ARIZONA NATIONAL
Livestock Show

LIVESTOCK SKILL-A-THON

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2022 CONTEST ROTATION SCHEDULE

JUNIOR CONTEST: (350 TOTAL POINTS POSSIBLE)

Team Rotations-

1. Practicum 1 – 50 points possible
2. Livestock Judging– 50 points possible
3. Practicum 2– 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. Practicum 1– 50 points possible
2. Livestock Judging (Group Card with Questions) – 60 points possible (Questions will give 10 bonus points)
3. Practicum 2 – 50 points possible

Individual Rotations-

1. Knowledge Test (25 Questions from Arizona National Livestock Show Test Bank) – 50 points possible
2. Meat ID (15 Cuts with 3 Questions each 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

BREED IDS

BEEF

BOS TAURUS BREEDS

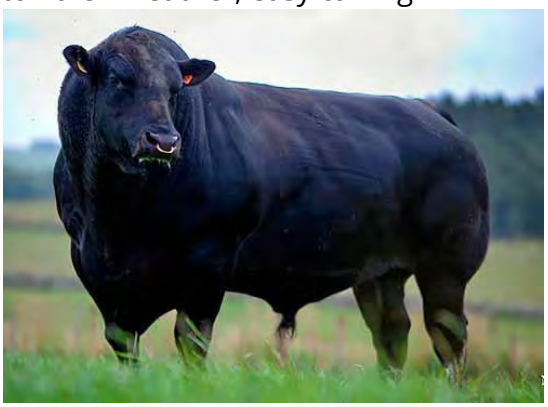
BLACK ANGUS

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 orblue.

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

TARENTAISE

Origins

- Developed in the French Alps 1800's, due to geographic isolation of the mountains they developed separately from any other cattle breeds, and became incredibly hardy

Characteristics

- Reddish brown color dark pigmentation nose eyes and ears
- Early maturing
- Moderate frame size, heavy marbling

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

- 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 oil 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 BREEDS

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

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 full 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, longest bodied.
- 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

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 Horned Dorset.

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 Corsica.

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.

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.

GOATS

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.

