

Name: Key

County: _____

Senior Livestock Breed Identification - 2024

60 points

Instructions – For each picture use the box on the right to choose the letter that indicates your answer for each livestock breed and use the box at the bottom of the page to choose the letter for the breed description. You must fill in (bubble) the scantron sheet corresponding with the breed name in the breed identification section, fill in the characteristics/traits in the breed description section. Bubble your answers on the scantron sheet while you are at the breed identification station. You may fill out this sheet to keep and go over with your coach at the conclusion of the contest. Each question is worth 3 points.

Breed Identification	Breed Description
1. <u>L</u>	<u>M</u>
2. <u>A</u>	<u>E</u>
3. <u>P</u>	<u>T</u>
4. <u>B</u>	<u>C</u>
5. <u>J</u>	<u>J</u>
6. <u>I</u>	<u>G</u>
7. <u>N</u>	<u>O</u>
8. <u>T</u>	<u>P</u>
9. <u>C</u>	<u>F</u>
10. <u>R</u>	<u>Q</u>

Breed Names – to be used to answer breed identification column		
Beef Breeds	Goat Breeds	Sheep Breeds
A. Beefmaster	G. Angora	J. Cheviot
B. Chianina	H. Boer	K. Finnsheep
C. Gelbvieh	I. Kiko	L. Katahdin
D. Santa Gertrudis		M. Merino
E. Shorthorn	Swine Breeds	N. Rambouillet
F. Simmental	P. Berkshire	O. Tunis
	Q. Hampshire	
	R. Landrace	
	S. Poland China	
	T. Pietrain	

Breed Description – important characteristics/traits, used to answer breed description column	
Beef Cattle Characteristics/Traits	Sheep Characteristics/Traits
A. A British breed that is highly fertile and has calving ease.	J. A meat breed that is known for its hardiness, this breed originated in England/Scotland.
B. Developed at King’s Ranch in Texas by crossing Brahman and Shorthorn.	K. A medium wool meat breed that originated in North Africa/Middle East.
C. Known for their size, this breed originated in Italy.	L. A long wool breed whose defining strength is being highly prolific.
D. Originating in Switzerland this breed is considered one of the oldest cattle breeds in the world.	M. Developed in Maine this hair breed genetically has some parasite resistance.
E. The first American composite breed, created by crossing Hereford, Shorthorn, and Brahman.	N. Known for producing high quality fine wool, this breed originated in Spain.
F. This German breed was originally used for meat, milk, and work.	O. This fine wool breed originated in France.
Goat Characteristics/Traits	Swine Characteristics/Traits
G. A medium size breed developed in New Zealand whose defining strength is rapid growth rates in kids.	P. A Belgium breed whose defining strength is leanness, however the breed carries the Halothane gene.
H. Originating in South Africa this breed is known for being early maturing and low maintenance.	Q. A Danish breed whose defining strength is maternal ability and large litter size.
I. Small in size and produces the finest mohair.	R. Created by crossing Poland China and Big China pigs.
	S. Developed in Ohio, is one of America’s oldest swine breeds.
	T. Known for superior meat quality this breed originated in England.

Before you leave the station complete the breed identification and breed description section on your scantron sheet.

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10.



Name: Key

Senior Equipment Identification - 2024

60 points

Instructions – For each piece of equipment choose the letter that indicates your answer. You must fill in (bubble) the scantron sheet corresponding with the equipment name in the equipment identification section. Bubble your answers on the scantron sheet while you are at the equipment identification station. You may fill out this sheet to keep and go over with your coach at the conclusion of the contest. Each question is worth 3 points.

1. Marking harness P
2. Prolapse tube Q
3. Cleaver E
4. Fencing pliers L
5. Lamb puller O
6. Emasculator K
7. AI catheter A
8. Balling gun B
9. Comb F
10. Whale saw T
11. Ear notcher I
12. CIDR applicator D
13. Drench gun H
14. Implant gun N
15. Cutter G
16. Emasculatome J
17. Boning knife C
18. BEA grid R
19. Hoof shears M
20. Teeth nipper S

Equipment Names – to be used to answer equipment identification

- A. AI catheter
- B. Balling gun
- C. Boning knife
- D. CIDR applicator
- E. Cleaver
- F. Comb
- G. Cutter
- H. Drench gun
- I. Ear notcher
- J. Emasculatome
- K. Emasculator
- L. Fencing pliers
- M. Hoof shears
- N. Implant gun
- O. Lamb puller
- P. Marking harness
- Q. Prolapse tube
- R. Ribeye area grid
- S. Teeth nipper
- T. Whale saw

Before you leave the station complete the equipment identification section on your scantron sheet.

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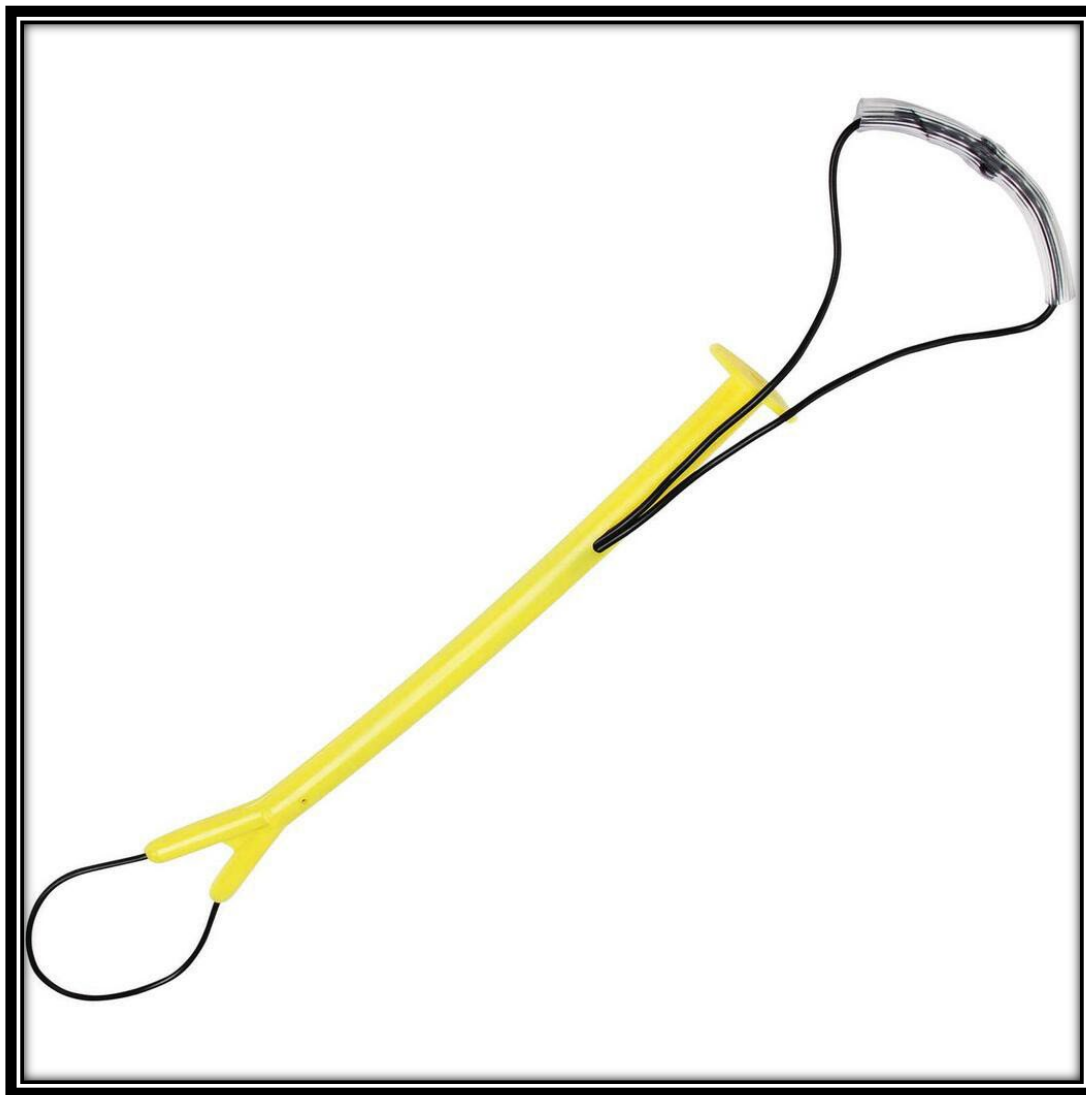
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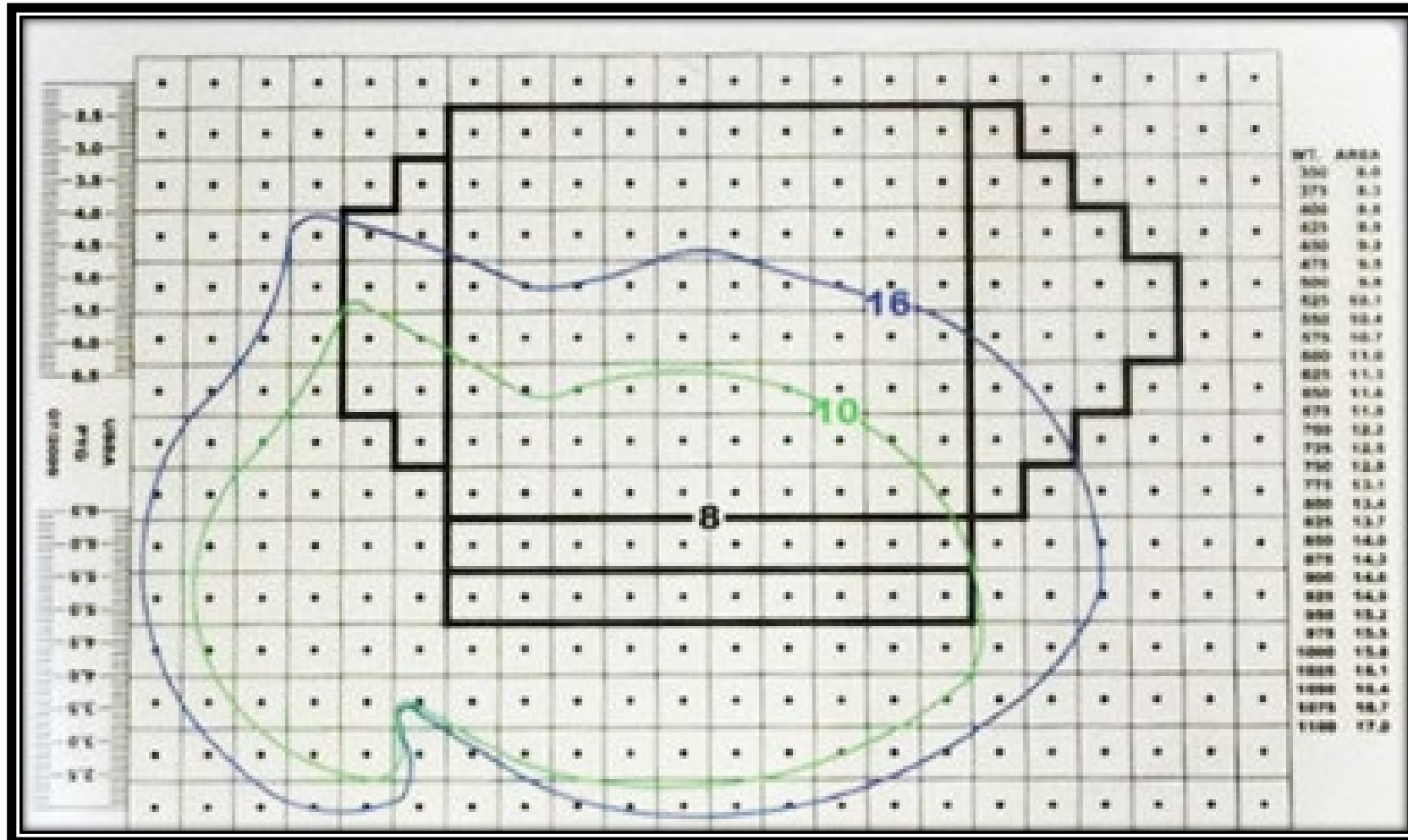
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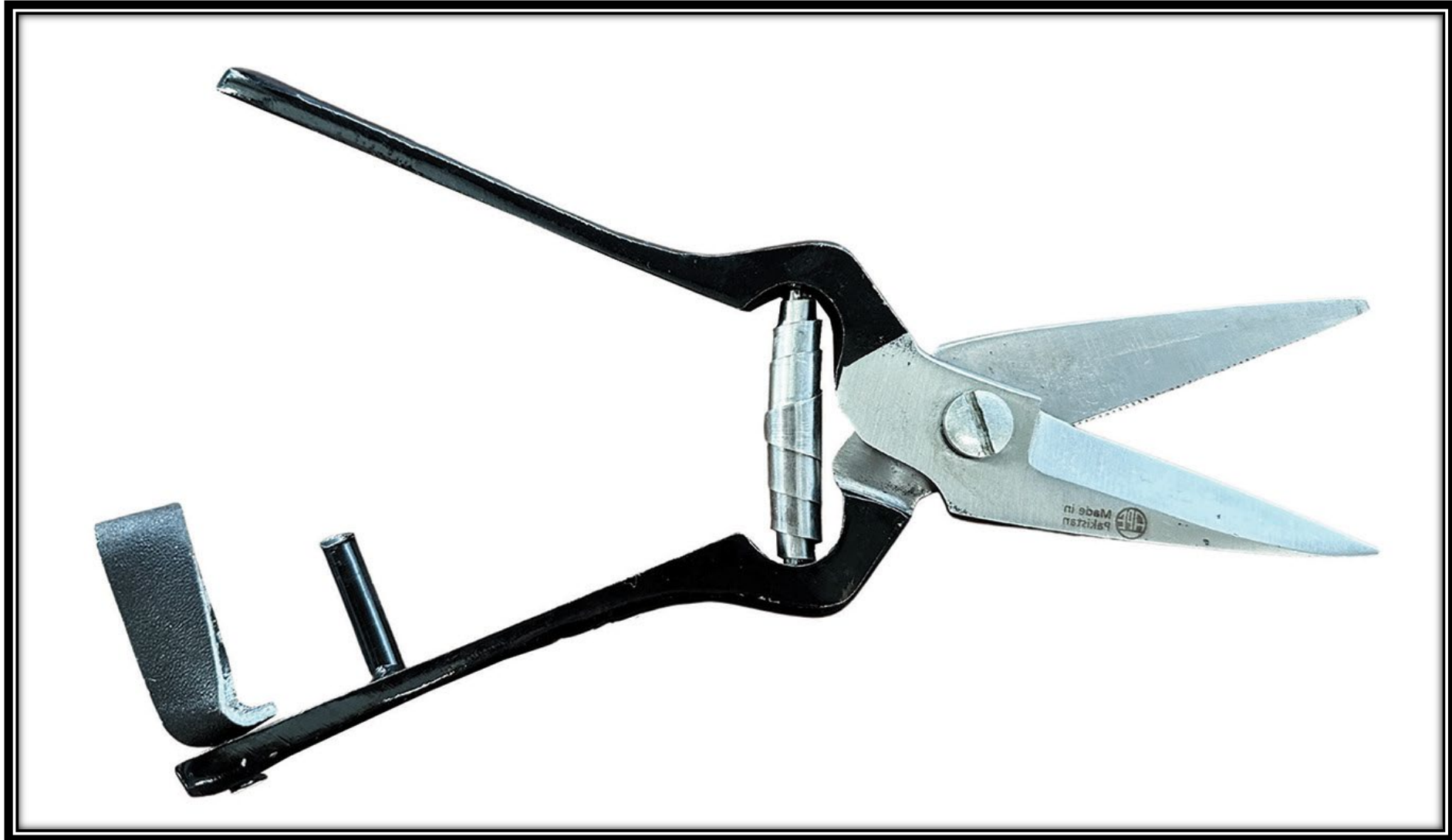
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18.



