be braced when the judge handles it. **(T)**
6. True/False: The major source of income for sheep producers is the sale of market lambs. **(T)**
7. True/False: Wool hanging from an animal in ringlets is an indication of a fine fleece. **(T)**
8. True/False: A three-year old slaughter wether can grade prime. **(F)**
9. True/False: Virginia is home to the largest pork producer and packing company in the United States. **(T)**
10. True/False: USDA stands for United States Department of Agriculture. **(T)**
11. True/False: Wheat is higher in protein than corn. **(T)**
12. True/False: A desirable beef carcass with a modest amount of marbling would be choice. **(T)**
13. True/False: Urea or anhydrous ammonia are used as protein supplements for cattle. **(T)**
14. True/False: Mature Suffolk sheep normally produce 15 pounds of wool each year. **(F)**
15. True/False: The normal body temperature for cattle, sheep and pigs is around 101 degrees Fahrenheit. **(T)**
16. True/False: A castrated pig is called a wether. **(F)**
17. True/False: The rumen is the largest capacity part of a sheep or goat digestive system. **(T)**
18. True/False: All breeds of swine whose name ends in "shire" have erect ears. **(T)**

MULTIPLE CHOICE SAMPLE QUESTIONS

Please circle the correct answer.

19. If sheep are fed broiler litter, it may cause a mineral toxicity of which mineral? **(D)**
 - A. Sulfur
 - B. Selenium
 - C. Magnesium
 - D. Copper
20. Which substance is used to treat a disease? **(C)**
 - A. Fertilizer
 - B. Vaccine
 - C. Antibiotic
 - D. Implant
21. What is creeping? **(B)**
 - A. Locking a ram up at night
 - B. Providing extra feed for nursing lambs
 - C. Exercising market lambs
 - D. Bagging a ewe

22. What is a prolapse? **(C)**
 A. A feed additive
 B. A medicine
 C. When the vagina becomes inverted and sticks out
 D. Lamb born backwards
23. When a lamb is born, you should... **(D)**
 A. Check the ewes' udder
 B. Identify the lamb
 C. Dip the naval in an iodine solution
 D. All of the above
24. A large, muscular, fast growing sheep breed: **(D)**
 A. Southdown
 B. Polypay
 C. Rambouillet
 D. Suffolk
25. Which is the most serious hoof problem in sheep? **(C)**
 A. Clogged Oil Duct
 B. Foot Scald
 C. Foot Rot
 D. Thrush
26. Which class of animal is currently selling for the lowest price per pound? **(D)**
 A. Choice
 B. 750 Lb. M1 Steer
 C. Choice Market Lamb
 D. #1 Market Hog
27. Which of the following is not a legume? **(B)**
 A. Alfalfa
 B. Bluegrass
 C. Clover
 D. Soybeans
28. What are the top 5 USDA beef carcass cutability grades, from leanest to fattest? **(B)**
 A. Prime, choice, select, standard, utility
 B. 1, 2, 3, 4, 5
 C. Utility standard, select choice, prime
 D. 5, 4, 3, 2, 1
29. Which sheep breed is actually a composite? **(D)**
 A. Suffolk
 B. Southdown
 C. Dorset
 D. Polypay
30. Your steer has gained 100 pounds in the last 30 days, consuming 750 pounds of feed which costs a total of \$50. What was the steer's average daily gain? **(C)**
 A. .50 lb.
 B. 3.0 lb.
 C. 3.3 lb.
 D. 7.5 lb.
31. Using the information in question #30, what was the steer's feed conversion per pound of gain? **(B)**
 A. 3.3 lb.
 B. 7.5 lb.
 C. 15 lb.
 D. 30 lb.
32. Which breed of bull would be most appropriate to use as a terminal sire on mature black baldie cows to maximize weaning weights? **(D)**
 A. Angus
 B. Hereford
 C. Longhorn
 D. Charolais
33. "Spider lamb" is a problem most often associated with which breed? **(C)**
 A. Finn
 B. Dorset
 C. Suffolk
 D. Polypay

34. Which sex tends to be the heaviest in a group of hogs that are the same age? **(B)**
 A. Gilt
 B. Barrow
 C. Boar
 D. No difference
35. When feeding corn silage to lactating beef cows, which two nutrients are usually deficient? **(B)**
 A. Calcium & phosphorous
 B. Calcium & protein
 C. Protein & energy
 D. Protein & phosphorous
36. When are the nutritional demands the highest during the production cycle of a cow, mare, ewe or sow? **(C)**
 A. Early gestation
 B. Late gestation
 C. Early lactation
 D. Late lactation
37. If we are to give a steer an intramuscular injection of a product which causes tissues irritation, which is the preferred injection site? **(D)**
 A. Rump
 B. Quarter
 C. Loin
 D. Neck
38. Which of the following requires the least amount of feed to produce a pound of gain? **(D)**
 A. Steer
 B. Lamb
 C. Barrow
 D. Broiler
39. Which of the following is not a factor in determining beef yield grade? **(D)**
 A. Rib eye area
 B. Back fat
 C. Hot carcass weight
 D. Live weight
40. If a heifer appears to be low headed, "broken" behind her shoulder and moves with a short stride, what is the most likely structural defect? **(C)**
 A. Sickie hocked
 B. Droopy rump
 C. Shoulder too straight
 D. Ugly
41. Which swine breed could be added to a rotational crossbreeding program to improve maternal traits? **(B)**
 A. Duroc
 B. Yorkshire
 C. Hampshire
 D. Spot
42. When selecting a bull to breed to heifers, which piece of information would be helpful in predicting the birth weight of his calves? **(C)**
 A. his birth weight
 B. his sire's birth weight
 C. his birth weight EPD
 D. his frame size
43. What type of lamb would have the highest dressing percent? **(A)**
 A. Large, fat lamb
 B. Large, trim lamb
 C. Small, trim lamb
 D. Large, trim, long tailed lamb
44. Which of the following chemicals would not be used in a foot bath to treat foot rot? **(C)**
 A. Copper Sulfate
 B. Formaldehyde
 C. Wormer
 D. All of the above
45. A two-year sheep will have how many permanent front teeth? **(B)**
 A. 2
 B. 4
 C. 6
 D. 8

