

## Senior Livestock Breeds Identification

**INSTRUCTIONS:** For each picture, use the columns on the right to choose the letter that indicates your answer for each livestock breed and for the important characteristics/traits. **You must bubble in the scantron sheet corresponding with Breed Identification and Breed Description.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. Each question is worth 3 points for each part of the question. (60 points total for Seniors).

Breed Name	Important Traits
1. <u>  <b>T</b>  </u>	<u>  <b>N</b>  </u>
2. <u>  <b>P</b>  </u>	<u>  <b>G</b>  </u>
3. <u>  <b>F</b>  </u>	<u>  <b>A</b>  </u>
4. <u>  <b>S</b>  </u>	<u>  <b>M</b>  </u>
5. <u>  <b>C</b>  </u>	<u>  <b>B</b>  </u>
6. <u>  <b>Q</b>  </u>	<u>  <b>L</b>  </u>
7. <u>  <b>A</b>  </u>	<u>  <b>D</b>  </u>
8. <u>  <b>N</b>  </u>	<u>  <b>I</b>  </u>
9. <u>  <b>G</b>  </u>	<u>  <b>E</b>  </u>
10. <u>  <b>L</b>  </u>	<u>  <b>J</b>  </u>

<b>Breed Names – to be used in answer column 1 by Seniors</b>			
<u>Beef Breeds</u>	<u>Goat Breeds</u>	<u>Sheep Breeds</u>	<u>Swine Breeds</u>
A. Charolais	G. Boer	K. Hampshire	Q. Berkshire
B. Chianina	H. Nubian	L. Oxford	R. Poland China
C. Red Angus	I. Alpine	M. Lincoln	S. Yorkshire
D. Red Poll	J. Saanen	N. Southdown	T. Hereford
E. Brahman		O. White Face Cross	U. Chester White
F. Santa Gertrudis		P. Tunis	V. <u>Landrace</u>

<b>Important Characteristics/Traits Origins of Breeds – to be used in answer column 2 by Seniors</b>	
<p><u>Beef Cattle Characteristics/Traits</u></p> <ul style="list-style-type: none"> <li>A. Heat tolerance, insect and parasite resistance, mothering ability, and milk supply; Origin – Developed in the U.S. on King Ranch</li> <li>B. Known for excellent meat quality, calving ease, and hardy; originated in the British Isles</li> <li>C. Growth rate, muscling, early puberty, calving ease, and mothering ability</li> <li>D. Terminal sire, French breed known for muscle growth efficiency</li> </ul> <p><u>Goats Characteristics/Traits</u></p> <ul style="list-style-type: none"> <li>E. Known for carcass qualities; its breed name is the Dutch word “Farmer”; originated in Africa</li> <li>F. High butterfat content, extended breeding season, best suited for hot conditions, and multipurpose use (milk, meat &amp; hide); originated in England</li> </ul>	<p><u>Sheep Characteristics/Traits</u></p> <ul style="list-style-type: none"> <li>G. Originated from Northern Africa, known for meat quality, mothering instincts, and ample milk production</li> <li>H. Wool production, muscling, and late fattening; Origin – Kent, England.</li> <li>I. English breed known for carcass conformation and early maturity rates</li> <li>J. English green known for carcass conformation, heavy fleece, and lambing percentage</li> </ul> <p><u>Swine Characteristics/Traits</u></p> <ul style="list-style-type: none"> <li>K. Aggressive breeders and mothering ability; Origin – England.</li> <li>L. Conception rate and meat quality (intramuscular fat); Origin – England.</li> <li>M. Prolificacy (litter size), milking ability, mothering ability; Origin – England.</li> <li>N. Carcass quality (intramuscular fat); Origin – U.S. (Iowa/Nebraska).</li> </ul>

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Name \_\_\_\_\_ **KEY** \_\_\_\_\_

## Senior Livestock and Meat Equipment Identification – 2023

INSTRUCTIONS: For each picture, use the column on the right to choose the letter that indicates your answer for each piece of equipment. **You must bubble in the scantron sheet corresponding with Equipment Identification.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. Each question is worth 3 points (60 points total for Seniors).

- | Equipment Name              |
|-----------------------------|
| 1. <u>    <b>A</b>    </u>  |
| 2. <u>    <b>B</b>    </u>  |
| 3. <u>    <b>I</b>    </u>  |
| 4. <u>    <b>Q</b>    </u>  |
| 5. <u>    <b>G</b>    </u>  |
| 6. <u>    <b>F</b>    </u>  |
| 7. <u>    <b>H</b>    </u>  |
| 8. <u>    <b>M</b>    </u>  |
| 9. <u>    <b>P</b>    </u>  |
| 10. <u>    <b>C</b>    </u> |
| 11. <u>    <b>L</b>    </u> |
| 12. <u>    <b>R</b>    </u> |
| 13. <u>    <b>T</b>    </u> |
| 14. <u>    <b>E</b>    </u> |
| 15. <u>    <b>K</b>    </u> |
| 16. <u>    <b>S</b>    </u> |
| 17. <u>    <b>N</b>    </u> |
| 18. <u>    <b>O</b>    </u> |
| 19. <u>    <b>J</b>    </u> |
| 20. <u>    <b>D</b>    </u> |