19.



20.



Name: _____

County: _____

Senior Feed Identification - 2024

60 points

Instructions – For each feed use the box on the right to choose the letter that indicates your answer for feed name for each feedstuff and use the box at the bottom of the page to choose the letter for the feed usage/important characteristics. You must fill in (bubble) the scantron sheet corresponding with the feed name in the feed identification section and the corresponding feed usage/important characteristics in the feed usage section. Bubble your answers on the scantron sheet while you are at the feed identification station. You may fill out this sheet to keep and go over with your coach at the conclusion of the contest. Each question is worth 3 points.

Feed Identification	Feed Usage
1. Soybean meal P	K
2. Dical phosphate G	I
3. Oat (whole) N	N
4. Corn DDGS D	F
5. Dried molasses I	C
6. Trace mineral premix S	B
7. Cottonseed meal E	G
8. Ammonia chloride A	O
9. Fishmeal J	D
10. Milo (whole) M	M

Feed Names – to be used to answer feed identification	
A. Ammonia chloride	K. Ground ear corn
B. Barley (whole)	L. Ground limestone
C. Bakery meal	M. Milo (whole)
D. Corn distillers dried grains with solubles	N. Oats (whole)
E. Cottonseed meal	O. Salt (white)
F. Dehydrated alfalfa meal	P. Soybean meal
G. Dicalcium phosphate	Q. Spray dried plasma protein
H. Dried beet pulp	R. Spray dried whey
I. Dried molasses	S. Trace mineral premix
J. Fish meal	T. Wheat (whole)

Feed Usage – important characteristics and feed usage, used to answer feed usage column

- A. Carbohydrate feed that is a co-product from the food industry, is high in salt, fat, and sugar.
- B. A carrying agent is mixed with iron, iodine, zinc, copper, and selenium; can be provided to the animal free choice.
- C. A highly palatable energy source in livestock diets, produced by drying sugar from either sugar beets or sugarcane.
- D. Animal protein source that contains high concentrations of crude protein, lysine, and omega-3-fatty acids.
- E. Animal protein source that is a by-product of swine and bovine harvesting plants, has low levels of methionine.
- F. Co-product of fermentation during ethanol or alcohol production; high in polyunsaturated fatty acids.
- G. Fed primarily to ruminant animals; has an anti-nutritional factor, gossypol, which can be toxic when not heat processed.
- H. Mineral source that is important in electrolyte balance and pH regulation.
- I. Mineral supplement that supplies calcium and phosphorus to livestock; when deficient reduced growth and impaired bone mineralization can occur.
- J. Mineral supplement that supplies calcium to livestock; important for skeletal development, lean tissue disposition, and muscle contractions.
- K. Most common plant protein source in livestock diets.
- L. Produced after the fat and casein have been removed; contains high levels of lactose.
- M. Produced primarily in the arid parts of the U.S., this energy feed is comparable to corn, but contains slightly more saturated fatty acids.
- N. Simplex carbohydrate that is used primarily when feeding young animals this feed can be fed whole but is most often further processed.
- O. Used in sheep and goat diets to promote urinary tract health.

Before you leave the station complete the feed identification and feed usage section on your scantron sheet.

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Name: Key

County: _____

Senior Retail Meat Identification - 2024

60 points

Instructions – For each picture use the boxes below and to the right to choose the number or letter that indicates your answer for each retail meat cut. You must select a **Specie**, **Primal Cut**, and **both digits of the Retail Cut**. You must fill in (bubble) the scantron sheet corresponding with the specie, primal, retail first digit, and retail second digit in the meat identification – retail cuts section. Bubble your answers on the scantron sheet while you are at the retail meat identification station. You may fill out this sheet to keep and go over with your coach at the conclusion of the contest. Each question is worth 6 points (species 2 points, primal 2 points, retail 2 points).

