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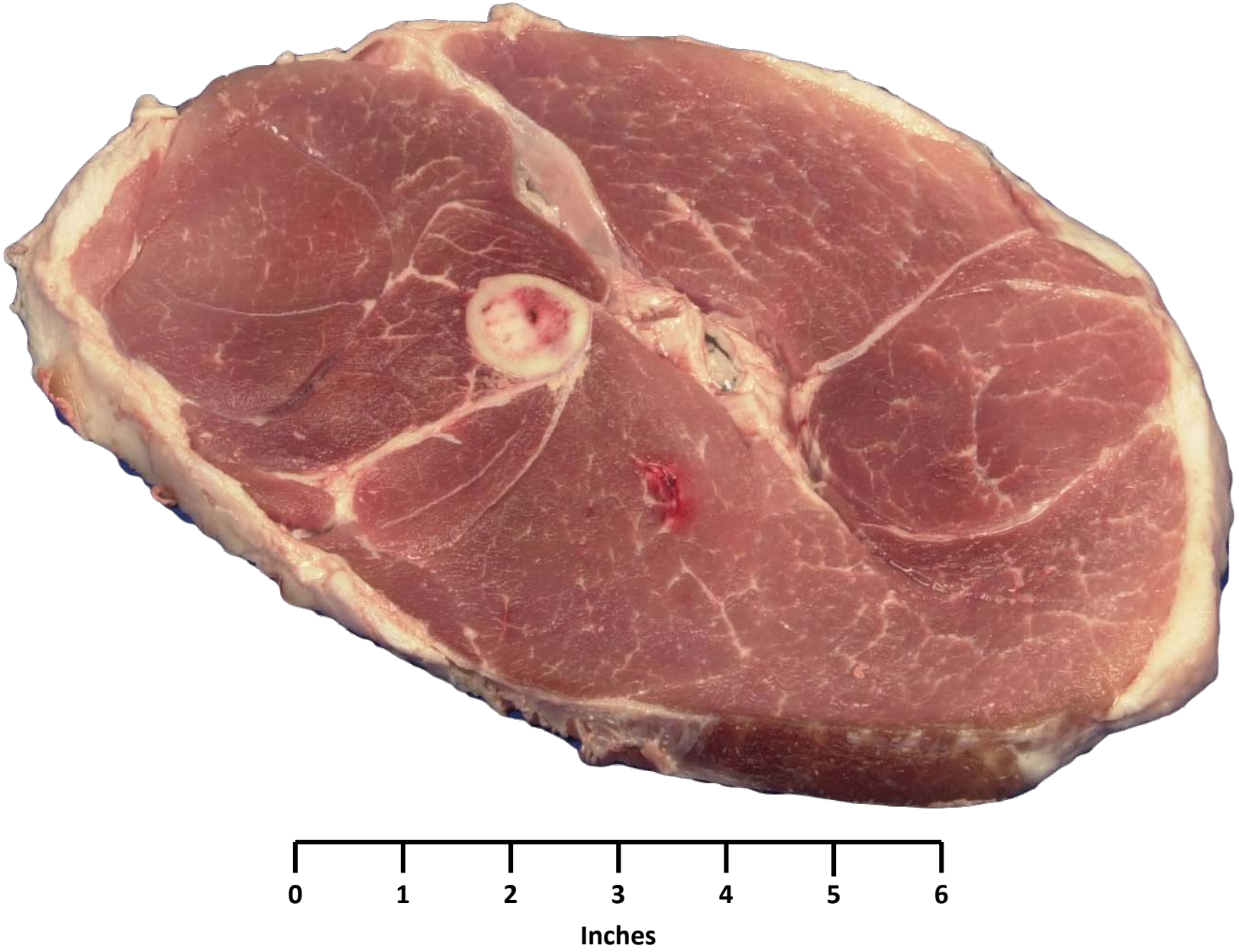

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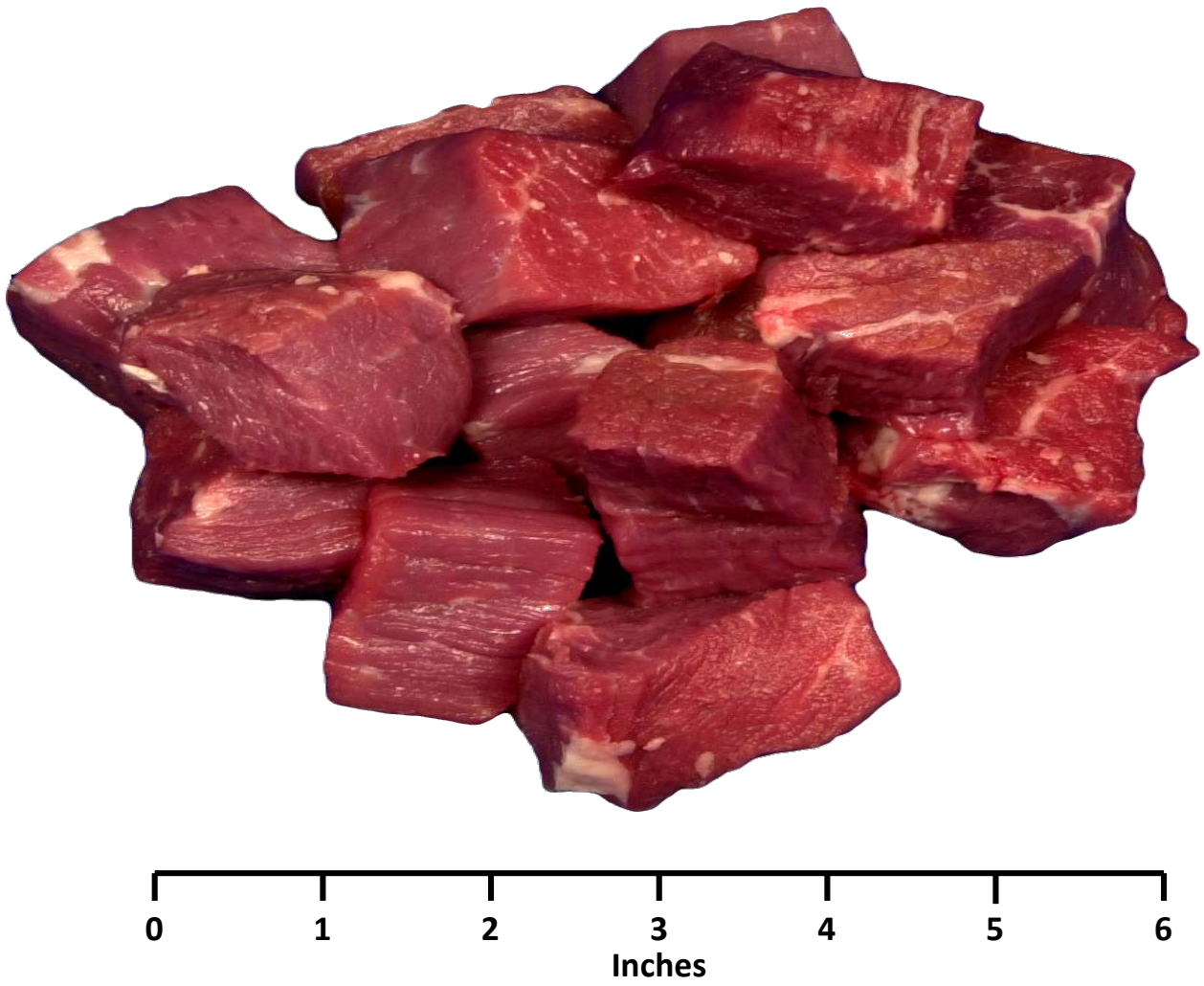

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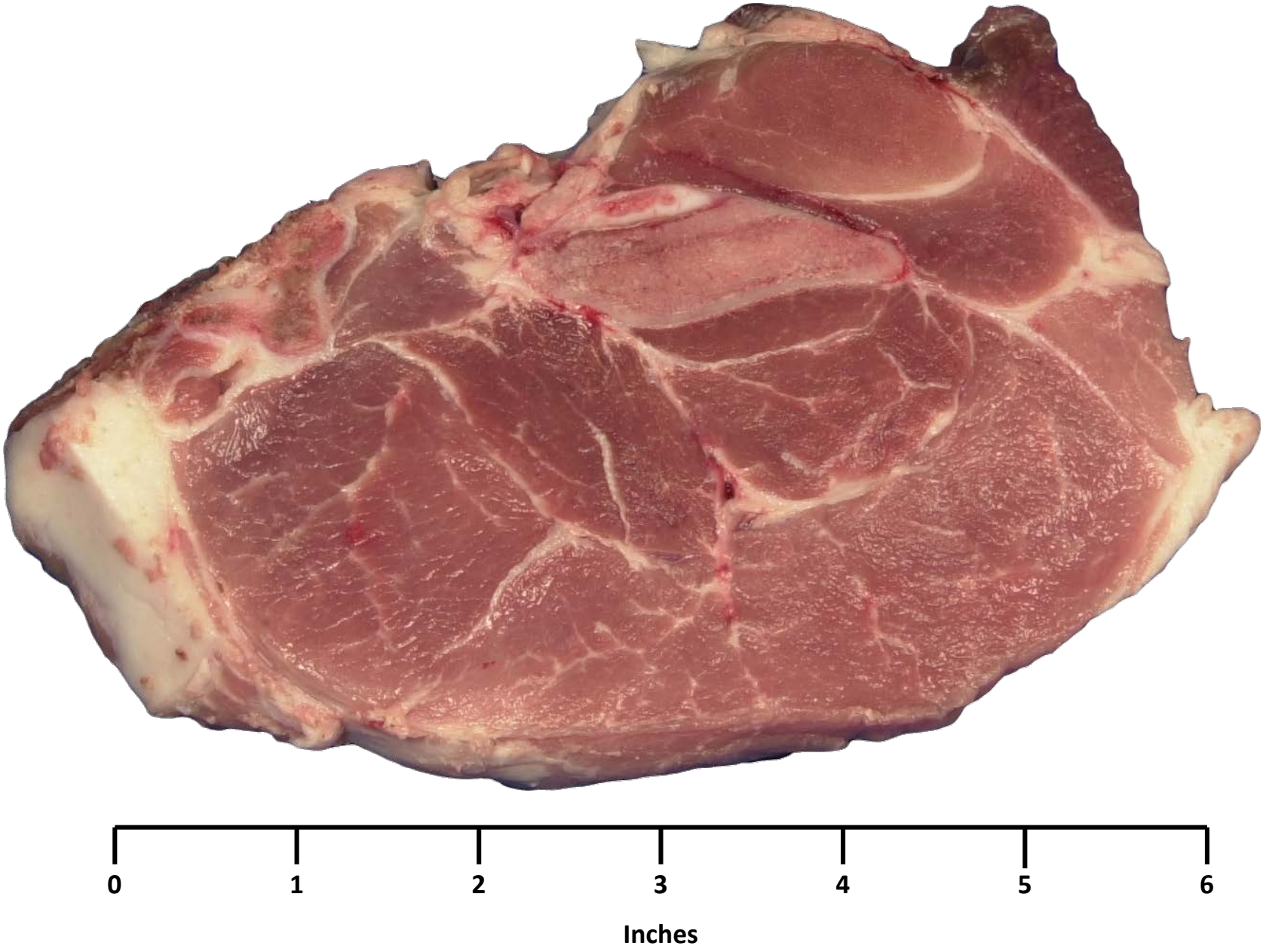

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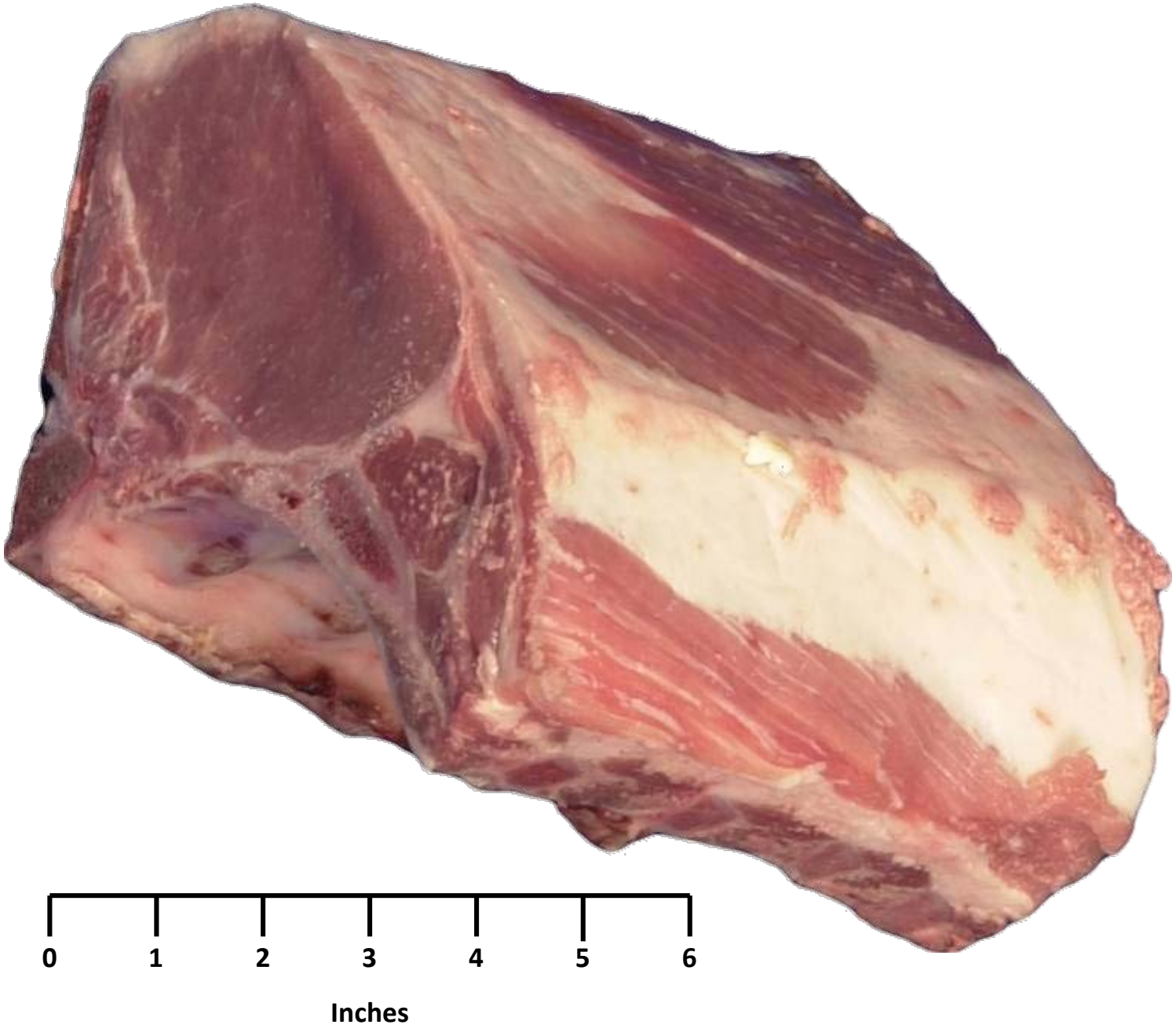