Equipment Names – to be used in answer column 1 by Seniors

### Livestock/Meat Equipment

- A. Balling gun
- B. Bone dust scraper
- C. Curry comb
- D. Ear tag pliers
- E. Elastrator
- F. Emasculator
- G. Ewe prolapse retainer
- H. Fence post driver
- I. Loin eye area grid
- J. Meat grinder plate
- K. Meat tenderizer
- L. Needle teeth nippers
- M. Obstetrical chain
- N. Paint branding irons
- O. Ralgro implant cartridge
- P. Rasp
- Q. Rumen magnet
- R. Sharpening steel
- S. Slap tattoo
- T. Vacuum sausage stuffer



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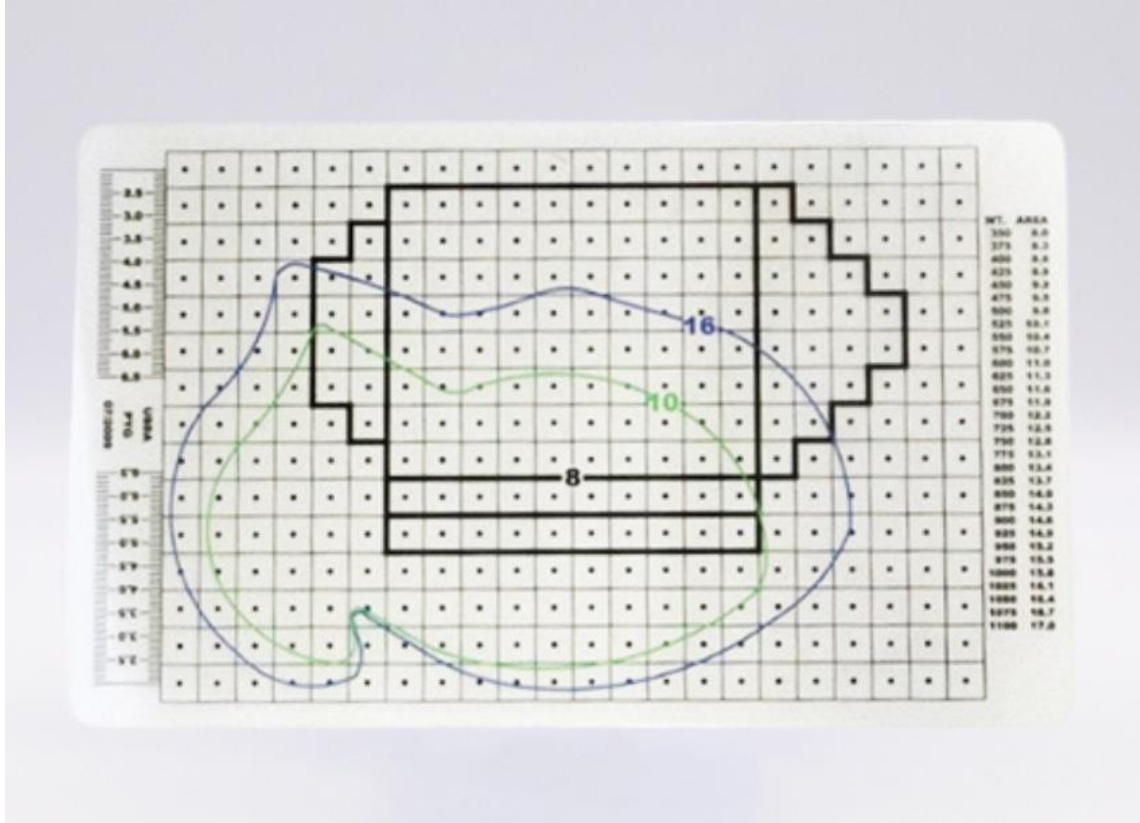


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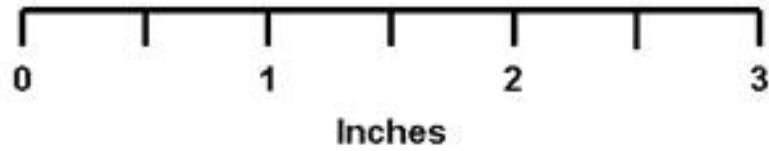




