

1.



2.



3.



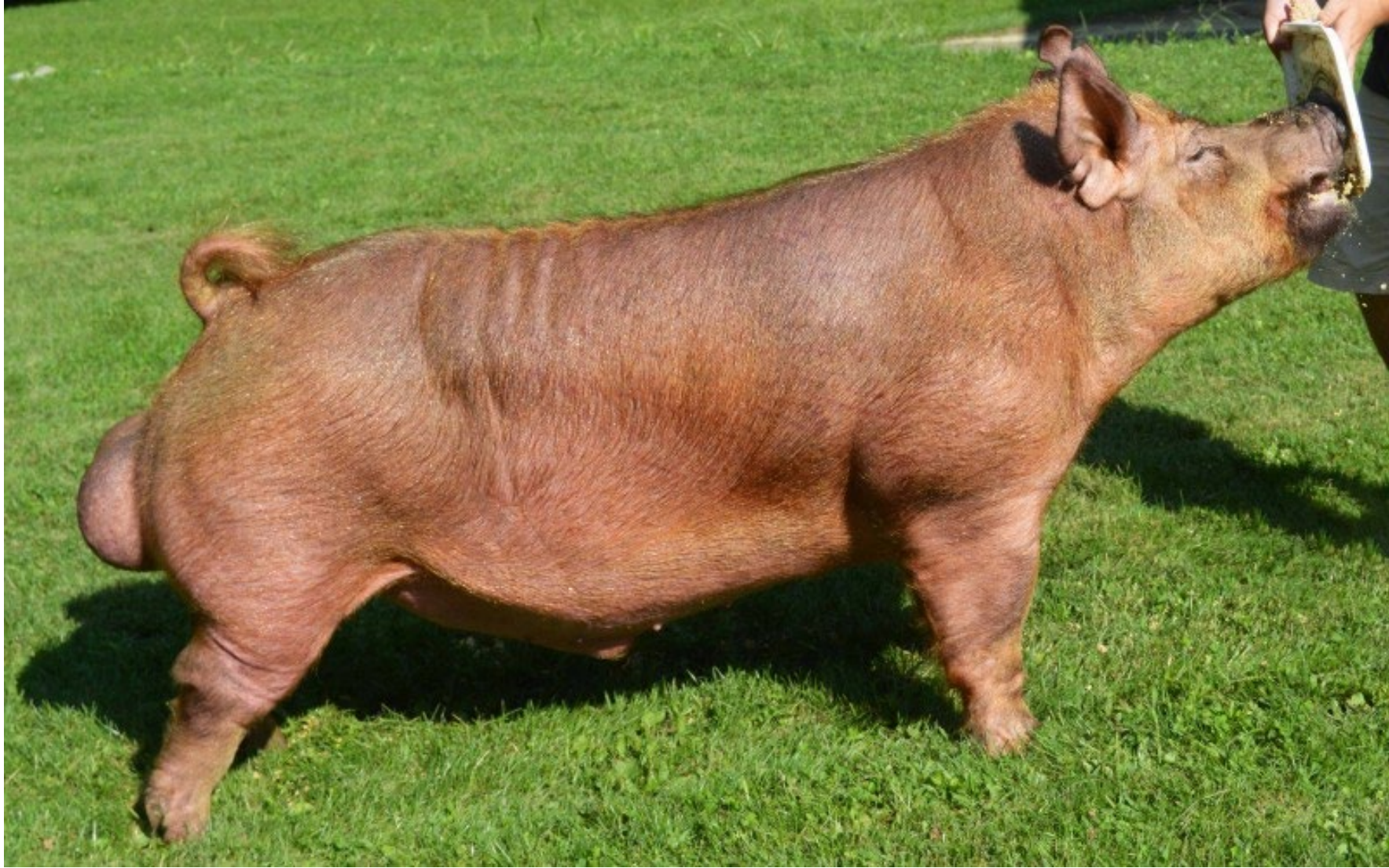
4.



5.



6.



7.



8.



Mark Sneed

9.



10.



Name _____ **KEY** _____

Junior Livestock Breeds Identification – 2021

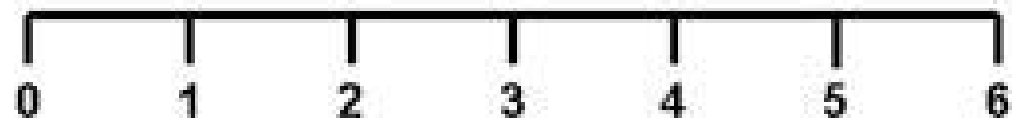
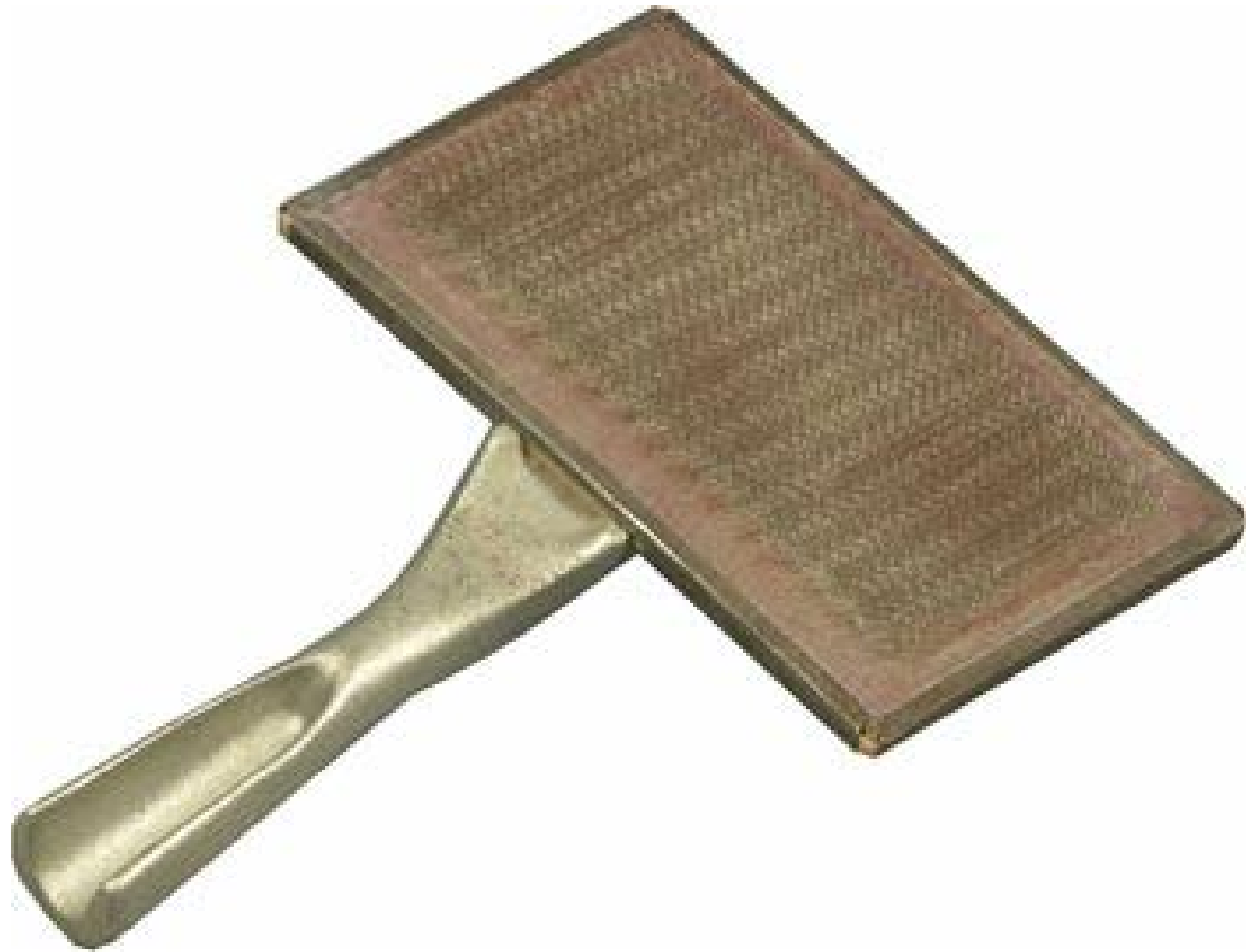
INSTRUCTIONS: For each picture, use the columns on the right to choose the letter that indicates your answer for each livestock breed. **You must bubble in the scantron sheet corresponding with Breed Name.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. **Juniors** only provide answers for breed name. Each question is worth 5 points (50 points total for Juniors).

- | | Breed Name |
|-----|-------------------------|
| 1. | <u> L </u> |
| 2. | <u> K </u> |
| 3. | <u> I </u> |
| 4. | <u> N </u> |
| 5. | <u> E </u> |
| 6. | <u> G </u> |
| 7. | <u> H </u> |
| 8. | <u> B </u> |
| 9. | <u> D </u> |
| 10. | <u> C </u> |

Breed Names – to be used in answer column 1 by Juniors

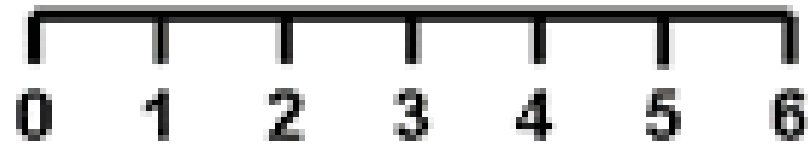
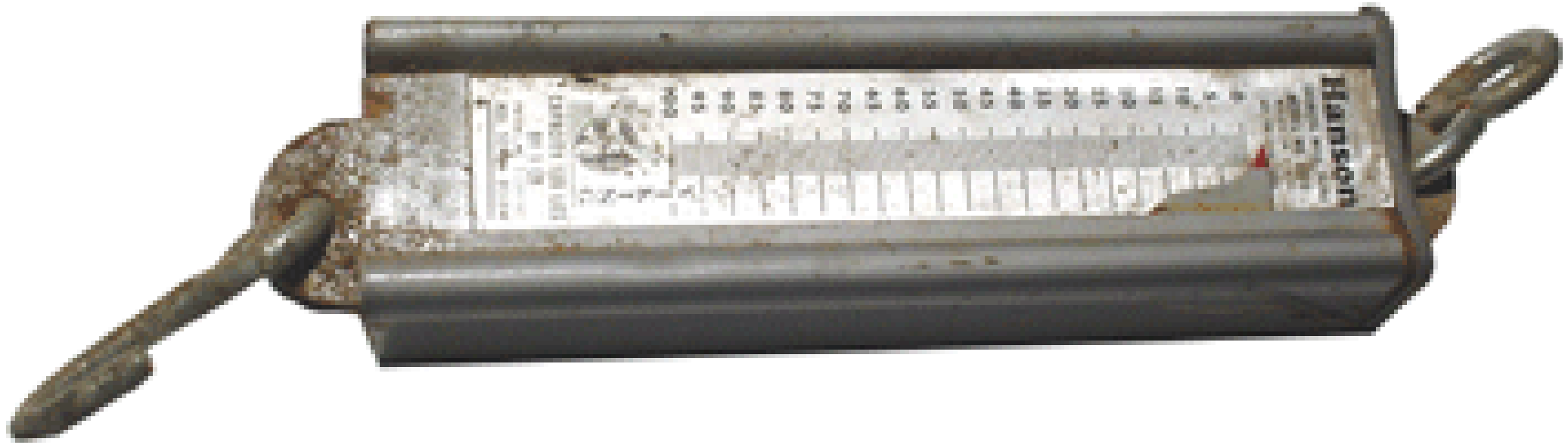
<u>Beef Breeds</u>	<u>Swine Breeds</u>	<u>Sheep Breeds</u>	<u>Goat Breeds</u>
A. Red Poll	E. Berkshire	I. Polypay	M. Alpine
B. Simmental	F. Hampshire	J. Lincoln	N. Lamancha
C. Red Angus	G. Tamworth	K. Southdown	
D. Brahman	H. Yorkshire	L. Texel	

1.