#	Specie	Primal Cut	Retail Cut First Digit	Retail Cut Second Digit
1.	L	I	5	7
2.	P	N	7	9
3.	B	A	0	2
4.	P	M	6	9
5.	L	G	4	9
6.	B	D	2	1
7.	P	L	6	5
8.	L	J	5	9
9.	B	F	3	3
10.	P	K	6	7

Specie – to be used to answer specie identification

The letter may be used more than once

B. Beef

L. Lamb

P. Pork

Retail Cut – to be used to answer retail cut identification

Beef

- | | | | |
|-------------------------|-------------------------------|--------------------------|---------------------------|
| 01. Beef for stew | 12. Flank steak | 23. Rib roast, large end | 34. Heel of round roast |
| 02. Brisket, flat | 13. Sirloin steak, flat bone | 24. Rib roast, small end | 35. Rump roast, boneless |
| 03. Brisket, whole | 14. Sirloin steak, pin bone | 25. Rib steak, small end | 36. Round steak |
| 04. Arm roast | 15. Sirloin steak, round bone | 26. Ribeye roast | 37. Round steak, boneless |
| 05. Arm roast, boneless | 16. Sirloin steak, boneless | 27. Ribeye steak | 38. Tip roast |
| 06. Arm steak | 17. Tenderloin steak | 28. Plate short ribs | 39. Tip roast, cap off |
| 07. Arm steak, boneless | 18. Porterhouse steak | 29. Plate skirt steak | 40. Tip steak |
| 08. Blade roast | 19. T-bone steak | 30. Bottom round roast | 41. Tip steak, cap off |
| 09. Blade steak | 20. Top loin steak | 31. Bottom round steak | 42. Top round roast |
| 10. 7-bone roast | 21. Short ribs | 32. Eye round roast | 43. Heart |
| 11. 7-bone steak | 22. Skirt steak | 33. Eye round steak | 44. Liver |

Lamb

- | | | | |
|--------------------------|----------------------|-------------------------|-------------------------|
| 45. Breast | 50. Leg shank half | 55. Loin roast | 59. Should blade chop |
| 46. Breast riblets | 51. Leg sirloin chop | 56. Rib chop | 60. Shoulder neck slice |
| 47. American style roast | 52. Leg sirloin half | 57. Rib roast | 61. Shoulder square cut |
| 48. French style roast | 53. Loin chop | 58. Rib roast, boneless | 62. Kidney |
| 49. Leg center slice | 54. Loin double chop | | 63. Liver |

Pork

- | | | | |
|-----------------------------|-----------------------|----------------------|------------------|
| 64. Fresh ham center slice | 69. Blade roast | 74. Rib chop | 79. Arm steak |
| 65. Fresh ham rump portion | 70. Butterfly chop | 75. Sirloin chop | 80. Blade roast |
| 66. Fresh ham shank portion | 71. Center rib roast | 76. Top loin chop | 81. Sliced bacon |
| 67. Fresh side pork | 72. Center loin roast | 77. Arm picnic roast | 82. Spare ribs |
| 68. Blade chop | 73. Loin chop | 78. Arm roast | 83. Hock |

Primal Cut – to be used to answer primal cut identification

Beef

- A. Brisket
- B. Chuck
- C. Loin
- D. Plate
- E. Rib
- F. Round

Lamb

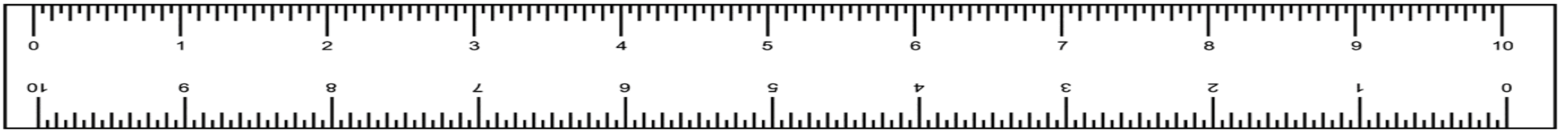
- G. Leg
- H. Loin
- I. Rack
- J. Shoulder

Pork

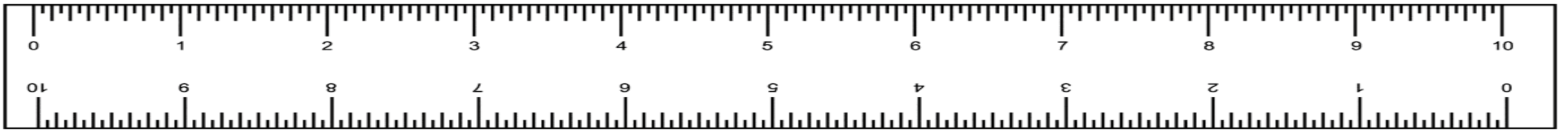
- K. Belly/Side
- L. Ham
- M. Loin
- N. Picnic shoulder

Before you leave the station complete the meat identification – retail cuts section on your scantron sheet.

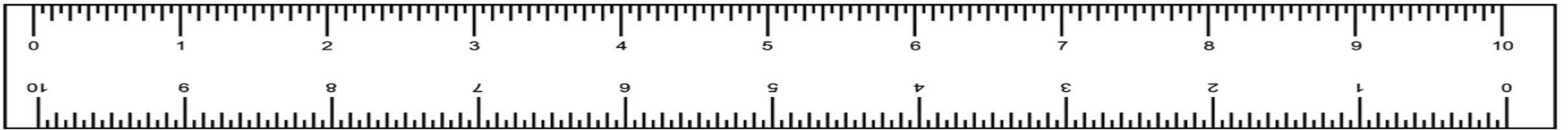
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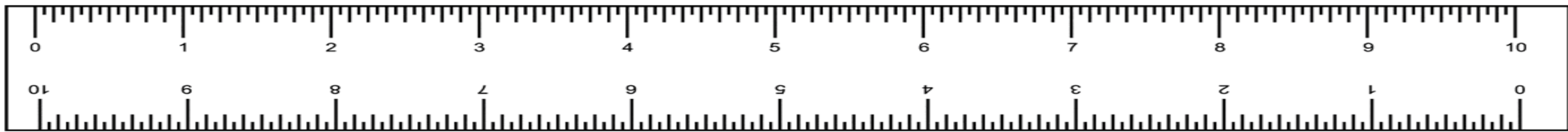
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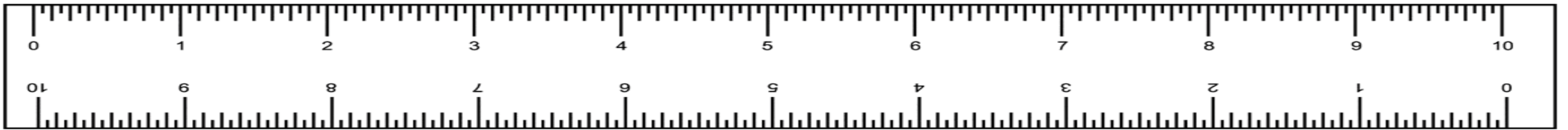
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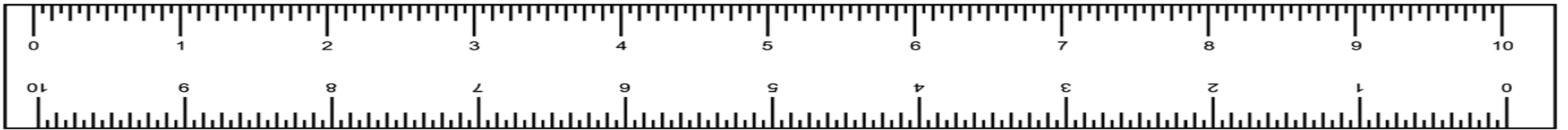
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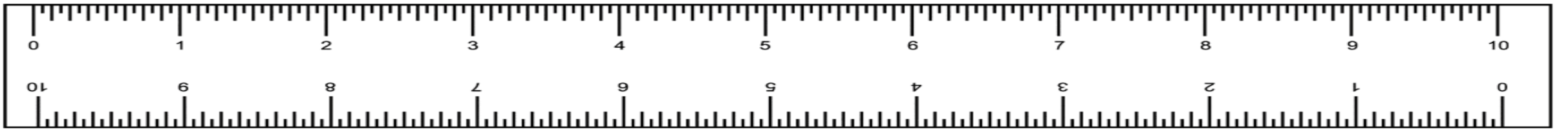
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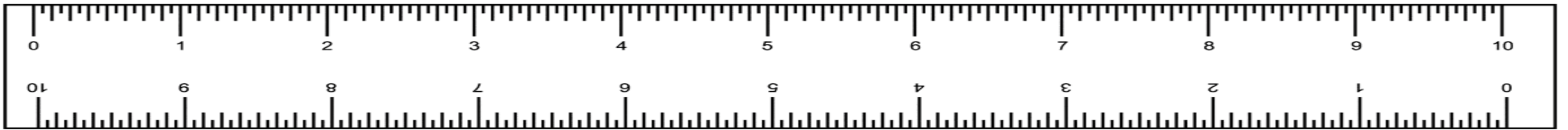
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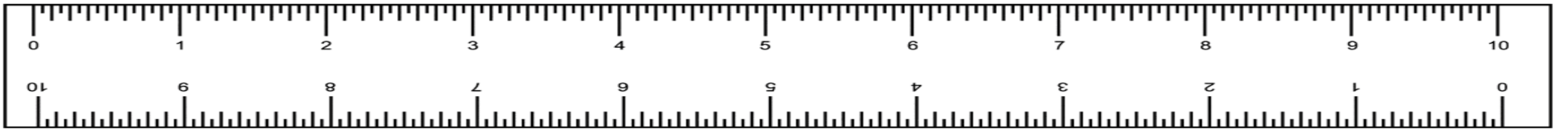
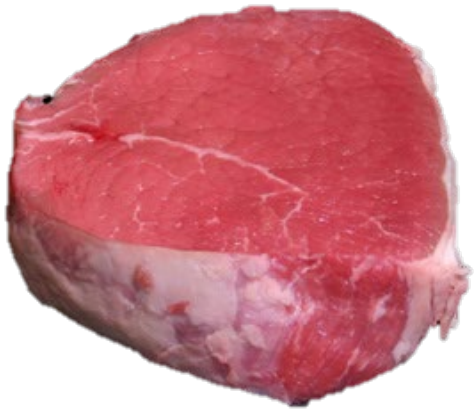
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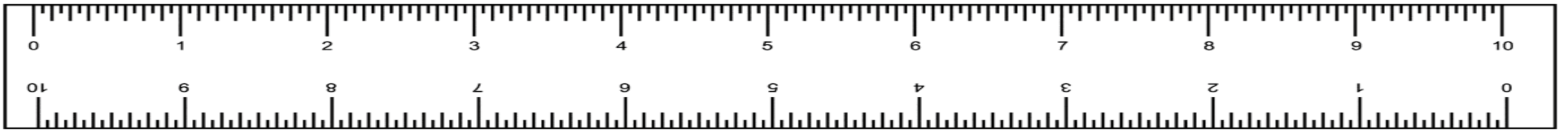
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Name: Key

Senior Exam - 2024

60 points

Instructions – For each question select the answer that best completes the sentence or answers the question. You must fill in (bubble) your answers on the scantron sheet in the exam section. Bubble your answers on the scantron sheet while you are at the exam station. You may fill out this sheet to keep and go over with your coach at the conclusion of the contest. Each question is worth 2 points.