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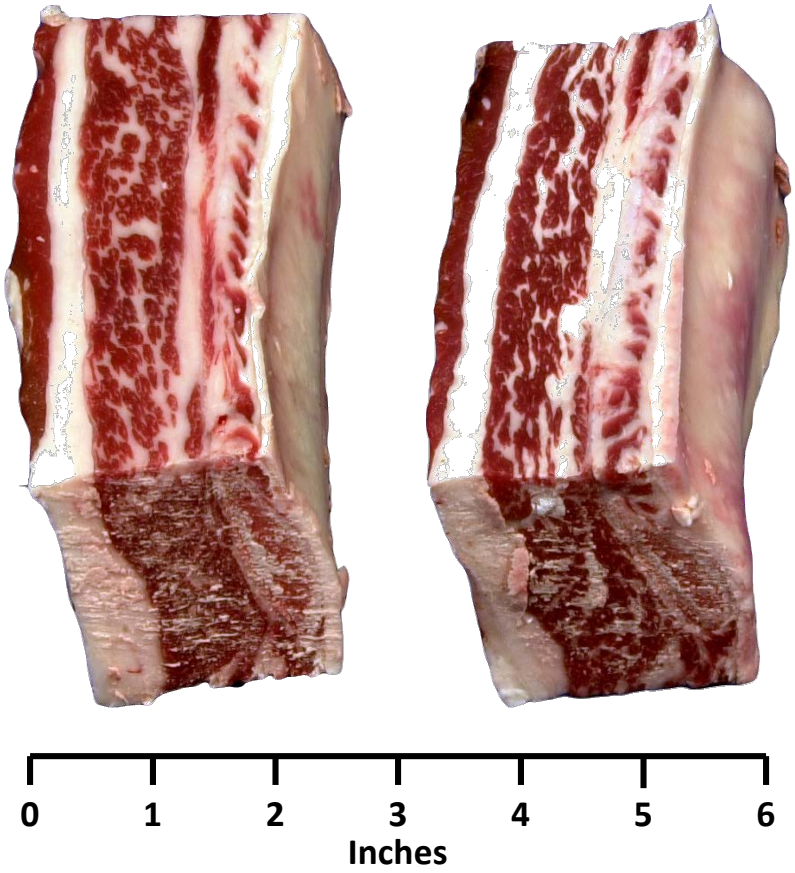

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Name_____ Contestant #_____County_____

Senior Retail Meat Cut Identification – 2015

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. Use capital letters and write neatly. **Seniors** provide answers for retail cut name, species of cut, and wholesale cut of origin. Each question is worth 5 points (150 points total for Seniors).

	Retail Cut Name	Species of Cut	Wholesale Cut of Origin
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

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

Beef Retail Meat Cuts

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

Lamb Retail Meat Cuts

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

Pork Retail Meat Cuts

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

Species of Cut – to be used in answer column 2 by Seniors

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

B. Beef
L. Lamb
P. Pork

Wholesale Cut of Origin – to be used in answer column 3 by Seniors

Beef Wholesale Cuts

A. Brisket
B. Chuck
C. Flank
D. Loin
E. Plate
F. Rib
G. Round
H. Shank
I. Variety cut

Lamb Wholesale Cuts

J. Breast
K. Leg
L. Loin
M. Rack
N. Shank
O. Shoulder

Pork Wholesale Cuts

P. Belly (Side, Bacon)
Q. Boston Butt
R. Ham
S. Jowl
T. Loin
U. Picnic Shoulder

Name ANSWER KEY Contestant #_____ County_____

Senior Retail Meat Cut Identification – 2015

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. Use capital letters and write neatly. **Seniors** provide answers for retail cut name, species of cut, and wholesale cut of origin. Each question is worth 5 points (150 points total for Seniors).

	Retail Cut Name	Species of Cut	Wholesale Cut of Origin
1.	31	B	F
2.	66	P	R
3.	57	L	L
4.	1	B	I
5.	63	L	O
6.	77	P	T
7.	3	B	A
8.	73	P	T
9.	24	B	E
10.	60	L	M

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

Beef Retail Meat Cuts

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

Lamb Retail Meat Cuts

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

Pork Retail Meat Cuts

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

Species of Cut – to be used in answer column 2 by Seniors

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

B. Beef L. Lamb P. Pork

Wholesale Cut of Origin – to be used in answer column 3 by Seniors

Beef Wholesale Cuts

A. Brisket
B. Chuck
C. Flank
D. Loin
E. Plate
F. Rib
G. Round
H. Shank
I. Variety cut

Lamb Wholesale Cuts

J. Breast
K. Leg
L. Loin
M. Rack
N. Shank
O. Shoulder

Pork Wholesale Cuts

P. Belly (Side, Bacon)
Q. Boston Butt
R. Ham
S. Jowl
T. Loin
U. Picnic Shoulder

Name_____ Contestant #_____County_____

Senior Livestock Feed Identification – 2015

INSTRUCTIONS: For each sample, use the columns on the right to choose the number or letter that indicates your answer for each livestock feedstuff. Use capital letters and write neatly. **Seniors** provide answers for feedstuff name, nutrient group, and characteristics/uses of the feedstuff. Each question is worth 5 points (150 points total for Seniors).

	Feedstuff Name	Nutrient Group	Charact-eristics/ Uses
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

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

1. Alfalfa cubes
2. Alfalfa pasture
3. Barley (whole)
4. Blood meal
5. Brewers dried grain
6. Canola meal
7. Copper sulfate
8. Corn distillers dried grain
9. Corn distillers dried grain with soluble
10. Corn gluten feed
11. Copper Sulfate
12. Cottonseed (whole)
13. Cottonseed hulls
14. Cottonseed meal
15. Cracked shelled corn
16. Crimped oats
17. Defluorinated rock phosphate
18. Dicalcium phosphate
19. DL-methionine
20. Dried Beet pulp
21. Dried molasses
22. Dried skim milk
23. Feather meal
24. Fish meal
25. Grain sorghum (whole)
26. Ground ear corn
27. Ground limestone
28. Ground shelled corn
29. Kentucky Bluegrass pasture
30. L-lysine HCl
31. L-threonine
32. L-tryptophan
33. Linseed meal
34. Liquid molasses
35. Meat and bone meal
36. Millet (whole)
37. Oats (whole)
38. Oat hulls
39. Orchardgrass hay
40. Orchardgrass pasture
41. Oyster shells
42. Peanut meal
43. Red Clover hay
44. Red Clover pasture
45. Roller dried whey
46. Rye (whole)
47. Salt, white
48. Santoquin
49. Shelled corn
50. Soybean hulls
51. Soybean meal
52. Soybeans (whole)
53. Spray-dried animal plasma
54. Spray-dried whey
55. Steam flaked corn
56. Steam rolled barley
57. Steam rolled oats
58. Steamed bone meal
59. Sunflower meal
60. Tall Fescue hay
61. Tall Fescue pasture
62. Timothy hay
63. Timothy pasture
64. Trace-mineral premix
65. Trace-mineralized salt
66. Triticale (whole)
67. Tryptosine
68. Urea
69. Vegetable oil
70. Vitamin premix
71. Wheat (whole)
72. Wheat bran
73. Wheat middlings
74. White Clover hay
75. White Clover pasture

Feeds Nutrient Groups – to be used in answer column 2 by Seniors

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

B. By-product feed
C. Carbohydrate (energy)
F. Fats (energy)
M. Mineral
P. Protein
V. Vitamin

Important Characteristics/Uses of Feedstuffs – to be used in answer column 3 by and Seniors

A. By-product of the milling Industry that has a mild laxative effect.

B. Increases surface area and improves energy utilization – primarily used in horse diets or diets for young animals.

C. Most often used in swine rations.

D. Should only be fed to ruminants and can be toxic if fed at excessive levels.

E. Increases the surface area and gelatinizes some of the starch making it more digestible.

F. Bulk density = 48 pounds/bushel

G. Contains corn bran and soluble protein.

H. Commonly fed free-choice to grazing animals in either loose or block form.

I. Produced by extracting the sugar from sugar beets.

J. By-product of the distillers industry.

K. Excellent protein source for ruminants and is low in lysine and tryptophan.

Name_____Answer Key_____Contestant #_____County_____

Senior Livestock Feed Identification – 2015

INSTRUCTIONS: For each sample, use the columns on the right to choose the number or letter that indicates your answer for each livestock feedstuff. Use capital letters and write neatly. **Seniors** provide answers for feedstuff name, nutrient group, and characteristics/uses of the feedstuff. Each question is worth 5 points (150 points total for Seniors).

	Feedstuff Name	Nutrient Group	Charact-eristics/ Uses
1.	9	P	J
2.	10	P	G
3.	28	C	C
4.	55	C	E
5.	14	P	K
6.	16	C	B
7.	3	C	F
8.	65	M	H
9.	68	P	D
10.	73	C	A

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

1. Alfalfa cubes
2. Alfalfa pasture
3. Barley (whole)
4. Blood meal
5. Brewers dried grain
6. Canola meal
7. Copper sulfate
8. Corn distillers dried grain
9. Corn distillers dried grain with soluble
10. Corn gluten feed
11. Copper Sulfate
12. Cottonseed (whole)
13. Cottonseed hulls
14. Cottonseed meal
15. Cracked shelled corn
16. Crimped oats
17. Defluorinated rock phosphate
18. Dicalcium phosphate
19. DL-methionine
20. Dried Beet pulp
21. Dried molasses
22. Dried skim milk
23. Feather meal
24. Fish meal
25. Grain sorghum (whole)
26. Ground ear corn
27. Ground limestone
28. Ground shelled corn
29. Kentucky Bluegrass pasture
30. L-lysine HCl
31. L-threonine
32. L-tryptophan
33. Linseed meal
34. Liquid molasses
35. Meat and bone meal
36. Millet (whole)
37. Oats (whole)
38. Oat hulls
39. Orchardgrass hay
40. Orchardgrass pasture
41. Oyster shells
42. Peanut meal
43. Red Clover hay
44. Red Clover pasture
45. Roller dried whey
46. Rye (whole)
47. Salt, white
48. Santoquin
49. Shelled corn
50. Soybean hulls
51. Soybean meal
52. Soybeans (whole)
53. Spray-dried animal plasma
54. Spray-dried whey
55. Steam flaked corn
56. Steam rolled barley
57. Steam rolled oats
58. Steamed bone meal
59. Sunflower meal
60. Tall Fescue hay
61. Tall Fescue pasture
62. Timothy hay
63. Timothy pasture
64. Trace-mineral premix
65. Trace-mineralized salt
66. Triticale (whole)
67. Tryptosine
68. Urea
69. Vegetable oil
70. Vitamin premix
71. Wheat (whole)
72. Wheat bran
73. Wheat middlings
74. White Clover hay
75. White Clover pasture

Feeds Nutrient Groups – to be used in answer column 2 by Seniors

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

B. By-product feed
C. Carbohydrate (energy)
F. Fats (energy)
M. Mineral
P. Protein
V. Vitamin

Important Characteristics/Uses of Feedstuffs – to be used in answer column 3 by and Seniors

A. By-product of the milling Industry that has a mild laxative effect.

B. Increases surface area and improves energy utilization – primarily used in horse diets or diets for young animals.

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K. Excellent protein source for ruminants and is low in lysine and tryptophan.

1.

2.

3.