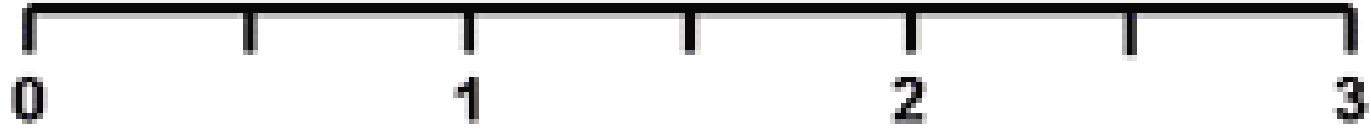
Inches

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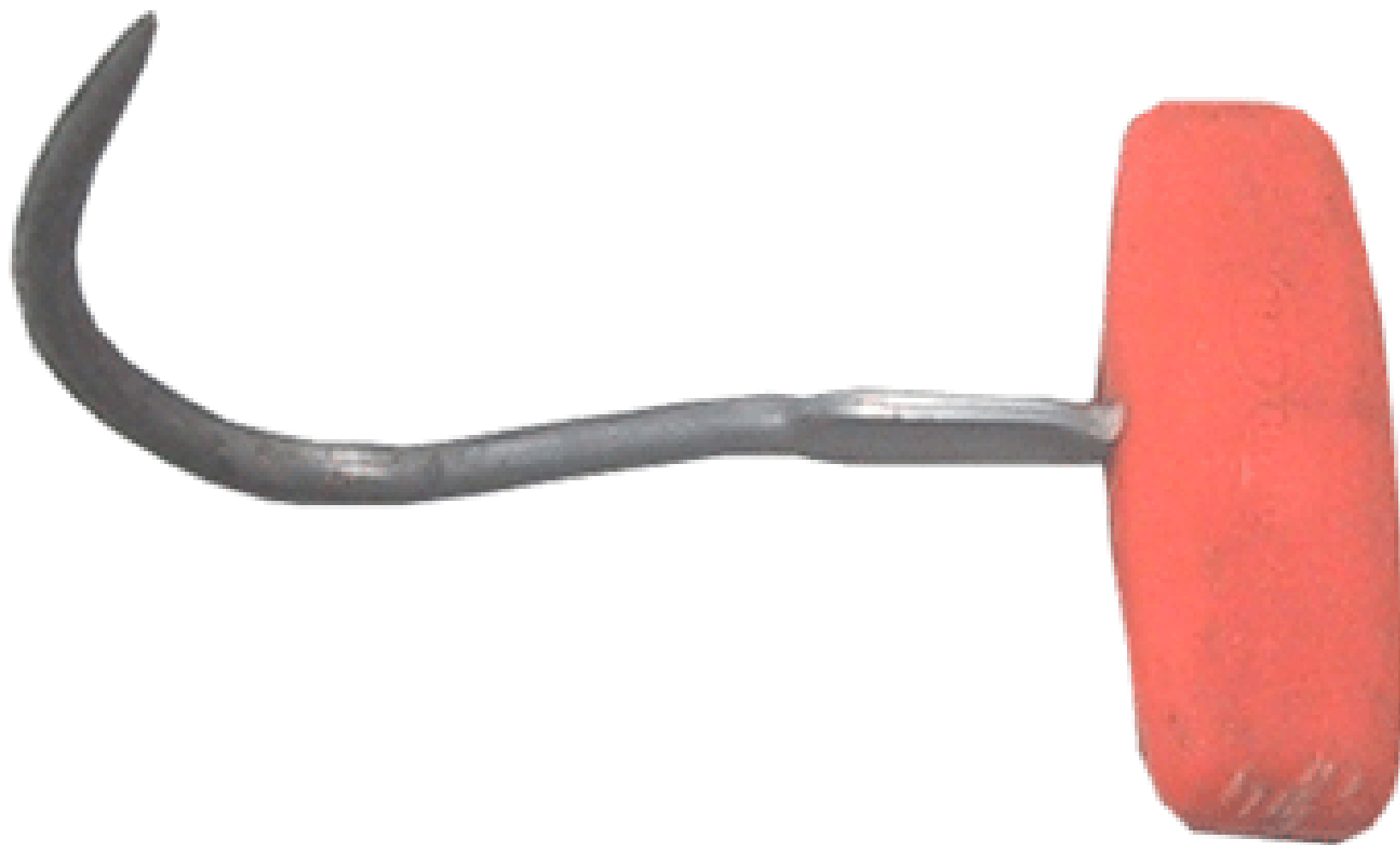
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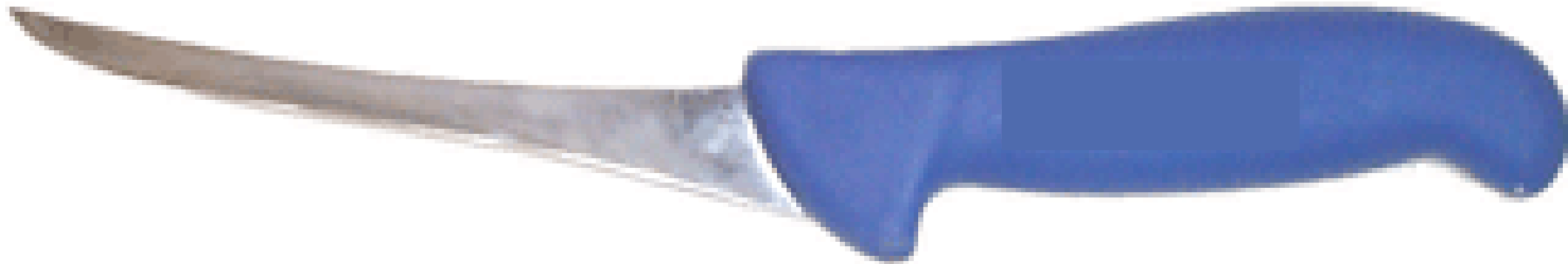


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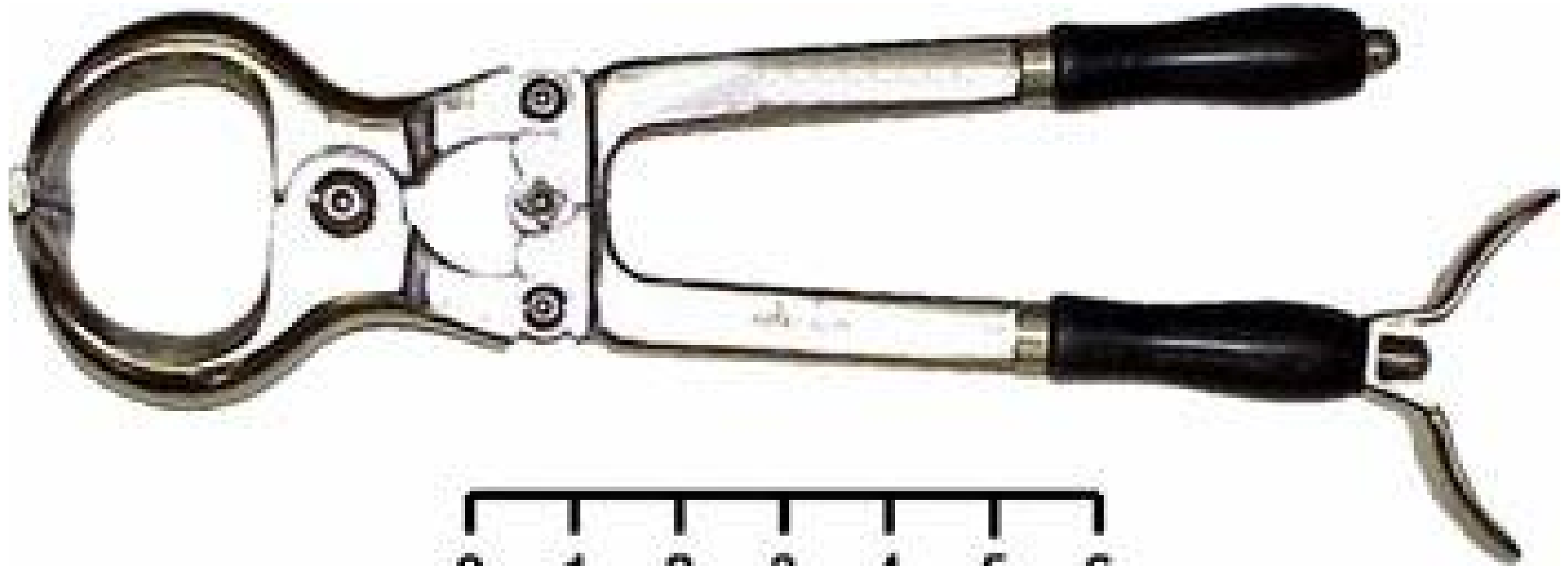
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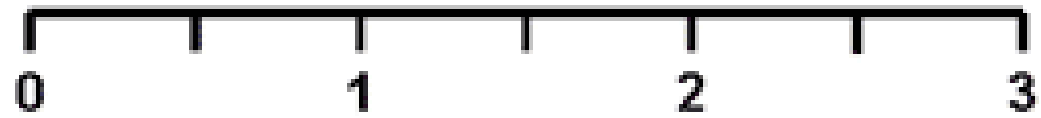
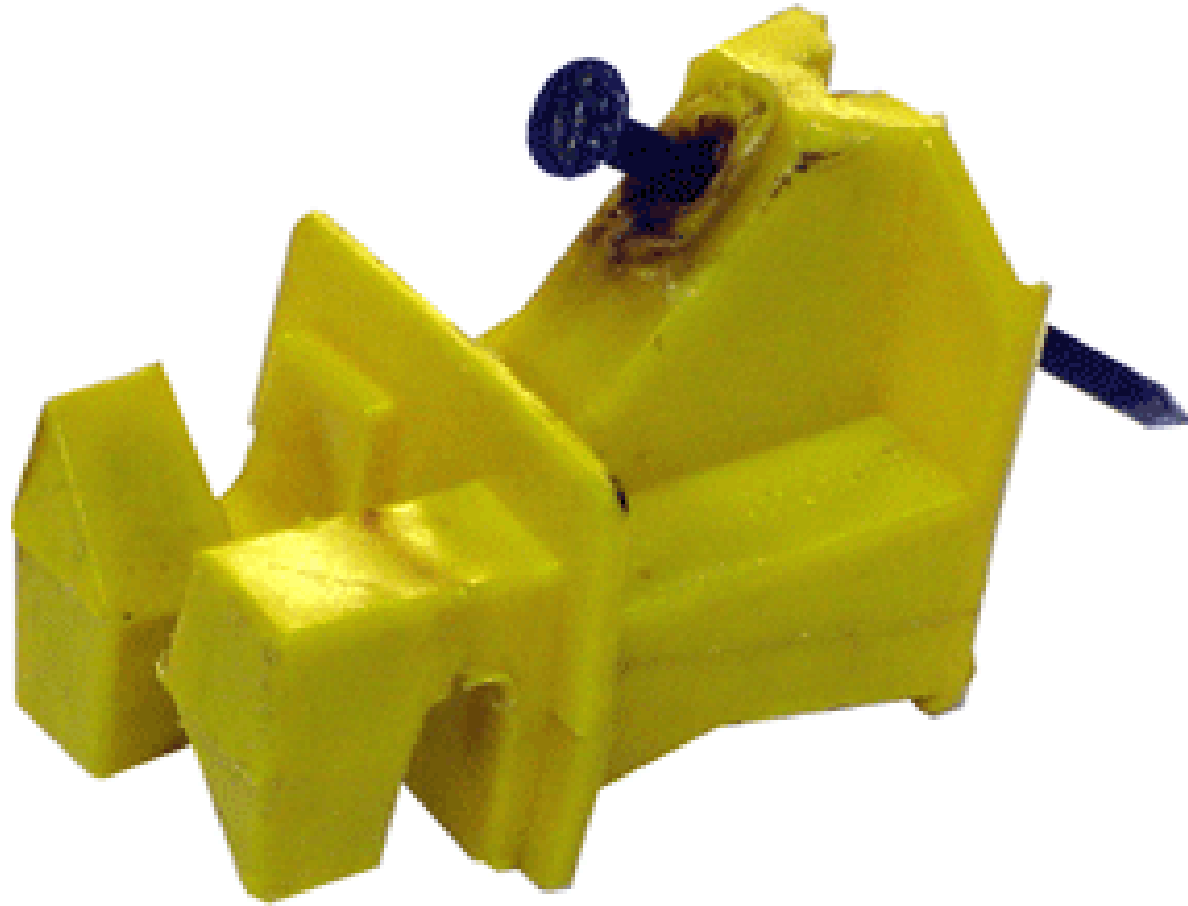
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0 1 2 3 4 5 6