- Vitamin B is not a fat-soluble vitamin.
a. A b. C c. D d. K
- A is the location of sperm maturation and sperm storage in a bull.
a. Epididymis b. Penis c. Scrotum d. Urethra
- The hindsaddle on market lamb is from the C back.
a. First rib b. Hip bone c. Last rib d. Shoulder
- The red roan color in Shorthorn cattle is an example of what type of inheritance? C
a. Dominance b. Epistasis c. Incomplete dominance d. Recessive
- The D quality grade in beef cattle is only used for A maturity carcasses.
a. Choice b. Commercial c. Prime d. Select
- The hormone GnRH (gonadotrophin releasing hormone) is released by the A.
a. Hypothalamus b. Ovary c. Testicle d. Thyroid

Before you leave the station complete the exam section on your scantron sheet.

Name: Key

7. Sunflower meal in a heifer's diet provides what main nutrient? C
a. Carbohydrate b. Fat c. Protein d. Vitamins
8. A doe has grass tetany, she has low levels of circulating C.
a. Calcium b. Glucose c. Magnesium d. Sodium
9. Ewes gestate for B days.
a. 114 b. 148 c. 283 d. 336
10. Ruminant animals produce D in their rumen for an energy source.
a. Carbon dioxide b. Fructose c. Methane d. Volatile fatty acids
11. C is the site of fertilization in a ewe.
a. Cervix b. Ovary c. Oviduct d. Uterus
12. Most U.S. cattle farms breed heifers so females give birth to their first calf at B year(s) of age.
a. 1 b. 2 c. 3 d. 4
13. D is a complex carbohydrate.
a. Corn b. Feather meal c. Molasses d. Tall fescue hay
14. For a herd of Brangus cows in Kentucky C would be an ideal body condition score.
a. 1 b. 3 c. 5 d. 8

Before you leave the station complete the exam section on your scantron sheet.

Name: Key

15. C is a prion disease that affects sheep and goats.
- a. Caseous lymphadenitis
 - b. Erysipelas
 - c. Scrapie
 - d. Tetanus

16. In young calves the B is responsible for directing milk away from the rumen, instead milk is sent directly to the abomasum.
- a. Cremaster
 - b. Esophageal groove
 - c. Pyloric sphincter
 - d. Trachea

17. To treat for footrot a footbath containing D is used.
- a. Ammonia sulfate
 - b. Calcium sulfate
 - c. Magnesium sulfate
 - d. Zinc sulfate

18. In cattle EPDs, which category is a lower value preferred when selecting a bull to breed to first-calf heifers? A
- a. Birth weight
 - b. Calving ease
 - c. Scrotal circumference
 - d. Yearling weight

19. B is the standard weaning age for swine in U.S. commercial operations.
- a. 12 days of age
 - b. 21 days of age
 - c. 30 days of age
 - d. 60 days of age

20. Out of season breeding in sheep refers to ewes being bred during the B months.
- a. Autumn
 - b. Spring
 - c. Summer
 - d. Winter

21. Which is not an essential amino acid for swine? B
- a. Arginine
 - b. Casein
 - c. Lysine
 - d. Valine

22. A C carcass has two spool joints.
- a. Beef
 - b. Lamb
 - c. Mutton
 - d. Swine

Before you leave the station complete the exam section on your scantron sheet.

Name: Key

23. Which breed was developed in Dubois, Idaho? D
a. Beefmaster b. Chester White c. Polled Hereford d. Polypay
24. Pale, soft, and exudative (PSE) meat is an issue seen in D carcasses.
a. Beef b. Goat c. Lamb d. Pork
25. To prevent urinary calculi in ram lambs A is added to diets.
a. Ammonia chloride b. Copper sulfate c. Sodium chloride d. Urea
26. A ewe lamb gives birth to twin ram lambs. She has a D % lamb crop.
a. 0 b. 100 c. 150 d. 200
27. Stocker operations sell C pound calves at a sale barn or stockyard.
a. 60-100 b. 400-650 c. 600-850 d. 1,100-1,250
28. In which specie is artificial insemination most frequently used? D
a. Beef cattle b. Goat c. Sheep d. Swine
29. Goat kids are weaned at C days of age.
a. 21 b. 30 c. 60 d. 90
30. Newborn pigs are given an injection of D as they are born deficient.
a. Calcium b. Fluoride c. Iodine d. Iron

Before you leave the station complete the exam section on your scantron sheet.

Name: Key

Senior Individual Quality Assurance - 2024

60 points

Instructions – For each question select the answer that best completes the sentence or answers the question. You must fill in (bubble) your answers on the scantron sheet in the quality assurance section. Bubble your answers on the scantron sheet while you are at the quality assurance station. You may fill out this sheet to keep and go over with your coach at the conclusion of the contest. Each question is worth 3 points.

H&H farm is located in south central Kentucky. The farm is a 50 head Hereford cow-calf operation. Additionally, the farm has a Hampshire farrow-to-finish operation. The farm's veterinarian recommended the use of Ivermectin Injection to treat and control parasites in both the cattle and swine herd. Use the product label to answer the following questions or complete the sentence.

1. The slaughter withdrawal for cattle is C days.
a. 18 b. 21 c. 35 d. 59

2. When using Ivermectin Injection in gestating sows a B gauge needle should be used.
a. 14 b. 16 c. 20 d. 22

3. Which administration route should be used when giving Ivermectin Injection to cattle? D
a. Intramuscular b. Intranasal c. Intravenous d. Subcutaneous

4. One of the farm's sows is scheduled to farrow on February 20. When is the earliest the sow can be treated with Ivermectin Injection to minimize piglet parasite infection? B
a. February 1 b. February 6 c. February 12 d. February 18

5. When giving Ivermectin Injection at volumes greater than B mL the dose needs to be divided over two injection sites.
a. 5 b. 10 c. 15 d. 20

6. The farm is considering raising several calves for veal. Ivermectin Injection is approved in veal calves. A
a. False b. True

Before you leave the station complete the quality assurance section on your scantron sheet.

Name: Key

7. The farmer is treating a Hereford cow that weighs 1,430 pounds. He needs to administer D mL to the cow.

- a. 10 b. 11 c. 12 d. 13

8. When storing Ivermectin Injection it should be stored in the B.

- a. Dark at 40°F b. Dark at 75°F c. Light at 40°F d. Light at 75°F

9. C are not approved to be treated with Ivermectin Injection.

- a. AI boars b. Feedlot steers c. Lactating dairy cows d. Reindeer

10. Where is Ivermectin Injection manufactured? D

- a. California b. Germany c. Missouri d. United Kingdom

11. Ivermectin Injection is not effective for the treatment of D.

- a. Cattle grubs b. Lungworms c. Manage mites d. Tapeworms

12. The average weight of the farm's 8 bred sows is 328 pounds/sow. To treat all 8 sows how much Ivermectin Injection is needed? B

- a. 25mL b. 35mL c. 40mL d. 45mL

13. When using Ivermectin Injection to treat lice in growing pigs how many days after treatment is it recommended to move the treated swine to a clean pen? A

- a. 7 days b. 14 days c. 21 days d. Immediately after treatment

14. To use Ivermectin Injection to control cattle grubs, treatment should be giving at the A of the heel fly season.

- a. End b. Midpoint c. Start d. Timing does not matter

Name: Key

15. If a heifer gets an injection site reaction after Ivermectin Injection is given, how should she be treated? **A**
a. Antibiotics b. Copper sulfate c. Lutalyse d. Second dose of Ivermectin
16. When administering Ivermectin Injection to cattle the producer should use a **A** needle.
a. 16 gauge, 1/2 inch b. 16 gauge, 1 inch c. 18 gauge, 1/2 inch d. 18 gauge, 1 inch
17. The farmer is treating his 50 pound growing pigs, he needs to administer **C** mL per pig.
a. 1/3 b. 1/2 c. 2/3 d. 3/4
18. The slaughter withdrawal for swine is **B** days.
a. 7 b. 18 c. 26 d. 35
19. The farmer is going to breed one of his gilts on February 27. On which date should Ivermectin Injection be administered to the gilt? **C**
a. February 1 b. February 9 c. February 17 d. February 28
20. Where should injections of Ivermectin Injection be administered to boars? **A**
a. Behind ear b. Elbow pocket c. Ham d. In front of shoulder

Ivermectin Injection

1% Sterile Solution



Ivermectin

(ivermectin)

INJECTION FOR CATTLE AND SWINE

1% Sterile Solution

A Parasiticide for the Treatment and Control of Internal and External Parasites of Cattle and Swine.

Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

INTRODUCTION

Ivermectin (ivermectin) Injection is an injectable parasiticide for cattle and swine. One low-volume dose effectively treats and controls the following internal and external parasites that may impair the health of cattle and swine: gastrointestinal roundworms (including inhibited *Ostertagia ostertagi* in cattle), lungworms, grubs, sucking lice, and mange mites of cattle; and gastrointestinal roundworms, lungworms, lice, and mange mites of swine. Ivermectin's convenience, broad-spectrum efficacy and safety margin make Ivermectin Injection a unique product for parasite control of cattle and swine.

PRODUCT DESCRIPTION

Ivermectin is derived from the avermectins, a family of potent, broad-spectrum antiparasitic agents isolated from fermentation of *Streptomyces avermitilis*.

Ivermectin Injection is a clear, ready-to-use, sterile solution containing 1% ivermectin, 40% glycerol formal, and propylene glycol q.s. ad 100%. Ivermectin Injection is formulated to deliver the recommended dose level of 200 mcg ivermectin/kilogram of body weight in cattle when given subcutaneously at the rate of 1 mL/110 lb (50 kg). In Swine, Ivermectin Injection is formulated to deliver the recommended dose level of 300 mcg ivermectin/kilogram body weight when given subcutaneously in the neck at the rate of 1 mL per 75 lb (33 kg).

MODE OF ACTION

Ivermectin is a member of the macrocyclic lactone class of endectocides which have a unique mode of action. Compounds of the class bind selectively and with high affinity to glutamate-gated chloride ion channels which occur in invertebrate nerve and muscle cells. This leads to an increase in the permeability of the cell membrane to chloride ions with hyperpolarization of the nerve or muscle cell, resulting in paralysis and death of the parasite. Compounds of this class may also interact with other ligand-gated chloride channels, such as those gated by the neurotransmitter gamma-aminobutyric acid (GABA).

The margin of safety for compounds of this class is attributable to the fact that mammals do not have glutamate-gated chloride channels, the macrocyclic lactones have a low affinity for other mammalian ligand-gated chloride channels and they do not readily cross the blood-brain barrier.