MYOTONIC

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

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

EQUIPMENT & FEED ID

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

BEEF EQUIPMENT

Beef Halter

Curry Comb

Dehorners

Nose Lead

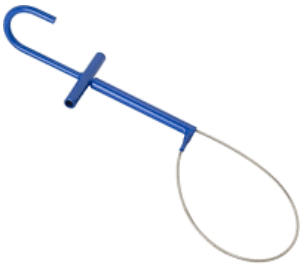
Scotch Comb

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

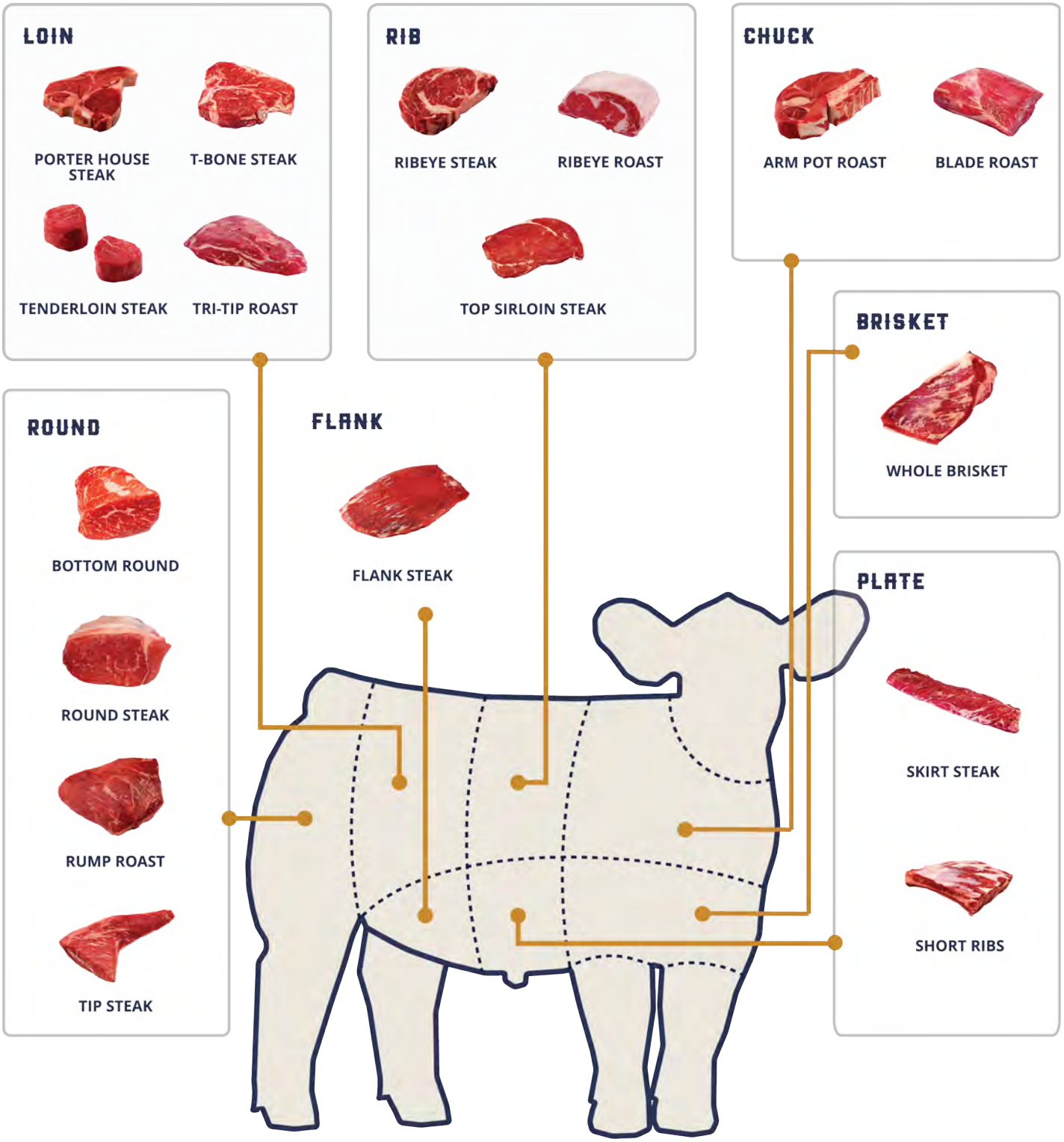
Ear Tag Pliers

Scalpel

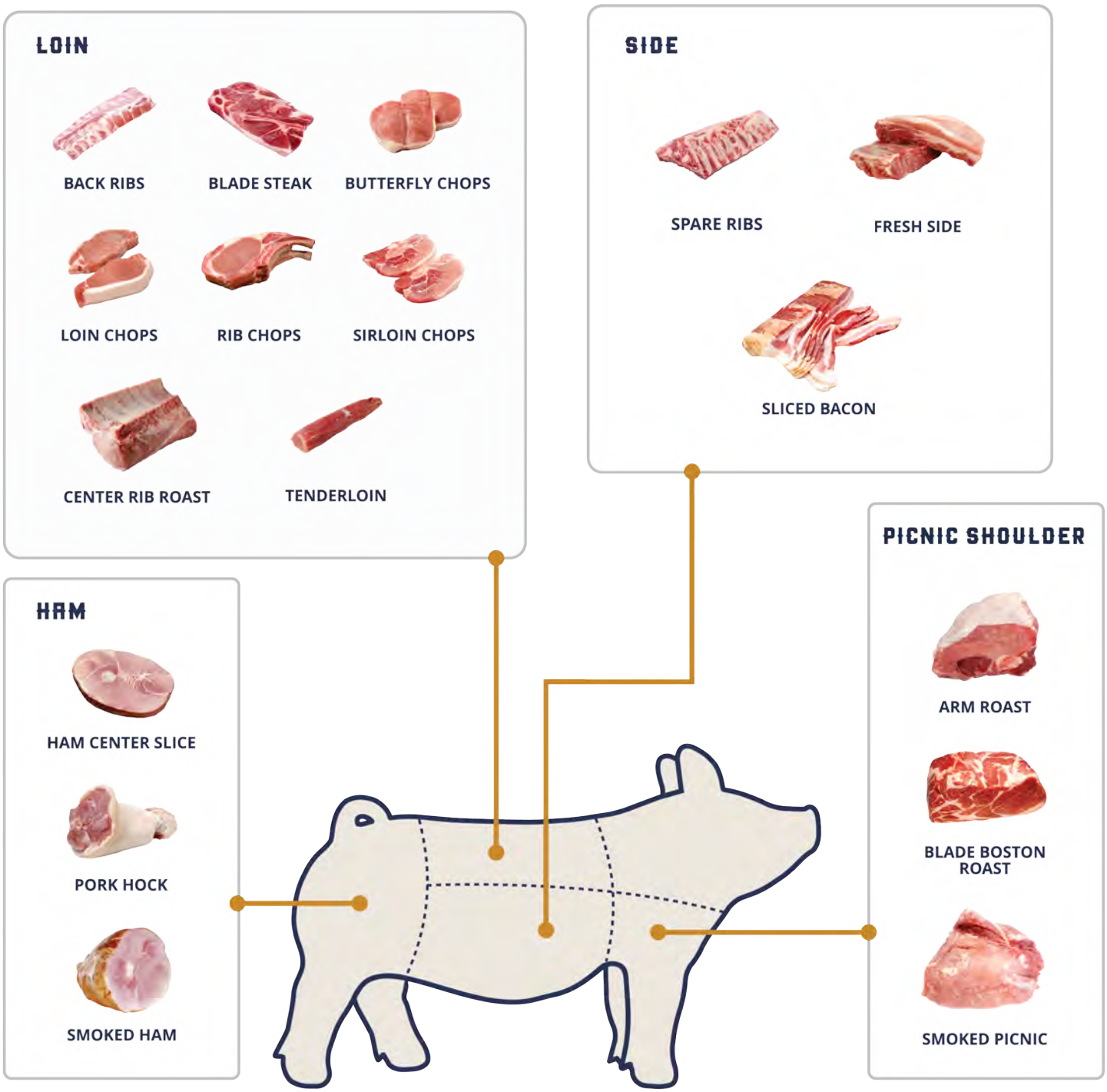
Test Tube

MEATS ID

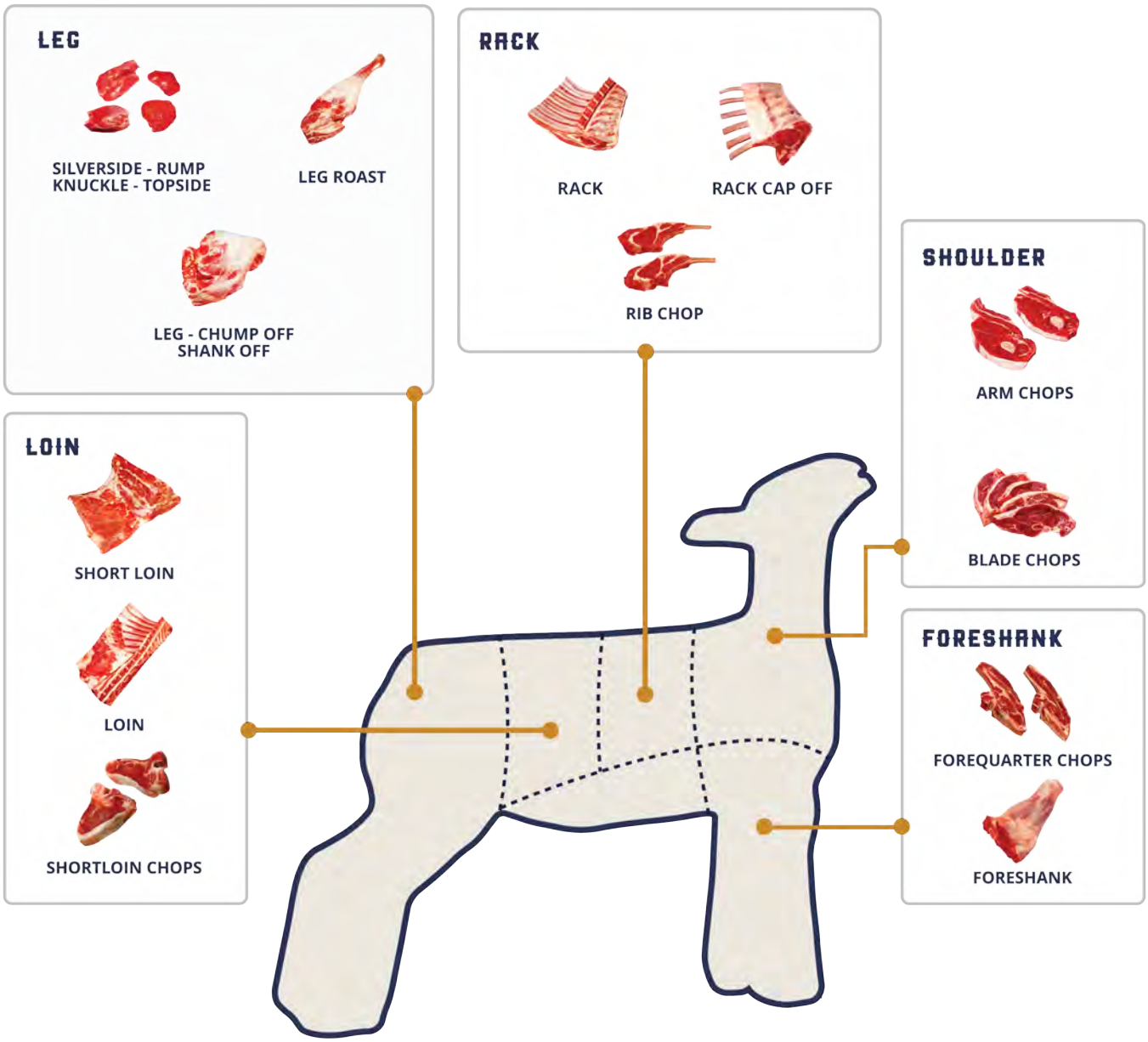