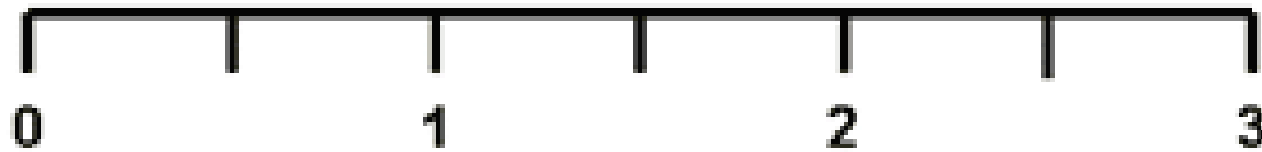
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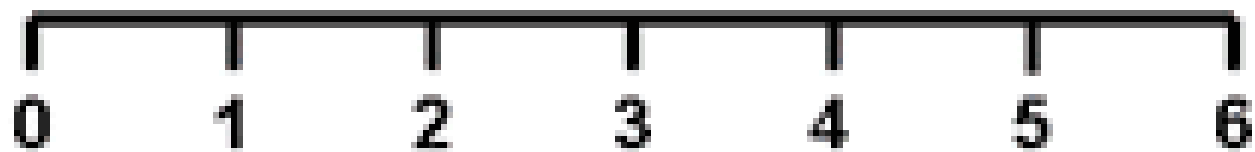
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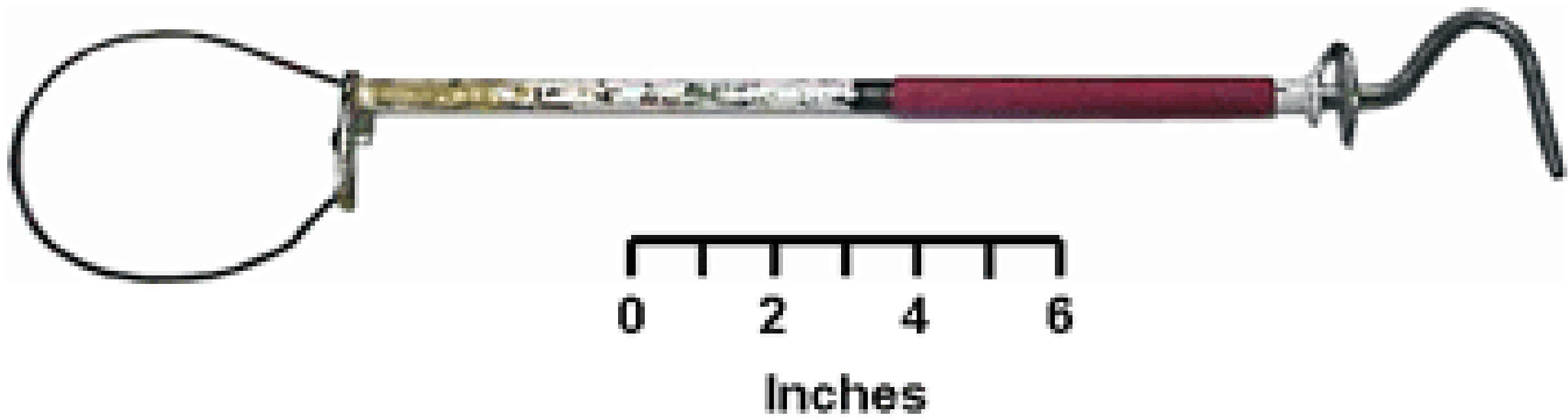
Inches

9.



Inches

10.



Name _____ **KEY** _____

Junior Livestock and Meat Equipment Identification – 2021

INSTRUCTIONS: For each picture, use the columns 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 Name.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. Juniors provide answers for livestock/meat equipment names. Each question is worth 5 points (50 points total for Juniors).

	Equipment Name	
1.	<u> N </u>	Equipment Names – to be used in answer column 1 by Juniors A. Boning Knife B. Currycomb C. Emascutome (Burdizzo) D. Fencing Pliers E. Hanging Scale F. Hard hat G. Hog Snare H. Meat Hook I. Needle teeth nippers J. Ram marking harness K. Rumen Magnet L. Semen storage tank M. Wood post electric fence insulator N. Wool Card
2.	<u> E </u>	
3.	<u> I </u>	
4.	<u> H </u>	
5.	<u> A </u>	
6.	<u> C </u>	
7.	<u> M </u>	
8.	<u> K </u>	
9.	<u> D </u>	
10.	<u> G </u>	

Name _____ **KEY** _____

Junior Livestock Feed Identification – 2021

INSTRUCTIONS: For each picture, use the columns on the right to choose the letter that indicates your answer for each feedstuff name. **You must bubble in the scantron sheet corresponding with feedstuff name.** You may fill this sheet out and keep to go over with your coaches at the end of the contest. Each question is worth 5 points (50 points total for Juniors).

Feedstuff
Name

1. **C**

2. **G**

3. **J**

4. **B**

5. **K**

6. **E**

7. **N**

8. **D**

9. **I**

10. **L**

Feed Names – to be used in answer column 1 by Juniors

- A. Barley (whole)
- B. Cottonseed (whole)
- C. Cottonseed hulls
- D. Cottonseed meal
- E. Ground Limestone
- F. Liquid molasses
- G. Oats (whole)
- H. Rye (whole)
- I. Salt, white
- J. Shelled Corn
- K. Soybeans (whole)
- L. Steam flake corn
- M. Vegetable oil
- N. Wheat (whole)

Junior Retail Meat Judging – 2021

Bubble in placing on scantron sheet under “Placing Class 1”

Name _____ **OFFICIAL** _____ County _____

Placing is worth a possible 50 points

<p>Contestant Number _____</p> <p>Placing Score _____ 1,4,3,2 5-4-2</p> <p><i>University of Kentucky College of Agriculture Animal Sciences Department</i></p> <p>Contestant's Name _____ _____</p> <p>Address _____ _____</p> <p>County _____</p> <p>Class:</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>A</td><td>1 2 3 4</td><td></td></tr> <tr><td>B</td><td>1 2 4 3</td><td></td></tr> <tr><td>C</td><td>1 3 2 4</td><td></td></tr> <tr><td>D</td><td>1 3 4 2</td><td></td></tr> <tr><td>E</td><td>1 4 2 3</td><td></td></tr> <tr><td>F</td><td>1 4 3 2</td><td></td></tr> <tr><td>G</td><td>2 1 3 4</td><td></td></tr> <tr><td>H</td><td>2 1 4 3</td><td></td></tr> <tr><td>I</td><td>2 3 1 4</td><td></td></tr> <tr><td>J</td><td>2 3 4 1</td><td></td></tr> <tr><td>K</td><td>2 4 1 3</td><td></td></tr> <tr><td>L</td><td>2 4 3 1</td><td></td></tr> <tr><td>M</td><td>3 1 2 4</td><td></td></tr> <tr><td>N</td><td>3 1 4 2</td><td></td></tr> <tr><td>O</td><td>3 2 1 4</td><td></td></tr> <tr><td>P</td><td>3 2 4 1</td><td></td></tr> <tr><td>Q</td><td>3 4 1 2</td><td></td></tr> <tr><td>R</td><td>3 4 2 1</td><td></td></tr> <tr><td>S</td><td>4 1 2 3</td><td></td></tr> <tr><td>T</td><td>4 1 3 2</td><td></td></tr> <tr><td>U</td><td>4 2 1 3</td><td></td></tr> <tr><td>V</td><td>4 2 3 1</td><td></td></tr> <tr><td>W</td><td>4 3 1 2</td><td></td></tr> <tr><td>X</td><td>4 3 2 1</td><td></td></tr> </table>	A	1 2 3 4		B	1 2 4 3		C	1 3 2 4		D	1 3 4 2		E	1 4 2 3		F	1 4 3 2		G	2 1 3 4		H	2 1 4 3		I	2 3 1 4		J	2 3 4 1		K	2 4 1 3		L	2 4 3 1		M	3 1 2 4		N	3 1 4 2		O	3 2 1 4		P	3 2 4 1		Q	3 4 1 2		R	3 4 2 1		S	4 1 2 3		T	4 1 3 2		U	4 2 1 3		V	4 2 3 1		W	4 3 1 2		X	4 3 2 1	
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1