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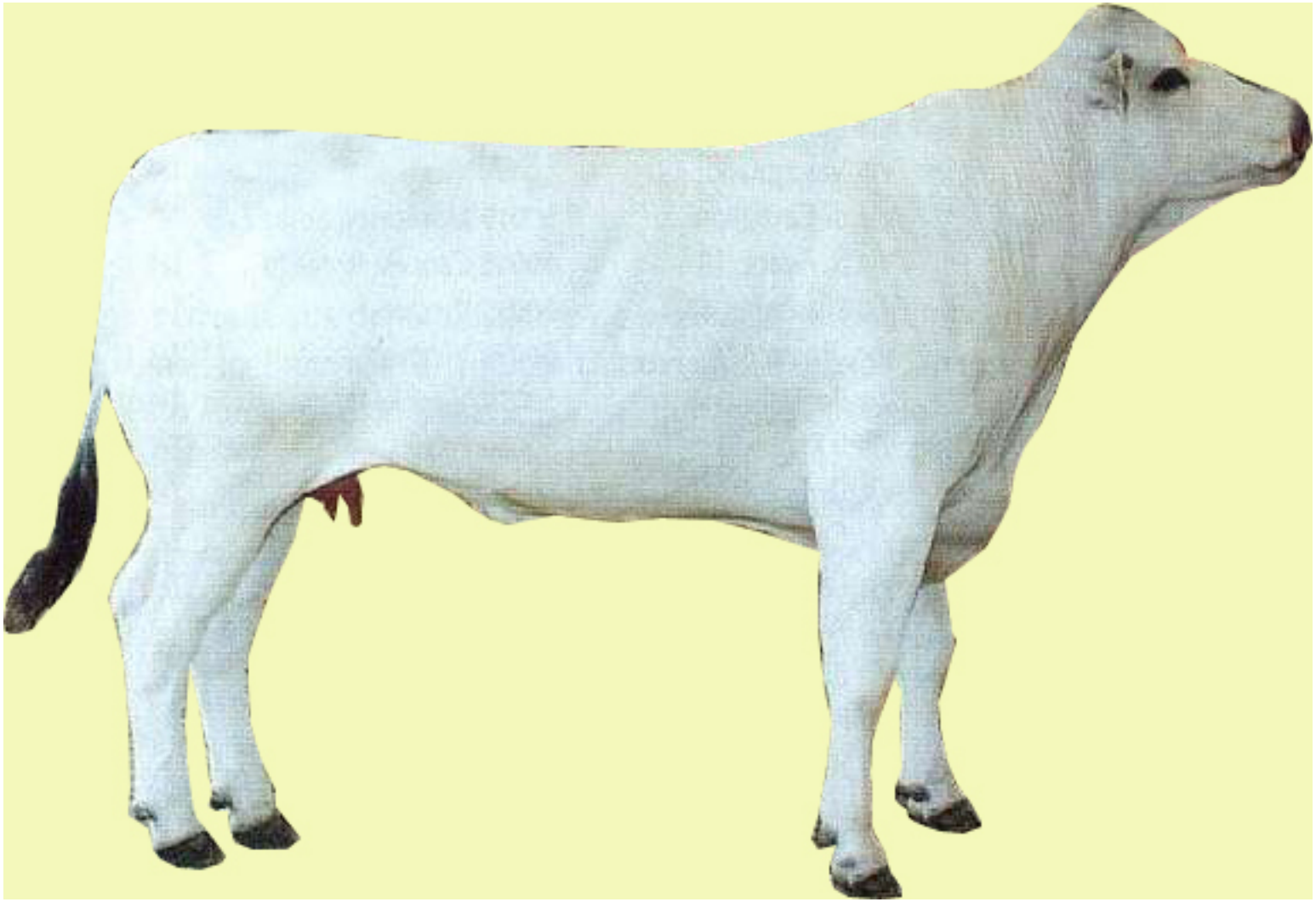

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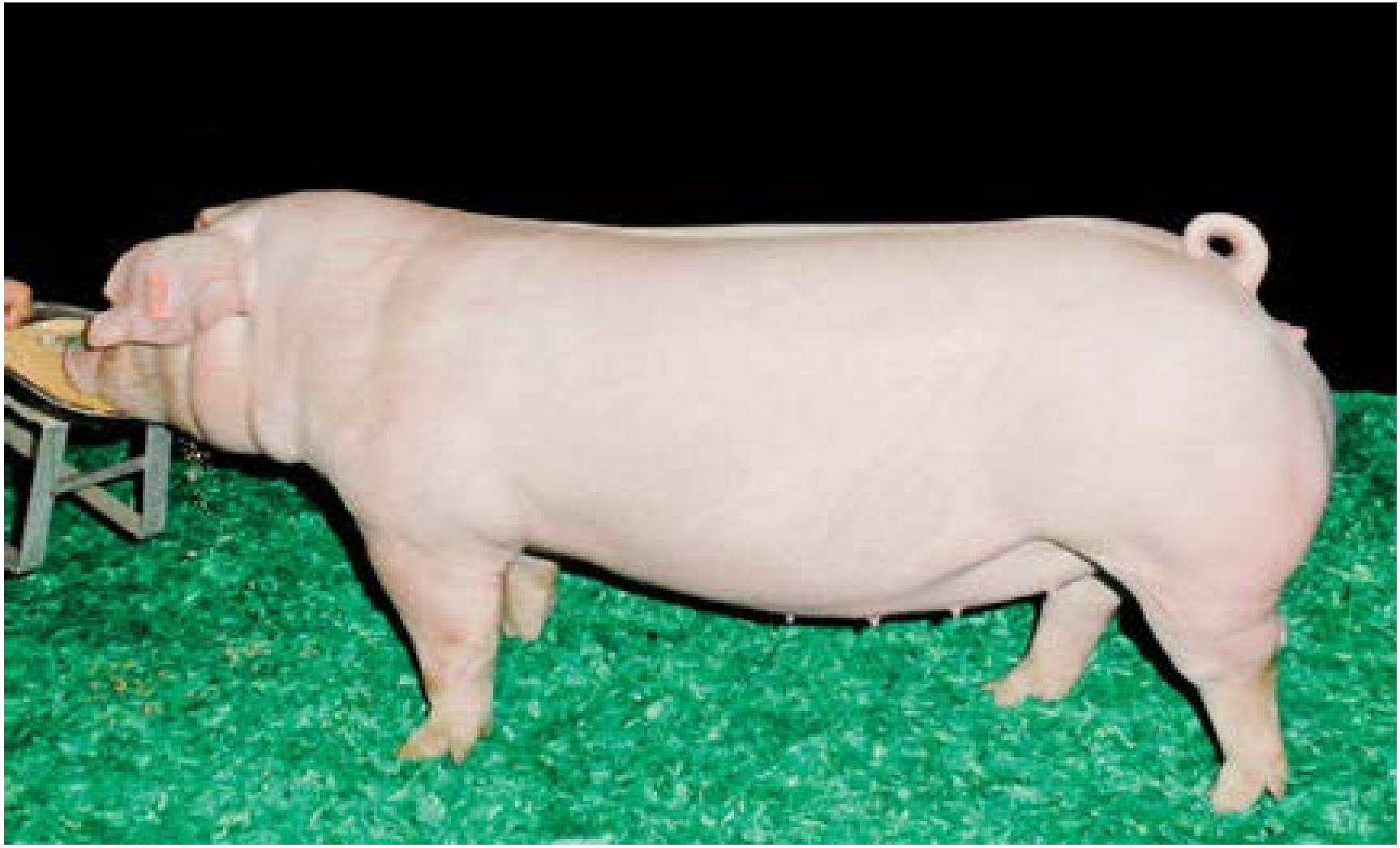

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Name_____ Contestant #_____County_____

Senior Livestock Breeds Identification – 2015

INSTRUCTIONS: For each picture, use the columns on the right to choose the number or letter that indicates your answer for each livestock breed. Use capital letters and write neatly. **Seniors** provide answers for breed name, origin of breed, and important characteristics/traits. Each question is worth 5 points (150 points total for Seniors).

	Breed Name	Origin of Breed	Important Traits
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

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

Beef Breeds	Goat Breeds	Sheep Breeds	Swine Breeds
1. Angus	17. Alpine	30. Cheviot	47. Berkshire
2. Brahman	18. American Cashmere	31. Columbia	48. Chester White
3. Brangus	19. Angora	32. Corriedale	49. Duroc
4. Charolais	20. Boer	33. Dorper	50. Hampshire
5. Chianina	21. Kiko	34. Dorset	51. Hereford
6. Gelbvieh	22. Lamancha	35. Finnsheep	52. Landrace
7. Hereford	23. Nubian	36. Hampshire	53. Pietrain
8. Limousin	24. Oberhasli	37. Katahdin	54. Poland China
9. Maine Anjou	25. Pygmy	38. Merino	55. Spotted
10. Polled Hereford	26. Saanen	39. Montadale	56. Tamworth
11. Red Angus	27. Spanish	40. Oxford	57. Yorkshire
12. Red Poll	28. Tennessee Fainting	41. Polled Dorset	
13. Santa Gertrudis	29. Toggenburg	42. Rambouillet	
14. Shorthorn		43. Romney	
15. Simmental		44. Southdown	
16. Tarentaise		45. Suffolk	
		46. White Dorper	

Origins of Breeds – to be used in answer column 2 by Seniors

A. Hampshire England

B. France

C. Berkshire county England

D. Sussex, England

E. Des Moines, IA

F. Developed in the U.S. with animals from New Jersey and New York

G. Italy

H. Descendants of the Danish Landrace

I. Saanen valley of Switzerland

J. Africa

K. Herefordshire, England

F. Developed in the U.S. from sto s

Important Characteristics/Traits Origins of Breeds – to be used in answer column 3 by Seniors

Beef Cattle Characteristics/Traits

A. Black muzzle, large frame, well defined muscle and growth rate
B. Growth rate, muscling, early puberty, calving ease, and mothering ability
C. Foraging ability, docile, and good fertility.
D. Pink muzzle, pale hooves, known for muscle and growth
E. Muscling and growth rate, disposition, and milk production.

G.

Goats Characteristics/Traits

F. Heavy milkers, rugged bone, and vigor. Sensitive to sunlight and perform best in cooler conditions.
G. Hardy, adaptable animals that thrive in any climate while maintaining good health and excellent production.
H. High butterfat content extended breeding season, best suited for hot conditions, and multi-purpose use (milk, meat, and hide).
I. Meat yield, growth rate, adaptability to wide climatic conditions

Sheep Characteristics/Traits

J. Carcass conformation, growth rate, lambing percentage, and wool production
K. Good carcass quality, fast growth, and combines good meat and wool characteristics.
L. Carcass conformation, growth rate, feed conversion, and milking ability, large frame, black face, wool cap
M. Carcass conformation, early maturity, and adaptability to varied climates.

Swine Characteristics/Traits

N. Prolificacy (litter size), milking ability, mothering ability.
O. Extreme muscling and leanness.
P. Excellent rate of gain and feed efficiency.
Q. Black with six white points, known for meat quality

Name____ANSWER KEY_____ Contestant #_____County_____

Senior Livestock Breeds Identification – 2015

INSTRUCTIONS: For each picture, use the columns on the right to choose the number or letter that indicates your answer for each livestock breed. Use capital letters and write neatly. **Seniors** provide answers for breed name, origin of breed, and important characteristics/traits. Each question is worth 5 points (150 points total for Seniors).

	Breed Name	Origin of Breed	Important Traits
1.	44	D	M
2.	36	A	L
3.	7	K	C
4.	5	G	A
5.	4	B	D
6.	20	J	I
7.	26	I	F
8.	47	C	Q
9.	52	H	N
10.	49	F	P

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

Beef Breeds
1. Angus
2. Brahman
3. Brangus
4. Charolais
5. Chianina
6. Gelbvieh
7. Hereford
8. Limousin
9. Maine Anjou
10. Polled Hereford
11. Red Angus
12. Red Poll
13. Santa Gertrudis
14. Shorthorn
15. Simmental
16. Tarentaise

Goat Breeds
17. Alpine
18. American Cashmere
19. Angora
20. Boer
21. Kiko
22. Lamancha
23. Nubian
24. Oberhasli
25. Pygmy
26. Saanen
27. Spanish
28. Tennessee Fainting
29. Toggenburg

Sheep Breeds
30. Cheviot
31. Columbia
32. Corriedale
33. Dorper
34. Dorset
35. Finnsheep
36. Hampshire
37. Katahdin
38. Merino
39. Montadale
40. Oxford
41. Polled Dorset
42. Rambouillet
43. Romney
44. Southdown
45. Suffolk
46. White Dorper

Swine Breeds
47. Berkshire
48. Chester White
49. Duroc
50. Hampshire
51. Hereford
52. Landrace
53. Pietrain
54. Poland China
55. Spotted
56. Tamworth
57. Yorkshire

Origins of Breeds – to be used in answer column 2 by Seniors

A. Hampshire England
B. France
C. Berkshire county England
D. Sussex, England
E. Des Moines, IA
F. Developed in the U.S. with animals from New Jersey and New York
G. Italy
H. Descendants of the Danish Landrace
I. Saanen valley of Switzerland
J. Africa
K. Herefordshire, England

F. Developed in the U.S. from sto s

Important Characteristics/Traits Origins of Breeds – to be used in answer column 3 by Seniors

Beef Cattle Characteristics/Traits
G.
A. Black muzzle, large frame, well defined muscle and growth rate
B. Growth rate, muscling, early puberty, calving ease, and mothering ability
C. Foraging ability, docile, and good fertility.
D. Pink muzzle, pale hooves, known for muscle and growth
E. Muscling and growth rate, disposition, and milk production.