INDICATIONS

Cattle: Ivermectin Injection is indicated for the effective treatment and control of the following harmful species of gastrointestinal roundworms, lungworms, grubs, sucking lice, and mange mites in cattle:

Gastrointestinal Roundworms (adults and fourth-stage larvae):

Ostertagia ostertagi (including inhibited *O. ostertagi*)
O. lyrata
Haemonchus placei
Trichostrongylus axei
T. colubriformis
Cooperia oncophora
C. punctata
C. pectinata
Oesophagostomum radiatum
Bunostomum phlebotomum
Nematodirus helvetianus (adults only)
N. spathiger (adults only)

Lungworms (adults and fourth-stage larvae):

Dictyocaulus viviparus

Cattle Grubs (parasitic stages):

Hypoderma bovis
H. lineatum

Sucking Lice:

Linognathus vituli
Haematopinus eurysternus
Solenopotes capillatus

Mites (scabies):

Psoroptes ovis (syn. *P. communis* var. *bovis*)
Sarcoptes scabiei var. *bovis*

Persistent Activity

Ivermectin injection has been proved to effectively control infections and to protect cattle from reinfection with *Dictyocaulus viviparus* and *Oesophagostomum radiatum* for 28 days after treatment; *Ostertagia ostertagi*, *Trichostrongylus axei* and *Cooperia punctata* for 21 days after treatment; *Haemonchus placei* and *Cooperia oncophora* for 14 days after treatment.

Swine: Ivermectin Injection is indicated for the effective treatment and control of the following harmful species of gastrointestinal roundworms, lungworms, lice, and mange mites in swine:

Gastrointestinal Roundworms:

Large roundworm, *Ascaris suum* (adults and fourth-stage larvae)
 Red stomach worm, *Hydrostrongylus rubidus* (adults and fourth-stage larvae)
 Nodular worm, *Oesophagostomum* spp. (adults and fourth-stage larvae)
 Threadworm, *Strongyloides ransomi* (adults)

Somatic Roundworm Larvae:

Threadworm, *Strongyloides ransomi* (somatic larvae)
 Sows must be treated at least seven days before farrowing to prevent infection in piglets.

Lungworms:

Metastrongylus spp. (adults)

Lice:

Haematopinus suis

Mange Mites:

Sarcoptes scabiei var. *suis*

DOSAGE

Cattle: Ivermectin Injection should be given only by subcutaneous injection under the loose skin in front of or behind the shoulder at the recommended dose level of 200 mcg of ivermectin per kilogram of body weight. Each mL of Ivermectin Injection contains 10 mg of ivermectin, sufficient to treat 110 lb (50 kg) of body weight (maximum 10 mL per injection site).

Body Weight (lb)	Dose Volume (mL)
220	2
330	3
440	4
550	5
660	6
770	7
880	8
990	9
1100	10

Swine: Ivermectin Injection should be given only by subcutaneous injection in the neck of swine at the recommended dose level of 300 mcg of ivermectin per kilogram (2.2 lb) of body weight. Each mL of Ivermectin Injection contains 10 mg of ivermectin, sufficient to treat 75 lb of body weight.

	Body Weight (lb)	Dose Volume (mL)
Growing Pigs	19	1/4
	38	1/2
	75	1
	150	2

Breeding Animals	225	3
(Sows, Gilts, and Boars)	300	4
	375	5
	450	6

Do not underdose. Ensure each animal receives a complete dose based on a current body weight. Underdosing may result in ineffective treatment, and encourage the development of parasitic resistance.

ADMINISTRATION

Cattle: Ivermectin Injection is to be given subcutaneously only, to reduce risk of potentially fatal clostridial infection of the injection site. Animals should be appropriately restrained to achieve the proper route of administration. Use of a 16-gauge, 1/2 to 3/4 inch needle is suggested. Inject under the loose skin in front of or behind the shoulder (see illustration).



When using the 250, 500 or 1000 mL pack size, use only automatic syringe equipment.

Use sterile equipment and sanitize the injection site by applying a suitable disinfectant. Clean, properly disinfected needles should be used to reduce the potential for injection site infections.

No special handling or protective clothing is necessary.

Ivermectin Injection

1% Sterile Solution

Swine: Ivermectin (ivermectin) Injection is to be given subcutaneously in the neck. Animals should be appropriately restrained to achieve the proper route of administration. Use of a 16- or 18-gauge needle is suggested for sows and boars, while an 18- or 20-gauge needle may be appropriate for young animals. Inject under the skin, immediately behind the ear (see illustration).



When using the 100, 250, 500 or 1000 mL pack size, use only automatic syringe equipment. As with any injection, sterile equipment should be used. The injection site should be cleaned and disinfected with alcohol before injection. The rubber stopper should also be disinfected with alcohol to prevent contamination of the contents. Mild and transient pain reactions may be seen in some swine following subcutaneous administration.

Recommended Treatment Program

Swine: At the time of initiating any parasite control program, it is important to treat all breeding animals in the herd. After the initial treatment, use Ivermectin Injection regularly as follows:

BREEDING ANIMALS

- Sows:** Treat prior to farrowing, preferably 7-14 days before, to minimize infection of piglets.
- Gilts:** Treat 7-14 days prior to breeding.
Treat 7-14 days prior to farrowing.
- Boars:** Frequency and need for treatments are dependent upon exposure. Treat at least two times a year.

FEEDER PIGS

(Weaners/Growers/Finishers)

All weaner/feeder pigs should be treated before placement in clean quarters. Pigs exposed to contaminated soil or pasture may need retreatment if reinfection occurs.

NOTE:

- (1) Ivermectin Injection has a persistent drug level sufficient to control mite infestations throughout the egg to adult life cycle. However, since the ivermectin effect is not immediate, care must be taken to prevent reinfestation from exposure to untreated animals or contaminated facilities. Generally, pigs should not be moved to clean quarters or exposed to uninfested pigs for approximately one week after treatment. Sows should be treated at least one week before farrowing to minimize transfer of mites to newborn baby pigs.
- (2) Louse eggs are unaffected by Ivermectin Injection and may require up to three weeks to hatch. Louse infestations developing from hatching eggs may require retreatment.
- (3) Consult a veterinarian for aid in the diagnosis and control of internal and external parasites of swine.

Special Minor Use

Reindeer: For the treatment and control of warbles (*Oedemagena tarandi*) in reindeer, inject 200 micrograms ivermectin per kilogram of body weight, subcutaneously. Follow use directions for cattle as described under

ADMINISTRATION.

American Bison: For the treatment and control of grubs (*Hypoderma bovis*) in American bison, inject 200 micrograms ivermectin per kilogram of body weight, subcutaneously. Follow use directions for cattle as described under

ADMINISTRATION.

RESIDUE WARNINGS: Do not treat reindeer or American bison within 8 weeks (56 days) of slaughter.

WARNING
NOT FOR USE IN HUMANS.
Keep this and all drugs out of the reach of children.

The Safety Data Sheet (SDS) contains more detailed occupational safety information. To report suspected adverse drug events, for technical assistance, or to obtain a copy of the SDS, contact Norbrook, Inc at 1-866-591-5777. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or <http://www.fda.gov/reportanimalae>.

RESIDUE WARNINGS: Do not treat cattle within 35 days of slaughter. Because a withdrawal time in milk has not been established, do not use in female dairy cattle of breeding age. A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal. Do not treat swine within 18 days of slaughter.

PRECAUTIONS

Transitory discomfort has been observed in some cattle following subcutaneous administration. A low incidence of soft tissue swelling at the injection site has been observed. These reactions have disappeared without treatment. For cattle, divide doses greater than 10 mL between two injection sites to reduce occasional discomfort or site reaction. Use sterile equipment and sanitize the injection site by applying a suitable disinfectant. Clean, properly disinfected needles should be used to reduce the potential for injection site infections.

Observe cattle for injection site reactions. Reactions may be due to clostridial infection and should be aggressively treated with appropriate antibiotics. If injection site infections are suspected, consult your veterinarian.

This product is not for intravenous or intramuscular use. Protect product from light.

Ivermectin Injection for Cattle and Swine has been developed specifically for use in cattle, swine, reindeer, and American bison **only**. This product should not be used in other animal species as severe adverse reactions, including fatalities in dogs, may result.

When to Treat Cattle with Grubs

Ivermectin Injection effectively controls all stages of cattle grubs. However, proper timing of treatment is important. For most effective results, cattle should be treated as soon as possible after the end of the heel fly (warble fly) season. Destruction of *Hypoderma* larvae (cattle grubs) at the period when these grubs are in vital areas may cause undesirable host-parasite reactions including the possibility of fatalities. Killing *Hypoderma lineatum* when it is in the tissue surrounding the esophagus (gullet) may cause salivation and bloat; killing *H. bovis* when it is in the vertebral canal may cause staggering or paralysis. These reactions are not specific to treatment with Ivermectin Injection, but can occur with any successful treatment of grubs. Cattle should be treated either before or after these stages of grub development. Consult your veterinarian concerning the proper time for treatment.

Cattle treated with Ivermectin Injection after the end of the heel fly season may be retreated with Ivermectin Injection during the winter for internal parasites, mange mites, or sucking lice without danger of grub-related reactions. A planned parasite control program is recommended.

OTHER WARNINGS:

Parasite resistance may develop to any dewormer, and has been reported for most classes of dewormers.

Treatment with a dewormer used in conjunction with parasite management practices appropriate to the geographic area and the animal(s) to be treated may slow the development of parasite resistance.

Fecal examinations or other diagnostic test and parasite management history should be used to determine if the product is appropriate for the herd/flock, prior to the use of any dewormer. Following the use of any dewormer, effectiveness of treatment should be monitored (for example, with the use of a fecal egg count reduction test or another appropriate method).

A decrease in a drug's effectiveness over time as calculated by fecal egg count reduction tests may indicate the development of resistance to the dewormer administered. Your parasite management plan should be adjusted accordingly based on regular monitoring.

STORAGE

Store at 59° to 86°F (15° to 30° C).

ENVIRONMENTAL SAFETY

Studies indicate that when ivermectin comes in contact with soil, it readily and tightly binds to the soil and becomes inactive over time. Free ivermectin may adversely affect fish and certain aquatic organisms. Do not permit water runoff from feedlots to enter lakes, streams, or ponds. Do not contaminate water by direct application or by improper disposal of drug containers. Dispose of containers in an approved landfill or by incineration.

As with other avermectins, ivermectin is excreted in the dung of treated animals and can inhibit the reproduction and growth of pest and beneficial insects that use dung as a source of food and for reproduction. The magnitude and duration of such effects are species and life-cycle specific. When used according to label directions, the product is not expected to have an adverse impact on populations of dung-dependent insects.