3





Junior Division Hay Judging – 2021

You may keep this for your own records. Please make sure to bubble your scantron in placing column #2

Name _____ **KEY** _____ County _____

Contestant Number _____

Placing Score _____ **4,2,3,1**
2-5-2

*University of Kentucky
College of Agriculture
Animal Sciences Department*

Contestant's Name

Address

County

Class

Hay Judging Class

A	1 2 3 4	
B	1 2 4 3	
C	1 3 2 4	
D	1 3 4 2	
E	1 4 2 3	
F	1 4 3 2	
G	2 1 3 4	
H	2 1 4 3	
I	2 3 1 4	
J	2 3 4 1	
K	2 4 1 3	
L	2 4 3 1	
M	3 1 2 4	
N	3 1 4 2	
O	3 2 1 4	
P	3 2 4 1	
Q	3 4 1 2	
R	3 4 2 1	
S	4 1 2 3	
T	4 1 3 2	
U	4 2 1 3	
V	4 2 3 1	
W	4 3 1 2	
X	4 3 2 1	

Name **KEY**

Junior Individual Quality Assurance – 2021

You have a show heifer that has developed warts. You heard that you can vaccinate your cattle to stop the transmission of warts from one heifer to another. Use the Wart Vaccine label to answer the **10 questions** below relating to this product. **Circle your answers and keep this sheet to go over with you coach at the conclusion of the contest. Bubble in scantron sheet in the Quality Assurance box.** (10 questions are 5 points per question for 50 total points).

1. Which of the following is Wart Vaccine?

- a.) Killed Virus
- b.) Modified Live Virus
- c.) Warts in a bottle
- d.) Colorado Virus

2. Who makes Wart Vaccine?

- a.) Denver, Colorado
- b.) The Coop
- c.) Colorado Serum Company
- d.) Zoetis

3. How much Wart Vaccine should a healthy calf receive?

- a.) 5 ml
- b.) 10 ml
- c.) 15 ml
- d.) No need for Wart Vaccine

4. How long should you wait before you slaughter cattle that have been administered with Wart Vaccine?

- a.) 10 days
- b.) 15 days
- c.) 21 days
- d.) Will depend on the time of year

5. How should the Wart Vaccine be administered?

- a.) In the hip
- b.) Pour on
- c.) Subcutaneously
- d.) Intravenous

6. Should you repeat the vaccination at 3 to 5 weeks?

a.) Yes

b.) No

7. What size bottles is Wart Vaccine packed in?

a.) 40 ml and 90 ml

b.) 50 ml and 90 ml

c.) 50 ml and 100 ml

d.) 100 ml and 150 ml

8. Is this product safe to use in pregnant cattle?

a.) Yes

b.) No

c.) Unknown

9. Farmer Larry down the road said that he gave his heifers an extra 10 ml (25 ml in total) of Wart Vaccine just to make sure “no warts showed up”. Should you take the same approach that Larry did just to make sure those pesky warts don’t show up?

a.) Yes

b.) No

10. Where is Wart Vaccine made?

a.) Fort Collins, Colorado

b.) Denver, Colorado

c.) Lexington, Kentucky

d.) Serum, Colorado

Wart Vaccine (COLORADO SERUM COMPANY)

Label

White papers

Coupons

Other

Image

COLORADO SERUM COMPANY**4950 YORK STREET, P.O. BOX 16428, DENVER, CO, 80216-0428**

Telephone: 303-295-7527

Order Desk: 800-525-2065

Fax: 303-295-1923

Website: www.colorado-serum.comEmail: colorado-serum@colorado-serum.com

Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

WART VACCINE***Colorado Serum*****Killed Virus**

This product has been shown to be effective in the vaccination of healthy cattle against viral warts (Papillomas).

This product was licensed prior to the requirement to establish a minimum age for use. The duration of immunity is unknown. For more information regarding efficacy and safety data, see productdata.aphis.usda.gov.

DIRECTIONS:

Do not vaccinate within 21 days before slaughter. Safety in pregnant animals is unknown. Shake well before use. Use entire contents when first opened. Store at 2° - 8° C. Do not freeze. Do not mix with other products.

DOSAGE:

Calf Dose: 10 ml

Cattle Dose: 15 ml

ADMINISTRATION:

Calf: Inject 5 ml subcutaneously in 2 separate sites along the side of the neck.

Cattle: Inject 7.5 ml subcutaneously in 2 separate sites along the side of the neck.

Repeat at 3 to 5 weeks. Historically, annual vaccination is recommended. Contact veterinarian for advice.

Papillomaviruses are the cause of cutaneous warts in cattle. These viruses have considerable host specificity. Warts are spread by direct contact with infected animals, infection gaining entry through skin abrasions.

Animals with extensive cutaneous wart lesions may develop secondary bacterial infections. Teat warts on dairy cows can interfere with milking.

Surgery and/or vaccination are the most common forms of treatment and prevention.

Colorado Serum Company's Wart Vaccine uses bovine warts from different sources in order to provide a broad spectrum protection against a variety of papillomavirus isolates.

PRECAUTIONS:

Anaphylactoid reaction may occur following administration of products of this nature. If noted, administer adrenaline or equivalent.

Contains thimerosal as a preservative.

Conveniently packaged in 50 ml and 90 ml sizes.

FOR VETERINARY USE ONLY**VLN: 188 / PCN: 1985.50****COLORADO SERUM COMPANY**, 4950 York Street, Denver, Colorado 80216