BEEF CUTS



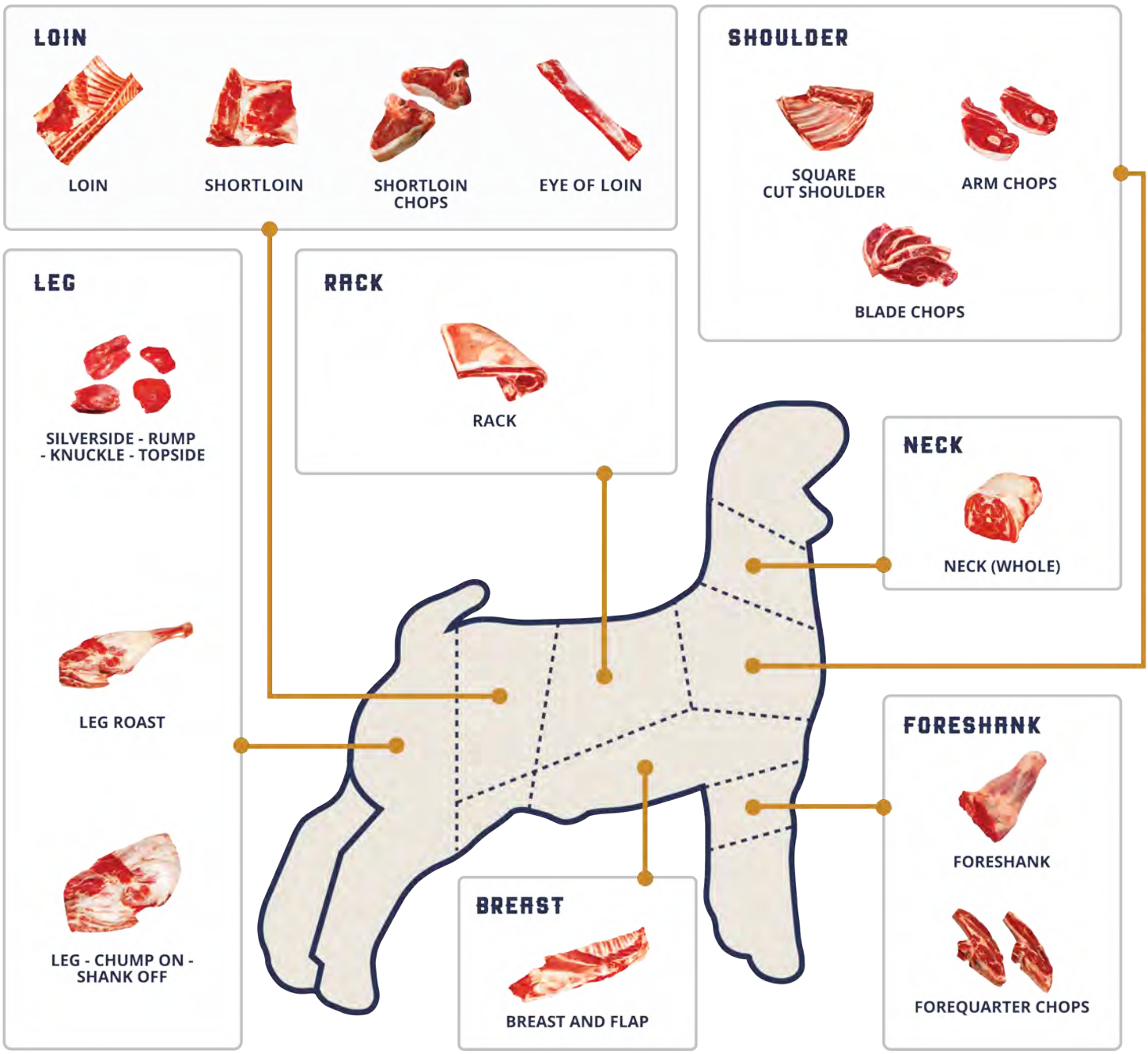
PORK CUTS


LOIN
BACK RIBS
BLADE STEAK
BUTTERFLY CHOPS
LOIN CHOPS
RIB CHOPS
SIRLOIN CHOPS
CENTER RIB ROAST
TENDERLOIN
SIDE
SPARE RIBS
FRESH SIDE
SLICED BACON
HAM
HAM CENTER SLICE
PORK HOCK
SMOKED HAM
PICNIC SHOULDER
ARM ROAST
BLADE BOSTON ROAST
SMOKED PICNIC

LAMB CUTS


LEG
SILVERSIDE - RUMP
KNUCKLE - TOPSIDE
LEG ROAST
LEG - CHUMP OFF
SHANK OFF
RACK
RACK
RACK CAP OFF
RIB CHOP
SHOULDER
ARM CHOPS
BLADE CHOPS
LOIN
SHORT LOIN
LOIN
SHORTLOIN CHOPS
FORESHANK
FOREQUARTER CHOPS
FORESHANK