Goats Characteristics/Traits
F. Heavy milkers, rugged bone, and vigor. Sensitive to sunlight and perform best in cooler conditions.
G. Hardy, adaptable animals that thrive in any climate while maintaining good health and excellent production.
H. High butterfat content extended breeding season, best suited for hot conditions, and multi-purpose use (milk, meat, and hide).
I. Meat yield, growth rate, adaptability to wide climatic conditions

Sheep Characteristics/Traits
J. Carcass conformation, growth rate, lambing percentage, and wool production
K. Good carcass quality, fast growth, and combines good meat and wool characteristics.
L. Carcass conformation, growth rate, feed conversion, and milking ability, large frame, black face, wool cap
M. Carcass conformation, early maturity, and adaptability to varied climates.

Swine Characteristics/Traits
N. Prolificacy (litter size), milking ability, mothering ability.
O. Extreme muscling and leanness.
P. Excellent rate of gain and feed efficiency.
Q. Black with six white points, known for meat quality

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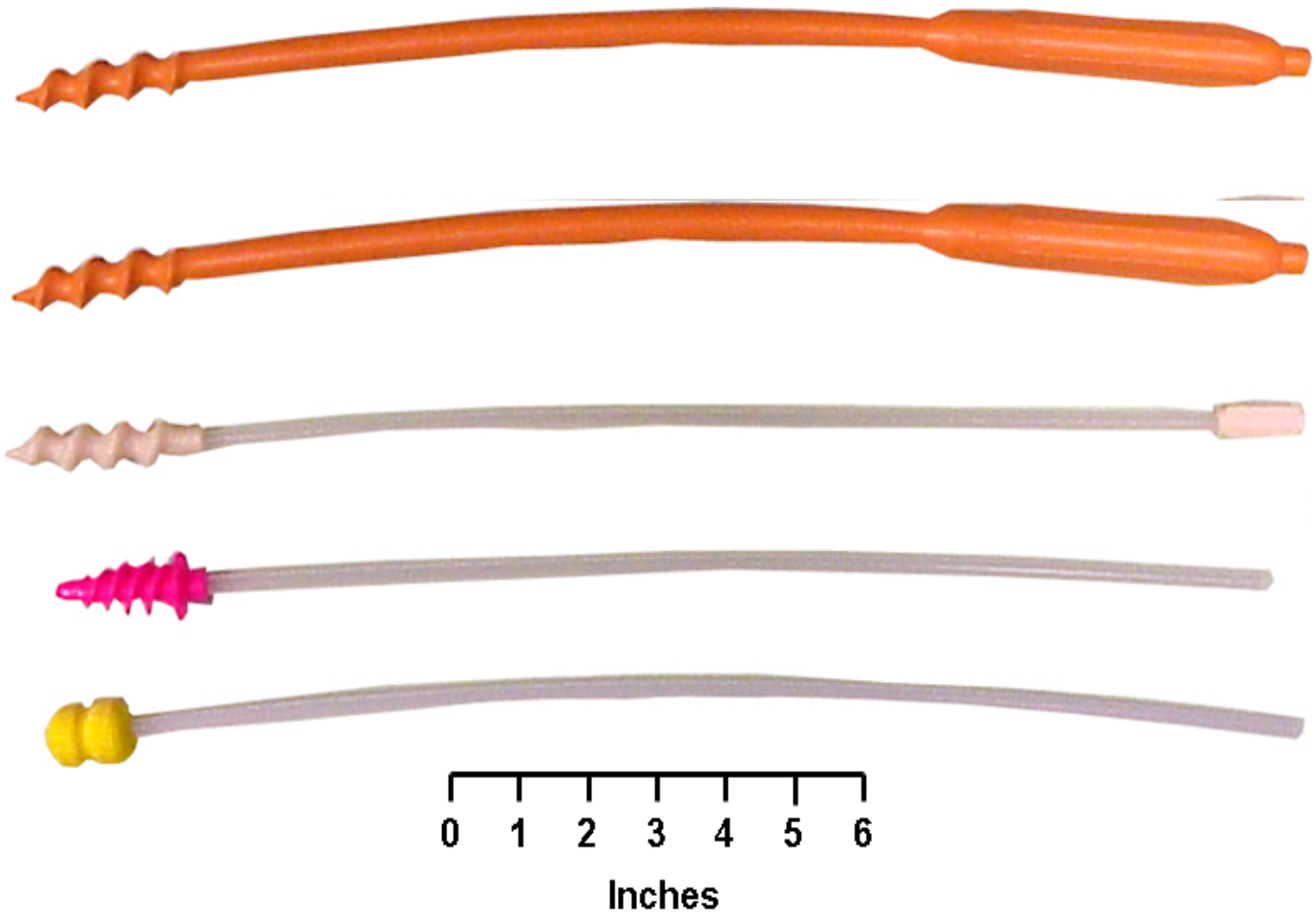

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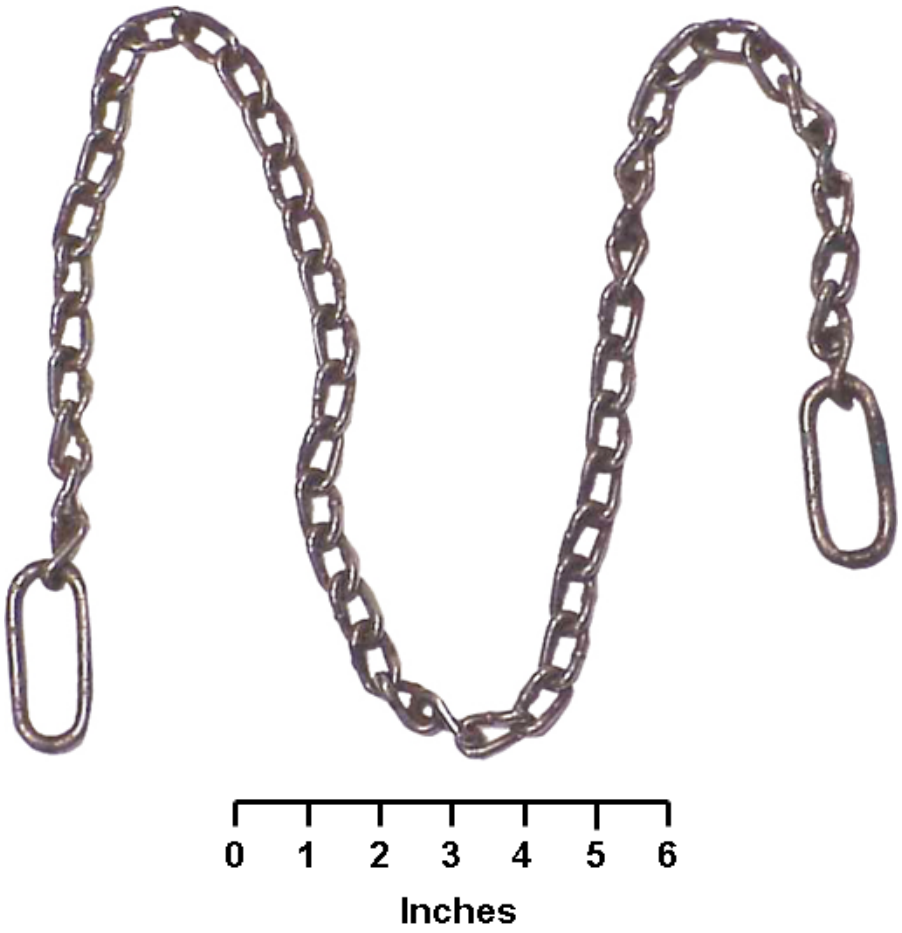

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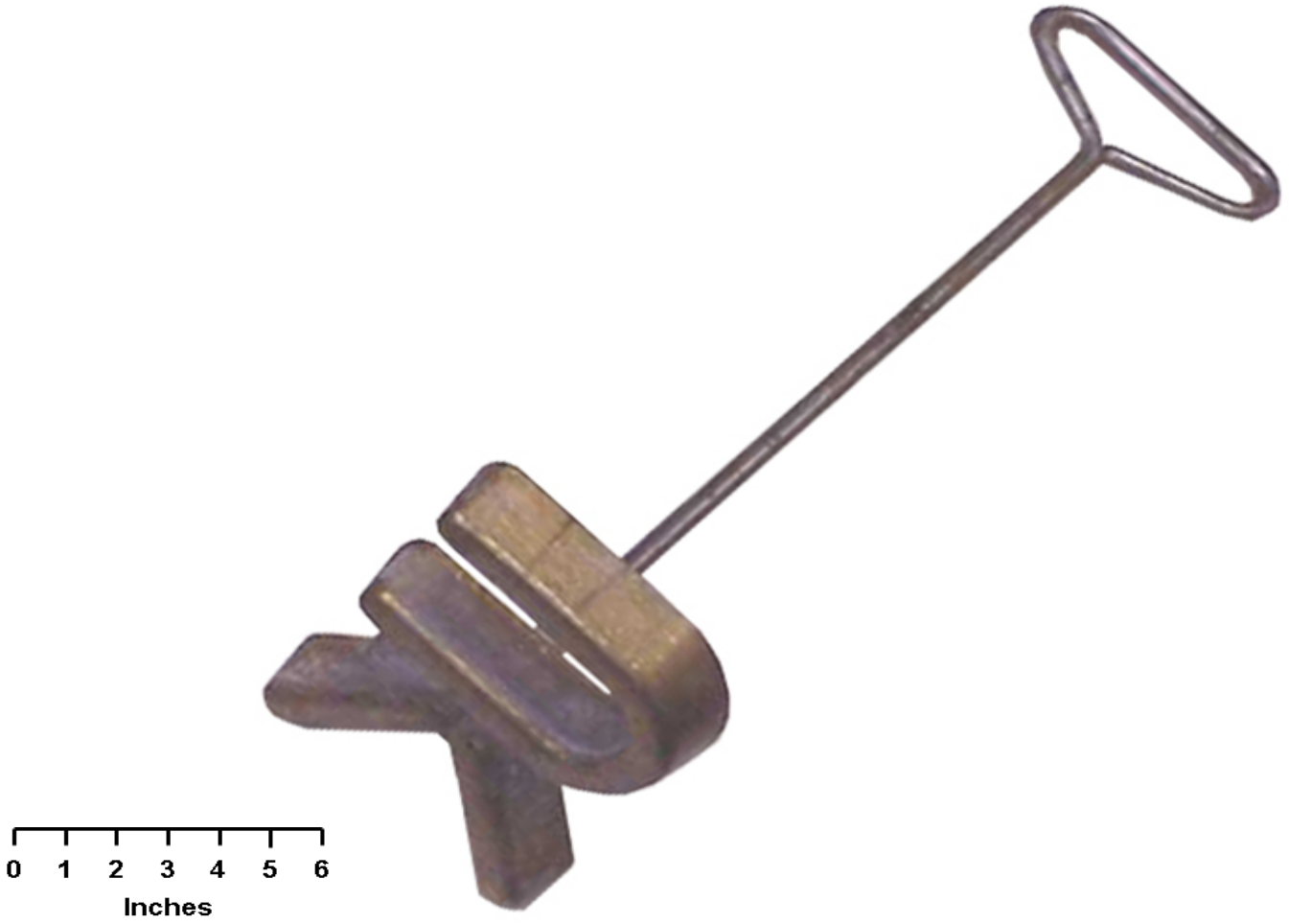

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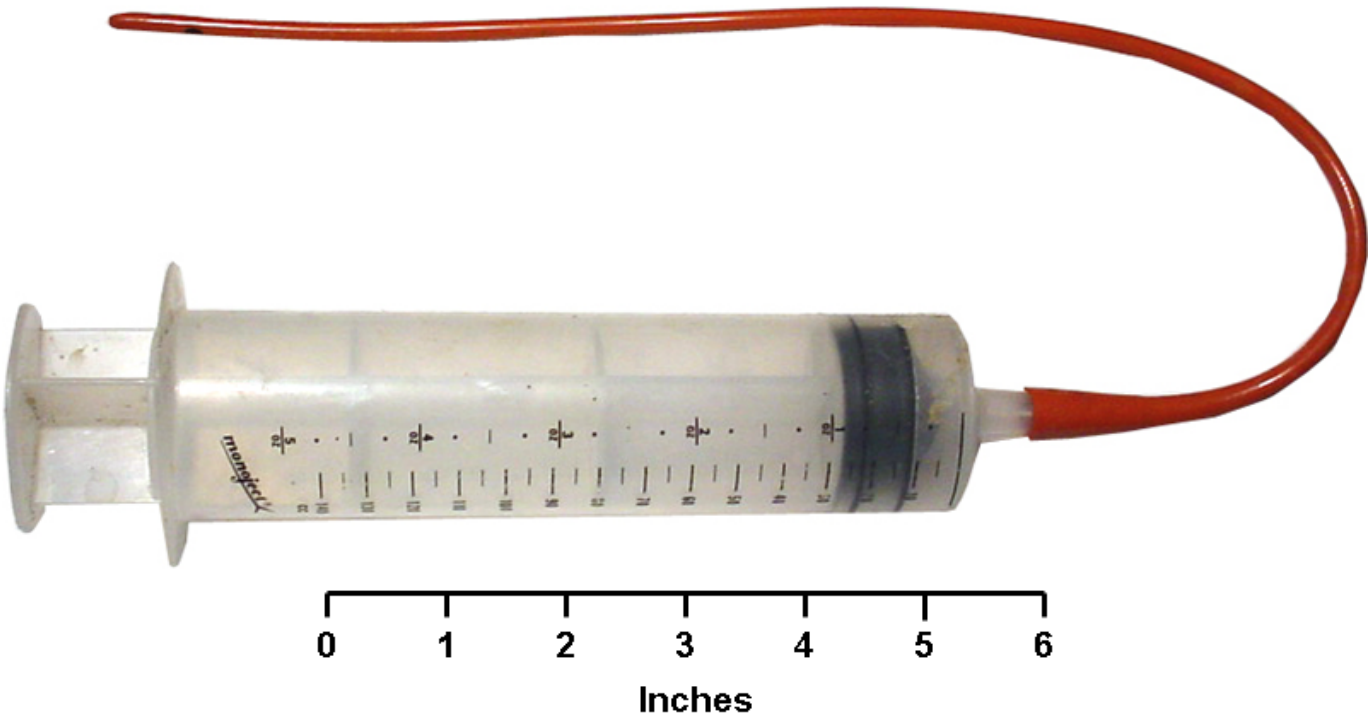