46. The time between estrous or heat periods in a ewe is roughly how many days? **(D)**
 A. 147 days
 B. 30 days
 C. 21 days
 D. 17 days
47. Which of the following will grow the fastest as a lamb? **(C)**
 A. Wether
 B. Ewe
 C. Ram
 D. No difference
48. Which two types of twine should not be used to tie wool bags? **(B)**
 A. Jute and sisal
 B. Plastic and Sisal
 C. Plastic and cotton
 D. Jute and Cotton
49. Which meat type breed has a white face and erect ears? **(B)**
 A. Southdown
 B. Dorset
 C. Rambouillet
 D. Suffolk
50. What is another name for white muscle disease? **(D)**
 A. Grass Tetany
 B. Bloat
 C. Hypomagnesia
 D. Stiff lamb disease
51. Which of the following growth implants may be used on feeder lambs? **(A)**
 A. Ralgro
 B. Compudose
 C. Synovex S
 D. Steer-oid
52. Which of the following is not an example of internal parasites? **(B)**
 A. Lung Worms
 B. Ticks
 C. Tape Worms
 D. Flukes
53. Which of the following is a legume? **(C)**
 A. Orchard grass
 B. Roughages
 C. Soybean Meal
 D. Concentrates
54. What is the main source of antibodies for a young lamb? **(D)**
 A. Vitamin A
 B. Calcium
 C. Protein Supplement
 D. Colostrum
55. Which breed of sheep would have the finer wool? **(C)**
 A. Suffolk
 B. Dorset
 C. Rambouillet
 D. Columbia
56. The loin and leg of the lamb carcass is also called the... **(A)**
 A. Hind saddle
 B. American style leg of lamb
 C. French style leg of lamb
 D. Rear quarter
57. A deficiency of which mineral can cause "white muscle disease"? **(A)**
 A. Selenium
 B. Magnesium
 C. Calcium
 D. Phosphorus

58. Which breed is noted for having large numbers of lambs? **(C)**
 A. Dorset
 B. Hampshire
 C. Fin Sheep
 D. Southdowns
59. A lamb sirloin chop comes from the... **(C)**
 A. Shoulder
 B. Rib
 C. Loin
 D. Leg
60. Which of the following would not be considered a meat type breed? **(D)**
 A. Suffolk
 B. Hampshire
 C. Dorset
 D. Rambouillet
61. Meat from sheep less than 12 months of age is called? **(A)**
 A. Lamb
 B. Veal
 C. Mutton
 D. Steak
62. What is the approximate length of gestation in the ewe? **(C)**
 A. 1 month
 B. 3 months
 C. 5 months
 D. 9 months
63. Which term refers to sheep? **(A)**
 A. Ovine
 B. Bovine
 C. Porcine
 D. Equine
64. What type of pasture would be most desirable for sheep? **(B)**
 A. fescue and white clover
 B. bluegrass and white clover
 C. orchard grass and red clover
 D. timothy and red clover
65. Which would not be an acceptable cookery method for lamb rib chops? **(C)**
 A. Broil
 B. Braise
 C. Pan Fry
 D. Pan Broil
66. What is the term used to describe a castrated male sheep? **(B)**
 A. Steer
 B. Wether
 C. Gelding
 D. Buck
67. Shelled corn is used in rations primarily as a source of? **(C)**
 A. Protein
 B. Fat
 C. Energy
 D. Minerals
68. At what stage of growth does grass have the lowest protein? **(A)**
 A. Full bloom
 B. Mid-bloom
 C. Early bloom
 D. Pre-bloom
69. Which of the following occurrences can be prevented by vaccination? **(D)**
 A. Foot Rot
 B. Founder
 C. Bloat
 D. Overeating Disease

70. What is the normal body temperature of a sheep? **(C)**
 A. 98.6
 B. 100
 C. 101
 D. 102.5
71. TDN or Total Digestible Nutrients is a measure of what in a feed? **(B)**
 A. Protein
 B. Energy
 C. Feed Consumption
72. What is another name for the wingless flies (sometimes called ticks) which affect sheep? **(D)**
 A. Lice
 B. Stable Flies
 C. Bots
 D. Keds
73. Which is higher in protein? **(A)**
 A. Soybean Meal
 B. Cottonseed Meal
 C. Alfalfa Pellets
74. Which quality grade of beef is most commonly sold in grocery stores? **(B)**
 A. Prime
 B. Choice
 C. Good
 D. Standard
75. The average gestation period of swine is? **(B)**
 A. 21 days
 B. 114 days
 C. 150 days
 D. 130 days
76. Feeder pigs normally weigh how many pounds when sold? **(B)**
 A. 20 to 30 lbs.
 B. 40 to 50 lbs.
 C. 220 to 230 lbs.
 D. 230 to 250 lbs.
77. The loin and leg of the lamb carcass is also called? **(A)**
 A. The Hindsaddle
 B. American style leg of lamb
 C. French style leg of lamb
 D. Rear-quarter
78. Which of the following is not a deworming agent for sheep? **(C)**
 A. Phenothiazine
 B. Thibenzole
 C. Paint
 D. Atgard
79. A symptom of bloat is? **(C)**
 A. Lameness
 B. Abortion
 C. Bulging on the left side
 D. Severe bulging on the right side