GOAT CUTS


LOIN
LOIN
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SHORTLOIN CHOPS
EYE OF LOIN
SHOULDER
SQUARE CUT SHOULDER
ARM CHOPS
BLADE CHOPS
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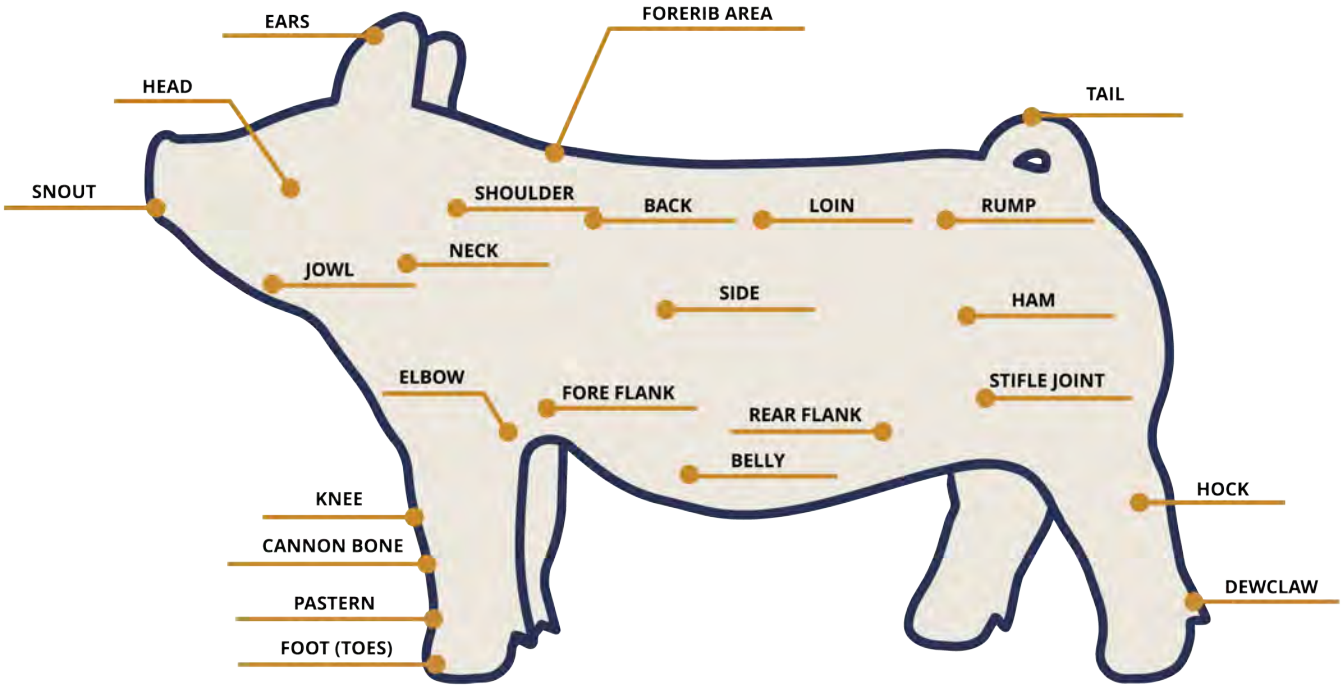
SILVERSIDE - RUMP - KNUCKLE - TOPSIDE
LEG ROAST
LEG - CHUMP ON - SHANK OFF
RACK
RACK
NECK
NECK (WHOLE)
FORESHANK
FORESHANK
FOREQUARTER CHOPS
BREAST
BREAST AND FLAP

PARTS OF THE BODY

SWINE



TEST QUESTIONS

MULTIPLE CHOICE SAMPLE QUESTIONS

1. If sheep are fed broiler litter, it may cause a mineral toxicity of which mineral? (D)
A. Sulfur
B. Selenium
C. Magnesium
D. Copper

2. Which substance is used to treat a disease? (C)
A. Fertilizer
B. Vaccine
C. Antibiotic
D. Implant

3. 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

4. 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

5. 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

6. A large, muscular, fast growing sheep breed: (D)
A. Southdown
B. Polypay
C. Rambouillet
D. Suffolk

7. Which is the most serious hoof problem in sheep? (C)
A. Clogged Oil Duct
B. Foot Scald
C. Foot Rot
D. Thrush

8. 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

9. Which of the following is not a legume? (B)
A. Alfalfa
B. Bluegrass
C. Clover
D. Soybeans

10. 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

11. Which sheep breed is actually a composite? (D)
A. Suffolk
B. Southdown
C. Dorset
D. Polypay

12. 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.

13. 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.

14. 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

15. "Spider lamb" is a problem most often associated with which breed? (C)
A. Finn
B. Dorset
C. Suffolk
D. Polypay

16. 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

17. 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

18. 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

19. 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

20. 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

21. 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

22. 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. Sickle hocked
B. Droopy rump
C. Shoulder too straight

D. Ugly

23. Which swine breed could be added to a rotational crossbreeding program to improve maternal traits? (B)
A. Duroc
B. Yorkshire
C. Hampshire
D. Spot

24. 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

25. 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

26. 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

27. A two-year sheep will have how many permanent front teeth? (B)
A. 2
B. 4
C. 6
D. 8

28. 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

29. Which of the following will grow the fastest as a lamb? (C)
A. Wether
B. Ewe
C. Ram
D. No difference

30. 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

31. Which meat type breed has a white face and erect ears? (B)
A. Southdown
B. Dorset
C. Rambouillet
D. Suffolk

32. What is another name for white muscle disease? (D)
A. Grass Tetany
B. Bloat
C. Hypomagnesemia
D. Stiff lamb disease

33. Which of the following growth implants may be used on feeder lambs? (A)
A. Ralgro
B. Compudose
C. Synovex S
D. Steer-oid

34. Which of the following is not an example of internal parasites? (B)
A. Lung Worms
B. Ticks
C. Tape Worms
D. Flukes

35. Which of the following is a legume? (C)
A. Orchard grass
B. Roughages
C. Soybean Meal
D. Concentrates

36. What is the main source of antibodies for a young lamb? (D)
A. Vitamin A
B. Calcium
C. Protein Supplement
D. Colostrum

37. Which breed of sheep would have the finer wool? (C)
A. Suffolk
B. Dorset
C. Rambouillet
D. Columbia

38. 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

39. A deficiency of which mineral can cause "white muscle disease"? (A)
A. Selenium
B. Magnesium
C. Calcium
D. Phosphorus

40. Which breed is noted for having large numbers of lambs? (C)
A. Dorset
B. Hampshire
C. Fin Sheep
D. Southdown

41. A lamb sirloin chop comes from the… (C)
A. Shoulder
B. Rib
C. Loin
D. Leg

42. Which of the following would not be considered a meat type breed? (D)
A. Suffolk
B. Hampshire
C. Dorset
D. Rambouillet

43. Meat from sheep less than 12 months of age is called? (A)
A. Lamb
B. Veal
C. Mutton
D. Steak

44. What is the approximate length of gestation in the ewe? (C)
A. 1 month
B. 3 months
C. 5 months
D. 9 months

45. Which term refers to sheep? (A)
A. Ovine
B. Bovine
C. Porcine
D. Equine

46. 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

47. Which would not be an acceptable cookery method for lamb rib chops? (C)
A. Broil
B. Braise
C. Pan Fry
D. Pan Broil

48. What is the term used to describe a castrated male sheep? (B)
A. Steer
B. Wether
C. Gelding
D. Buck

49. Shelled corn is used in rations primarily as a source of? (C)
A. Protein
B. Fat
C. Energy
D. Minerals

50. At what stage of growth does grass have the lowest protein? (A)
A. Full bloom
B. Mid-bloom
C. Early bloom
D. Pre-bloom