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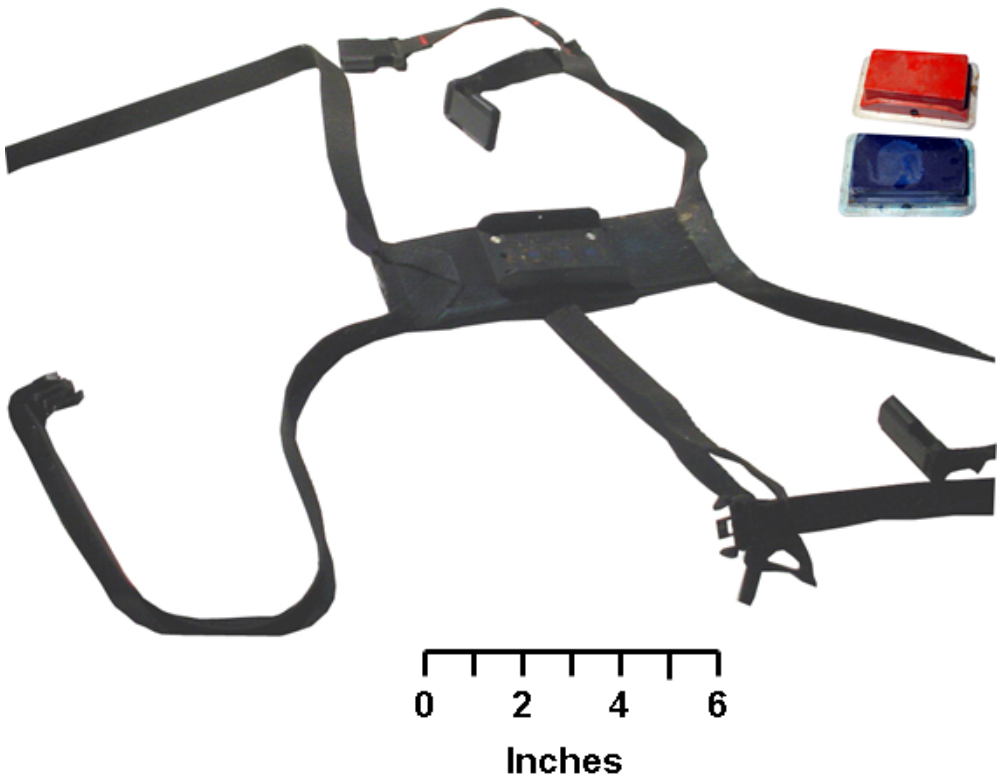

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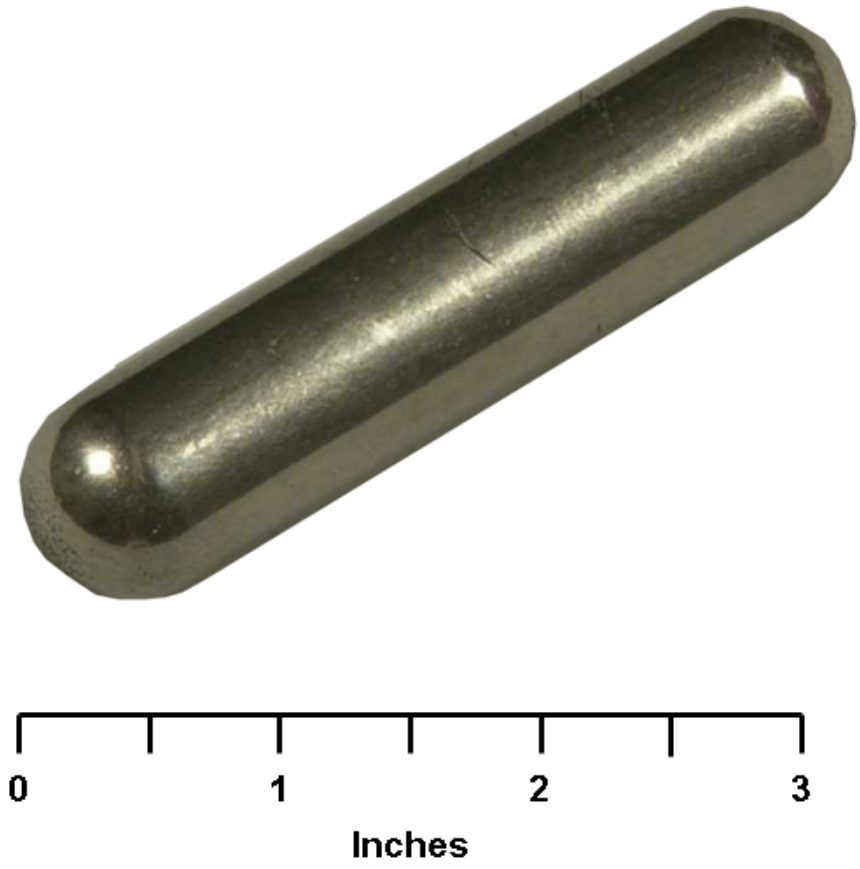

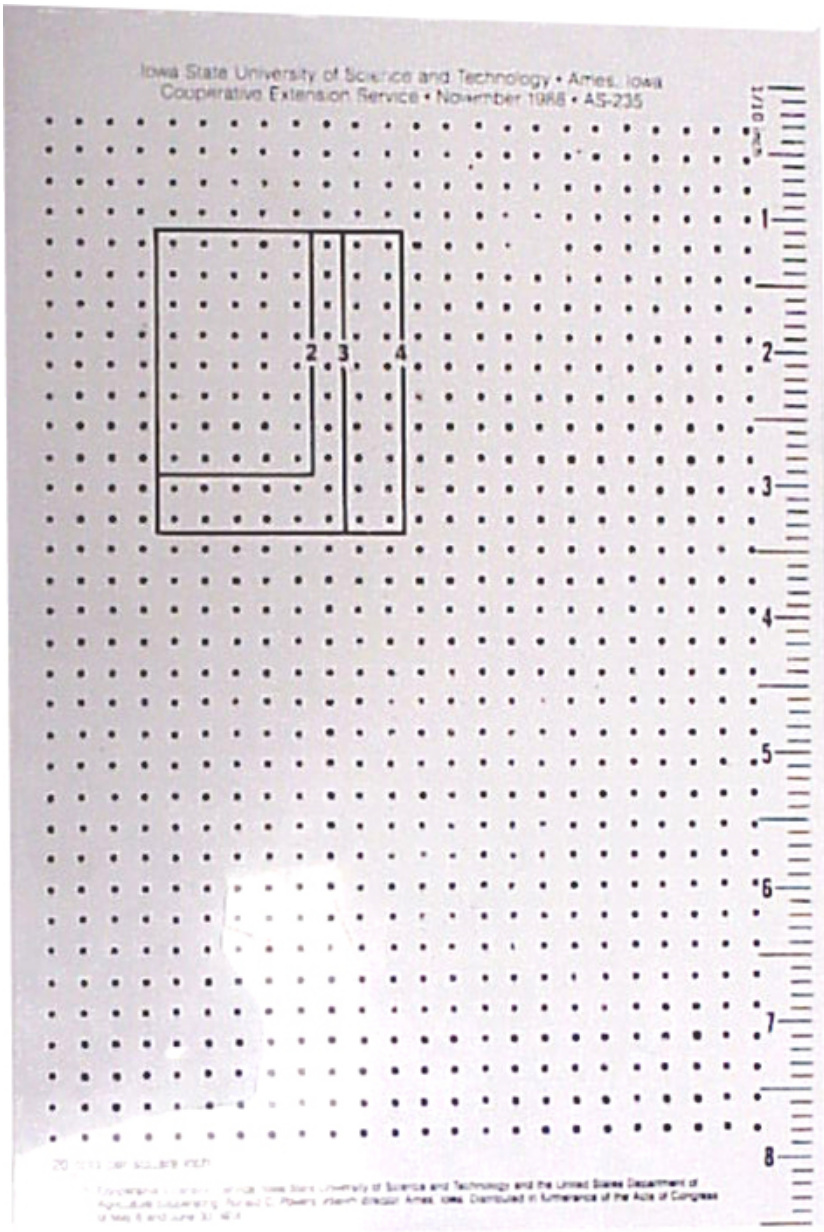
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Cooperative Extension Service • November 1988 • AS-235
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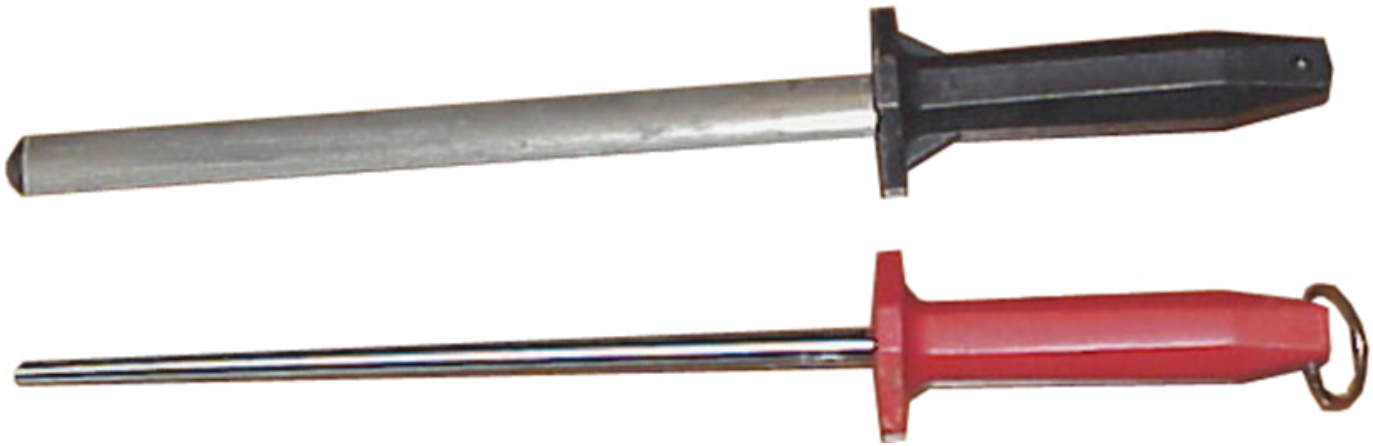

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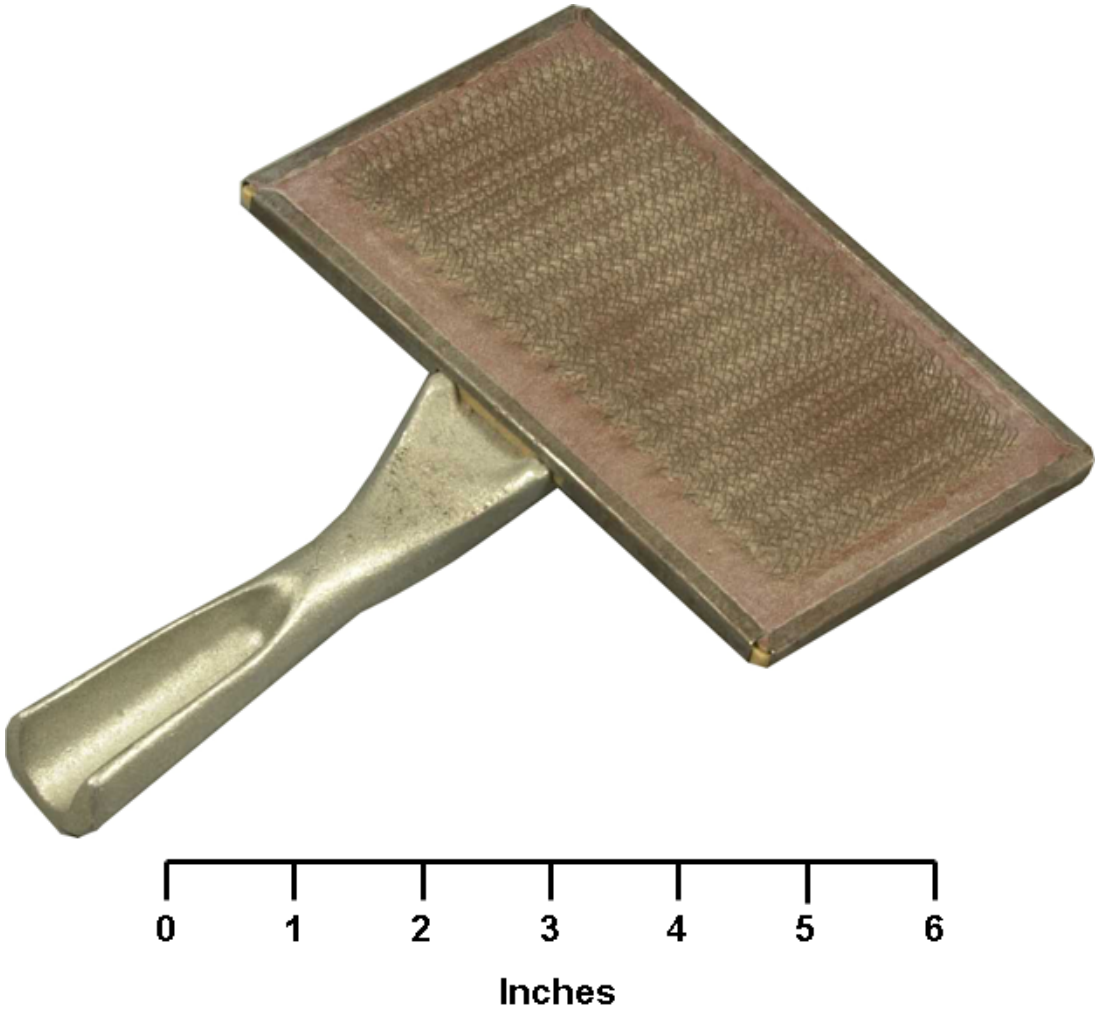