80. At what three points do we measure the back fat thickness on a market hog? **(B)**
 A. First rib, fourth rib, first lumbar vertebra
 B. First rib, last rib, last lumbar vertebra
 C. Last rib, first lumbar vertebra, last lumbar vertebra
 D. First rib, last rib, first lumbar vertebra
81. The mating of animals of different breeds is known as? **(C)**
 A. Inbreeding
 B. Rebreeding
 C. Crossbreeding
 D. None of the above
82. At what age should a heifer be bred? **(C)**
 A. 9 months
 B. 12 months
 C. 15 months
 D. 20 months
83. An intramuscular injection should be given **(A)**
 A. In the muscle
 B. Under the skin
 C. In the vein
 D. In the bone joints
84. On which ration should an 800-pound steer have the fastest rate of gain? **(B)**
 A. Corn silage + supplement
 B. Whole shelled corn + supplement
 C. Orchard grass pasture
 D. Full-feed oats + 4 lbs. hay
85. What is another word for calving difficulty? **(D)**
 A. Laminitis
 B. Founder
 C. Enterotoxemia
 D. Dystocia
86. When the term "hot" is applied to a ration, the ration is? **(A)**
 A. High in concentrates
 B. Low in concentrates
 C. Warmed in an oven
 D. High in protein
87. What is the common name for the disease listeriosis which appears in cattle and sheep? **(B)**
 A. Bloat
 B. Circling disease
 C. Foot rot
 D. Overeating
88. What 2 breeds of cattle were used to develop the Santa Gertrudis breed? **(B)**
 A. Angus and Murrey Grey
 B. Shorthorn and Brahman
 C. Brahman and Limosin
 D. Shorthorn and Angus
89. Which breed of swine has erect ears? **(A)**
 A. Tamworth
 B. Poland China
 C. Chester White
 D. Landrace
90. A feed low in fiber and high in food value is? **(D)**
 A. Roughage
 B. Silage
 C. Haylage
 D. Concentrate
91. The average dressing percent of a market hog is? **(D)**
 A. 40%
 B. 50%
 C. 60%
 D. 70%

92. The largest compartment of the 4-part stomach of cattle or sheep is the? **(D)**
 A. Cecum C. Abomasum
 B. Reticulum D. Rumen
93. The most desirable color for retail beef is? **(A)**
 A. Cherry Red Pink
 B. Grayish Pink Dark Brown
94. To increase fall lambing rates which breed would you include in your flock? **(C)**
 A. Suffolk B. Hampshire C. Dorset
95. A castrated male pig is called a? **(C)**
 A. Steer C. Barrow
 B. Wether D. Gilt
96. How old should a gilt be when she first farrows? **(B)**
 A. 6 months B. 1 year C. 2 years
97. If you were to go out into a lush green pasture and see a cow with her left side all bulged out what would you suspect? **(B)**
 A. Overeating B. Bloat C. Grass tetany
98. How does an elastrator work? **(B)**
 A. Clamps & crushes cord B. Cuts off circulation C. Cuts scrotum on one side
99. A good source of protein for beef and sheep rations is: **(C)**
 A. Corn B. Trace mineral salt C. Soybean meal
100. What does the term intradermal mean: **(C)**
 A. Under the skin B. In the Vein C. In the skin
101. Why would we flush ewes? **(B)**
 A. To rid them of parasites
 B. To stimulate estrus and increase ovulation rate
 C. To increase feed efficiency
102. Providing extra feed for nursing lambs and calves is called: **(C)**
 A. Flushing B. Foundering C. Creeping
103. When the term burly is used in livestock judging it means: **(C)**
 A. Close at the knees C. Rugged and masculine
 B. Upstanding D. More feminine
104. What frequent drought problem do we have with feeding green-chop corn silage: **(D)**
 A. Bloat C. White Muscling Disease
 B. Prussic Acid Poisoning D. Nitrate Poisoning