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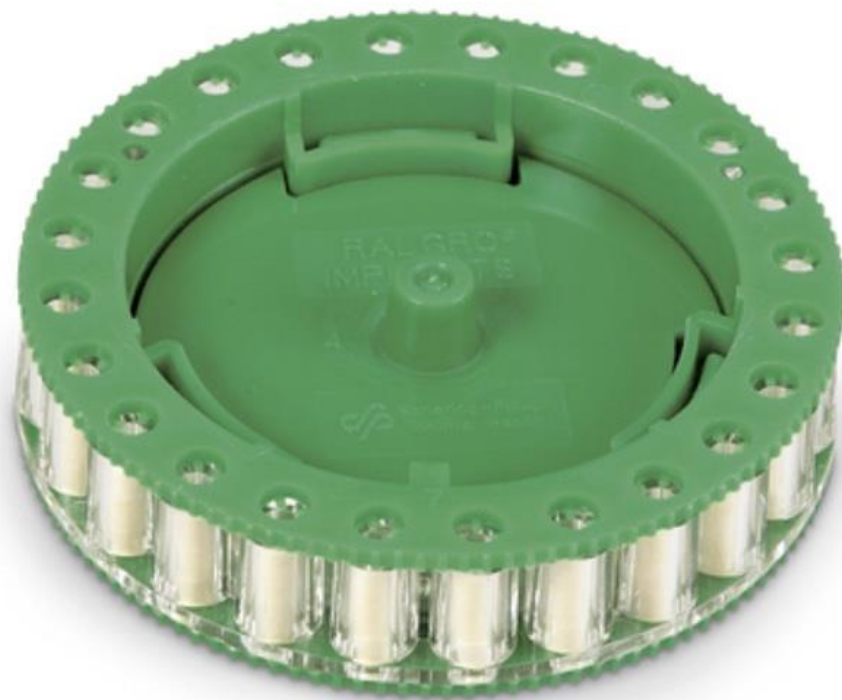
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Name \_\_\_\_\_ **KEY** \_\_\_\_\_

## Senior Retail Meat Cut Identification – 2023

**INSTRUCTIONS:** For each picture, use the columns on the right to choose the number or letter that indicates your answer for each retail meat cut. **You must bubble in the scantron sheet corresponding with Species, Primal Cut, and both digits of the Retail cut.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. **Seniors** provide answers for retail cut name, species of cut, and wholesale cut of origin. Each question is worth 2 points each (60 points total for Seniors).

ID #	Species	Primal Cut	Retail Cut First Digit	Retail Cut Second Digit
1	P	K	8	6
2	B	C	3	1
3	P	N	8	2
4	B	D	4	4
5	P	M	7	3
6	L	F	5	4
7	P	L	8	3
8	B	A	1	1
9	L	H	6	0
10	B	E	0	1

### Primal Cut of Origin – to be used in answer column 2 by Seniors

#### Beef Wholesale Cuts

- A. Chuck
- B. Loin
- C. Rib
- D. Round
- E. Variety cut

#### Lamb Wholesale Cuts

- F. Leg
- G. Loin
- H. Rack
- I. Shoulder
- J. Variety cut

#### Pork Wholesale Cuts

- K. Belly (Side, Bacon)
- L. Boston Butt
- M. Loin
- N. Picnic Shoulder

### Species of Cut – to be used in answer column 1 by Seniors

(You may use the letter more than once!!)

B. Beef

L. Lamb

P. Pork

### Retail Names – to be used in answer column 3 by Seniors

#### Beef Retail Meat Cuts

- |                               |                                    |                           |
|-------------------------------|------------------------------------|---------------------------|
| 01. Beef for stew             | 17. Sirloin steak, shell           | 32. Bottom round roast    |
| 02. Brisket, point half       | 18. Sirloin steak, boneless        | 33. Bottom round steak    |
| 03. Brisket, whole            | 19. Tenderloin steak               | 34. Eye round roast       |
| 04. Arm roast                 | 20. Porterhouse steak              | 35. Eye round steak       |
| 05. Arm roast, boneless       | 21. T-bone steak                   | 36. Heel of round roast   |
| 06. Arm steak                 | 22. Top loin steak                 | 37. Rump roast, boneless  |
| 07. Arm steak, boneless       | 23. Top loin steak, boneless       | 38. Round steak           |
| 08. Blade roast               | 24. Short ribs                     | 39. Round steak, boneless |
| 09. Blade steak               | 25. Skirt steak                    | 40. Tip roast             |
| 10. 7-bone roast              | 26. Rib roast, large end           | 41. Tip roast, cap off    |
| 11. 7-bone steak              | 27. Rib roast, small end           | 42. Tip steak             |
| 12. Flank steak               | 28. Rib steak, small end           | 43. Tip steak, cap off    |
| 13. Sirloin steak, flat bone  | 29. Rib steak, small end, boneless | 44. Top round roast       |
| 14. Sirloin steak, pin bone   | 30. Ribeye roast                   | 45. Top round steak       |
| 15. Sirloin steak, round bone | 31. Ribeye steak                   | 46. Cross cuts            |
| 16. Sirloin steak, wedge bone |                                    | 47. Cross cuts, boneless  |
|                               |                                    | 48. Liver                 |