303-295-7527

www.colorado-serum.com

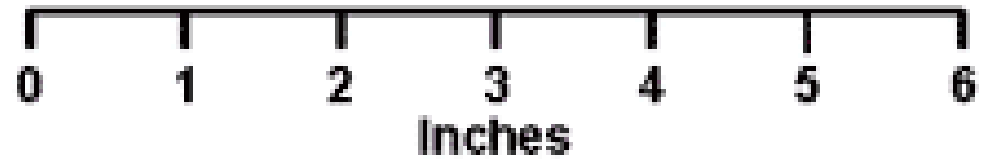
	Order #
50 ml	11702
90 ml	11703

CPN: 1101035.3

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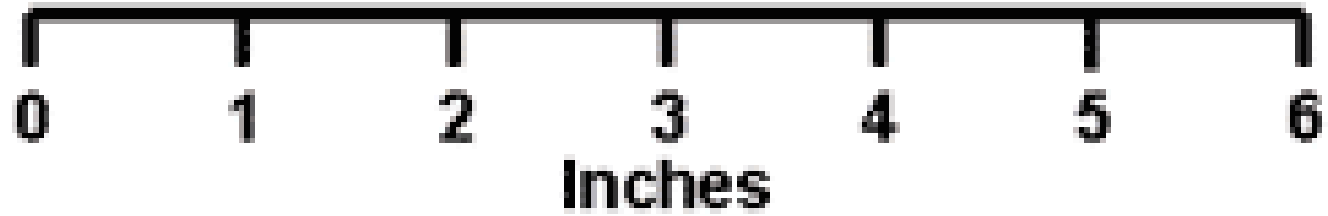
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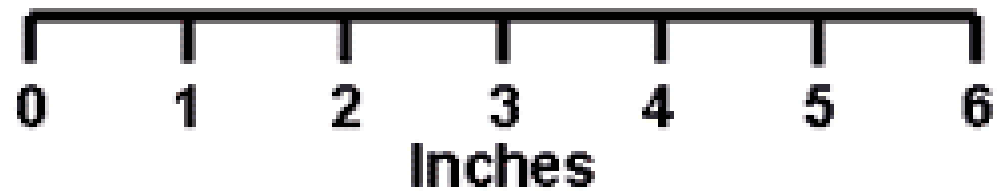
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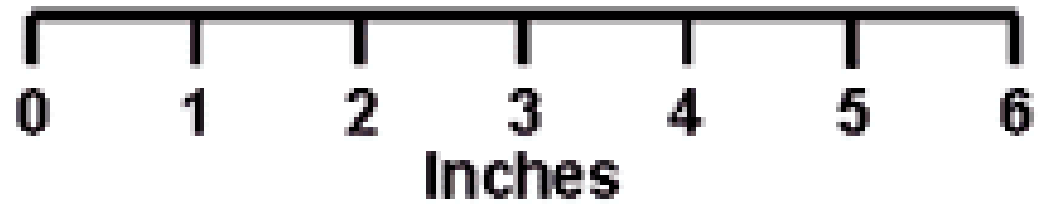
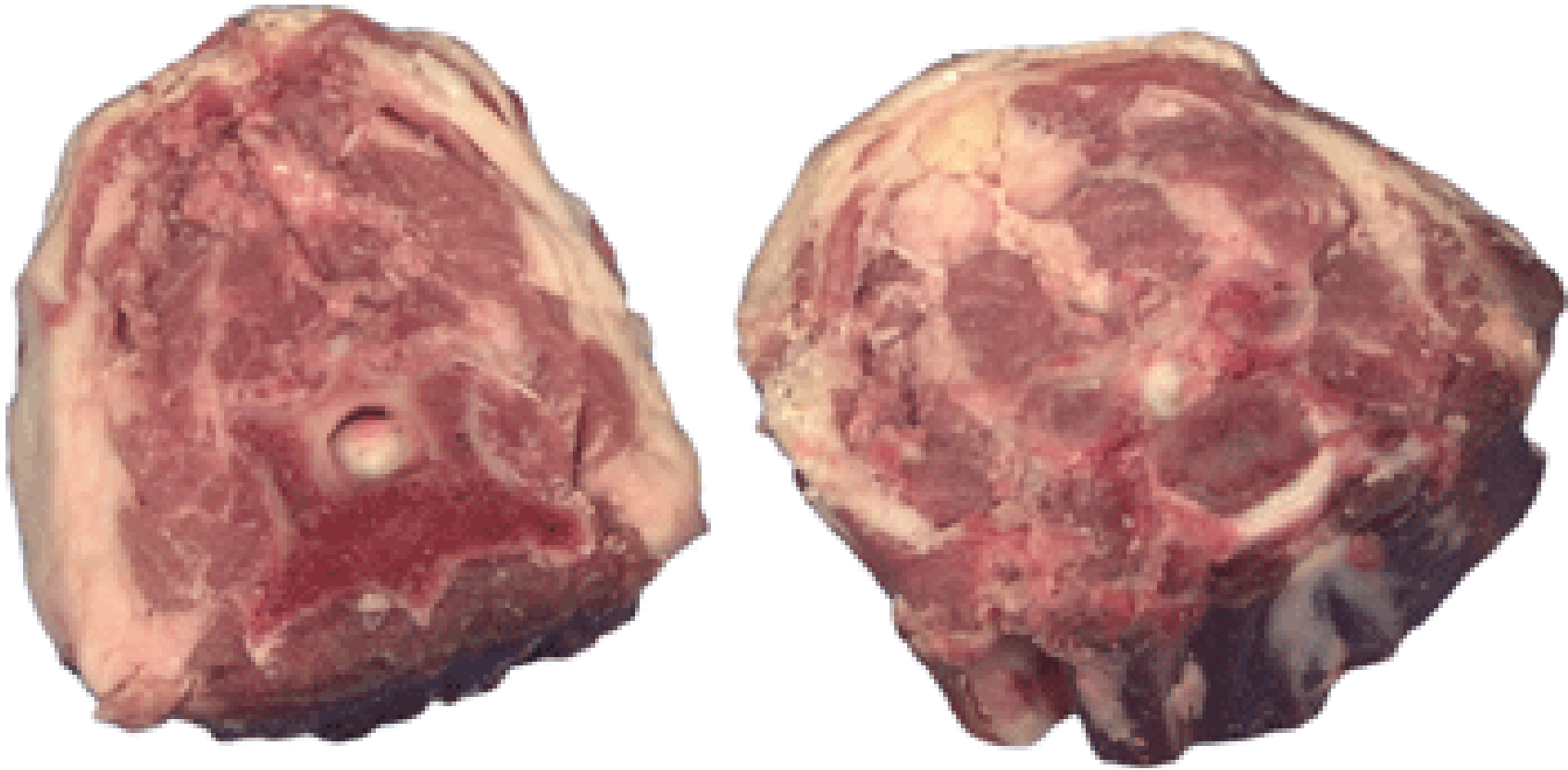
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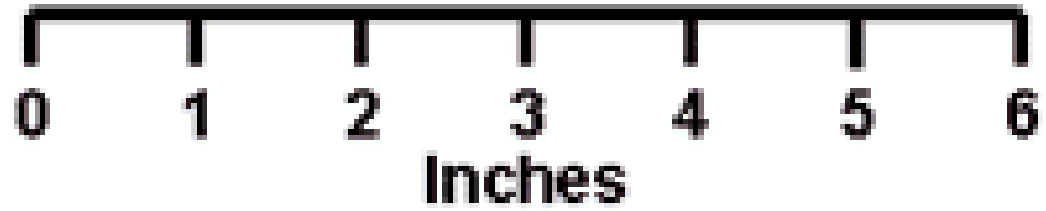
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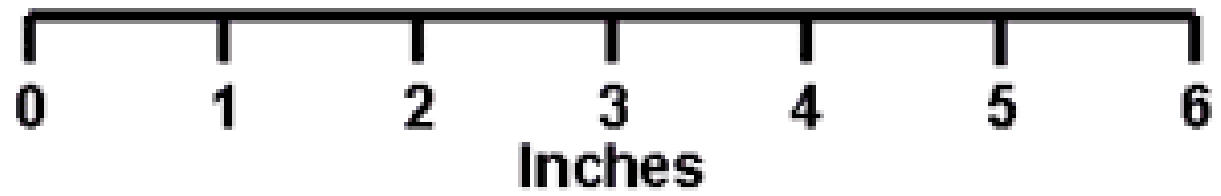
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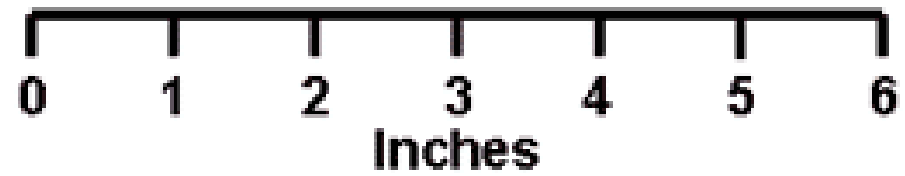
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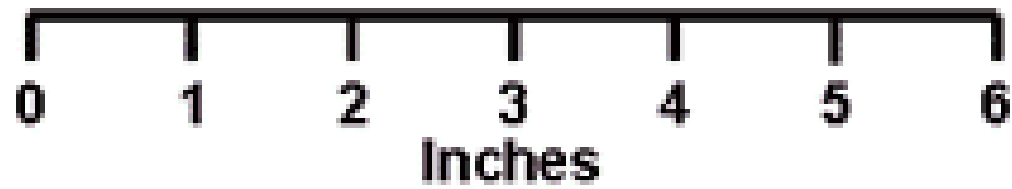
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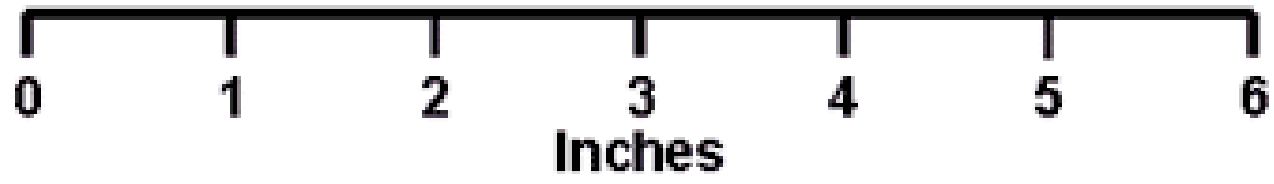
8.



9.



10.



Junior Retail Meat Cut Identification – 2021

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. **Juniors** provide answers for species of cut, primal cut of origin and retail cut name,. Species is worth 2 points each, Primal 1 point each and Retail 2 points each (50 points total for Juniors).

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

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

Beef Wholesale Cuts

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

Lamb Wholesale Cuts

- E. Leg
- F. Shoulder
- G. Variety cut

Pork Wholesale Cuts

- H. Belly (Side, Bacon)
- I. Loin
- J. Picnic Shoulder

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

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

B. Beef

L. Lamb

P. Pork

Retail Names – to be used in answer column 3 by Juniors

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. Kidney |

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. Heart |

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. Smoked Canadian |
| 73. Butterfly chop | 80. Arm picnic roast | Style Bacon |

Junior Quiz – 2021

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 50 points)

- 1.) If a cow has a body condition score of 5 to 6, she is best described as:
a. **Ideal** c. Fat
b. Thin d. Obese
- 2.) Which sex of swine would be expected to be the fattest at the same weight?
a. Boar c. Gilt
b. **Barrow** d. All would be the same
- 3.) Which of the following minerals are toxic to sheep?
a. Phosphorous c. **Copper**
b. Iron d. Zinc
- 4.) What term refers to a sterile heifer that is born a twin to a bull calf?
a. Klinefelter c. **Freemartin**
b. Heiferette d. Ketotic
- 5.) During which stage of nutrition would a cow's nutrient requirements be highest?
a. Breeding c. **Peak lactation**
b. Weaning d. Pregnancy
- 6.) Which state in the U.S. has the highest meat goat population?
a. Oklahoma c. California
b. **Texas** d. Kentucky
- 7.) True or False: a beef female that has not ever had a calf is called a cow?
a. True b. **False**
- 8.) What country did the Poland China breed originate from?
a. Poland c. **United States**
b. China d. England

- 9.) Removing the testicles from a male lamb is called _____?
- a. Elastration
 - b. Emulsification
 - c. Castration
 - d. Elastrator
- 10.) What is the average length of the estrous cycle in a heifer?
- a. 7 days
 - b. 14 days
 - c. 21 days
 - d. 28 days
- 11.) Which one of the following is not a high-priced wholesale cut in lambs?
- a. Breast
 - b. Rack
 - c. Loin
 - d. Leg
- 12.) The term “sickle hocked” refers to what condition?
- a. Too little set to the hocks
 - b. Swelling on the hocks
 - c. Too much set to the hocks
 - d. A small hock
- 13.) What causes Grass Tetany in beef cattle?
- a. A bacteria
 - b. A virus
 - c. High levels of magnesium
 - d. Low levels of magnesium
- 14.) Number of pounds an animal puts on per day over a certain period of time is called _____?
- a. Average Daily Gain
 - b. Feed ration
 - c. KPH
 - d. Feed efficiency
- 15.) Sows will remain in this stage until their pigs are weaned around 21 days of age.
- a. Gestation
 - b. Lactation
 - c. Generation interval
 - d. Postpartum interval
- 16.) Which of the following will produce the least amount of wool?
- a. Columbia
 - b. Katahdin
 - c. Hampshire
 - d. Suffolk
- 17.) Goat meat is called which of the following?
- a. Venison
 - b. Mutton
 - c. Chevre
 - d. Chevon
- 18.) Which state in the U.S. has the highest beef cattle population?
- a. Kentucky
 - b. Kansas
 - c. Colorado
 - d. Texas

- 19.) How many Primal (wholesale) cuts of Beef are there?
- a. 6
 - b. 8
 - c. 9
 - d. Depends on size of beef carcass
- 20.) Why do pork producers castrate male piglets intended for market?
- a. Boar taint
 - b. To prevent aggression
 - c. For fun
 - d. Both A and B
- 21.) Packers do not like PSE carcasses. What does PSE stand for?
- a. Pale, Soft and Extra
 - b. Pale, Soft and Exudative
 - c. Pale, Sour and Extra
 - d. None of the above
- 22.) Which of the following is considered a value-added beef program?
- a. Certified Angus Beef
 - b. Certified Hereford Beef
 - c. Nolan Ryan All-Natural Angus Beef
 - d. All of the above
- 23.) The North American International Livestock Exposition is held in what city?
- a. Lexington
 - b. Louisville
 - c. Denver
 - d. Chicago
- 24.) What is the inflammation, becoming infected and hardening of the udder called?
- a. Constipation
 - b. Lactation
 - c. Productivity
 - d. Mastitis
- 25.) An animal whose sire and dam are of a different breed is called a _____?
- a. Grade
 - b. Outcross
 - c. Crossbred
 - d. Purebred

County/County Team # _____ **KEY** _____

Team Members

Junior Team Breeding Exercise – 2021

Your team is selecting 1 Hampshire Gilt out of the Winter Type Conference in Perry, Georgia. Currently you own 15 Duroc and Crossbred sows but you are now wanting to take on a new challenge of breeding high caliber Hampshires. Your operation has started to gain State and even some Regional recognition. The hope is to bring in new clientele and gain notoriety with the expansion of the operation into the Hampshire breed. You and your team know that it will take a high caliber Hampshire gilt to do this. You are looking for a gilt that can be bred to a Hampshire boar with the majority of offspring being marketed to youth who plan to exhibit hogs on a state and national level. You would like for this gilt to serve as your foundation Hampshire gilt. Practicality with a showring look is valuable to your operation. You and your team have set aside money to invest in the foundation gilt, but obviously want to be reasonable in purchasing the new gilt. Please select 1 gilt that would best fit your operation and answer the 10 questions below. Additionally, you will need to discuss your choice with the contest official.