HOW SUPPLIED

Ivermectin Injection for Cattle and Swine is available in five ready-to-use pack sizes:

The 50 mL pack is a multiple-dose, rubber-capped bottle. Each bottle contains sufficient solution to treat 10 head of 550 lb (250 kg) cattle or 100 head of 38 lb (17.3 kg) swine.

The 100 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 20 head of 550 lb (250 kg) cattle or 200 head of 38 lb (17.3 kg) swine.

The 250 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 50 head of 550 lb (250 kg) cattle or 500 head of 38 lb (17.3 kg) swine.

The 500 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 100 head of 550 lb (250 kg) cattle or 1000 head of 38 lb (17.3 kg) swine.

The 1000 mL pack is a multiple-dose, rubber-capped bottle designed for use with automatic syringe equipment. Each bottle contains sufficient solution to treat 200 head of 550 lb (250 kg) cattle or 2000 head of 38 lb (17.3 kg) swine.

Restricted Drug - California. Use Only as Directed.

Approved by FDA under ANADA # 200-437

Made in the UK.

Manufactured by:

Norbrook Laboratories Limited, Newry, BT35 6PU, Co. Down, Northern Ireland

Manufactured for:

Durvet, Inc., Blue Springs, MO 64014
www.durvet.com

003215|01

Rev 10/20

SENIOR WOOL JUDGING

OFFICIAL: 2-4-1-3

CUTS: 3/2/4



2.



2.





OFFICAL: 3-4-1-2

CUTS: 5/4/3

Senior Hay Judging – 2024

Mark placing in column 2 in the placing classes section on scantron sheet.

Scenario:

Rank the hay samples in order that you are utilizing them to produce the most efficient milk production in 200 pound ewes suckling twins during the first 45 days of lactation.

Nutrient Requirements for 200 Pound Ewe with Twin Lambs:

DM ^a (Pounds)	CP ^a (%)	TDN ^a (%)	Ca ^a (%)	P ^a (%)
7	16.0	65.0	0.59	0.29

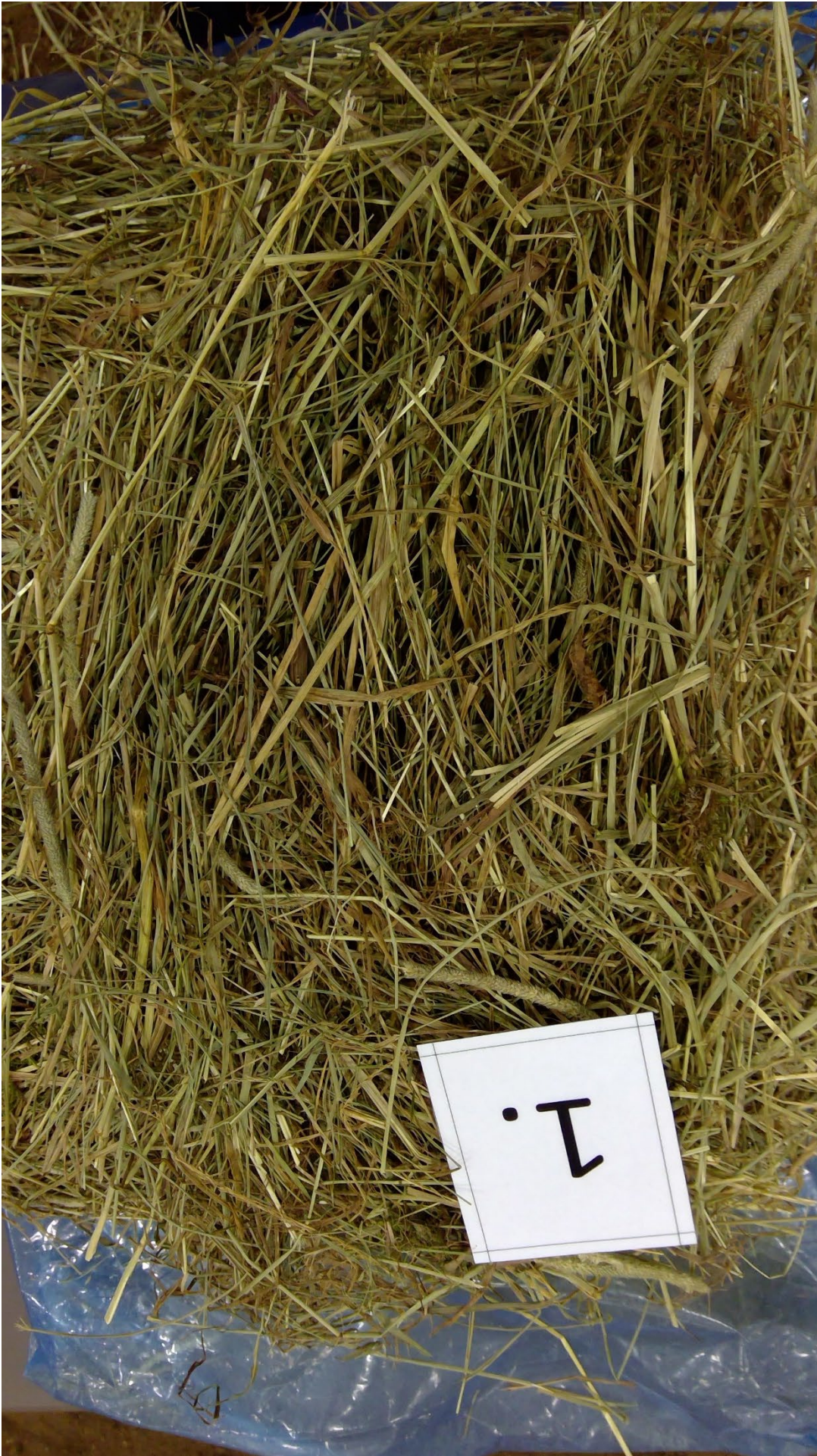
^a: DM = dry matter, CP = crude protein, TDN = total digestible nutrients, Ca = calcium, P = phosphorus

Chemical Composition of Individual Hay Samples:

Hay	Chemical Component %						
	DM ^b	CP ^{b,c}	ADF ^{b,c}	NDF ^{b,c}	TDN ^{b,c}	Ca ^{b,c}	P ^{b,c}
1	88.4	10.9	41.0	63.7	48.3	0.46	0.23
2	89.8	10.3	41.4	62.6	47.9	0.35	0.31
3	90.0	17.0	35.6	55.4	58.2	1.41	0.24
4	86.9	16.4	36.4	54.1	52.3	0.67	0.35

^b: DM = dry matter, CP = crude protein, ADF = acid detergent fiber, NDF = neutral detergent fiber, TDN = total digestible nutrients, Ca = calcium, P = phosphorus

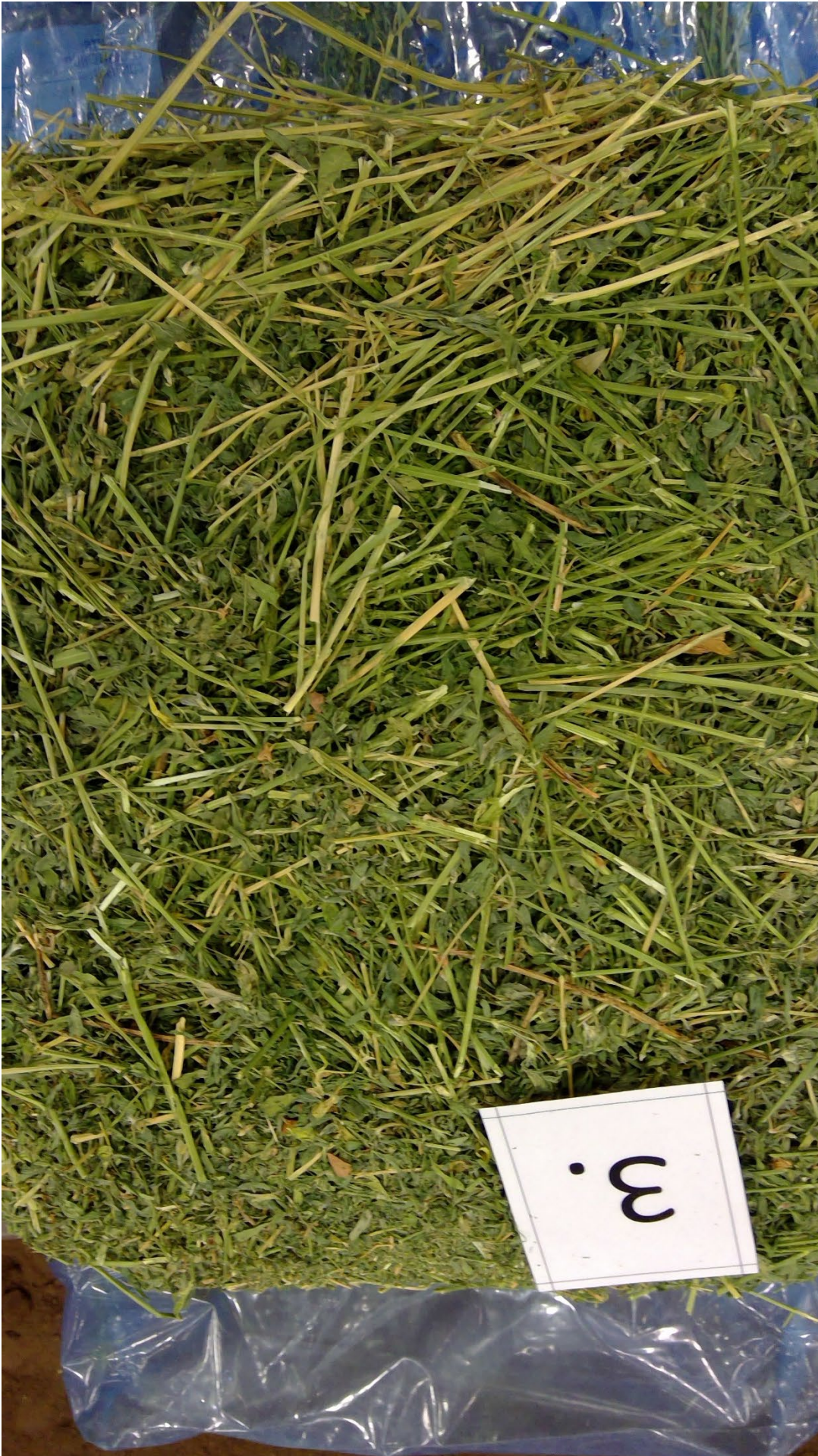
^c: 100% dry matter



1.