Name_____ Contestant #_____County_____

Senior Livestock and Meat Equipment Identification – 2015

INSTRUCTIONS: For each picture, use the columns on the right to choose the number or letter that indicates your answer for each piece of equipment. Use capital letters and write neatly. **Intermediates** provide answers for livestock/meat equipment names and equipment use. Each question is worth 5 points (100 points total for Intermediates).

	Equipment Name	Equipment Use
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

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

Livestock Equipment

1. All-in-one castrator/docker
2. Artificial insemination pipettes (Swine)
3. Bowl waterer
4. Balling gun
5. Barnes dehorner
6. Cattle clippers
7. Clipper comb
8. Clipper cutter
9. Currycomb
10. Disposable syringes
11. Drench gun
12. Ear notchers
13. Ear tag
14. Elastrator
15. Electric branding iron
16. Electric docker
17. Electric fence wire roller
18. Electric sheep shears
19. Emasculatome (Burdizzo)
20. Ewe prolapse retainer
21. Fencing pliers
22. Foot rot shears
23. Freeze branding iron
24. Hanging Scale
25. Hand sheep shears
26. Lamb tube feeder
27. Needle teeth nippers
28. Nipple waterer
29. Nose ring
30. Nose ring pliers
31. Obstetrical (O.B.) chain
32. Plastic Sleeve
33. Ralgro pellet injector
34. Ram marking harness
35. Rumen magnate
36. Scotch Comb
37. Slap tattoo
38. SYNOVEX Implant cartridge
39. SYNOVEX Implant gun
40. Syringe Needles
41. Tattoo pliers
42. Wool card

Meat Equipment

43. Backfat ruler
44. Band saw
45. Bone dust scraper
46. Boning knife
47. Bowl chopper
48. Dehairing machine
49. Electrical stunner
50. Emulsifier
51. Ham net
52. Hand saw
53. Hard hat
54. Loin eye area grid
55. Meat grinder
56. Meat grinder auger
57. Meat grinder knife
58. Meat grinder plate
59. Meat grinder stuffing rod
60. Meat hook
61. Meat tenderizer
62. Meat trolley
63. Metal knife scabbard
64. Rubber apron
65. Sharpening steel
66. Smoke house
67. Thermometer
68. Tumbler
69. Vacuum sausage stuffer
70. Whale saw

Equipment Uses – to be used in answer column 2 by Seniors

A. A device placed on rams that shows when a ewe has been serviced.

B. Used to measure precise amounts of a vaccine and to administer vaccines to livestock and horses.

C. A device used to deposit boar semen into reproductive tract of a gilt or sow.

D. Used to determine loin eye area from pork carcasses.

E. An instrument used to control vaginal prolapse in ewes.

F. Used to freeze brand cattle to provide a form of identification.

G. .Used to help pull unborn calves from cows that are experiencing calving problems (dystocia).

H. Used to inject a RALGRO pellet under the loose skin and above the cartilage on the back side of a beef calf's ear.

I. An automatic waterer used to provide clean, fresh water to pigs

J. Used to remove burrs and sharpen knives used for slaughtering animals and cutting meat.

K. .A magnate used to remove metal from the stomach of cattle that they inadvertently consumed while eating.

L. A device used to effectively feed newborn lambs the ewe's colostrum.

M. An instrument used for the bloodless castration of young male calves, lambs, and goats by severing (crushing) the testicular cord.

N. Used to tenderize the less tender cuts of meat.

O. Used to card (comb or rake) the wool on sheep prior to shearing.

Name___Answer Key____ Contestant #_____County_____

Senior Livestock and Meat Equipment Identification – 2015

INSTRUCTIONS: For each picture, use the columns on the right to choose the number or letter that indicates your answer for each piece of equipment. Use capital letters and write neatly. **Intermediates** provide answers for livestock/meat equipment names and equipment use. Each question is worth 5 points (100 points total for Intermediates).

	Equipment Name	Equipment Use
1.	2	C
2.	10	B
3.	31	G
4.	23	F
5.	26	L
6.	34	A
7.	35	K
8.	54	D
9.	65	J
10.	42	O

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

Livestock Equipment

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13. Ear tag
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16. Electric docker
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23. Freeze branding iron
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28. Nipple waterer
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35. Rumen magnate
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Meat Equipment

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H. Used to inject a RALGRO pellet under the loose skin and above the cartilage on the back side of a beef calf's ear.

I. An automatic waterer used to provide clean, fresh water to pigs

J. Used to remove burrs and sharpen knives used for slaughtering animals and cutting meat.

K. A magnate used to remove metal from the stomach of cattle that they inadvertently consumed while eating.

L. A device used to effectively feed newborn lambs the ewe's colostrum.

M. An instrument used for the bloodless castration of young male calves, lambs, and goats by severing (crushing) the testicular cord.

N. Used to tenderize the less tender cuts of meat.

O. Used to card (comb or rake) the wool on sheep prior to shearing.

ZILMAX® **TYPE A MEDICATED ARTICLE**

Intervet/Merck Animal Health

(zilpaterol hydrochloride 4.8%)

Active Drug Ingredient: Zilpaterol hydrochloride 21.77 grams per pound (48 grams per kilogram)

Inert Ingredients: Ground corncobs, surfactant and binder

Important: Must be thoroughly mixed into feeds before use. Follow label directions.

Indication: For increased rate of weight gain, improved feed efficiency, and increased carcass leanness in cattle fed in confinement for slaughter during the last 20 to 40 days on feed.

FEEDING DIRECTIONS:

Feed continuously to cattle fed in confinement for slaughter as the sole ration for the last 20 to 40 days on feed to provide 60 to 90 mg zilpaterol hydrochloride per head per day.

WITHDRAWAL PERIOD: 3 days

CAUTION: Not for use in animals intended for breeding. Do not allow horses or other equines access to feed containing zilpaterol. Do not use in veal calves.

YOU MAY NOTICE:

Animals receiving zilpaterol hydrochloride may exhibit increased respiratory rate as well as elevated levels of creatine phosphokinase (CPK) and creatinine.

WARNING:

The active ingredient in Zilmax® is zilpaterol hydrochloride, a beta*2*-adrenergic agonist. Not for use in humans. An anti-dust process has been applied to the drug product, Zilmax®, in order to greatly reduce inhalation risk. Extended handling tasks with the potential for dust generation require respiratory protection. Wear appropriate skin protection (e.g., impervious gloves, apron, overalls) if there is a potential for extended skin contact. Wear protective eye wear, if there is a potential for eye contact. If accidental eye contact occurs, immediately rinse with water and consult a physician. May only be used by licensed feedlot managers.

Distributed by: Intervet, Inc., Millsboro DE 19966

Made in France

U.S. Patent #4,900,735

U.S. Patent #5,731,028

U.S. Patent #7,207,289

Store at or below 25°C (77°F)

Name_____Contestant#_____County_____

Senior Individual Quality Assurance – 2015

You are a licensed manager of a 1,000 head beef feedlot. Over the past two years you have been looking into ways to increase feed efficiency and average daily gain. You have decided to try a product called ZILMAX that has been promoted to you by a local pharmaceutical representative. Read through the label and use your knowledge of quality assurance management knowledge to answer the **10 questions** below. **Circle your answers**. (10 questions worth 5 points per question for 50 total points)

1. **What other species of livestock can this product be used for?**

   A. Horses
   C. Turkeys
   B. Sheep
   D. None

2. **What is the active drug ingredient in Zilmax?**

   A. Sulfamenthazine
   C. Tilmicosin
   B. Oxytetracycline
   D. Zilpaterol hydrochloride

3. **What is the best way to fully understand how to properly use Zilmax?**

   A. Carefully read and follow the entire medication insert for Zilmax
   B. Follow your veterinarians instructions
   C. Both A. and B.

5. **What is the appropriate amount of Zilmax that is recommended for use in market cattle?**

   A. 181-363 grams per ton of feed
   C. 90.7 grams per pound
   B. 60 to 90 mg per head per day
   D. 90 to 100 mg per head per day

6. **Which statement is true?**

   A. Beef should be fed this product from 600 pounds through market weight.

   B. This product should be fed to breeding females.

   C. Humans can consume this product.

   D. This product may only be used by a licensed feedlot manager.

7. **True or False: This product is safe for equine?**

   A. True B. False

8. **Where should this product be stored?**

   A. In a hot tin barn C. Cool, dry place (below 77 degrees F)

   B. At or below 25 degrees F D. Above 77 degrees F

9. **How is Zilmax administered to your cattle?**

   A.) On the skin (topically) C.) In the nose (intranasally)

   B.) Under the skin (subcutaneously) D.) In the feed

10. **What is the maximum amount of time this product should be fed to cattle?**

    A. 100 days C. 20 days

    B. 40 days D. 90 days

Name___Answer Key_____Contestant#_____County_____

Senior Individual Quality Assurance – 2015

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Name_____Contestant#_____County_____

Senior Quiz – 2015

Carefully circle the correct answer to each of the questions below. (Each question is worth 2 points each for a total of 50 points)

1.) Which nationally recognized show is located in Louisville, Kentucky?

a. Fort Worth Stock Show
b. North American International Livestock Expo.
c. National Western
d. American Royal

2.) Which of the following is not a correct term for lamb carcasses?

a. Easter Lamb
b. Spring Lamb
c. New Year Lamb
d. Genuine Spring Lamb

3.) Which of the following is a quality grade for beef?

a. Prime
b. Select
c. Choice
d. All of the above

4.) Which numerical yield grade is most desired when marketing cattle?

a. 1
b. 2
c. 5
d. 7

5.) Which of the following is not considered to be an essential amino acid for pigs?

a. Glutamine
b. Lysine
c. Threonine
d. Methionine

6.) Which of the following is **not** a monogastric?

c. Doe
d. Steer
c. Wether
d. All of the above

7.) Which of the following should not be fed to pigs?

a. Hominy feed
b. Cottonseed meal
c. Urea
d. Both b. and c.