51. Which of the following occurrences can be prevented by vaccination? (D)
A. Foot Rot
B. Founder
C. Bloat
D. Overeating Disease

52. What is the normal body temperature of a sheep? (C)
A. 98.6
B. 100
C. 101
D. 102.5

53. TDN or Total Digestible Nutrients is a measure of what in a feed? (B)
A. Protein
B. Energy
C. Feed Consumption

54. What is another name for the wingless flies (sometimes called ticks) which affect sheep? (D)
A. Lice
B. Stable Flies
C. Bots
D. Keds

55. Which is higher in protein? (A)
A. Soybean Meal
B. Cottonseed Meal
C. Alfalfa Pellets

56. Which quality grade of beef is most commonly sold in grocery stores? (B)
A. Prime
B. Choice
C. Good
D. Standard

57. The average gestation period of swine is? (B)
A. 21 days
B. 114 days
C. 150 days
D. 130 days

58. 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.

59. 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

60. Which of the following is not a deworming agent for sheep? (C)
A. Phenothiazine
B. Thibenzole
C. Paint
D. Atgard

61. A symptom of bloat is? (C)
A. Lameness
B. Abortion
C. Bulging on the left side
D. Severe bulging on the right side

62. 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

63. The mating of animals of different breeds is known as? (C)
A. Inbreeding
B. Rebreeding
C. Crossbreeding
D. None of the above

64. At what age should a heifer be bred? (C)
A. 9 months
B. 12 months
C. 15 months
D. 20 months

65. An intramuscular injection should be given (A)
A. In the muscle
B. Under the skin
C. In the vein
D. In the bone joints

66. 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

67. What is another word for calving difficulty? (D)
A. Laminitis
B. Founder
C. Enterotoxemia
D. Dystocia

68. 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

69. 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

70. What 2 breeds of cattle were used to develop the Santa Gertrudis breed? (B)
A. Angus and Murray Grey

B. Shorthorn and Brahman
C. Brahman and Limousin
D. Shorthorn and Angus

71. Which breed of swine has erect ears? (A)
A. Tamworth
B. Poland China
C. Chester White
D. Landrace

72. A feed low in fiber and high in food value is? (D)
A. Roughage
B. Silage
C. Haylage
D. Concentrate

73. The average dressing percent of a market hog is? (D)
A. 40%
B. 50%
C. 60%
D. 70%

74. The largest compartment of the 4-part stomach of cattle or sheep is the? (D)
A. Cecum
B. Reticulum
C. Abomasum
D. Rumen

75. The most desirable color for retail beef is? (A)
A. Cherry Red
B. Grayish Pink
C. Pink
D. Dark Brown

76. To increase fall lambing rates which breed would you include in your flock? (C)
A. Suffolk
B. Hampshire
C. Dorset

77. A castrated male pig is called a? (C)
A. Steer
B. Wether
C. Barrow
D. Gilt

78. How old should a gilt be when she first farrows? (B)
A. 6 months
B. 1 year
C. 2 years

79. 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

80. How does an elastrator work? (B)
A. Clamps & crushes cord
B. Cuts off circulation
C. Cuts scrotum on one side

81. A good source of protein for beef and sheep rations is: (C)
A. Corn
B. Trace mineral salt
C. Soybean meal

82. What does the term intradermal mean:(C)
A. Under the skin
B. In the Vein
C. In the skin

83. 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

84. Providing extra feed for nursing lambs and calves is called: (C)
A. Flushing
B. Foundering
C. Creeping

85. When the term burly is used in livestock judging it means:(C)
A. Close at the knees
B. Upstanding
C. Rugged and masculine
D. More feminine

86. What frequent drought problem do we have with feeding green-chop corn silage: (D)
A. Bloat
B. Prussic Acid Poisoning
C. White Muscling Disease
D. Nitrate Poisoning

87. 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

88. 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.

89. 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

90. 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

91. 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.

92. 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

93. Which of the following is not considered to be a British breed:(D)
A. Hereford
B. Shorthorn
C. Angus

D. Chianina

94. Dystocia in beef cattle is: (D)
A. An Infectious Disease
B. A Hormone
C. A Vitamin Deficiency
D. Calving Difficulty

95. 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

96. 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

97. 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
B. Light Muscled
C. Too Fat
D. Really Good

98. 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
B. Pregnancy Sharing
C. Embryo Transfer
D. Estrous Synchronization

99. Which sex grows slowest, even when fed the same as the others? (C)
A. Bull
B. Steer
C. Heifer
D. They're the same

100. How much dry feed would you expect a 1000-pound steer to eat, if he can eat all he wants? (C)
A. 10 pounds
B. 17 pounds
C. 24 pounds
D. 31 pounds

101. Which product is used to treat a disease once an animal already has it? (C)
A. Vaccine
B. Implant
C. Antibiotic
D. Bacterin

102. How can you tell if two hogs are littermates? (B)
A. Left ear notch
B. Right ear notch
C. The pigs are all the same color
D. The information written on their ear tag

103. 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

104. What type of grade or score is not related to fatness of the animal? (D)
A. Condition Score

B. Yield Grade
C. Quality Grade
D. Frame Score

105. 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. Vitamin A
D. Calcium

106. 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
B. 200
C. 6.0
D. 2.0

107. A calf is having trouble being born. What piece of equipment do you need? (B)
A. Esophageal Feeder
B. Obstetrical Chain
C. Emasculator
D. Drench Gun

108. Which factor is most closely related to whether a beef carcass grades Choice or Select? (D)
A. Back fat
B. Amount of muscle
C. Whether it's a steer or heifer
D. Amount of marbling

109. 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

110. What method is used to administer de-wormers? (E)
A. Oral
B. Topical
D. Injected
E. All of the above

111. Maternal milk EPD is a measurement of? (B)
A. Pounds of milk produced
B. Pounds of weaning weight that is due to milk production

112. What wholesale cut corresponds to the shoulder of cattle? (B)
A. Shoulder
B. Chuck
C. Round
D. Plate

113. Which market animal now sells for the highest price per pound (live basis)? (B)
A. Hog
B. Steer
C. Lamb
D. Steers and Lambs are the same

114. Which breed is tolerant of high temperatures, resistant to parasites, but is late maturing and has lower quality beef? (A)
A. Brangus
B. Angus
C. Simmental
D. Limousin