2.



3.



4.

County: Key _____
Score: _____

Names: _____

TEAM

Senior Breeding & Marketing – 2024

200 points

Team Tasks:

Part A – Weaning Weight Ratio (20 points)

Anderson Angus has two bulls for sale, each with different weaning weights and current weights. As a buyer you want to determine which bull has the best performance ratio at weaning to make the ideal choice. The average weaning weight for all the bulls in this herd is 547 pounds.

Bull	Age at Weaning (Days)	205 Adjusted Weaning Weight (Pounds)	Current Weight (Pounds)
A	206	575	820
B	195	608	870

For each bull calculate the weaning weight ratio. Report your answers in the table below.

A = $575 / 547 * 100 = 105$
B = $608 / 547 * 100 = 111$

Bull	Weaning Weight Ratio
A	105 10pts
B	111 10pts

Part B – Selection Questions (80 points)

Your team works for Wildcat Genetics Boar Stud and is responsible for purchasing a new boar for the farm. Your team is looking for boar to breed to purebred Durocs and crossbred gilts and sows. Most Wildcat Genetics customers market offspring to youth that exhibit hogs on a state and national level. Offspring that are not sold as youth projects are fed out on a finishing floor. Wildcat Genetics has set aside money to invest in a new boar, but obviously your team want to be reasonable in purchasing the new boar.

Using pedigrees, EPDs, and photos answer the 8 questions. Circle your answers.

1. Which boar's offspring should spend the least time on the finishing floor while being the stoutest constructed? 10pt

1 2 3 4

Give to station official at start of selection discussion.

County: _____

Names: _____

Score: _____

2. Which boar's offspring should be the least profitable when sold on a fat-free lean grid? 10pt

1 2 3 4

3. Which boar appears to be the lightest muscled? 10pt

1 2 3 4

4. Between the boars ranging in price from \$1,000 to \$2,000 which boar is more extended and cleaner from the point of the shoulder forward? 10pt

1 2 3 4

5. Between the two March boars, which boar's daughters would be less profitable in a commercial sow herd? 10pt

1 2 3 4

6. Which boar has the best look and design from the side? 10pt

1 2 3 4

7. Which boar had the fewest littermates? 10pt

1 2 3 4

8. Among the boars that are positive in their backfat numbers which boar's daughters should have the heaviest litter at weaning? 10pt

1 2 3 4

County: _____

Names: _____

Score: _____

Part C – Selection Discussion (100 points)

Your team will need to discuss your choice of boar with the station official. Please explain, in depth, why your team ultimately chose the boar selected.

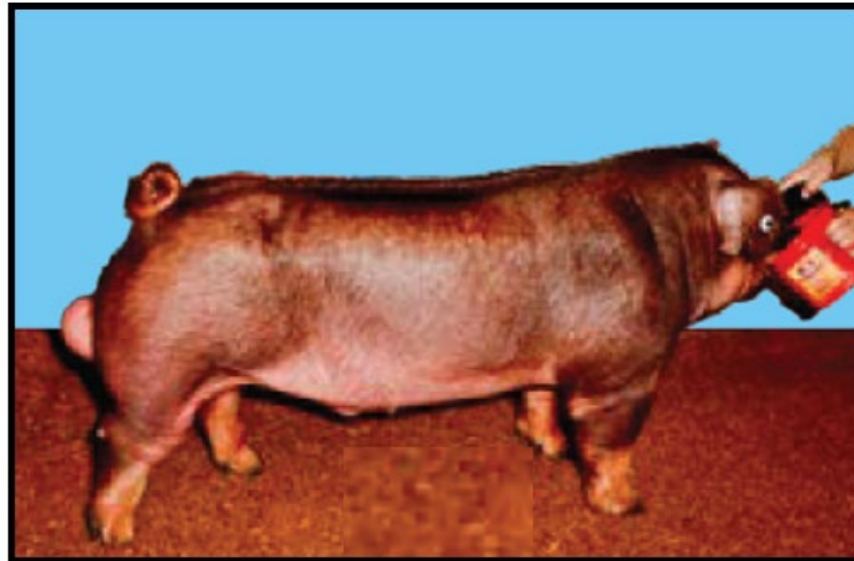
	20 – Excellent	15 – Good	10 – Fair	5 – Needs Improvement
Content & Organization	<ul style="list-style-type: none"> • Demonstrates full knowledge of why the male was selected with explanations and elaboration • Provides pertinent examples and facts that support the male chosen 	<ul style="list-style-type: none"> • Is at ease with explaining why male was selected, but without elaboration • Has somewhat clear examples and data or evidence that support the male chosen 	<ul style="list-style-type: none"> • Is uncomfortable with information and only rudimentary explanation of why male was selected • Provides weak examples which do not adequately support the male chosen 	<ul style="list-style-type: none"> • Does not have a grasp of information and cannot explain why male was selected • Provides weak to insufficient support for male chosen
Delivery	<ul style="list-style-type: none"> • Holds the attention of the audience with use of direct eye contact, seldom looking at notes • Speaks with fluctuation in volume and inflection to maintain audience interest and emphasize key points 	<ul style="list-style-type: none"> • Consistent use of direct eye contact with audience, but still returns to notes • Speaks with satisfactory variation of volume and inflection 	<ul style="list-style-type: none"> • Displays minimal eye contact with audience, while reading mostly from notes • Speaks in uneven volume with little to no inflection 	<ul style="list-style-type: none"> • Holds no eye contact with audience, as entire report is read from notes • Speaks in low volume and/or monotonous tone, which causes audience to disengage
Enthusiasm & Audience Awareness	<ul style="list-style-type: none"> • Demonstrates strong enthusiasm about selected male during entire presentation • Significantly increases audience understanding and knowledge of selected male; convinces audience to recognize the validity of male selected 	<ul style="list-style-type: none"> • Shows some enthusiastic feelings about male selected • Raises audience understanding and awareness of male selected 	<ul style="list-style-type: none"> • Shows little or mixed feelings about the male selected • Somewhat raises audience understanding and knowledge of male selected 	<ul style="list-style-type: none"> • Shows no interest in male selected • Fails to increase audience understanding and knowledge of male selected
Group Participation	<ul style="list-style-type: none"> • All group members participate equally 	<ul style="list-style-type: none"> • Some group members participate 	<ul style="list-style-type: none"> • Only 1 or 2 group members participate 	<ul style="list-style-type: none"> • No group members participate
Response to Questions	<ul style="list-style-type: none"> • Responds to questions with organized thoughts and concise answers • Answers show thorough knowledge of male selected and supports answers with strong evidence 	<ul style="list-style-type: none"> • Answers questions effectively, but has to stop and think and sometimes get off focus • Answers show some knowledge of male selected but lacks strong evidence 	<ul style="list-style-type: none"> • Rambles or responds before thinking • Answers show little knowledge of male selected and lacks evidence 	<ul style="list-style-type: none"> • Questions not answered
Comments:				Total Points:

Give to station official at start of selection discussion.

Boar #1 – RW Duroc “Main Man”

DOB: 05/01

Litter size: 8



Price:
\$1,400.00

Pedigree:

Sire: LSNB2 MAIN DRAG 78-1

Sire of dam: TMGS9 TAKE ME HOME 24-1

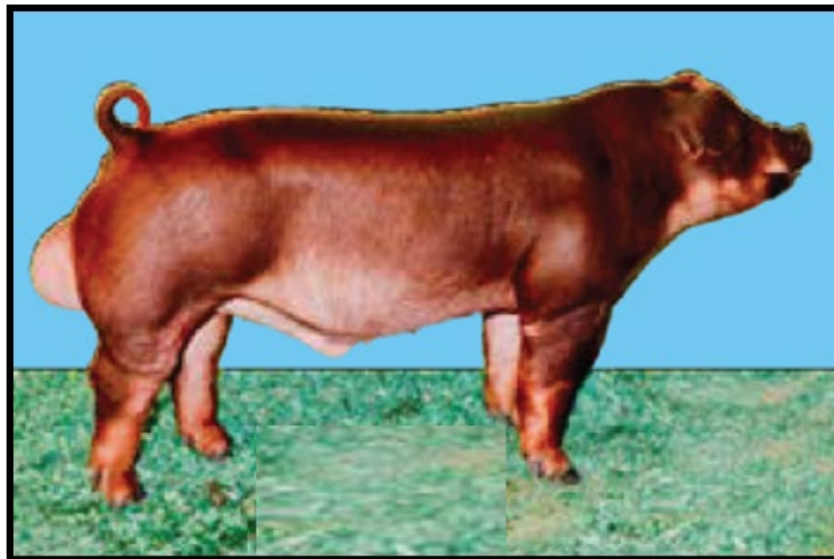
Performance Data:

Days to 250 EPD	Backfat EPD	Pounds of Lean EPD	Number Born Alive EPD	21-day Litter Weight EPD	TSI	MLI
-2.7	+0.03	+1.24	+0.07	+1.60	134	104

Boar #2 – Sampson & Sons “King Maker”

DOB: 04/02

Litter size: 10



Price:
\$900.00

Pedigree:

Sire: ESSP MAIN CHARACTER 4-4

Sire of dam: WTXO GREEN BOTTLES 262-2

Performance Data:

Days to 250 EPD	Backfat EPD	Pounds of Lean EPD	Number Born Alive EPD	21-day Litter Weight EPD	TSI	MLI
-2.3	-0.03	+1.15	+0.21	+2.61	122	109

Boar #3 – Fork Farms “Big Bang”

DOB: 03/20

Litter size: 10



Price:
\$1,200.00

Pedigree:

Sire: BEYEO CRY BABY 16-3

Sire of dam: LRTBO HILL KINGDOM 1-7

Performance Data:

Days to 250 EPD	Backfat EPD	Pounds of Lean EPD	Number Born Alive EPD	21-day Litter Weight EPD	TSI	MLI
-2.7	+0.03	+1.25	-0.02	+1.58	134	101

Boar #4 – Smith Show Stock “Red Wagon”

DOB: 03/11

Litter size: 13



Price:
\$2,200.00

Pedigree:

Sire: AFLS2 BADGER 4-1

Sire of dam: TSPO SIMBA 36-5

Performance Data:

Days to 250 EPD	Backfat EPD	Pounds of Lean EPD	Number Born Alive EPD	21-day Litter Weight EPD	TSI	MLI
-3.5	+0.01	+1.38	+0.35	+1.58	140	105

County: Key

Names: _____

Score: _____

TEAM

Livestock Feeding & Performance – 2024

200 points

Team Tasks:

Part A – Performance Calculations (95 points)

Freddy 4-Her purchases a market steer on August 31. He later purchases one market hog on March 31 and a market lamb on April 20. Freddy weighs in his market animals at the county fair on July 15. The initial weight, country fair weight, pounds of feed consumed, and days on feed are reported in the table below.