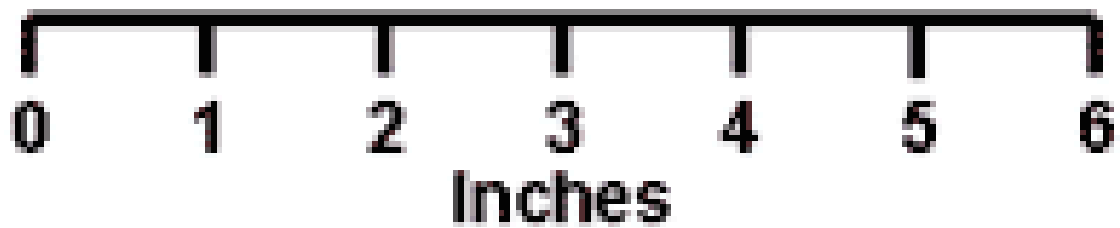
#### Lamb Retail Meat Cuts

- |                          |                      |                         |
|--------------------------|----------------------|-------------------------|
| 49. Breast               | 55. Sirloin chop     | 61. Rib roast           |
| 50. Breast riblets       | 56. Leg sirloin half | 62. Rib roast, boneless |
| 51. American style roast | 57. Loin chop        | 63. Shanks              |
| 52. Leg Center slice     | 58. Loin double chop | 64. Blade chop          |
| 53. French style roast   | 59. Loin roast       | 65. Neck slice          |
| 54. Leg shank half       | 60. Rib chop         | 66. Liver               |

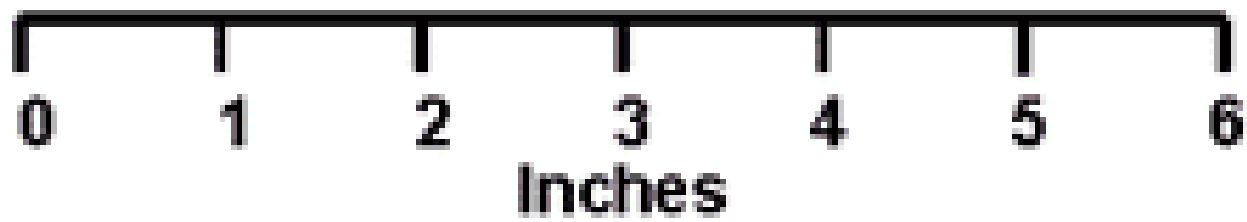
#### Pork Retail Meat Cuts

- |                             |                       |                        |
|-----------------------------|-----------------------|------------------------|
| 67. Fresh ham center slice  | 74. Center rib roast  | 81. Arm roast          |
| 68. Fresh ham rump portion  | 75. Center loin roast | 82. Arm steak          |
| 69. Fresh ham shank portion | 76. Loin chop         | 83. Blade Boston roast |
| 70. Fresh side pork         | 77. Rib chop          | 84. Sliced bacon       |
| 71. Blade chop              | 78. Sirloin chop      | 85. Smoked jowl        |
| 72. Blade roast             | 79. Top loin chop     | 86. Spare Ribs         |
| 73. Butterfly chop          | 80. Arm picnic roast  |                        |

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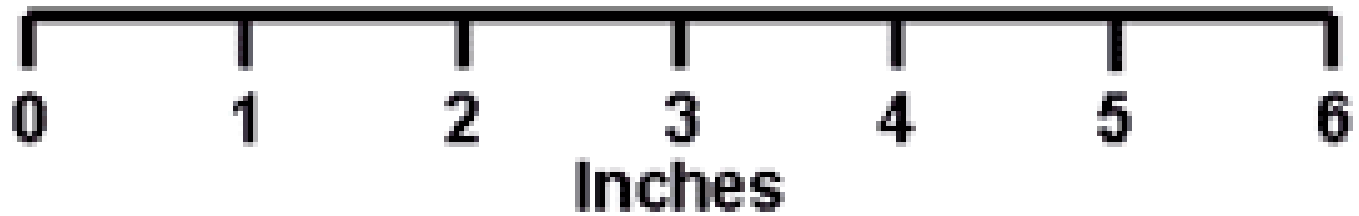


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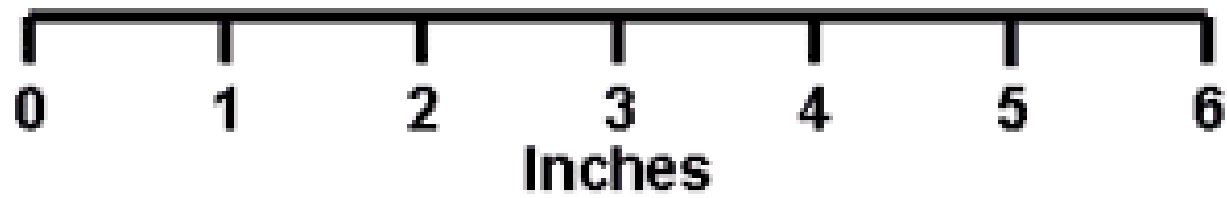


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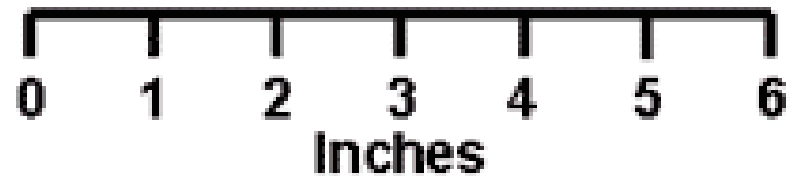