115. The time between when a drug is administered and the animal can safely be sold for slaughter is called? (B)

A. Waiting Period
B. Withdrawal Period
C. Medicinal Interval
D. Safety Period

116. From the profile, an animal straight in the hock and walking with a naturally short, stiff stride is called? (D)
A. Cow Hocked
B. Stiff Legged
C. Sickle Hocked
D. Post Legged

117. What in the name of the technology used to measure fat and amount of muscle in a live animal? (B)
A. Magnetic Resonance Imaging
B. Ultrasound
C. Endoscopy
D. Ultraviolent

118. Which vitamin is related to green forage consumption by cattle and sheep? (A)
A. Vitamin A
B. Vitamin C
C. Vitamin D
D. Vitamin B-6

119. Which of the following is a major problem with quality of pork? (B)
A. EPD
B. PSE
C. ESP
D. SPI

120. After calving, the cow expels the afterbirth. What is the afterbirth officially called? (C)
A. Pasturella
B. Progesterone
C. Placenta
D. Platypus

121. 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

122. 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

123. 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

124. 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

125. Which structure is not a part of the reproductive tract of a female? (B)
A. Ovary
B. Esophagus
C. Cervix
D. Uterus

126. 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

127. 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

128. 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

129. Which hormone is associated with females showing standing heat? (D)
A. Progesterone
B. Prolactin
C. Prostaglandin
D. Estrogen

130. Ultrasound technology cannot determine which meat characteristics? (A)
A. Firmness and color
B. Marbling score
C. Back fat thickness
D. Loin eye area

131. Which view is best to determine if an animal is too straight in the shoulder? (B)
A. Rear View
B. Side View
C. Front View
D. Looking down from above

132. 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
B. Hypothermia, or low body temp.
C. Foot Rot
D. Enterotoxaemia/Overeating disease

133. Which retail cut contains a piece of spine? (A)
A. Porterhouse steak
B. Ribeye steak
C. Top Round steak
D. Flank Steak

134. 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
B. Too light muscled
C. Too light
D. Very desirable

135. Which important things are contained in colostrum? (A)
A. Antibodies
B. Fat
C. Protein
D. All of these

136. Which feed can be used as a protein source for cattle and sheep, but provides no energy at all? (A)
A. Urea
B. Corn gluten feed
C. Soybean Meal
D. Cottonseed Meal

137. 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.

138. The good pre-breeding reproductive management tool for the ewe flock and ram involve which of the following: (A)
A. Flushing
B. Washing
C. Castrating
D. Cleaning the lambing barn

139. Which of the following sheep breeds is most likely to be used for out-of-season breeding and early fall lambing? (B)
A. Hampshire
B. Dorset
C. Columbia
D. Suffolk

140. 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

141. Shelled corn is used in rations primarily as a source of? (C)
A. Protein
B. Fat
C. Energy
D. Minerals

142. Which of the following is the smallest framed breed? (A)
A. Southdown
B. Suffolk
C. Dorset
D. Hampshire

143. 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

144. When is grass at its most nutritious stage? (A)
A. Vegetative
B. Early bloom
C. Full bloom
D. Mature

145. Feed additives are put in rations to? (D)
A. Increase rate of gain
B. Improve feed efficiency
C. Treat diseases
D. All of these

146. 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

147. Which of the following would be considered a concentrate feed? (D)
A. Alfalfa hay
B. Corn silage
C. Ryegrass pasture
D. Shelled corn

148. 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

149. 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

150. 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

151. A feed low in fiber and high in food value is? (D)
A. Roughage
B. Silage
C. Haylage
D. Concentrate

152. A good source of protein for beef and sheep rations is (C)
A. Corn
B. Trace mineral salt
C. Soybean meal

153. Purified wool grease used in salves, cosmetics, and ointments is called? (B)
A. Woolite
B. Lanolin
C. Margin
D. Crimp

154. 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

155. 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

156. 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

157. Pigs born at the same time from the same sow are called: (D)
A. Piglets
B. Shoats
C. Feeder Pigs
D. Littermates

158. Which of the following products is used to synchronize cattle:(D)
A. Bovatec
B. Synovex
C. Invomec
D. Lutalyse

159. 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

160. What does EPD stand for? (C)
A. Early Pregnancy Diagnosis
B. European Popular Demand
C. Expected Progeny Difference
D. Eastern Police Department

161. What does heterosis refer to in a crossbreeding program? (B)
A. Heredity
B. Hybrid Vigor
C. Genealogy
D. Hypertension

162. 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

163. Which of the following is not considered to be a British breed? (D)
A.Hereford
B. Shorthorn
C. Angus
D. Chianina

164. TDN or Total Digestible Nutrients is a measure of what in a feed? (B)
A. Protein
B. Energy
C. Palatability
D. Feed Consumption

165. 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

166. Which animal is most efficient in converting forage into human food? (D)
A. Steer
B. Hog
C. Chicken
D. Lamb

167. Which feed additive is used to prevent heifers from coming into heat? (D)
A. Bovatec
B. Aureomycin
C. Decoquinate
D. MGA

168. 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

169. The most tender beef steak is the? (D)
A. Porterhouse steak
B. Top loin steak
C. Round steak
D. Filet mignon

170. The term bovine relates to which animal? (A)
A. Cattle
B. Sheep
C. Swine
D. Horses

171. The average dressing percent of a market lamb is? (B)

A. 40 percent
B. 50 percent
C. 60 percent
D. 70 percent

172. 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

173. 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

174. 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

175. What specie requires an iron supplement shortly after birth? (C)
A. Cattle
B. Sheep
C. Swine
D. Horse

176. 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

177. Which of the following breeds do not have any Brahman influence? (A)
A. Longhorn
B. Beefmaster
C. Santa Gertrudis
D. Brangus

178. 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

179. A ewe that is bred on October 1 should lamb on: (B)
A. February 1
B. March 1
C. March 15
D. April 1

180. Which of the following feeds is higher in energy content? (C)
A. Oats
B. Barley
C. Wheat
D. Alfalfa pellets

181. Which is the main source of disease-protection for the newborn animal? (B)
A. Vaccination
B. Colostrum milk
C. Vitamin injection
D. Creep feed

182. 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

183. 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

184. 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

185. 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

186. 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

187. 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

188. 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

189. 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

190. A lamb carcass weighs 60 pounds, has a 3.0 squire 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

191. 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

192. Meat from sheep less than 12 months of age is called:(A)
A. Lamb
B. Veal
C. Mutton
D. Steak

193. 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

194. 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

195. In using livestock medications, you should: (D)
A. Read and follow label instructions
B. Obey withdrawal requirements
C. Use the proper does or amount
D. All of the above