[The questions are worth 10 points each for a total of 100 possible points and your discussion with the Official is worth 100 possible points for a grand total of 200 possible points.]

Animal ID	Days to 250	Backfat	Loin Eye Area	MLI (Maternal Line Index)	SPI (Sow Productivity Index)	Price
1	170	.59	6.4	111	102	\$600
2	156	.79	8.1	115	114	\$2,000
3	165	.72	7.7	110	109	\$1000
4	164	.62	8.8	115	100	\$800
5	153	.84	8.4	114	115	\$1,800

1. Which gilt is the poorest in her genetic profile (least value on paper)?

1 2 3 4 5

2. Which gilt is the fastest growing?

1 2 3 4 5

3. Which gilt is visually lean and muscular, but appears hard bodied and straight shouldered?

1 2 3 4 5

4. Of the gilts who have over an 8-inch loin eye area, which gilt has the least backfat?

1 2 3 4 5

5. Who is the gilt that is soft bodied but appear small visually and is weak down her spine?

1 2 3 4 5

6. Between gilts 1, 2, and 4: who is the most structurally correct?

1 2 4

7. True or False: the gilt with the most backfat also reads the highest in her SPI column?

True False

8. Between gilts 2, 3 and 5: which gilt is the boldest in her center body?

2 3 5

9. Of the pale dry skin gilt, who is more upheaded and better balancing?

1 2 3 4 5

10. Who is the slowest growing gilt?

1 2 3 4 5

#1



#2



#3



#4



Alpaca

#5



County and Team Number _____ **KEY** _____

Team Members _____

Junior Team Quality Assurance Exercise –2021

You are a beef producer and operate a 500-head feedlot that typically feeds calves from about 600 pounds to finished weight for market. As a practical way to keep track of steers that have been injured or treated for illness, you sort them into one pen that you keep designated as a hospital or “sick” pen. There are four (4) steers in the sick pen that have reached finish weight and have fully recovered their problems. You want to send as many of these steers as possible to market on Monday, April 12, 2021, and need to make sure any withdrawal times are over. Using the four (4) medication inserts provided, answer the questions below and finish filling in the table of treatment records on the reverseside of this page. Once the table is filled in, list the steers that can be sold tomorrow and those that should be held until a later date. A calendar is provided for your use as well. (Each answer is worth 8 points each for a total of 200 points)

NOTES ON TREATMENTS:

- Assume you accurately followed the directions on the medication insert.
- Assume the treatment date given in the treatment records is the last date of treatment
- If a range of recommended dosage is given on the medication insert, assume you gave the highest dosage recommended

- 1) Which medication can be diluted based on injection site/treatment? LA-200
- 2) When giving Draxxin, what’s the largest amount that should be administered in one site? 10 mL
- 3) Which of the medications could also be given to sheep? NONE
- 4) How many of the medications are distributed by Zoetis? 3
- 5) How many medications can be given Intramuscular to beef cattle? 1

[OVER]

TREATMENT RECORD

Treatment Date & Time	Steer Treated (Tag #)	Steer Weight	Condition Being Treated	Medication Given	Route Given ^a	Amount Given	Required Withdrawal Period (days)	Date & Time Withdrawal Complete
March 20, 2021 10:00 a.m.	# 79	1210 lbs	Roundworms	Dectomax	SC	11mL	35 days	April 24, 2021 10:00 A.M.
March 22, 2021 2:30 p.m.	# 56	1225 lbs	Pinkeye (IBK)	Draxxin	SC	13.5mL	18 days	April 9, 2021 2:30 P.M.
April 3, 2021 8:00 a.m.	# 8	1300 lbs	Foot Rot	Sustain Bolus	O	6.5 Boluses	12 days	April 15, 2021 8:00 A.M.
March 13, 2021 12:00 noon	# 90	1150 lbs	Pneumonia	LA-200	SC	51mL	28 days	April 10, 2021 12:00 noon

Intramuscular = IM
 Subcutaneous = SC
 Intravenous = IV
 Topical = T
 Added to feed = F
 Orally = O

Steers that Can be Sold Monday 4/12/21

#56, #90

Steers to Hold Until a Later Date

#79, #8

February

March

April

S M T W T F S

1 2 3 4 5 6

7 8 9 10 11 12 13

14 15 16 17 18 19 20

21 22 23 24 25 26 27

28

S M T W T F S

1 2 3 4 5 6

7 8 9 10 11 12 13

14 15 16 17 18 19 20

21 22 23 24 25 26 27

28 29 30 31

S M T W T F S

1 2 3

4 5 6 7 8 9 10

11 12 13 14 15 16 17

18 19 20 21 22 23 24

25 26 27 28 29 30

Dectomax® Injectable Solution (ZOETIS INC.)

Label

White papers

Coupons

Other

Image

ZOETIS INC.**333 PORTAGE STREET, KALAMAZOO, MI, 49007**

Telephone: 269-359-4414

Customer Service: 888-963-8471

Website: www.zoetis.com

Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

DECTOMAX®**Zoetis***(doramectin injection)***Antiparasitic****1% injectable solution for cattle and swine****10 mg/mL**

PRODUCT DESCRIPTION: Dectomax injectable solution is a ready-to-use, colorless to pale yellow, sterile solution containing 1% w/v doramectin (10 mg/mL). In cattle, Dectomax is formulated to deliver the recommended dosage (200 mcg/kg of body weight) when given by subcutaneous (SC) or intramuscular (IM) injection at the rate of 1 mL/110 lb of body weight. In swine, Dectomax is formulated to deliver the recommended dosage (300 mcg/kg of body weight) when given by IM injection at the rate of 1 mL/75 lb of body weight.

PRODUCT CHARACTERISTICS: Dectomax injectable solution is a highly active, broad-spectrum parasiticide for parenteral administration to cattle and swine. It contains doramectin, a novel fermentation-derived macrocyclic lactone. Doramectin is isolated from fermentations of selected strains derived from the soil organism *Streptomyces avermitilis*.

A primary mode of action of macrocyclic lactones is to modulate chloride ion channel activity in the nervous system of nematodes and arthropods. Macrocyclic lactones bind to receptors that increase membrane permeability to chloride ions. This inhibits the electrical activity of nerve cells in nematodes and muscle cells in arthropods and causes paralysis and death of the parasites. In mammals, the neuronal receptors to which macrocyclic lactones bind are localized within the central nervous system (CNS), a site reached by only negligible concentrations of doramectin. One dose of Dectomax injectable solution effectively treats and controls a wide range of roundworm and arthropod parasites that impair the health and productivity of cattle and swine.

Studies have demonstrated the safety margin of Dectomax injection in cattle and swine. In USA trials, no toxic signs were seen in cattle given up to 25 times the recommended dose, or in swine given up to 10 times the recommended dose. Studies also demonstrated safety in neonatal calves and piglets treated with up to 3 times the recommended dose. In males (bulls and boars) and females (cows and sows during folliculogenesis, implantation, organogenesis, and through gestation), a dose 3 times the recommended dose had no effect on breeding performance.

PRODUCT INDICATIONS: *Cattle:* Dectomax injectable solution is indicated for the treatment and control of the following harmful species of gastrointestinal roundworms, lungworms, eyeworms, grubs (see PRECAUTIONS), sucking lice (see PRECAUTIONS), and mange mites. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.

Gastrointestinal Roundworms (adults and fourth stage larvae)

Ostertagia ostertagi (including inhibited larvae)*O. lyrata**Haemonchus placei**Trichostrongylus axei**T. colubriformis**T. longispicularis*¹*Cooperia oncophora**C. pectinata*¹*C. punctata**C. surnabada* (syn. *mcmasteri*)*Bunostomum phlebotomum*¹*Strongyloides papillosus*¹*Oesophagostomum radiatum**Trichuris* spp.¹

Lungworms (adults and fourth stage larvae)

Dictyocaulus viviparus

Eyeworms (adults)

Thelazia spp.

Grubs (parasitic stages)

Hypoderma bovis

H. lineatum

Sucking Lice

Haematopinus eurysternus

Linognathus vituli

Solenopotes capillatus

Mange Mites

Psoroptes bovis

Sarcoptes scabiei

¹ adults

Dectomax injectable solution has been proved to effectively control infections and to protect cattle from reinfection with *Cooperia oncophora* and *Haemonchus placei* for 14 days, *Ostertagia ostertagi* for 21 days, and *C. punctata*, *Oesophagostomum radiatum*, and *Dictyocaulus viviparus* for 28 days after treatment.

Swine: Dectomax injectable solution is indicated for the treatment and control of the following species of gastrointestinal roundworms, lungworms, kidney worms, sucking lice (see PRECAUTIONS), and mange mites. Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.

Gastrointestinal Roundworms (adults and fourth stage larvae)

Ascaris suum

Oesophagostomum dentatum

*Oesophagostomum, quadrispinulatum*¹

*Strongyloides ransomi*¹

*Hyostrongylus rubidus*¹

Lungworms (adults)

Metastrongylus spp.

Kidney Worms (adults)

Stephanurus dentatus

Mange Mites (adults and immature stages)

Sarcoptes scabiei var. *suis*

Sucking Lice (adults and immature stages)

Haematopinus suis

¹ adults

DOSAGE: **Cattle:** Administer Dectomax injectable solution at the recommended dosage of 200 mcg doramectin per kg (91 mcg/lb) of body weight. Each mL contains 10 mg of doramectin, sufficient to treat 110 lb (50 kg) of body weight.

Body Weight (lb)	Dose (mL)
110	1
220	2
330	3
440	4
550	5
660	6
770	7
880	8
990	9
1,100	10

Swine: Administer Dectomax injectable solution at the recommended dosage of 300 mcg doramectin per kg (136 mcg/lb) of body weight. Each mL contains 10 mg of doramectin, sufficient to treat 75 lb (34 kg) of body weight.