105. The small flecks of fat in a cut of beef which gives meat its flavor and is also one of the factors indicating quality is called: **(B)**
 A. Seam Fat
 B. Marbling
 C. External Fat
 D. Speck Fat
106. One of the factors affecting the dressing percent of an animal is the amount of fill. Fill is: **(B)**
 A. The amount of digestive tract and vital organs.
 B. The amount of water and feed in the animal.
 C. The amount of time a carcass is in storage.
 D. The method of dressing.
107. Corn is usually used as the standard of energy in a ration. However, during a drought corn may become scarce and expensive. Choose the best energy source to use in replacing your corn: **(A)**
 A. Barley
 B. Peanut Meal
 C. Urea
 D. Alfalfa
108. The largest compartment of a ruminant stomach can store some 30 gallons of food and water. It is called the: **(A)**
 A. Rumen
 B. Reticulum
 C. Omasum
 D. Abomasum
109. One of our objectives is to have our replacement heifers calve as two year olds and then calve at the same time as the mature cows the next year. To do this they must weigh how much as 14-15 months of age when bred: **(C)**
 A. 200-400 lbs.
 B. 400-600 lbs.
 C. 600-800 lbs.
 D. 1000-1200 lbs.
110. Rotating animals to eat from one pasture for a time, to another pasture and so on is called: **(B)**
 A. Intravenous Feeding
 B. Controlled Grazing
 C. Choice Feeding
 D. Self-Feeding
111. Which of the following is not considered to be a British breed: **(D)**
 A. Hereford
 B. Shorthorn
 C. Angus
 D. Chianina
112. Dystocia in beef cattle is: **(D)**
 A. An Infectious Disease
 B. A Hormone
 C. A Vitamin Deficiency
 D. Calving Difficulty
113. Feeds which build bones and teeth and are necessary for important body processes are: **(C)**
 A. Protein
 B. Fats
 C. Minerals
 D. M & M's
114. Which class of cattle would require the highest protein level in their ration? **(B)**
 A. Cows Nursing Calves
 B. 400-500 Lbs. Steers
 C. 1000 Lbs. Steers
 D. Dry Cows

115. A lamb carcass weighs 60 pounds, has a 3.0 square inch loin eye, has a 0.30-inch back fat, and grades Choice+ - this carcass is? **(C)**
 A. Too light C. Too Fat
 B. Light Muscled D. Really Good
116. What is the term for removing sperm from a bull and putting that sperm into a female when she is in heat? **(A)**
 A. Artificial Insemination C. Embryo Transfer
 B. Pregnancy Sharing D. Estrous Synchronization
117. Which sex grows slowest, even when fed the same as the others? **(C)**
 A. Bull C. Heifer
 B. Steer D. They're the same
118. How much dry feed would you expect a 1000-pound steer to eat, if he can eat all he wants? **(C)**
 A. 10 pounds C. 24 pounds
 B. 17 pounds D. 31 pounds
119. Which product is used to treat a disease once an animal already has it? **(C)**
 A. Vaccine C. Antibiotic
 B. Implant D. Bacterin
120. How can you tell if two hogs are littermates? **(B)**
 A. Left ear notch C. The pigs are all the same color
 B. Right ear notch D. The information written on their ear tag
121. The information on an injection product label says to administer the injection either subcutaneously or intramuscularly. Where would you give it? **(B)**
 A. Deep in the muscle of the neck
 B. Under the skin of the neck
 C. Deep in the muscle of the hip
 D. It doesn't matter, so any of these is OK
122. What type of grade or score is not related to fatness of the animal? **(D)**
 A. Condition Score C. Quality Grade
 B. Yield Grade D. Frame Score
123. If you want your steer or lamb to grow faster and finish more quickly, which nutrient do you need to increase in the ration fed? **(A)**
 A. Energy C. Vitamin A
 B. Protein D. Calcium
124. A pig grew from 40 pounds to 240 pounds in 100 days and ate 600 pounds of feed. What was his Average Daily Gain (pounds per day)? **(D)**
 A. 100 C. 6.0
 B. 200 D. 2.0

125. A calf is having trouble being born. What piece of equipment do you need? **(B)**
 A. Esophageal Feeder C. Emasculator
 B. Obstetrical Chain D. Drench Gun
126. Which factor is most closely related to whether a beef carcass grades Choice or Select? **(D)**
 A. Back fat C. Whether it's a steer or heifer
 B. Amount of muscle D. Amount of marbling
127. If a cow is in heat today when would be expected to be in heat again **(C)**
 A. 17 days from now C. 21 days from now
 B. 283 days from now D. 365 days from now
128. What method is used to administer de-wormers? **(E)**
 A. Oral D. Injected
 B. Topical E. All of the above
129. Maternal milk EPD is a measurement of? **(B)**
 A. Pounds of milk produced B. Pounds of weaning weight that is due to milk production
130. What wholesale cut corresponds to the shoulder of cattle? **(B)**
 A. Shoulder C. Round
 B. Chuck D. Plate
131. Which market animal now sells for the highest price per pound (live basis)? **(B)**
 A. Hog C. Lamb
 B. Steer D. Steers and Lambs are the same
132. Which breed is tolerant of high temperatures, resistant to parasites, but is late maturing and has lower quality beef? **(A)**
 A. Brangus C. Simmental
 B. Angus D. Limousin
133. The time between when a drug is administered and the animal can safely be sold for slaughter is called? **(B)**
 A. Waiting Period C. Medicinal Interval
 B. Withdrawal Period D. Safety Period
134. From the profile, an animal straight in the hock and walking with a naturally short, stiff stride is called? **(D)**
 A. Cow Hocked C. Sickle Hocked
 B. Stiff Legged D. Post Legged
135. What in the name of the technology used to measure fat and amount of muscle in a live animal? **(B)**
 A. Magnetic Resonance Imaging C. Endoscopy
 B. Ultrasound D. Ultraviolet
136. Which vitamin is related to green forage consumption by cattle and sheep? **(A)**
 A. Vitamin A C. Vitamin D
 B. Vitamin C D. Vitamin B-6