196. 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

197. 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

198. 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

199. 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

1. Match the species name with the scientific name.
    a. Horse – Equine
    b. Swine – Porcine
    c. Cattle – Bovine
    d. Sheep – Ovine
2. Match the correct gestation period of the species
    a. ewe – 147 days
    b. sow – 114 days
    c. cow – 283 days
3. Match the desirable birth weight with the specie:
    a. Cattle – 80 lbs
    b. Sheep – 12 lbs
    c. Hogs – 3lbs
4. Match with the protein amounts
    a. Soybean Meal – 44%
    b. Cottonseed Meal – 33%
    c. Clover Hay – 10-14%
    d. Alfalfa Pellets – 18-20%
5. How much should each specie gain per day.
    a. Sheep – Less than 1 lb
    b. Cattle – 3 lbs.
    c. Hogs – 2 lbs.
6. Match the following disease s with an approriate description
    a. Pneumonia - Infection in the lung
    b. Coccidiosis - Parasitic disease of the gut
    c. Enterotoxemia - Gut disease caused by a bacterium that can be fatal
    d. Leptospirosis - Reproductive disease most often affecting cattle
7. Match with product with use. Options can be used more than once.
    a. Ivomec- Deworming product
    b. Lutalyse - Used in estrous synchronization
    c. Bovatec - Feed additive – increase efficiency
    d. Synovex - Deworming product
    e. Synchromate B - Used in estrous synchronization
    f. Rumensin - Feed additive – increase efficiency
    g. Tramisol - Deworming product
    h. MGA- Used in estrous synchronization or Feed additive – prevents estrous
8. Match the term for a castrated male with the appropriate species.
    a. Swine – Barrow

   b. Cattle – Steer
   c. Horse - Gelding
   d. Sheep - Wether
9. Match the cattle breed with its description
   a. Limousin - French breed – high cutability
   b. Angus - Bristish breed noted for marbling
   c. Santa Gertrudis - Cross of Brahman and Shorthorn
   d. Simmental - High growth and milk Austrian breed
10. Match the mineral deficiency with the problem it causes
   a. Selenium - White muscle disease
   b. Magnesium - Grass tetany
   c. Iron - Baby pig anemia
   d. Calcium Phosphorous ratio - Urinary calculi
11. Match the feed additive with its function.
   a. MGA - Prevent heifers from coming into heat
   b. Bovatec/Rumensin - Improve feed efficiency by 10%
   c. Urea - Increase protein level of ration
   d. Bicarbonate of Soda - Increase rumen pH, prevent acidosis
12. Match the products with their use
   a. Ralgro, Synovex, Compudose - Growth promotant implant
   b. Warbex, Spotton - Control cattle grubs
   c. Tramisol, Ivomec – Dewormer
   d. Lutalyse, Synchromate B - Estrous synchronization
13. Rectal Body Temps
   a. Sheep – 100.9-103.8
   b. Beef – 100-102.5
   c. Swine – 101.6-103.6
   d. Goat – 101.3-103.5
14. Match the breed with the most appropriate description
   a. Charolais - High growth French breed, noted for cutability
   b. Longhorn - Light muscled noted for calving ease
   c. Angus - British breed noted for marbling
   d. Beefmaster - Composite Breed
15. Match the sheep breed with the appropriate characteristics:
   a. Dorset - Year round breeding, meat type
   b. Finnsheep – Prolific
   c. Columbia - Developed from Lincoln and Rambouillet
   d. Polypay - Developed from Finn, Dorset, Rambouillet, Targee
16. Match the mineral with the condition it is associated with
   a. Copper - dead sheep

   b. Calcium & Phosphorous - urinary calculi
   c. Magnesium - grass tetany
   d. Selenium - white muscle disease

17. Match the nutritional disease with the cause
   a. Grass tetany - Magnesium deficiency
   b. White muscle disease - Selenium deficiency
   c. Pregnancy toxemia - Low energy level
   d. Milk fever - Calcium:Phosphorous ratio

18. 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).
   a. Bovatec - Feed additive, improves feed efficiency
   b. Synovex - Growth promotant implant
   c. Ivomec - Use to synchronize estrus
   d. Lutalyse - Use to synchronize estrus

SHORT ANSWER SAMPLE QUESTIONS

Please give a short answer to the following questions.

1. What 3 parts of the ruminant are collectively known as the fore-stomach?
    a. Rumen, Reticulum, and Omasum
2. In the ruminant digestive system, the honeycomb is another name for the?
    a. Reticulum
3. Which part of the ruminant digestive system is the true stomach?
    a. Abomasum
4. The common name for the disease Brucellosis is?
    a. Bangs
5. The term parturition is related to what system?
    a. Reproductive
6. What are the lamb quality grades?
    a. Prime, Choice, Good, Utility and Cull
7. Dressing percent is a comparison of what 2 measures?
    a. Live weight and carcass weight
8. What are the 2 designations which describe the palatability of pork?
    a. U.S. and Utility
9. Name the cutability grades for pork?
    a. 1,2,3,4
10. List these grades from the fattest to leanest.
    a. 2 – Choice, 3 – Select, 1 – Prime

LIVESTOCK SKILL-A-THON: POTENTIAL TEAM ACTIVITIES

'A.I.' PRACTICUM (50 POINTS TOTAL)

You are a junior exhibitor who wants to breed your heifer. After looking at different options with your vet, you decided artificial insemination (A.I.) is the best fit for your operation. Your next course of action is to look through a sire directory to find a bull that meets your needs. You found a few that you would like to take a closer look at their Expected Progeny Difference (EPD).

With your team, look at the EPDs and photos provided. Decide what bull best matches the exhibitor's needs. Once a bull has been chosen, each team member will go through the steps of preparing an A.I. gun to be used for artificial insemination. Take record of the of the A.I process
https://www.youtube.com/watch?v=E0Q6zZCvMpI

Criteria	Points Possible	Points Earned
Team works together (with equal effort) to determine bull the bull to use and takes note in "Animal Records"	**5**	
Each team member follows the steps in properly loading an A.I. gun • Keep the canister and straws as close to the neck of the tank as possible • Use tweezers to grab straw • Place in warming bath for 45 secs • Warm A.I. gun to body temp stroking with paper towel or place against body • Take straw out of water dry with paper towel • Have A.I. gun plug is pulled back • Insert straw cotton plug first • Make a cut to straw at a perpendicular angle • Put on the sanitary sheath • Keep gun warm until ready to be used	**20 (5/ea)**	
Each team member will talk through A.I. steps with a herdsmen as they are simulating the A.I. procedure on the palpation dummy	**20 (5/ea)**	
Total	**50**	