0 1 2 3 4 5 6  
Inches

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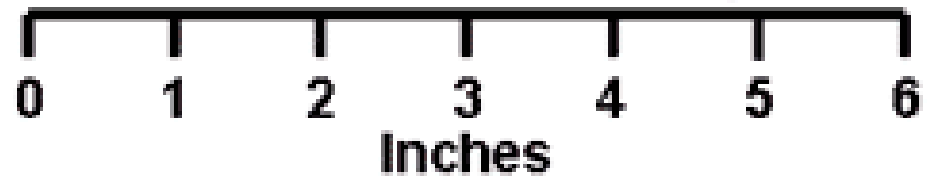


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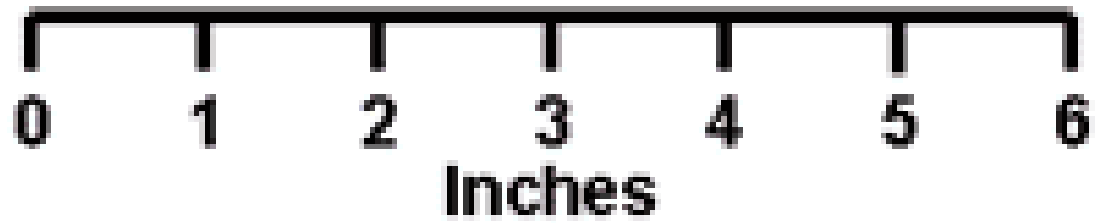




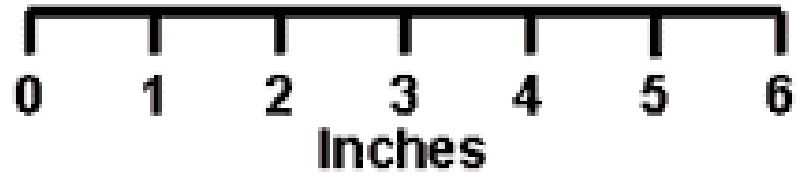
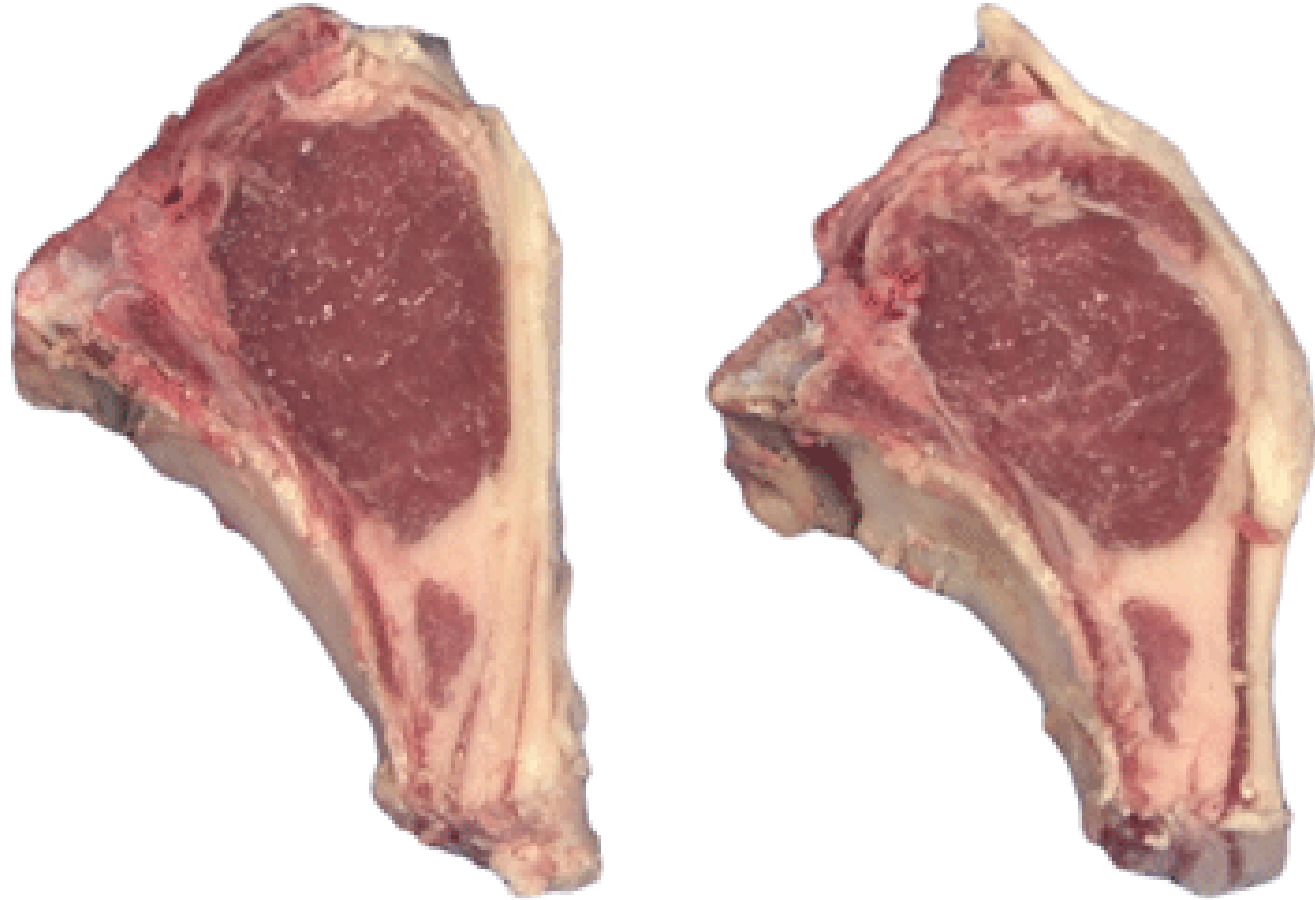
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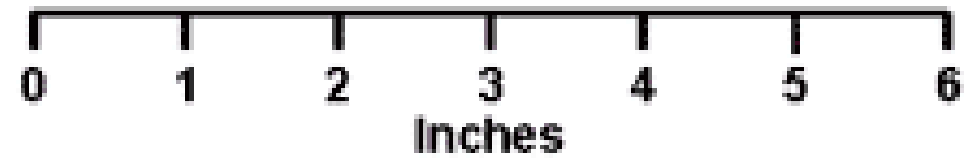
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9