137. Which of the following is a major problem with quality of pork? **(B)**
A. EPD
B. PSE
C. ESP
D. SPI
138. After calving, the cow expels the afterbirth. What is the afterbirth officially called? **(C)**
A. Pasturella
B. Progesterone
C. Placenta
D. Platypus
139. On average, when a black cow that carries the horned gene is mated to a black bull that is polled, a polled calf will be produced how often? **(A)**
A. All the time
B. Half the time
C. 25% of the time
D. None of the time
140. If you want to select highly productive replacement gilts that excel in the maternal traits, which piece of data is most useful? **(A)**
A. Dam's SPI
B. Days to 250
C. Back fat depth
D. Number born alive in her own litter
141. Where do we measure back fat thickness and ribeye area on beef and lamb carcasses? **(C)**
A. Between 4th and 5th ribs
B. Between 10th and 11th ribs
C. Between 12th and 13th ribs
D. Any of these are acceptable locations
142. We want to feed a group of calves 300 pounds of dry matter from corn. High moisture corn is 75% dry matter. How much high moisture corn should be fed to these calves? **(C)**
A. 225 pounds
B. 300 pounds
C. 400 pounds
D. 450 pounds
143. Which structure is not a part of the reproductive tract of a female? **(B)**
A. Ovary
B. Esophagus
C. Cervix
D. Uterus
144. What is a problem that can result from lambs being docked very close to the body? **(D)**
A. Internal parasites
B. Limp when they walk
C. Meat quality is reduced
D. Rectal prolapse
145. What is the problem with extremely large framed steers in the industry? **(D)**
A. Produce carcasses that are too big
B. Take a long time to finish properly
C. Have a low average daily gain
D. Both a and b
146. Farmers often add urea to corn silage as it goes from the field to the silo. Why? **(A)**
A. Increase protein content
B. Increase energy content
C. Adds calcium and phosphorous
D. Keeps it from spoiling

147. Which hormone is associated with females showing standing heat? **(D)**
 A. Progesterone C. Prostaglandin
 B. Prolactin D. Estrogen
148. Ultrasound technology cannot determine which meat characteristics? **(A)**
 A. Firmness and color C. Back fat thickness
 B. Marbling score D. Loin eye area
149. Which view is best to determine if an animal is too straight in the shoulder? **(B)**
 A. Rear View C. Front View
 B. Side View D. Looking down from above
150. Which of the following diseases is very contagious, meaning that it can be spread from one animal to others in the same group? **(C)**
 A. Listeriosis, also known as circling disease C. Foot Rot
 B. Hypothermia, or low body temp. D. Enterotoxaemia/Overeating disease
151. Which retail cut contains a piece of spine? **(A)**
 A. Porterhouse steak C. Top Round steak
 B. Ribeye steak D. Flank Steak
152. A pork carcass weighs 135 pounds, has 0.7 inch of back fat and a loin eye area of 6.5 square inches. This carcass is? **(C)**
 A. Too fat C. Too light
 B. Too light muscled D. Very desirable
153. Which important things are contained in colostrum? **(A)**
 A. Antibodies C. Protein
 B. Fat D. All of these
154. Which feed can be used as a protein source for cattle and sheep, but provides no energy at all? **(A)**
 A. Urea C. Soybean Meal
 B. Corn gluten feed D. Cottonseed Meal
155. What does the term gestation mean? **(C)**
 A. The time during which the mating process to take place.
 B. The period of time after the offspring has been weaned.
 C. The time period measured from conception to birth of the animal.
 D. The amount of time it takes for the birthing process to be completed.
156. The good pre-breeding reproductive management tool for the ewe flock and ram involve which of the following? **(A)**
 A. Flushing C. Castrating
 B. Washing D. Cleaning the lambing barn
157. Which of the following sheep breeds is most likely to be used for out-of-season breeding and early fall lambing? **(B)**
 A. Hampshire C. Columbia
 B. Dorset D. Suffolk

158. The ability of an animal to pass their genetic traits on to their offspring is called what? **(C)**
 A. Heterosis
 B. Genealogy
 C. Heritability
 D. Backgrounding
159. Shelled corn is used in rations primarily as a source of? **(C)**
 A. Protein
 B. Fat
 C. Energy
 D. Minerals
160. Which of the following is the smallest framed breed? **(A)**
 A. Southdown
 B. Suffolk
 C. Dorset
 D. Hampshire
161. When does a ewe have the highest feed requirements? **(D)**
 A. Pregnancy
 B. When nursing one lamb
 C. Just after shearing
 D. When nursing twins
162. When is grass at its most nutritious stage? **(A)**
 A. Vegetative
 B. Early bloom
 C. Full bloom
 D. Mature
163. Feed additives are put in rations to? **(D)**
 A. Increase rate of gain
 B. Improve feed efficiency
 C. Treat diseases
 D. All of these
164. Which of the following vitamin-mineral combination is associated with stiff lamb disease? **(B)**
 A. Calcium, phosphorus, vitamin d
 B. Selenium, vitamin e
 C. Sodium, vitamin c
 D. Potassium, vitamin b-12
165. Which of the following would be considered a concentrate feed? **(D)**
 A. Alfalfa hay
 B. Corn silage
 C. Ryegrass pasture
 D. Shelled corn
166. A sheep producer has a 125% lamb crop. If he has 100 ewes, how many lambs did his ewes have? **(B)**
 A. 100
 B. 125
 C. 150
 D. 50
167. When we slaughter a lamb, approximately how much back fat should the carcass have? **(C)**
 A. None
 B. 5 inch
 C. .15 inch
 D. 1 inch
168. What does the term creeping mean? **(B)**
 A. Locking a ram up at night
 B. Providing extra feed for nursing lambs
 C. Exercising market lambs
 D. Bagging a ewe
169. A feed low in fiber and high in food value is? **(D)**
 A. Roughage
 B. Silage
 C. Haylage
 D. Concentrate