Additional sources:
See Example Sire Directory

EXAMPLE SIRE DIRECTORY

V A R HEMISPHERE 1181

V A R Hemisphere 1181

Lot 26

V A R HEMISPHERE 1181

BD: 01-30-2021 BULL *19996955 TATTOO: 1181

*GB Fireball 672
18690054
+*G A R Sure Fire 6404
*GB Anticipation 432
+*G A R Prophet K263

*Wilks Rita 8559
19299752
+*G A R Sure Fire
+*G A R Complete N281
*G A R Anticipation
GB Ambush 269
#+*G A R Prophet

*Wilks Rita 6196
#+*G A R Prophet
+*Chair Rock 5050 G A R 1131
+*B/R Destination 928-1073
PA Rita 5059-2278

$Axiom +211 $Angus +238

CED	BW	WW	YW	RADG	SC	CEM	MILK
+5 .36	+3.4 .52	+91 .45	+164 .40	+.35 .32	+1.12 .47	+7 .28	+24 .26

No. 2 $C	No. 8 WW	No. 16 $W	Top 1% $G	Top 2% Marb
No. 3 WEPD	No. 10 $M	No. 18 SC	Top 1% REA	Top 2% RADG
No. 3 YEPD	No. 11 $G	No. 18 Milk	Top 1% WW	Top 15% $W
No. 3 $B	No. 12 $F	Top 1% $B	Top 1% YW	Top 20% $M
No. 4 YW	No. 14 Marb	Top 1% $C	Top 2% $F	

Carcass	
Marb	+1.46
Re	+1.26
CW	+80

$ Values	
$Maternal	+76
$Weaning	+72
$Feedlot	+123
$Grid	+101
$Beef	+224
$Combined	+367

Weights	
BW	84
Adj. 205	912
Adj. 365	1474
Adj. SC	41.47

HOBSOK	CED	BW	WW	YW	DMI	DOC	CEM	MILK	CW	MARB	RE	FAT	TEND
	65	73	8	4	89	11	90	57	3	2	1	22	89

Analysis values this bull among the breed's elite for preweaning growth (WW), postweaning growth (YW), $Maternal calf value index, added ribeye needed for improved yield grade, added marbling, $Weaned calf value for performance from birth to weaning, progeny performance for postweaning merit measured by $Feedlot, progeny performance for carcass grid merit measured by $G, the combined growth carcass excellence measured by $Beef, and the combined value of maternal and $Beef measured by $C.

V A R Hemisphere is an out of this world multi-trait excellence sire with top 1% or 2% rankings for 14 traits and Indexes. **Selling 2/3 semen interest and full possession.**

Wilks Rita 8559 - The powerful donor dam of V A R Hemisphere 1181 - Lot 26.

'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-bandaged 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.

Criteria	Points Possible	Points Earned
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**	
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**	
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	**50**	

'BOVINE PREGNANCY CHECK' PRACTICUM (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.

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

'FOOT ROT' PRACTICUM (50 POINTS TOTAL)

You run a small family farm raising a flock of 25 head of Suffolk sheep. While you are out feeding for the night, you notice some of your sheep displaying signs of lameness. After further examine of the sheep, you find that between the digits there is a grey pasty scum, separation of horn around heel, sole and toe, along with inflammation. You recognize this immediately to be Dichelobacter nodosus (or footrot). Of the affected sheep, one is pregnant with lambs and one is a market lamb headed to slaughter in 30 days. You have several treatment options on hand.

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

Each member will evaluate a sheep and record in the "Animal Records" the course of treatment or health of animal. Two sheep will require treatment. Splitting into pairs use the label of the chosen treatment, calculate the correct dosage for each sheep's weight, and the correct way to administer said treatment. Inform herdsmen of proper care and follow up.

Criteria	**Points Possible**	**Points Earned**
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".	**20 (5/ea)**	
Mix the solution in the correct ratio • 9L water:1kg ZnSO4 10% Place effected area in the solution	**20 (10/gr)**	
Tell the herdsmen the required soak time as well as the immediate after care • 5-10 minutes soaking • 1 hour clean hard surface to dry	**5**	
Total	**50**	

Additional sources:

- https://www.lls.nsw.gov.au/__data/assets/pdf_file/0019/1263340/foot-bathing-fact-sheet.pdf

'HALTER TYING' PRACTICUM (50 POINTS TOTAL)

You and your team are getting ready to wash your goats at the Arizona National Livestock Show. You have decided that the best course of action to prepare your goat to be washed is to tie them up at the wash rack. It was decided that a quick release knot would work best. To ensure that there is not a loose goat running around the grounds use the extra steps.

Each member of the team will need to tie a goat up at an appropriate height and distance away from the fence. After the goat has been tied, each team member will also untie the halter.

Criteria	Points Possible	Points Earned
The correct knot was used	**20 (5/ea)**	
The goat is tied at an acceptable height and distance from the fence	**20 (5/ea)**	
Was able to be released quickly	**5**	
The goats were tied in a timely manner	**5**	
Total	**50**	

Additional sources:

- https://www.youtube.com/watch?v=fG6LiX10hlU

'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).

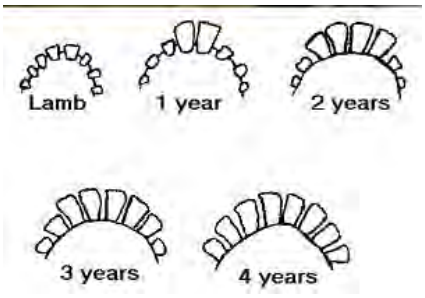
Criteria	Points Possible	Points Earned
Team works together (with equal effort) to determine treatment plan.	**10**	
Determines an appropriate treatment plan for each sheep, including calculating the appropriate amount of medication for each sheep. Note this treatment plan in the "Animal Record".	**10**	
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).	**20**	
Correctly recap and remove needle from syringe, then place in sharps container after use.	**10**	
Total	**50**	

'SHEEP AGING' PRACTICUM (50 POINTS TOTAL)

You help manage a flock of 175 Hampshire ewes. The area that you run in has been experiencing a severe drought. It was decided that a cull of 10% of the flock should be made. The first cull criteria will be based on is age. Some of your records have been lost, so you will have to physically age a group of your ewes.

You will be given a sample group from the flock. Each team member will use proper gloving technique and check the age of each of the ewes. Once the age has been determined, record the results in your "Animal Records". Then specify which ewe if any that you will be culling. Using the scenario above determine how many total ewes from the whole flock will be culled.

Criteria	Points Possible	Points Earned
Determine the total number of ewes that will culled from the flock	**5**	
Each team member ages 1 sheep with accuracy	**20 (5/ea)**	
Each team member makes a note in the "Animal Records"	**20 (5/ea)**	
Correctly determine which ewe should be culled	**5**	
Total	**50**	



Arizona National Livestock Show

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