10



Name \_\_\_\_\_ **KEY** \_\_\_\_\_

## Senior Livestock Feed Identification – 2023

**INSTRUCTIONS:** For each picture, use the columns on the right to choose the letter that indicates your answer for each feedstuff name and for the important characteristics/use. **You must bubble in the scantron sheet corresponding with feedstuff name and characteristic/uses.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. Each question is worth 3 points for each part of the question. (60 points total for Seniors).

Feedstuff Name	Characteristic/Uses
1. <u>  <b>O</b>  </u>	<u>  <b>G</b>  </u>
2. <u>  <b>K</b>  </u>	<u>  <b>D</b>  </u>
3. <u>  <b>B</b>  </u>	<u>  <b>I</b>  </u>
4. <u>  <b>F</b>  </u>	<u>  <b>C</b>  </u>
5. <u>  <b>R</b>  </u>	<u>  <b>K</b>  </u>
6. <u>  <b>P</b>  </u>	<u>  <b>H</b>  </u>
7. <u>  <b>S</b>  </u>	<u>  <b>N</b>  </u>
8. <u>  <b>G</b>  </u>	<u>  <b>L</b>  </u>
9. <u>  <b>H</b>  </u>	<u>  <b>J</b>  </u>
10. <u>  <b>M</b>  </u>	<u>  <b>M</b>  </u>

### Feed Names – to be used in answer column 1 by Seniors

- A. Barley (whole)
- B. Blood Meal
- C. Copper Sulfate
- D. Cottonseed Meal
- E. Cracked Shelled Corn
- F. Crimped Oats
- G. Dehydrated Alfalfa Meal
- H. Dicalcium Phosphate
- I. Dried Molasses
- J. Feather Meal
- K. Ground Ear Corn
- L. Ground Limestone
- M. Soybean Hulls
- N. Soybeans (whole)
- O. Trace Mineralized Salt
- P. Urea
- Q. Vegetable Oil
- R. Vitamin Premix
- S. Wheat Middlings
- T. White Salt

### Important Characteristics/Uses of Feedstuffs – to be used in answer column 2 by Seniors

- A. A dried carbohydrate that is highly palatable and readily available source of energy. Most commonly added to ruminant and horse diets.
- B. Often referred to as bluestone; source of copper for mineral supplements.
- C. A grain that has been passed between a set of corrugated rollers to produce a flake. Often increases the surface area and improves energy utilization
- D. A carbohydrate that has been ground through a hammer mill or burr mill. Reduces particle size which increases the surface area and improves starch digestibility. Due to high fiber content it is fed primarily to ruminant animals.
- E. Comprised of almost pure sodium chloride and is the most common mineral supplement added to livestock, horse, and poultry feeds.
- F. A carbohydrate that has been processed through a hammer mill. Coarser grinds are preferred for ruminants and finer grinds are generally preferred for monogastrics. 8.5% crude protein.
- G. A mineral that is commonly fed free choice to grazing animal in either loose or block form
- H. A protein that should only be fed to ruminants. Often referred to as non-protein nitrogen. Can be toxic if fed at excessive levels.
- I. A by-product of the meat packing industry. A good source of ruminant bypass protein.
- J. A mineral that is obtained by processing rock phosphates into phosphoric acid, which is then reacted with calcium carbonate. Used in livestock, horse and poultry feeds.
- K. May contain both fat soluble and water soluble vitamins. Various feedstuffs are used as carriers in this.
- L. Excellent feedstuff for horses and ruminants because of it being high in protein, minerals, and vitamins. Often pelleted prior to feeding.
- M. By-product of the soy oil and meal manufacturing industry. A palatable source of digestible fiber for ruminants and horses.
- N. By-product of the flour milling industry. A palatable feedstuff rich in niacin, vitamin B1, phosphorus, and iron.



Name Key \_\_\_\_\_

County \_\_\_\_\_

## Senior Skillathon Test – 2023

Circle your answer on this sheet and bubble your answers in the Exam section of your scantron sheet. Only use a number 2 pencil on your scantron sheet. You can keep this sheet for reference to review with your coach after the contest (Each question is worth 2 points each for a total of 60 points).