170. A good source of protein for beef and sheep rations is: **(C)**
 A. Corn
 B. Trace mineral salt
 C. Soybean meal
171. Purified wool grease used in salves, cosmetics, and ointments is called? **(B)**
 A. Woolite
 B. Lanolin
 C. Margin
 D. Crimp
172. A fatal, degenerative disease affecting the central nervous system known as transmissible spongiform encephalopathies (TSE's) is called: **(B)**
 A. Ringworm
 B. Scrapie
 C. Shipping fever
 D. Postpartum
173. A male animal that has only one normal size testicle descended into the scrotum is called what? **(C)**
 A. Hermaphrodite
 B. Freemartin
 C. Cryptorchid
 D. Mulefoot
174. When cattle twins are born and they are of different sex, the female is called a: **(B)**
 A. Cryptorchid
 B. Freemartin
 C. Hermaphrodite
 D. Mulefoot
175. Pigs born at the same time from the same sow are called: **(D)**
 A. Piglets
 B. Shoats
 C. Feeder Pigs
 D. Littermates
176. Which of the following products is used to synchronize cattle: **(D)**
 A. Bovatec
 B. Synovex
 C. Invomec
 D. Lutalyse
177. What type of examination is used to determine if heifers are big enough to breed? **(C)**
 A. Pregnancy Exam
 B. Blood Pressure Test
 C. Pelvic Exam
 D. Soundness Exam
178. What does EPD stand for? **(C)**
 A. Early Pregnancy Diagnosis
 B. European Popular Demand
 C. Expected Progeny Difference
 D. Eastern Police Department
179. What does heterosis refer to in a crossbreeding program? **(B)**
 A. Heredity
 B. Hybrid Vigor
 C. Genealogy
 D. Hypertension
180. The ability of an animal to pass their genetic traits on to their offspring is called what? **(C)**
 A. Heterosis
 B. Genealogy
 C. Heritability
 D. Backgrounding
181. Which of the following is not considered to be a British Breed? **(D)**
 A. Hereford
 B. Shorthorn
 C. Angus
 D. Chianina
182. TDN or Total Digestible Nutrients is a measure of what in a feed? **(B)**
 A. Protein
 B. Energy
 C. Palatability
 D. Feed Consumption

183. The instructions on an injectable medication recommend it be given subcutaneously. This means the injection is given where? **(B)**
 A. Orally
 B. Under the Skin
 C. In the Muscle
 D. In the Vein
184. Which animal is most efficient in converting forage into human food? **(D)**
 A. Steer
 B. Hog
 C. Chicken
 D. Lamb
185. Which feed additive is used to prevent heifers from coming into heat? **(D)**
 A. Bovatec
 B. Aureomycin
 C. Decoquate
 D. MGA
186. Your vet has a balling gun in his hand. What is he going to do? **(C)**
 A. Remove horns
 B. Castrate
 C. Give a big pill
 D. Vaccinate
187. The most tender beef steak is the? **(D)**
 A. Porterhouse steak
 B. Top loin steak
 C. Round steak
 D. Filet mignon
188. The term bovine relates to which animal? **(A)**
 A. Cattle
 B. Sheep
 C. Swine
 D. Horses
189. The average dressing percent of a market lamb is? **(B)**
 A. 40 percent
 B. 50 percent
 C. 60 percent
 D. 70 percent
190. Your market lambs are on good pasture but are not growing well and have dirty tails. What is most likely the problem? **(A)**
 A. The lambs need to be dewormed
 B. Listeriosis
 C. White muscle disease
 D. The lambs are not eating
191. A 240-pound barrow has 5.5 square inches of loin eye area and 0.8 inches of back fat. This is? **(D)**
 A. Too light muscled
 B. Too fat
 C. Too heavy
 D. Really good
192. What other trait is improved in addition to semen-production by having bulls with larger scrotal circumference? **(B)**
 A. Rate of gain
 B. Age at puberty of daughters
 C. Amount of muscle
 D. Disposition
193. What specie requires an iron supplement shortly after birth? **(C)**
 A. Cattle
 B. Sheep
 C. Swine
 D. Horse
194. For a swine producer with a farrow-to-finish program, what factor is most important in his profitability? **(A)**
 A. Feed cost
 B. Pigs per sow per year
 C. Rate of gain
 D. Back fat thickness