Body Weight (lb)	Dose (mL)
15	0.2
30	0.4

45	0.6
60	0.8
75	1.0
150	2.0
225	3.0
300	4.0
375	5.0
450	6.0

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 parasite resistance.

RECOMMENDED TREATMENT PROGRAM FOR SWINE: To effectively initiate control of mange and sucking lice in swine, it is important to treat all animals in the herd. After initial treatment, use Dectomax regularly as follows:

Breeding Animals:

Sows: Treat 7-14 days prior to farrowing to minimize exposure of piglets to mites and sucking lice.

Gilts: Treat 7-14 days prior to breeding. Treat 7-14 days prior to farrowing.

Boars: Treat a minimum of 2 times per year.

Feeder Pigs: Treat any new feeder pigs upon arrival at farm or before placement in clean quarters.

Weaners, Growers, Finishers: Weaners and grow-out/finisher pigs should be treated before placement in clean quarters.

For effective mange elimination, care must be taken to prevent reinfestation from exposure to untreated animals or contaminated facilities.

ADMINISTRATION: Dry, sterile equipment and aseptic procedures should be used when withdrawing and administering Dectomax. For multiple treatments either automatic injection equipment or an aspirating needle should be used.

Cattle: Administer Dectomax injectable solution by SC or IM route. Injections should be made using a 16 gauge needle for adult cattle or an 18 gauge needle for young animals. Needles 1/2-3/4" in length are suggested for SC administration. A 1-1/2" needle is suggested for IM administration. SC injections should be administered under the loose skin in front of or behind the shoulder. IM injections should be administered into the muscular region of the neck. Beef Quality Assurance guidelines recommend SC administration as the preferred route.



Swine: Administer Dectomax injectable solution by the IM route. Inject in the neck region using an 18 gauge x 1" needle for young animals; a 16 gauge x 1-1/2" needle for sows and boars. To accurately meter doses administered to piglets, use of a tuberculin syringe and 20 gauge x 1" needle is recommended.



WARNINGS: Not for human use. Keep out of reach of children. The safety data sheet (SDS) contains more detailed occupational safety information. To report adverse effects in users, to obtain more information, or to obtain an SDS, call 1-888-963-8471.

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 tests and parasite management history should be used to determine if the product is appropriate for the herd 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.

RESIDUE WARNINGS: *Cattle:* Do not slaughter for human consumption within 35 days of treatment. Not for use in female dairy cattle 20 months of age or older. A withdrawal period has not been established for this product in preruminating calves. Do not use in calves to be processed for veal. *Swine:* Do not slaughter for human consumption within 24 days of treatment.

PRECAUTIONS: Dectomax has been developed specifically for use in cattle and swine only. This product should not be used in other animal species as severe adverse reactions, including fatalities in dogs, may result.

For SC injection in cattle only. For IM injection in swine and cattle. This product is approved for the treatment and control of sucking lice. For treatment of biting lice in cattle, use of Dectomax Pour-On is recommended.

Dectomax is highly effective against 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) 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 *H. lineatum* when it is in the tissue surrounding the gullet may cause bloat; killing *H. bovis* when it is in the vertebral canal may cause staggering or paralysis. These reactions are not specific to treatment with Dectomax, 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 Dectomax after the end of the heel fly season may be re-treated with Dectomax during the winter for internal parasites, mange mites, or sucking lice, without danger of grub-related reactions. A planned parasite control program is recommended.

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

As with other avermectins, doramectin 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.

Store Below 30°C (86°F)

HOW SUPPLIED: Dectomax is available in 100-mL, 200-mL, and 500-mL multi-dose, rubber-capped glass vials.

Approved by FDA under NADA # 141-061

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

Not for human use

Restricted Drug (CA) Use only as directed.

Distributed by: Zoetis Inc., Kalamazoo, MI 49007

Product of China

Net Contents:	
100 mL	Revised: March 2019 4019249
200 mL	Revised: March 2019 4019250
500 mL	Revised: March 2019 4019251

CPN: 3690009.7

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Liquamycin® LA-200® (ZOETIS INC.)

Label

White papers

Coupons

Other

Image

ZOETIS INC.**333 PORTAGE STREET, KALAMAZOO, MI, 49007**

Telephone: 269-359-4414

Customer Service: 888-963-8471

Website: www.zoetis.com

Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

Liquamycin® LA-200®**Zoetis***(oxytetracycline injection)***Antibiotic***Each mL contains 200 mg of oxytetracycline base as oxytetracycline dihydrate.**For the treatment of disease in beef cattle; dairy cattle; calves, including preruminating (veal) calves; and swine**For animal use only***Read Entire Package Insert Carefully Before Using This Product**

Liquamycin LA-200 (oxytetracycline injection) is a sterile, ready-to-use solution for the administration of the broad-spectrum antibiotic oxytetracycline (Terramycin®) by injection.

Liquamycin LA-200 administered to cattle or swine for the treatment of bacterial pneumonia at a dosage of 9 mg of oxytetracycline per lb of body weight has been demonstrated in clinical trials to be as effective as 2 or 3 repeated, daily treatments of Terramycin Injectable at 3-5 mg/lb of body weight.

Liquamycin LA-200 does not require refrigeration; however, it is recommended that it be stored at room temperature, 15°-30°C (59°-86°F). The antibiotic activity of oxytetracycline is not appreciably diminished in the presence of body fluids, serum, or exudates.

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

Consult with your veterinarian prior to administering this product in order to determine the proper treatment required in the event of an adverse reaction. At the first sign of any adverse reaction, discontinue use of the product and seek the advice of your veterinarian. Some of the reactions may be attributed either to anaphylaxis (an allergic reaction) or to cardiovascular collapse of unknown cause.

Shortly after injection, treated animals may have transient hemoglobinuria resulting in darkened urine.

As with all antibiotic preparations, use of this drug may result in overgrowth of nonsusceptible organisms, including fungi. A lack of response by the treated animal, or the development of new signs, may suggest that an overgrowth of nonsusceptible organisms has occurred. If any of these conditions occur, consult your veterinarian.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, it is advisable to avoid giving Liquamycin LA-200 in conjunction with penicillin.

ADVERSE REACTIONS: Reports of adverse reactions associated with oxytetracycline administration include injection site swelling, restlessness, ataxia, trembling, swelling of eyelids, ears, muzzle, anus and vulva (or scrotum and sheath in males), respiratory abnormalities (labored breathing), frothing at the mouth, collapse and possibly death. Some of these reactions may be attributed to anaphylaxis (an allergic reaction) or to cardiovascular collapse of unknown cause.

STORAGE: Store at room temperature 15°-30°C (59°-86°F). Protect from freezing. Use within 28 days of first vial puncture. Stopper may be punctured a maximum of 40 times.

CARE OF SICK ANIMALS: The use of antibiotics in the management of diseases is based on an accurate diagnosis and an adequate course of treatment. When properly used in the treatment of diseases caused by oxytetracycline-susceptible organisms, most animals that have been treated with Liquamycin LA-200 show a noticeable improvement within 24-48 hours. It is recommended that the diagnosis and treatment of animal diseases be carried out by a veterinarian. Since many diseases look alike but require different types of treatment, the use of professional veterinary and laboratory services can reduce treatment time, costs, and needless losses. Good housing, sanitation, and nutrition are important in the maintenance of healthy animals, and are essential in the treatment of diseased animals.

INDICATIONS: Liquamycin LA-200 is intended for use in the treatment of the following diseases in beef cattle; dairy cattle; calves, including preruminating (veal) calves; and swine when due to oxytetracycline-susceptible organisms:

Cattle: Liquamycin LA-200 is indicated in the treatment of pneumonia and shipping fever complex associated with *Pasteurella* spp. and *Hemophilus* spp.; infectious bovine keratoconjunctivitis (pinkeye) caused by *Moraxella bovis*; foot rot and diphtheria caused by *Fusobacterium necrophorum*; bacterial enteritis (scours) caused by *Escherichia coli*; wooden tongue caused by *Actinobacillus lignieresii*; leptospirosis caused by *Leptospira pomona*; and wound infections and acute metritis caused by strains of staphylococci and streptococci organisms sensitive to oxytetracycline.

Swine: Liquamycin LA-200 is indicated in the treatment of bacterial enteritis (scours, colibacillosis) caused by *Escherichia coli*; pneumonia caused by *Pasteurella multocida*; and leptospirosis caused by *Leptospira pomona*.

In sows, Liquamycin LA-200 is indicated as an aid in the control of infectious enteritis (baby pig scours, colibacillosis) in suckling pigs caused by *Escherichia coli*.

DOSAGE:

Cattle: Liquamycin LA-200 is to be administered by subcutaneous (SC, under the skin) or intravenous injection according to Beef Quality Assurance Guidelines.

A single dosage of 9 mg of Liquamycin LA-200 per lb of body weight administered subcutaneously is recommended in the treatment of the following conditions: 1) bacterial pneumonia caused by *Pasteurella* spp. (shipping fever) in calves and yearlings, where retreatment is impractical due to husbandry conditions, such as cattle on range, or where their repeated restraint is inadvisable; 2) infectious bovine keratoconjunctivitis (pinkeye) caused by *Moraxella bovis*.

Liquamycin LA-200 can also be administered by subcutaneous or intravenous injection at a level of 3-5 mg of oxytetracycline per lb of body weight per day. In the treatment of severe foot rot and advanced cases of other indicated diseases, a dosage level of 5 mg/lb of body weight per day is recommended. Treatment should be continued 24-48 hours following remission of disease signs; however, not to exceed a total of 4 consecutive days. Consult your veterinarian if improvement is not noted within 24-48 hours of the beginning of treatment.

Swine: A single dose of 9 mg of Liquamycin LA-200 per lb of body weight administered *intramuscularly* in the neck region is recommended in the treatment of bacterial pneumonia caused by *Pasteurella multocida* in swine, where retreatment is impractical due to husbandry conditions or where repeated restraint is inadvisable.

Liquamycin LA-200 can also be administered by intramuscular injection at a level of 3-5 mg of oxytetracycline per lb of body weight per day.

Treatment should be continued 24-48 hours following remission of disease signs; however, not to exceed a total of 4 consecutive days. Consult your veterinarian if improvement is not noted within 24-48 hours of the beginning of treatment.

For sows, administer once intramuscularly in the neck region 3 mg of oxytetracycline per lb of body weight approximately 8 hours before farrowing or immediately after completion of farrowing.

For swine weighing 25 lb of body weight and under, Liquamycin LA-200 should be administered *undiluted* for treatment at 9 mg/lb but should be administered *diluted* for treatment at 3 or 5 mg/lb.