1. Crossbreeding can increase what?
  - a. Heritability
  - b. Productivity
  - c. Longevity
  - d. Multiples
  
2. What is an inflammation of the udder called?
  - a. Metritis
  - b. Hypomagnesia
  - c. Mastitis
  - d. Anestrus
  
3. What is enterotoxemia?
  - a. Overeating
  - b. Bloat
  - c. Gastritis Acid
  - d. Lactose Intolerance
  
4. What are birth dates, adjusted weaning weights and adjusted yearling weights called in a livestock judging contest?
  - a. Superfluous Data
  - b. Performance Indexes
  - c. Performance Data
  - d. Sire Summaries
  
5. Flies, grubs, lice and internal worms are all common what of cattle?
  - a. Feedstuffs
  - b. Parasites
  - c. Protein Sources
  - d. Hardware Diseases

6. In a class of 4 animals in a judging contest you place the class 1-2-3-4. The official placing is 2-1-4-3 with cuts of 3-4-2. What is your score?
- 41
  - 45
  - 91
  - 95
7. At what temperature should baby pigs be kept at for the first 10 days of life?
- 68-73°F
  - 77-82°F
  - 85-90°F
  - 98-102°F
8. What nutritional disease may result if zinc is not included in the swine diet?
- Paratuberculosis
  - Parakeratosis
  - Porcine Leukemia
  - Parturient Paresis
9. How soon after birth should a baby pig's tail be clipped?
- Within 24 hours
  - 1 week
  - 3 weeks
  - 1 month
10. What percent protein does corn contain?
- 2-3.5 %
  - 4.5-5 %
  - 6 -7.5 %
  - 8.5 -9 %
11. What two breeds were originally crossed to make the Suffolk breed?
- Southdown and Montadale
  - Norfolk and Corriedale
  - Norfolk and Southdown
  - Southdown and Hampshire
12. A 135 lbs. lamb with a 50% dressing percentage will have a hot carcass weight of?
- 35 lbs.
  - 50 lbs.
  - 67.5 lbs.
  - 135 lbs.

13. What is the name given to ewes who are synchronized to carry donor embryos in embryo transfer?
- Donor Ewe
  - Recipient Ewe
  - Transfer Ewe
  - Cull Ewe
14. To safely move cattle it is important for the handler to know where the distance is from an animal that a handler must maintain for the animal to feel comfortable. What is this area called?
- Flight zone
  - Thermal Neutral Zone
  - Flight Risk
  - Buffer Zone
15. When thawing semen, what temperature should the water bath be?
- 110 °F
  - 98° F
  - 95°F
  - 88°F
16. List the beef quality grades in order of decreasing value.
- Select, Prime, Choice, Commercial, Standard, Utility, Cutter, Canner
  - Standard, Choice, Select, Prime, Utility, Commercial, Cutter, Canner
  - Prime, Choice, Standard, Select, Commercial, Utility, Canner, Cutter
  - Prime, Choice, Select, Standard, Commercial, Utility, Cutter, Canner
17. Which compartment in the ruminant digestive tract has the largest capacity and is known as the fermentation vat?
- Abomasum
  - Omasum
  - Rumen
  - Reticulum
18. Which of the following is an example of a legume?
- Alfalfa
  - Corn
  - Rye
  - Bermuda Grass

19. What are the beneficial bugs found in the rumen?
- Viruses and Protozoa
  - Fungi and Bacteria
  - Bacteria and Parasites
  - Protozoa and Bacteria
20. Which is true in regard to preventing disease spread?
- Observe and handle sick animals last
  - Use separate clothes and shoes for handling sick animals
  - Always wash hands after working with animals
  - All of the above
21. In which organ do embryos grow and develop in sows?
- Ovaries
  - Cervix
  - Oviducts
  - Uterine Horns
22. In the swine carcass, where is loin eye measured to determine muscling?
- 8<sup>th</sup>
  - 9<sup>th</sup>
  - 10<sup>th</sup>
  - 12<sup>th</sup>
23. What is the term that means an infectious disease can be transmitted between animals and humans?
- Zoonotic
  - Dermatitis
  - Ruminant
  - Monogastric
24. Which of the following amino acid is the first limiting in swine diets? ~~of the following is an amino acid~~
- Tryptophan ~~(this is an amino acid too. Comment – possible new question could be which amino acid is the first limiting in swine diets? The answer would be lysine~~
  - Lysine
  - Septine
  - Lutalyse
25. Roasted soybeans are a popular feed source as they supply rumen undegradable protein and what else?
- Vitamin D
  - Calcium
  - Fat

d. Magnesium

26. Never use a needle larger than what gauge to inject a synchronization hormone?

- a. 14 gauge
- b. 15 gauge
- c. 18 gauge
- d. 20 gauge

27. Name the fat soluble vitamin that is synthesized in the rumen?

- a. Vitamin A
- b. Riboflavin
- c. Vitamin K
- d. Vitamin C

28. What structures carry blood from the body back to the heart?

- a. Arteries
- b. Veins
- c. Aorta
- d. Thoracic

29. What metabolic disease is a result of an imbalance in magnesium?

- a. Grass Tetany
- b. Milk Fever
- c. Displaced Abomasum
- d. Coccidiosis

30. Why are anthelmintic products used?

- a. To keep your animals, cool in the summer
- b. To deworm your animals
- c. To provide disease protection from fungi
- d. To prevent warts from developing

Team Number: \_\_\_\_\_ Team Members: \_\_\_\_\_

## Senior Team Quality Assurance – 2023

During this station your team must complete 5 different activities. You may complete the activities in the order you and your team prefer. Please make sure contest official can watch you complete the activity before starting. This is a real time grading based on performance of each activity. Each activity is worth up to 40 points each for a total of 200 points.