195. Which of the following breeds do not have any Brahman influence? **(A)**
 A. Longhorn
 B. Beefmaster
 C. Santa Gertrudis
 D. Brangus
196. Which of the following is an internal parasite that is not controlled with any deworming product? **(B)**
 A. Stomach worms
 B. Coccidian
 C. Lungworms
 D. Grubs
197. A ewe that is bred on October 1 should lamb on: **(B)**
 A. February 1
 B. March 1
 C. March 15
 D. April 1
198. Which of the following feeds is higher in energy content? **(C)**
 A. Oats
 B. Barley
 C. Wheat
 D. Alfalfa pellets
199. Which is the main source of disease-protection for the newborn animal? **(B)**
 A. Vaccination
 B. Colostrum milk
 C. Vitamin injection
 D. Creep feed
200. Which of these bulls is most likely to cause calving difficulty? **(D)**
 A. Bull with an actual birthweight of 85 lbs.
 B. Bull whose mother was a first-calf heifer
 C. Bull with a yearling weight of 1150 pounds
 D. Bull with a birthweight EPD of +8.6 pounds
201. Ear notching of swine is used to identify? **(D)**
 A. The breeder
 B. The litter number
 C. Pig number within the litter
 D. Both b and c
202. In normal slaughter operations, which specie does not have the skin removed from the carcass? **(B)**
 A. Cattle
 B. Pigs
 C. Sheep
 D. All have it removed
203. Which of the following lamb cuts comes from the same part of the carcass as a porterhouse steak of beef? **(C)**
 A. Blade chop
 B. Rib chop
 C. Loin chop
 D. Sirloin chop
204. Your pig has eaten 450 pounds of feed and has gained 150 pounds. What is his feed efficiency (pounds of feed per pound of gain)? **(C)**
 A. 450
 B. 150
 C. 3.0
 D. Need more information
205. With which specie are the following terms associated: percent muscle, days to 230, litter size, needle teeth? **(B)**
 A. Cattle
 B. Pigs
 C. Sheep
 D. Horse

206. Giving injections in which way causes the greatest problem for the beef industry with injection site reactions? **(B)**
 A. Intravenous
 B. Intramuscular
 C. Subcutaneous
 D. Intradermal
207. When should a cow be artificially bred if she is seen in "standing heat" tomorrow morning? **(B)**
 A. Tomorrow morning
 B. Tomorrow evening
 C. The day after tomorrow
 D. Sunday night
208. A lamb carcass weighs 60 pounds, has a 3.0 square inch loin eye, and has 0.30 inch back fat and grades Choice+. The carcass is? **(C)**
 A. Too light
 B. Light muscled
 C. Too fat
 D. Really good
209. If you want your steer or lamb to grow faster and finish more quickly, which nutrient do you need to increase in the ration fed? **(A)**
 A. Energy
 B. Protein
 C. Quality Grade
 D. Frame Score
210. Meat from sheep less than 12 months of age is called: **(A)**
 A. Lamb
 B. Veal
 C. Mutton
 D. Steak
211. The amount of lamb eaten per person in the United States is approximately: **(A)**
 A. 2 pounds
 B. 5 pounds
 C. 10 pounds
 D. 25 pounds
212. What breed or breed-cross makes the typical "black-baldie" (black body, white face) beef calf? **(A)**
 A. Angus X Hereford
 B. Angus X Charolais
 C. Hereford X Charolais
 D. Purebred Hereford
213. In using livestock medications, you should: **(D)**
 A. Read and follow label instructions
 B. Obey withdrawal requirements
 C. Use the proper dose or amount
 D. All of the above
214. What type of examination is used to determine if heifers are big enough to breed? **(C)**
 A. Pregnancy Exam
 B. Blood Pressure Test
 C. Pelvic Exam
 D. Soundness Test
215. When your steer weighed 600 pounds he was fed a ration containing 13% protein. He now weighs 1000 pounds. What protein level should he be fed now? **(B)**
 A. More
 B. Less
 C. The same
 D. It doesn't matter
216. You take the temperature of your ewe and find the temperature to be 106 degrees, what does this mean? **(A)**
 A. The ewe is probably sick
 B. The ewe is chilled
 C. The ewe needs to be fed more
 D. Everything is normal

217. You sold a market hog that weighed 220 pounds, what would you expect the carcass weight to be? **(B)**
- A. 100 lb.
 - B. 150 lb.
 - C. 180 lb.
 - D. 200 lb.

WORD MATCHING SAMPLE QUESTIONS

Please match the words. Some words may have multiple options available to one word.

426. Match the species name with the scientific name.

- | | |
|--------------------------|------------|
| ___ B ___ Horse - | A. Porcine |
| ___ C ___ Cattle | B. Equine |
| ___ D ___ Sheep | C. Bovine |
| ___ A ___ Swine | D. Ovine |

427. Match the correct gestation period of the species

- | | |
|----------------------|-------------|
| ___ B ___ ewe | A. 283 days |
| ___ C ___ sow | B. 147 days |
| ___ A ___ cow | C. 114 days |

428. Match the desirable birth weight with the specie:

- | | |
|-------------------------|------------|
| ___ B ___ Cattle | A. 3 lbs. |
| ___ C ___ Sheep | B. 80 lbs. |
| ___ A ___ Hogs | C. 12 lbs. |

429. Match with the protein amounts

- | | |
|----------------------------------|-----------|
| ___ C ___ Soybean Meal | A. 18-20% |
| ___ D ___ Cottonseed Meal | B. 10-14% |
| ___ B ___ Clover Hay | C. 44% |
| ___ A ___ Alfalfa Pellets | D. 33% |

430. How much should each specie gain per day.

- | | |
|-------------------------|--------------------|
| ___ D ___ Sheep | A. More Than 1 Lb. |
| ___ C ___ Cattle | B. 2 Lbs. |
| ___ B ___ Hogs | C. 3 Lbs. |
| | D. Less Than 1 Lb. |