8.) Which species has the marketing ad “It’s What’s for Dinner”?

a. Beef
c. Lamb
b. Pork
d. Chevon

9.) The female reproductive organ where the egg is fertilized is called the _____.

a. Ovary
c. Cervix
b. Oviduct
d. Uterus

10.) The hormone that brings females into heat and prepares her for breeding is called

a. Luteinizing hormone
c. Estrogen
a. Follicle stimulating hormone
d. Prostaglandin

11.) What is the average length of gestation in swine?

a. 114 days
c. 244 days
b. 150 days
d. 283 days

12.) What is the average length of the estrous cycle in a ewe?

b. 7 days
c. 17 days
c. 10 days
d. 28 days

13.) Triticale is a cross between _____ and _____.

c. Wheat and barley
c. Wheat and rye
d. Barley and corn
d. Barley and rye

14.) Obtaining immunity by absorbing immunoglobulins from colostrum is called

a. Partial immunity
c. Active immunity
b. Passive immunity
d. Postpartum immunity

15.) Which one of the following hormones maintains pregnancy in farm animals?

a. Estrogen
c. Prostaglandin
b. Progesterone
d. Testosterone

16.) Where is the hormone testosterone produced?

a. Testicle
c. Brain
b. Ovary
d. Pancreas

17.) Which of the following is a high priced wholesale cut in lambs?

e. Leg
c. Loin
f. Rack
d. All of the above

18.) Which of the following should not be fed to fat cattle?

c. Grass Hay
c. Straw
d. Cracked Corn
d. Finely ground corn

19.) Which of the following is not fed to livestock primarily for energy?

g. Canola meal
c. Steam flaked corn
h. Molasses
d. Soybean hulls

20.) Which of the following pig breeds is known as a "primary terminal cross sire"?

a. Landrace
c. Duroc
b. Yorkshire
d. All of the above

21.) Which of the following is not considered a by-product feed?

a. Whole shelled corn
c. Distillers Dried Grains
b. Soybean Hull Pellets
d. All of these are by-product feeds

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24.) What mineral should not be included in diets for sheep?

a. Phosphorus
c. Molybdenum
b. Magnesium
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25.) What is the average length of the estrous cycle in a heifer?

d. 7 days
c. 21 days
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Name__Answer Key___Contestant#_____County_____

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Strip Loins

Senior Retail Meat Judging Class 1 – 2015

Name_____ Contestant #_____ County_____

Contestant Number _____
Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____
_____

Address

_____
_____

County

_____

Class

_1._Strip Loins_____

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	

Senior Retail Meat Judging Class 1 – 2015

Name_____ANSWER KEY_____ Contestant #_____ County_____

Official Placing = 4-3-1-2

Cuts = 2-3-4

(50 points possible)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

Class 1 Strip Loins___

A	1 2 3 4	**24**
B	1 2 4 3	**26**
C	1 3 2 4	**31**
D	1 3 4 2	**40**
E	1 4 2 3	**35**
F	1 4 3 2	**42**
G	2 1 3 4	**20**
H	2 1 4 3	**22**
I	2 3 1 4	**23**
J	2 3 4 1	**28**
K	2 4 1 3	**27**
L	2 4 3 1	**30**
M	3 1 2 4	**34**
N	3 1 4 2	**43**
O	3 2 1 4	**30**
P	3 2 4 1	**35**
Q	3 4 1 2	**48**
R	3 4 2 1	**44**
S	4 1 2 3	**40**
T	4 1 3 2	**47**
U	4 2 1 3	**36**
V	4 2 3 1	**39**
W	4 3 1 2	**50**
X	4 3 2 1	**46**

T-Bones

Senior Retail Meat Judging Class 2 – 2015

Name_____ Contestant #_____ County_____

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__**Retail Meat Class 2 T-Bones**____

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	

[Turn over and answer questions on the back of this sheet]

QUESTIONS

1) **Which steak has the largest eye? _____**

2) **Which steak between 3 and 4 has the most external fat cover? _____**

3) **Between 2 and 3, which steak has the most bone? _____**

4) **Which steak is the darkest in it's color? _____**

5) **Which steak has the least amount of bone? _____**

Senior Retail Meat Judging Class 2 – 2015

Name_____ANSWER KEY_____ Contestant #_____ County_____

Official Placing = 2-1-3-4

Cuts = 3-2-3

(Placing the meat is worth a possible 50 points and each of the 5 questions is worth 10 points for 50 possible points – Grand Total of 100 possible points)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

Class 2 T-Bone Steaks

A	1 2 3 4	**47**
B	1 2 4 3	**44**
C	1 3 2 4	**42**
D	1 3 4 2	**34**
E	1 4 2 3	**36**
F	1 4 3 2	**31**
G	2 1 3 4	**50**
H	2 1 4 3	**47**
I	2 3 1 4	**48**
J	2 3 4 1	**43**
K	2 4 1 3	**42**
L	2 4 3 1	**40**
M	3 1 2 4	**40**
N	3 1 4 2	**32**
O	3 2 1 4	**43**
P	3 2 4 1	**38**
Q	3 4 1 2	**27**
R	3 4 2 1	**30**
S	4 1 2 3	**31**
T	4 1 3 2	**26**
U	4 2 1 3	**34**
V	4 2 3 1	**32**
W	4 3 1 2	**24**
X	4 3 2 1	**27**

[Turn over and answer the 5 questions on the back of this page]

QUESTIONS

1) **Which steak has the largest eye? ____2____**

2) **Which steak between 3 and 4 has the most external fat cover? ___4_____**

3) **Between 2 and 3, which steak has the most bone? ___3_____**

4) **Which steak is the darkest in it's color? __3_____**

5) **Which steak has the least amount of bone? _____1___**

Senior Hay Judging Class – 2015

Name_____Contestant #_____County_____

Contestant Number _____

Placing Score _____

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	

[Turn over for Scenario and Forage Analysis Information]

Scenario:
You are backgrounding a load of feeder heifers with an average weight of 400 pounds. The calves have been purchased from a local stockyard and have not been vaccinated or weaned. Rank the four hay samples in the order that you would utilize them as the most cost effective source of forage for these feeder heifers. A commercial preconditioning feed will be feed for the first 3 weeks of the backgrounding period in addition to the hay that you choose. Ultimately the hay you choose will be the main source of feed until spring grass arrives.

Nutrient Requirements for 400 pound feeder heifers to gain 1.5 pounds per day.

Dry Matter:	10.7 pounds per day
Crude Protein:	12.1%
Total Digestible Nutrients	64%

Forage Analysis

	Hay Lot #1 Mixed Grass	Hay Lot #2 Grass/Legume Mixture	Hay Lot #3 1st Cutting Orchardgrass	Hay Lot # 4 2nd Cutting Orchardgrass
Dry matter	88.9%	88.6%	87.9%	88.6%
Crude protein	7.4%	15.2%	12.7%	13.5%
Acid detergent fiber (ADF)	49.9%	41.5%	44.8%	44.2%
Neutral detergent fiber (NDF)	69.2%	61.4%	67.5%	67.2%
Total digestible nutrients (TDN)	50.0%	66.5%	64.6%	65.5%
Price per ton	$80	$145	$100	$110

Senior Hay Judging Class – 2015

Name_____ANSWER KEY_____ Contestant #_____ County_____

Official Placing = 4–3–2–1

Cuts = 4–2–7

(50 points possible)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Hay Judging Class____

A	1 2 3 4	9
B	1 2 4 3	13
C	1 3 2 4	11
D	1 3 4 2	17
E	1 4 2 3	19
F	1 4 3 2	21
G	2 1 3 4	16
H	2 1 4 3	20
I	2 3 1 4	25
J	2 3 4 1	38
K	2 4 1 3	33
L	2 4 3 1	42
M	3 1 2 4	20
N	3 1 4 2	26
O	3 2 1 4	27
P	3 2 4 1	40
Q	3 4 1 2	39
R	3 4 2 1	46
S	4 1 2 3	32
T	4 1 3 2	34
U	4 2 1 3	39
V	4 2 3 1	48
W	4 3 1 2	43
X	4 3 2 1	50

[Turn over for Scenario and Forage Analysis Information]

Scenario:
You are backgrounding a load of feeder heifers with an average weight of 400 pounds. The calves have been purchased from a local stockyard and have not been vaccinated or weaned. Rank the four hay samples in the order that you would utilize them as the most cost effective source of forage for these feeder heifers. A commercial preconditioning feed will be feed for the first 3 weeks of the backgrounding period in addition to the hay that you choose. Ultimately the hay you choose will be the main source of feed until spring grass arrives.

Nutrient Requirements for 400 pound feeder heifers to gain 1.5 pounds per day.

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	Hay Lot #1 Mixed Grass	Hay Lot #2 Grass/Legume Mixture	Hay Lot #3 1st Cutting Orchardgrass	Hay Lot # 4 2nd Cutting Orchardgrass
Dry matter	88.9%	88.6%	87.9%	88.6%
Crude protein	7.4%	15.2%	12.7%	13.5%
Acid detergent fiber (ADF)	49.9%	41.5%	44.8%	44.2%
Neutral detergent fiber (NDF)	69.2%	61.4%	67.5%	67.2%
Total digestible nutrients (TDN)	50.0%	66.5%	64.6%	65.5%
Price per ton	$80	$145	$100	$110

For Animal Use only BOVI-SHIELD® GOLD 5 Reg. No. 3675 Act 36/1947
Namibia reg. no. NSR 1339

For use by or under the control of a veterinarian only

INDICATIONS:
Bovi-Shield® GOLD 5 is recommended for vaccination of healthy cattle as an aid in preventing disease caused by infectious bovine rhinotracheitis virus (IBRV), bovine viral diarrhoea virus (BVD Type 1 and 2)), parainfluenza$_3$ virus (PI$_3$) and bovine respiratory syncytial virus (BRSV). **Bovi-Shield® GOLD 5** may be administered to pregnant cattle provided they were vaccinated with Bovi-Shield® FP4+L5 vaccine within the past 12 months. It may also be administered to calves nursing pregnant cows provided their dams were vaccinated within the past 12 months with Bovi-Shield® FP 4+L5.

STORAGE INSTRUCTIONS:
The vaccine should be stored at temperatures between 2°C and 7°C, and must be protected from light. Do not freeze.

COMPOSITION:
Bovi-Shield® GOLD 5 is a freeze-dried preparation of modified live virus strains of IBR, BVD (Type 1 and 2), PI$_3$ and BRS viruses, plus a sterile diluent used to re-hydrate the freeze-dried vaccine. Viral antigens are propagated on established cell lines.

WARNING:
Do not vaccinate within 21 days before slaughter. Keep out of reach of children and uninformed persons.
For veterinary use only.
Contains gentamicin as a preservative.
Do not use in pregnant cows, abortion can result, unless they were vaccinated strictly according to the instructions. As with many vaccines, anaphylaxis may occur after use.
This vaccine has been shown to be efficacious in healthy animals. A protective immune response may not be elicited:
• if animals are incubating an infectious disease,
• are malnourished or parasitized,
• are stressed due to shipment or environmental conditions,
• are otherwise immuno-compromised,
• or the vaccine is not administered in accordance with label directions.
Although this vaccine has been extensively tested under a large variety of conditions, failure thereof may ensue as a result of a wide range of reasons. If this is suspected, seek veterinary advice and notify the registration holder.

PRECAUTIONS:
Do not use in pregnant cows, unless they were vaccinated with Bovi-Shield® FP 4+L5 within the past 12 months.
Use the entire contents when first opened.
Do not use in calves nursing pregnant cows unless their dams were vaccinated within the past 12 months with Bovi-Shield® FP 4+L5. Sterilized syringes and needles should be used to administer the vaccine. Do not sterilize with chemicals because traces of disinfectant may inactivate the vaccine. Burn containers and all unused contents. If vaccination results in anaphylaxis, initial antidote of adrenalin, or equivalent is recommended, and should be followed with appropriate supportive therapy.

DOSAGE AND DIRECTIONS FOR USE:
Vaccination of healthy cattle is recommended

Aseptically rehydrate the freeze-dried vaccine with the sterile diluent provided, shake well and administer 2 ml intramuscularly, in the muscular region of the neck.
Primary Vaccination: Administer a single 2 ml dose to healthy cattle, followed by a second dose of **Bovi-Shield® GOLD 5**, 3–4 weeks later.
Revaccination: Annual revaccination with a single dose is recommended.

PRESENTATION:
Bovi-Shield® GOLD 5 is marketed in clear, sterile, sealed, 10 and 50 dose vials. A 10 dose vial is rehydrated with 20 ml sterile diluent and a 50 dose vial with 100 ml sterile diluent.

REGISTRATION HOLDER:
Pfizer Laboratories (Pty) Ltd
Registration No. 1954/000781/07
85 Bute Lane, Sandton, 2196
P O Box 783720, Sandton, 2146
For more information phone: 011- 3206000

EXCENEL® RTU STERILE SUSPENSION

by Zoetis

brand of ceftiofur hydrochloride sterile suspension

For intramuscular and subcutaneous use in cattle and intramuscular use in swine. This product may be used in lactating dairy cattle.

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION

EXCENEL RTU Sterile Suspension is a ready to use formulation that contains the hydrochloride salt of ceftiofur, which is a broad spectrum cephalosporin antibiotic.

Each mL of this ready-to-use sterile suspension contains ceftiofur hydrochloride equivalent to 50 mg ceftiofur, 0.50 mg phospholipon, 1.5 mg sorbitan monooleate, 2.25 mg sterile water for injection, and cottonseed oil.

Structure:

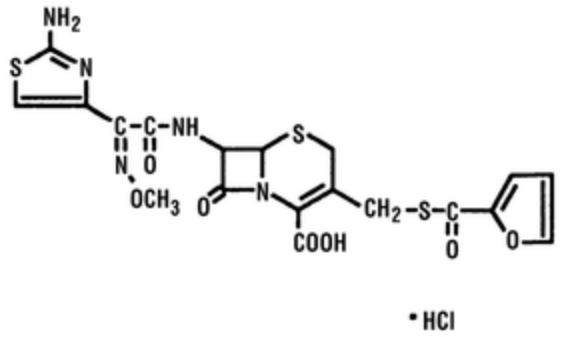


Figure 1.

Chemical Name of Ceftiofur Hydrochloride: 5-Thia-1-azabicyclo[4,2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl) (methoxyimino)-acetyl]amino]-3-[[(2-furanyl-carbonyl) thio] methyl]-8-oxo-,hydrochloride salt [6R-[6α,7β(Z)]]-

INDICATIONS

Swine: EXCENEL RTU Sterile Suspension is indicated for treatment/control of swine bacterial respiratory disease (swine bacterial pneumonia) associated with *Actinobacillus (Haemophilus) pleuropneumoniae, Pasteurella multocida, Salmonella choleraesuis* and *Streptococcus suis*.