1. Draw up the correct dosage for the scenario below. In order to receive full points team must draw exact amount based on label direction.
  - 200 lb. calves have developed bovine keratoconjunctivitis. Please treat with the correct medication provided. Label is printed off beside the vial. What is the common name for bovine keratoconjunctivitis?
2. Show where you would administer the medication on the stuffed cow provided. Do not actually inject the medication. Explain to the contest official the steps you would take.
3. Using the example needles provided explain which size needle you would use and why you would use that needle for this medication.
4. Using the oranges provided inject the medication into the orange in the way it should be administered to the calf.
5. If you were going to send these animals to be harvested, when would be the first date you would be allowed to sell them. Using today's date as your administration date.

Activity #1 points awarded: \_\_\_\_\_

Activity # 2 points awarded: \_\_\_\_\_

Activity # 3 points awarded: \_\_\_\_\_

Activity # 4 points awarded: \_\_\_\_\_

Activity # 5 points awarded: \_\_\_\_\_

Total Points awarded: \_\_\_\_\_





Lot No.:  
Exp. Date:

**Oxytetracycline  
Injection 200**  
(oxytetracycline)  
200 mg/mL

NDC 55529-004-05

**Oxytetracycline  
Injection 200**  
(oxytetracycline)  
200 mg/mL  
**ANTIBIOTIC**

Each mL contains 200 mg of oxytetracycline base as amphoteric oxytetracycline.

**For the treatment of disease in beef cattle; dairy cattle; calves, including preruminating (veal) calves; and swine.**

ANADA 200-306, Approved by FDA

**Net Contents: 500 mL**



Oxytetracycline Injection 200 is a sterile, preconstituted solution of the broad-spectrum antibiotic oxytetracycline.

**CAUTION:**

When administered to cattle, muscle discoloration may necessitate trimming of the injection site(s) and surrounding tissues during the dressing procedure.

**WARNINGS:**

Discontinue treatment at least 28 days prior to slaughter of cattle and swine. Milk taken from animals during treatment and for 96 hours after the last treatment must not be used for food. Rapid intravenous administration may result in animal collapse. Oxytetracycline should be administered intravenously slowly over a period of at least 5 minutes.

**PRECAUTIONS:**

Exceeding the highest recommended level of drug per lb of body weight per day, administering more than the recommended number of treatments, and/or exceeding 10 mL intramuscularly or subcutaneously per injection site in adult beef cattle and dairy cattle, and 5 mL intramuscularly per injection site in adult swine, may result in antibiotic residues beyond the withdrawal period.

**Refer to Package Insert for Complete Directions**

**Storage:**

Store at 59° to 86°F (15° to 30°C).  
Keep from freezing.

**Restricted Drug - California. Use Only as Directed.**

**Not for Human Use. For animal use only.**

**Made in the U.K.**

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



NDC 55529-004-05

**Oxytetracycline  
Injection 200**  
(oxytetracycline)  
200 mg/mL  
**ANTIBIOTIC**

Each mL contains 200 mg of oxytetracycline base as amphoteric oxytetracycline.

**For the treatment of disease in beef cattle; dairy cattle; calves, including preruminating (veal) calves; and swine.**

ANADA 200-306, Approved by FDA

**Net Contents: 500 mL**



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**CATTLE DOSAGE GUIDE**

At the first signs of pneumonia or pinkeye, \* administer a single dose of Oxytetracycline Injection 200 by deep intramuscular injection, or subcutaneously, according to the following weight categories. \*\*

Animal Weight (lb)	Number of mL or cc
100	4.5
200	9.0
300	13.5
400	18.0
500	22.5
600	27.0
700	31.5
800	36.0
900	40.5
1000	45.0
1100	49.5
1200	54.0

\* See package insert for dosing instructions for other indicated diseases and full product information.

\*\* Do not administer more than 10 mL at any one injection site (1-2 mL per site in small calves).

Discontinue treatment at least 28 days prior to slaughter.

**SWINE DOSAGE GUIDE**

At the first signs of pneumonia, \* administer Oxytetracycline Injection 200 by deep intramuscular injection according to the following weight categories. \*\*

Animal Weight (lb)	Number of mL or cc
10	0.5
25	1.1
50	2.3
75	3.4
100	4.5
125	5.6
150	6.8
175	7.9
200	9.0
225	10.1
250	11.3
275	12.4
300	13.5
325	14.6

\* See package insert for dosing instructions for other indicated diseases and full product information.

\*\* Do not administer more than 5 mL at any one injection site.

Discontinue treatment at least 28 days prior to slaughter.



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