431. Match the following diseases with an appropriate description
- | | |
|----------------------------|---|
| <u> D </u> Pneumonia | A. Gut disease caused by a bacteria that can be fatal |
| <u> B </u> Coccidiosis | B. Parasitic disease of the gut |
| <u> A </u> Enterotoxemia | C. Reproductive disease most often affecting cattle |
| <u> C </u> Leptospirosis | D. Infection in the lung |
432. Match with product with use. Options can be used more than once.
- | | |
|----------------------------|--|
| <u> D </u> Ivomec | A. Feed additive – increase efficiency |
| <u> C </u> Lutalyse | B. Growth promotant implant |
| <u> A </u> Bovatec | C. Used in estrous synchronization |
| <u> D </u> Synovex | D. Deworming product |
| <u> C </u> Synchronate B | E. Feed additive – prevents estrous |
| <u> A </u> Rumensin | |
| <u> D </u> Tramisol | |
| <u> E or C </u> MGA | |
433. Match the term for a castrated male with the appropriate species.
- | | |
|---------------------|------------|
| <u> B </u> Swine | A. Gelding |
| <u> D </u> Cattle | B. Barrow |
| <u> A </u> Horse | C. Wether |
| <u> C </u> Sheep | D. steer |
434. Match the cattle breed with its description
- | | |
|------------------------------|--|
| <u> B </u> Limousin | A. British breed noted for marbling |
| <u> A </u> Angus | B. French breed – high cutability |
| <u> D </u> Santa Gertrudis | C. High growth and milk Austrian breed |
| <u> C </u> Simmental | D. Cross of Brahman and Shorthorn |
435. Match the mineral deficiency with the problem it causes
- | | |
|--|-------------------------|
| <u> C </u> Selenium | A. Baby pig anemia |
| <u> D </u> Magnesium | B. Urinary calculi |
| <u> A </u> Iron | C. White muscle disease |
| <u> B </u> Calcium Phosphorous ratio | D. Grass tetany |
436. Match the feed additive with its function.
- | | |
|----------------------------------|--|
| <u> A </u> MGA | A. Prevent heifers from coming into heat |
| <u> D </u> Bovatec/Rumensin | B. Increase protein level of ration |
| <u> B </u> Urea | C. Increase rumen pH, prevent acidosis |
| <u> C </u> Bicarbonate of Soda | D. Improve feed efficiency by 10% |
437. Match the products with their use
- | | |
|---|-----------------------------|
| <u> B </u> Ralgro, Synovex, Compudose | A. Estrous synchronization |
| <u> D </u> Warbex, Spotton | B. Growth promotant implant |
| <u> C </u> Tramisol, Ivomec | C. Dewormer |
| <u> A </u> Lutalyse, Synchronate B | D. Control cattle grubs |

438. Match the breed with the most appropriate description
- | | |
|-------------------------|---|
| <u> D </u> Charolais | A. British breed noted for marbling |
| <u> B </u> Longhorn | B. Light muscled noted for calving ease |
| <u> A </u> Angus | C. Composite Breed |
| <u> C </u> Beefmaster | D. High growth French breed, noted for cutability |
439. Match the sheep breed with the appropriate characteristics:
- | | |
|------------------------|---|
| <u> D </u> Dorset | A. Prolific |
| <u> A </u> Finnsheep | B. Developed from Finn, Dorset, Rambouillet, Targee |
| <u> C </u> Columbia | C. Developed from Lincoln and Rambouillet |
| <u> B </u> Polypay | D. Year round breeding, meat type |
440. Match the mineral with the condition it is associated with:
- | | |
|------------------------------------|-------------------------|
| <u> C </u> Copper | a. white muscle disease |
| <u> D </u> Calcium & Phosphorous | b. grass tetany |
| <u> B </u> Magnesium | c. dead sheep |
| <u> A </u> Selenium | d. urinary calculi |
441. Match the nutritional disease with the cause
- | | |
|-----------------------------------|------------------------------|
| <u> D </u> Grass tetany | A. Calcium:Phosphorous ratio |
| <u> C </u> White muscle disease | B. Low energy level |
| <u> B </u> Pregnancy toxemia | C. Selenium deficiency |
| <u> A </u> Milk fever | D. Magnesium deficiency |
442. Match the product on the left with its use on the right. (Place the letter of the correct use on the right in the corresponding blank on the left column).
- | | |
|-----------------------|--|
| <u> B </u> Bovatec | A. Use to synchronize estrus |
| <u> C </u> Synovex | B. Feed additive, improves feed efficiency |
| <u> D </u> Ivomec | C. Growth promotant implant |
| <u> A </u> Lutalyse | D. Systemic dewormer |

WORD MATCHING SAMPLE QUESTIONS

Please give a short answer to the following questions.

443. What 3 parts of the ruminant are collectively known as the fore-stomach?
Rumen, Reticulum, and Omasum
444. In the ruminant digestive system, the honeycomb is another name for the?
Reticulum
445. Which part of the ruminant digestive system is the true stomach?
Abomasum
446. The common name for the disease Brucellosis is?
Bangs
447. The term parturition is related to what system?
Reproductive
448. What are the lamb quality grades?
Prime, Choice, Good, Utility and Cull

449. Dressing percent is a comparison of what 2 measures?

Live weight and carcass weight

450. What are the 2 designations which describe the palatability of pork?

U.S. and Utility

451. Name the cutability grades for pork?

1,2,3,4

452. List these grades from the fattest to leanest.

 2 Choice

 3 Select

 1 Prime

 4 Standard

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