Body Weight	9 mg/lb Dosage	3 or 5 mg/lb Dosage		
	Volume of Undiluted Liquamycin LA-200	Volume of Diluted Liquamycin LA-200		
	9 mg/lb	3 mg/lb	Dilution*	5 mg/lb
5 lb	0.2 mL	0.6 mL	1:7	1.0 mL
10 lb	0.5 mL	0.9 mL	1:5	1.5 mL
25 lb	1.1 mL	1.5 mL	1:3	2.5 mL

*To prepare dilutions, add 1 part Liquamycin LA-200 to 3, 5, or 7 parts of sterile water, or 5% dextrose solution as indicated; the diluted product should be used immediately.

DIRECTIONS FOR USE: Liquamycin LA-200 is intended for use in the treatment of disease due to oxytetracycline-susceptible organisms in beef cattle; dairy cattle; calves, including preruminating (veal) calves; and swine. A thoroughly cleaned, sterile needle and syringe should be used for each injection (needles and syringes may be sterilized by boiling in water for 15 minutes). In cold weather, Liquamycin LA-200 should be warmed to room temperature before administration to animals. Before withdrawing the solution from the bottle, disinfect the rubber cap on the bottle with suitable disinfectant, such as 70% alcohol. The injection site should be similarly cleaned with the disinfectant. Needles of 16-18 gauge and 1-1 1/2 inches long are adequate for intramuscular and subcutaneous injections. Needles 2-3 inches are recommended for intravenous use.

Intramuscular Administration:

Intramuscular injections in swine should be made by directing the needle of suitable gauge and length into the fleshy part of a thick muscle in the neck region; avoid blood vessels and major nerves. Before injecting the solution, pull back gently on the plunger. If blood appears in the syringe, a blood vessel has been entered; withdraw the needle and select a different site. No more than 5 mL should be injected at any one site in adult swine; rotate injection sites for each succeeding treatment.

Subcutaneous Administration:

Subcutaneous injections in beef cattle, dairy cattle, and calves, including preruminating (veal) calves, should be made by directing the needle of suitable gauge and length through the loose folds of the neck skin in front of the shoulder. Care should be taken to ensure that the tip of the needle has penetrated the skin but is not lodged in muscle. Before injecting the solution, pull back gently on the plunger. If blood appears in the syringe, a blood vessel has been entered; withdraw the needle and select a different site. The solution should be injected slowly into the area between the skin

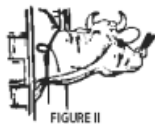
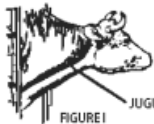
and muscles. No more than 10 mL should be injected subcutaneously at any one site in adult beef and dairy cattle; rotate injection sites for each succeeding treatment. The volume administered per injection site should be reduced according to age and body size so that 1-2 mL per site is injected in small calves.

Intravenous Administration:

Liquamycin LA-200 may be administered intravenously to beef and dairy cattle. As with all highly concentrated materials, Liquamycin LA-200 should be administered *slowly* by the intravenous route.

Preparation of the Animal for Injection:

1. Approximate location of vein. The jugular vein runs in the jugular groove on each side of the neck from the angle of the jaw to just above the brisket and slightly above and to the side of the windpipe (see Fig. I).
2. Restraint. A stanchion or chute is ideal for restraining the animal. With a halter, rope, or cattle leader (nose tongs), pull the animal's head around the side of the stanchion, cattle chute, or post in such a manner to form a bow in the neck (see Fig. II), then snub the head securely to prevent movement. By forming the bow in the neck, the outside curvature of the bow tends to expose the jugular vein and make it easily accessible.
Caution: Avoid restraining the animal with a tight rope or halter around the throat or upper neck which might impede blood flow. Animals that are down present no problem so far as restraint is concerned.
3. Clip hair in area where injection is to be made (over the vein in the upper third of the neck). Clean and disinfect the skin with alcohol or other suitable antiseptic.



Entering the Vein and Making the Injection:

1. Raise the vein. This is accomplished by tying the choke rope tightly around the neck close to the shoulder. The rope should be tied in such a way that it will not come loose and so that it can be untied quickly by pulling the loose end (see Fig. II). In thick-necked animals, a block of wood placed in the jugular groove between the rope and the hide will help considerably in applying the desired pressure at the right point. The vein is a soft flexible tube through which blood flows back to the heart. Under ordinary conditions it cannot be seen or felt with the fingers. When the flow of blood is blocked at the base of the neck by the choke rope, the vein becomes enlarged and rigid because of the back pressure. If the choke rope is sufficiently tight, the vein stands out and can be easily seen and felt in thin-necked animals. As a further check in identifying the vein, tap it with the fingers in front of the choke rope. Pulsations that can be seen or felt with the fingers in front of the point being tapped will confirm the fact that the vein is properly distended. It is impossible to put the needle into the vein unless it is distended. Experienced operators are able to raise the vein simply by hand pressure, but the use of a choke rope is more certain.
2. Inserting the needle. This involves 3 distinct steps. First, insert the needle through the hide. Second, insert the needle into the vein. This may require 2 or 3 attempts before the vein is entered. The vein has a tendency to roll away from the point of the needle, especially if the needle is not sharp. The vein can be steadied with the thumb and finger of one hand. With the other hand, the needle point is placed directly over the vein, slanting it so that its direction is along the length of the vein, either toward the head or toward the heart. Properly positioned this way, a quick thrust of the needle will be followed by a spurt of blood through the needle, which indicates that the vein has been entered. Third, once in the vein, the needle should be inserted along the length of the vein all the way to the hub, exercising caution to see that the needle does not penetrate the opposite side of the vein. Continuous steady flow of blood through the needle indicates that the needle is still in the vein. If blood does not flow continuously, the needle is out of the vein (or clogged) and another attempt must be made. If difficulty is encountered, it may be advisable to use the vein on the other side of the neck.
3. While the needle is being placed in proper position in the vein, an assistant should get the medication ready so that the injection can be started without delay after the vein has been entered.
4. Making the injection. With the needle in position as indicated by continuous flow of blood, release the choke rope by a quick pull on the free end. This is essential—the medication cannot flow into the vein while it is blocked.
Immediately connect the syringe containing Liquamycin LA-200 to the needle and slowly depress the plunger. If there is resistance to depression of the plunger, this indicates that the needle has slipped out of the vein (or is clogged) and the procedure will have to be repeated. Watch for any swelling under the skin near the needle, which would indicate that the medication is not going into the vein.
Should this occur, it is best to try the vein on the opposite side of the neck.
5. Removing the needle. When injection is complete, remove needle with straight pull. Then apply pressure over area of injection momentarily to control any bleeding through needle puncture, using cotton soaked in alcohol or other suitable antiseptic.

Restricted Drug (California)-Use Only As Directed

Not For Human Use

Approved by FDA under NADA # 113-232

Revised: May 2019

Distributed by: Zoetis Inc., Kalamazoo, MI 49007

Net Contents:	
100 mL	40027684

250 mL	40027687
500 mL	40027690

CPN: 3690082.7

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Sustain III® Cattle Bolus (BIMEDA, INC.)



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Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

Sustain III® Cattle Bolus

Bimeda

(sulfamethazine)

SUSTAINED RELEASE BOLUS (72 HOURS)

Antibacterial

NOT FOR USE IN HUMANS

KEEP OUT OF REACH OF CHILDREN

Restricted Drug (California) - Use Only As Directed

NADA 120-615, Approved by FDA

EACH BOLUS CONTAINS:

Sulfamethazine (formulated in a sustained release base)	495 grains (32.1 grams)
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Sustain III® Boluses (Sulfamethazine Sustained Release Boluses) are intended for oral administration to beef cattle and non-lactating dairy cattle (**See RESIDUE WARNING Statement**). Sustain III® Boluses are indicated for the treatment of the following diseases when caused by one or more of the following pathogenic organisms sensitive to sulfamethazine:

Bacterial Pneumonia and Bovine Respiratory Disease Complex (Shipping Fever Complex) (*Pasteurella* spp.), Colibacillosis (Bacterial Scours) (*E. coli*), Necrotic pododermatitis (Foot rot), Calf Diphtheria (*Fusobacterium necrophorum*), Acute Metritis (*Streptococcus* spp.).

CAUTION: This drug, like all sulfonamides, may cause toxic reactions and irreparable injury unless administered with adequate and continuous supervision; **follow recommended dosages carefully.**

RESIDUE WARNING: Treated animals intended for human consumption should not be slaughtered for food for at least 12 days after the last dose. Exceeding two (2) consecutive doses may cause violative tissue residues to remain beyond the withdrawal time. Do not use in female dairy cattle 20 months of age or older. Use of sulfamethazine in this class of cattle may cause milk residues. Do not use in calves under one (1) month of age or calves being fed an all milk diet. Use in these classes of calves may cause violative residues to remain beyond the withdrawal time.

DOSAGE AND ADMINISTRATION: Sustain III® Boluses (Sulfamethazine Sustained Release Boluses) are designed to be administered orally to beef cattle and non-lactating dairy cattle (**See RESIDUE WARNING Statement**). Sustain III® Boluses should be give according to the following dosage schedule:

No. of Boluses	Animal Body Weight
1	200 lbs.
1.5	300 lbs.
2	400 lbs.
2.5	500 lbs.
3	600 lbs.
3.5	700 lbs.
4	800 lbs.
4.5	900 lbs.
5	1,000 lbs.

This bolus may be divided for a better approximation of correct dose; however, care should be taken not to crush the bolus. Care should also be taken to ensure the entire dose has been swallowed by the animal. Observe animals following administration to ensure boluses are not regurgitated. Lubricate Sustain III® before dosing animals.

Sustain III® Boluses are designed to provide a therapeutic sulfamethazine level in approximately 6 hours and persist in providing this level for 72 hours (3 days). After 72 hours, all animals should be re-examined for persistence of observable disease signs. If signs are present, consult your veterinarian. It is strongly recommended that a second dose be given to provide for an additional 72 hours of therapy, particularly in those more severe cases. The dose schedule should be used at each 72-hour interval.

Fluid intake must be adequate at all times throughout the three-day therapy provided by the sustained release bolus.

Store at 20°C - 25°C (68°F - 77°F), with excursions permitted to 15°C - 30°C (59°F - 86°F).

MADE IN USA

Manufactured by: Bimeda, Inc., Le Sueur, MN 56058

www.bimeda.com

Sustain III® is a Registered Trademark of Bimeda, Inc.

N.A. Corp. Address: Bimeda, Inc., One Tower Lane, Oakbrook Terrace, IL 60181

NET CONTENTS:	Product No.	
10 Boluses	1SUS036	8SUS045 Rev. 11/15
50 Boluses	1SUS004	8SUS002 Rev. 11/15
100 Boluses - Feedlot Pack	1SUS023	8SUS017 Rev. 11/15

CPN: 1399038.9

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