Market Animal	Initial Weight (pounds)	Country Fair Weight (pounds)	Feed Consumed (pounds)	Days on Feed
Steer	520	1,380	5,246	318
Hog	58	289	780	106
Lamb	65	153	377	86

For each market animal calculate the pounds gained during the feeding period, average daily gain, and feed efficiency. Report your answers in the table below. Report answers with one number after the decimal.

Market Animal	Pounds Gained During Feeding Period	Average Daily Gain	Feed Efficiency
Steer	5pt 860	10pt 2.7 lb/d	10pt 6.1
Hog	5pt 231	10pt or 2.1 lb/d 2.2 lb/d	10pt 3.3 or 3.4
Lamb	5pt 88	10pt 1.0 lb/d	10pt 4.2 or 4.3

The swine feed that Freddy fed his pig cost \$27.99/50 pounds. Calculate the total feeding cost for the pig and the feeding cost per pound gained. Report your answers in the table below.

Market Animal	Total Feeding Cost	Feeding Cost Per Pound Gained
Hog	10pt \$429.00 \$436.64	10pt \$1.85 \$1.86
	\$436.80	\$1.89

Once complete turn into station leader.

County: _____

Names: _____

Score: _____

Part B – Diet Cost (35 points)

A sheep producer creates the following 100 pound diet to be fed to his gestating ewes along with hay. What is the cost of each ingredient per pound in the diet and what is the total cost of the diet? Report your answers in the table below.

Ingredient	Cost	Amount (pounds)	Cost/Pound in Diet (\$)
Wheat	\$280/ton	55	5pt 7.70
Triticale	\$180/ton	20	5pt 1.80
Dehydrated alfalfa meal	\$300/ton	12	5pt 1.80
Cottonseed meal	\$320/ton	10	5pt 1.60
Mineral premix	\$8/50 pounds	2	5pt 0.32
Vitamin premix	\$27/50 pounds	1	5pt 0.54
Total Diet Cost:			\$13.76

Part C – Feed Identification & Classification (70 points)

Identify the following feeds; indicate if they are a roughage/forage, concentrate, or neither; and indicate the main nutrient the feed provides to livestock energy, protein, or vitamin/mineral.

Number	Feed Name	Type of Feed (circle one)	Main Nutrient Provided (circle one)
1.	4pt Whole Corn	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral
2.	4pt Molasses	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral

Once complete turn into station leader.

County: _____

Names: _____

Score: _____

3.	4pt Silage/Haylage	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral
4.	4pt Ground Corn	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral
5.	4pt Urea	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral
6.	4pt Hay (fescue)	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral
7.	4pt Barley	3pt Forage/roughage Concentrate Neither	3pt Energy Protein Vitamin/mineral

Once complete turn into station leader.

Senior Feeding & Performance

Part A

• Steer

- Pounds gained: $1380 - 520 = 860 \text{ lb}$

- ADG: $\frac{860 \text{ lb}}{318 \text{ d}} = 2.7 \text{ lb/d}$

- FE: $\frac{5246 \text{ lb}}{860 \text{ lb}} = 6.1$

• Hog

- Pounds gained: $289 - 58 = 231 \text{ lb}$

- ADG: $\frac{231 \text{ lb}}{106 \text{ d}} = 2.1 \text{ lb/d}$ or 2.2 lb/d

- FE: $\frac{780 \text{ lb}}{231 \text{ lb}} = 3.3$ or 3.4

• Lamb

- Pounds gained: $153 - 65 = 88 \text{ lb}$

- ADG: $\frac{88 \text{ lb}}{86 \text{ d}} = 1.0 \text{ lb/d}$

- FE: $\frac{377 \text{ lb}}{88 \text{ lb}} = 4.2$ or 4.3

• Feed costs

$\frac{\$27.99}{50 \text{ lb}} = \$.5598/\text{lb} \times 780 = \436.64 or $\$429.00$ or $\$436.80$ } total

- Cost / Pound Gained:

$$\frac{\$ 436.64}{231} = \$1.89$$

$$\frac{\$ 429.00}{231} = \$1.86 \text{ or } \$1.85$$

$$\frac{\$ 436.80}{231} = \$1.89$$

End of

Part B

$$\begin{aligned} \text{Wheat} &= \$280/2000 = .14 \times 55 = 7.70 \\ \text{Triticale} &= \$180/2000 = .09 \times 20 = 1.80 \\ \text{Alfalfa meal} &= \$300/2000 = .15 \times 12 = 1.80 \\ \text{Cottonseed meal} &= \$320/2000 = .16 \times 10 = 1.60 \\ \text{mineral} &= \$8/50 = .16 \times 2 = .32 \\ \text{Vitamin} &= \$27/50 = .54 \times 1 = .54 \\ &\quad \underline{\quad \quad \quad} \\ &\quad \quad \quad \$13.76 \end{aligned}$$

County: _____

Names: _____

Score: Key

TEAM

Meat & Carcass Evaluation & Marking - 2024

200 points

Team Tasks

Part A – Determining Carcass Weight, Yield, and Quality Grade (120 points)

For each carcass (4 total carcasses) calculate the hot carcass weight, USDA yield grade (see reference equation), and USDA quality grade (see quality grade chart). In order to determine quality grade you will need to determine marbling score for each carcass, use the tools provided. Report your answers in the table below.

	Carcass #1	Carcass #2	Carcass #3	Carcass #4
Live Weight (pounds)	1,220	1,425	1,020	1,280
Dressing Percent	60%	64%	60%	65%
Hot Carcass Weight (pounds)	5pts 732	5pts 912	5pts 612	5pts 832
Adjusted Fat Thickness (inches)	0.6	0.2	0.4	0.4
Ribeye Area (inches ²)	12.5	16.5	13.3	11.1
% Kidney, Pelvic, Heart Fat	2.5	1.5	3.0	2.0
Yield Grade	12pts 3.2	12pts 1.4	12pts 2.1	12pts 3.5
Maturity Score	C ₅₀	A ₈₀	A ₅₀	A ₆₀
Marbling Score	5pts Slight 80	5pts Slight 50	5pts Moderate 40	5pts Slightly Abundant 70
Quality Grade	8pts Utility	8pts Select	8pts Choice	8pts Prime
Muscle Type	Beef	Beef	Beef	Beef
Major Trim Loss	No	No	No	Yes

Once complete turn into station leader.

County: _____

Names: _____

Score: key

Part B – Carcass Pricing (80 points)

Using the information you calculated in Part A and the market cattle pricing grid, determine the carcass value/cwt for each carcass and the total carcass value for each carcass. Report your answers in the table below.

	Carcass #1	Carcass #2	Carcass #3	Carcass #4
Carcass Value/cwt (\$)	12pts 234.00	12pts 259.00	12pts 278.00	12pts 250.00
Total Carcass Value (\$)	8pts 1712.88	8pts 2362.08	8pts 1701.36	8pts 208.00

Once complete turn into station leader.

#1

$$HCW = 1220 \times .60 = \boxed{732}$$

$$YG = 2.5 + (2.5 \times .6) + (.2 \times 2.5) + (.0038 \times 732) - (.32 \times 12.5) =$$

$$2.5 + 1.5 + .5 + 2.7816 - 4 = 3.2816 = \boxed{3.2}$$

$$QG = C_{50} + Slight_{80} = \boxed{\text{Utility}}$$

$$\text{Carcass value/cwt} = \$269.00$$

$$- 5.00 \text{ (YG3)}$$

$$- 30.00 \text{ (hard bone)}$$

$$\boxed{\$234.00/\text{cwt}}$$

$$\text{total value} = \$234 \times 7.32 = \boxed{\$1712.88}$$

#2

$$HCW = 1425 \times .64 = \boxed{912}$$

$$YG = 2.5 + (2.5 \times .2) + (.2 \times 1.5) + (.0038 \times 912) - (.32 \times 16.5) =$$

$$2.5 + .5 + .3 + 3.4656 - 5.28 = 1.4856 = \boxed{1.4}$$

$$QG = A_{80} + Slight_{50} = \boxed{\text{Select}}$$

$$\text{Carcass value/cwt} = \$269.00$$

$$+ 8.00 \text{ (YG1)}$$

$$- 9.00 \text{ (select)}$$

$$- 9.00 \text{ (carcass wt.)}$$

$$\boxed{\$259.00/\text{cwt}}$$

$$\text{total value} = \$259 \times 9.12 = \boxed{\$2362.08}$$

#3

$$HCW = 1020 \times .60 = \boxed{612}$$

$$YG = 2.5 + (2.5 \times 4) + (.2 \times 3) + (.0038 \times 612) - (.32 \times 13.3) =$$

$$2.5 + 1 + .6 + 2.3256 - 4.256 = 2.1696 \quad \boxed{2.1}$$

$$QG = A_{50} + \text{Moderate}_{40} = \boxed{\text{Choice (high)}}$$

$$\text{Carcass value cwt} = \$269.00$$

$$+ 0.00 \text{ (YG 2)}$$

$$+ 9.00 \text{ (High choice)}$$

$$\boxed{\$278.00/\text{cwt}}$$

$$\text{total value} = \$278.00 \times 6.12 = \boxed{\$1701.36}$$

#4

$$HCW = 1280 \times .65 = \boxed{832}$$

$$YG = 2.5 + (2.5 \times 4) + (.2 \times 2) + (.0038 \times 832) - (.32 \times 11.1) =$$

$$2.5 + 1 + .4 + 3.1616 - 3.552 = 3.5096 = \boxed{3.5}$$

$$QG = A_{60} + \text{Slightly Abundant}_{70} = \boxed{\text{Prime}}$$

$$\text{Carcass value cwt} = \$269.00$$

$$- 5.00 \text{ (YG 3)}$$

$$+ 11.00 \text{ (Prime)}$$

$$- 25.00 \text{ (Trim Loss)}$$

$$\boxed{\$250.00/\text{cwt}}$$

$$\text{total value} = \$250.00 \times 8.32 = \boxed{\$2080.00}$$