Cattle: EXCENEL RTU Sterile Suspension is indicated for treatment of the following bacterial diseases:

- Bovine respiratory disease (BRD, shipping fever, pneumonia) associated with *Mannheimia haemolytica, Pasteurella multocida* and *Histophilus somni.*

- Acute bovine interdigital necrobacillosis (foot rot, pododermatitis) associated with *Fusobacterium necrophorum* and *Bacteroides melaninogenicus.*

- Acute metritis (0 to 14 days post-partum) associated with bacterial organisms susceptible to ceftiofur.

DOSAGE AND ADMINISTRATION

Shake well before using.

Swine: Administer intramuscularly at a dosage of 1.36 to 2.27 mg ceftiofur equivalents/lb (3.0 to 5.0 mg/kg) BW (1 mL of sterile suspension per 22 to 37 lb BW). Treatment should be repeated at 24 h intervals for a total of three consecutive days.

Cattle:

- For bovine respiratory disease and acute interdigital necrobacillosis: administer by intramuscular or subcutaneous administration at the dosage of 0.5 to 1.0 mg ceftiofur equivalents/lb (1.1 to 2.2 mg/kg) BW (1 to 2 mL sterile suspension per 100 lb BW). Administer daily at 24 h intervals for a total of three consecutive days. Additional treatments may be administered on Days 4 and 5 for animals which do not show a satisfactory response (not recovered) after the initial three treatments. In addition, for BRD only, administer intramuscularly or subcutaneously 1.0 mg ceftiofur equivalents/lb (2.2 mg/kg) BW every other day on Days 1 and 3 (48 h interval). Do not inject more than 15 mL per injection site.

Selection of dosage level (0.5 to 1.0 mg/lb) and regimen/duration (daily or every other day for BRD only) should be based on an assessment of the severity of disease, pathogen susceptibility and clinical response.

- For acute post-partum metritis: administer by intramuscular or subcutaneous administration at the dosage of 1.0 mg ceftiofur equivalents/lb (2.2 mg/kg) BW (2 mL sterile suspension per 100 lb BW). Administer at 24 h intervals for five consecutive days. Do not inject more than 15 mL per injection site.

CONTRAINDICATIONS

As with all drugs, the use of EXCENEL RTU Sterile Suspension is contraindicated in animals previously found to be hypersensitive to the drug.

WARNINGS

NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN.

Penicillins and cephalosporins can cause allergic reactions in sensitized individuals. Topical exposures to such antimicrobials, including ceftiofur, may elicit mild to severe allergic reactions in some individuals. Repeated or prolonged exposure may lead to sensitization. Avoid direct contact of the product with the skin, eyes, mouth, and clothing.

Persons with a known hypersensitivity to penicillin or cephalosporins should avoid exposure to this product.

In case of accidental eye exposure, flush with water for 15 minutes. In case of accidental skin exposure, wash with soap and water. Remove contaminated clothing. If allergic reaction occurs (e.g., skin rash, hives, difficult breathing), seek medical attention.

The material safety data sheet contains more detailed occupational safety information. To obtain a material safety data sheet (MSDS) please call 1-800-733-5500. To report any adverse event please call 1-800-366-5288.

RESIDUE WARNINGS:

Swine: When used according to label indications, dosage, and route of administration, treated swine must not be slaughtered for 4 days following the last treatment. Use of dosages in excess of those indicated or by unapproved routes of administration may result in illegal residues in edible tissues.

Cattle: When used according to label indications, dosage and route of administration, treated cattle must not be slaughtered for 3 days following the last treatment. When used according to label indications, dosage and route of administration, a milk discard time is not required. Uses of dosages in excess of those indicated or by unapproved routes of administration, such as intramammary, may result in illegal residues in edible tissues and/or milk. A withdrawal period has not been established in pre-ruminating calves. Do not use in calves to be processed for veal.

PRECAUTIONS

The effects of ceftiofur on cattle and swine reproductive performance, pregnancy, and lactation have not been determined.

Swine: Areas of discoloration associated with the injection site at time periods of 11 days or less may result in trim-out of edible tissues at slaughter. The safety of ceftiofur has not been demonstrated for pregnant swine or swine intended for breeding.

Cattle: Following intramuscular or subcutaneous administration in the neck, areas of discoloration at the site may persist beyond 11 days resulting in trim loss of edible tissues at slaughter. Following intramuscular administration in the rear leg, areas of discoloration at the injection site may persist beyond 28 days resulting in trim loss of edible tissues at slaughter.

NUFLOR GOLD™

Intervet/Merck Animal Health

(florfenicol)

NADA 141-265, Approved by FDA.

Injectable Solution, An Antimicrobial

300 mg/mL

For subcutaneous use in beef and non-lactating dairy cattle only

Not for use in female dairy cattle 20 months of age or older or in calves to be processed for veal

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

INDICATIONS: NUFLOR GOLD™ is indicated for treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica, Pasteurella multocida*, *Histophilus somni*, and *Mycoplasma bovis* in beef and non-lactating dairy cattle.

DOSAGE AND ADMINISTRATION: NUFLOR GOLD™ should be administered once by subcutaneous injection at a dose rate of 40 mg florfenicol/kg body weight (6 mL/100 lb). Do not administer more than 15 mL at each site. The injection should be given only in the neck. Injection sites other than the neck have not been evaluated.

NUFLOR GOLD™ Dosage Guide

ANIMAL WEIGHT (lb)	**DOSAGE (mL)**
100	6.0
200	12.0
300	18.0
400	24.0
500	30.0
600	36.0
700	42.0
800	48.0

900	54.0
1000	60.0

Recommended Injection Location:

WARNINGS: NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN. This product contains materials that can be irritating to skin and eyes. Avoid direct contact with skin, eyes, and clothing. In case of accidental eye exposure, flush with water for 15 minutes. In case of accidental skin exposure, wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Accidental injection of this product may cause local irritation. Consult a physician immediately. The Material Safety Data Sheet (MSDS) contains more detailed occupational safety information.

PRECAUTIONS: Not for use in animals intended for breeding purposes. The effects of florfenicol on bovine reproductive performance, pregnancy, and lactation have not been determined. Toxicity studies in dogs, rats, and mice have associated the use of florfenicol with testicular degeneration and atrophy.

Subcutaneous injection in cattle can cause a transient local tissue reaction that may result in trim loss of edible tissue at slaughter.

RESIDUE WARNINGS: Animals intended for human consumption must not be slaughtered within 44 days of treatment. Do not use in female dairy cattle 20 months of age or older. Use of florfenicol in this class of cattle may cause milk residues. A withdrawal period has not been established in pre-ruminating calves. Do not use in calves to be processed for veal.

ADVERSE REACTIONS: Transient inappetence, diarrhea, decreased water consumption, and injection site swelling have been associated with the use of florfenicol in cattle. In addition, anaphylaxis and collapse have been reported post-approval with the use of another formulation of florfenicol in cattle.

STORAGE INFORMATION: Store between 2°-30°C (36°-86°F). Use within 28 days of first use. Refrigeration is not required. The solution is light yellow to straw colored. Color does not affect potency.

PANACUR® **HORSE & CATTLE DEWORMER SUSPENSION 10%**

℞

Intervet/Merck Animal Health

(fenbendazole)

(100 mg/mL)

RESIDUE WARNINGS:

Do not use in horses intended for food.

Cattle must not be slaughtered for human consumption within 8 days following treatment.

Do not use at 10 mg/kg in dairy cattle. Dose rate of 10 mg/kg is for beef cattle only. Dose rate of 10 mg/kg in dairy cattle could result in violative residues in milk.

A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Keep this and all medication out of the reach of children.

DOSAGE:

Horses: 5 mg/kg (2.3 mg/lb.) for the control of large strongyles *(Strongylus edentatus, S. equinus, S. vulgaris, Triodontophorus* spp.), small strongyles *(Cyathostomum* spp., *Cylicocyclus* spp.*, Cylicostephanus* spp., *Cylicodontophorus* spp.) and pinworms *(Oxyuris equi)*. EXAMPLE: 2.3 mL/100 lb.; 23 mL/1000 lb.

10 mg/kg (4.6 mg/lb.) for the control of ascarids *(Parascaris equorum)*. Example: (10 mg/kg); 2.3 mL/50 lb.; 23 mL/500 lb.

Beef and Dairy Cattle: 5 mg/kg (2.3 mg/lb.) for the removal and control of:

Lungworm: *(Dictyocaulus viviparus).*

Stomach worm (adults): *Ostertagia ostertagi* (brown stomach worms). **Stomach worm (adults & 4th stage larvae):** *Haemonchus contortus/placei* (barberpole worm), *Trichostrongylus axei* (small stomach worm).

Intestinal worms (adults & 4th stage larvae): *Bunostomum phlebotomum* (hookworm), *Nematodirus helvetianus* (thread-necked intestinal worm), *Cooperia punctata* and *C. oncophora* (small intestinal worm), *Trichostrongylus colubriformis* (bankrupt worm), *Oesophagostomum radiatum* (nodular worm).

Beef Cattle Only - 10 mg/kg (4.6 mg/lb) for the removal and control of:

Stomach worm (4th stage inhibited larvae): *Ostertagia ostertagi* (Type II Ostertagiasis).

Tapeworm: *Moniezia benedeni*.

Do not use in dairy cattle at 10 mg/kg

In beef and dairy cattle, the recommended dose of 5 mg/kg is achieved when 2.3 mL of the drug are given for each 100 lb of body weight. In beef cattle only, the recommended dosage of 10 mg/kg for the treatment of Ostertagiasis Type II (inhibited 4th stage larvae) or tapeworm is achieved when 4.6 mL of the drug is given for each 100 lb of body weight.

EXAMPLES: (Horses and Cattle)

Dose (5 mg / kg)	Dose (10 mg / kg)	Animal Weight
2.3 mL	**4.6 mL**	**100 lb**
4.6 mL	**9.2 mL**	**200 lb**
6.9 mL	**13.8 mL**	**300 lb**
9.2 mL	**18.4 mL**	**400 lb**
11.5 mL	**23.0 mL**	**500 lb**
23.0 mL	**46.0 mL**	**1,000 lb**
34.5 mL	**69.0 mL**	**1,500 lb**

DIRECTIONS

Beef and Dairy Cattle and Horses: Determine the proper dose according to estimated body weight. Administer orally by suitable dosing syringe. Insert nozzle of syringe through the interdental space and deposit the drug on the back of the tongue by depressing the plunger. The drug may also be administered by stomach tube. There are no known contraindications to the use of the drug in cattle or horses. For dairy cattle, there is no milk withdrawal period at 5 mg/kg. Panacur® (fenbendazole) Suspension 10% is approved for use concomitantly with an approved form of trichlorfon. Trichlorfon is approved for the treatment of stomach bots *(Gasterophilus* spp.) in horses. Refer to the manufacturer's label for directions for use and cautions for trichlorfon.

Regular deworming at intervals of six to eight weeks may be required for horses.

Under conditions of continued exposure to parasites, retreatment may be needed after 4-6 weeks.

Manufactured by: DPT Laboratories, San Antonio, TX 78215

Distributed by: **Intervet Inc.,** Millsboro, DE 19966

ZILMAX® **TYPE A MEDICATED ARTICLE**

Intervet/Merck Animal Health

(zilpaterol hydrochloride 4.8%)

Active Drug Ingredient: Zilpaterol hydrochloride 21.77 grams per pound (48 grams per kilogram)

Inert Ingredients: Ground corncobs, surfactant and binder

Important: Must be thoroughly mixed into feeds before use. Follow label directions.

Indication: For increased rate of weight gain, improved feed efficiency, and increased carcass leanness in cattle fed in confinement for slaughter during the last 20 to 40 days on feed.

FEEDING DIRECTIONS:

Feed continuously to cattle fed in confinement for slaughter as the sole ration for the last 20 to 40 days on feed to provide 60 to 90 mg zilpaterol hydrochloride per head per day.

WITHDRAWAL PERIOD: 3 days

CAUTION: Not for use in animals intended for breeding. Do not allow horses or other equines access to feed containing zilpaterol. Do not use in veal calves.

YOU MAY NOTICE:

Animals receiving zilpaterol hydrochloride may exhibit increased respiratory rate as well as elevated levels of creatine phosphokinase (CPK) and creatinine.

WARNING:

The active ingredient in Zilmax® is zilpaterol hydrochloride, a beta*2*-adrenergic agonist. Not for use in humans. An anti-dust process has been applied to the drug product, Zilmax®, in order to greatly reduce inhalation risk. Extended handling tasks with the potential for dust generation require respiratory protection. Wear appropriate skin protection (e.g., impervious gloves, apron, overalls) if there is a potential for extended skin contact. Wear protective eye wear, if there is a potential for eye contact. If accidental eye contact occurs, immediately rinse with water and consult a physician.

Distributed by: Intervet, Inc., Millsboro DE 19966

Made in France

U.S. Patent #4,900,735

U.S. Patent #5,731,028

U.S. Patent #7,207,289

FOR USE IN THE MANUFACTURE OF MEDICATED FEEDS ONLY.

Store at or below 25°C (77°F)

County_____

Team
Members_____

_____

Senior Team Quality Assurance Exercise –2015

You are a beef producer and operate a 100-head feedlot that also supplies a local meat locker two to three beef per week. 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 five (5) steers in the sick pen that have reached finish weight and have fully recovered their problems. You need to deliver as many of these steers as possible to be processed on Monday, February 23, 2015 at 6:00 a.m., and need to make sure any withdrawal times are over. Using the five (5) inserts provided, answer the questions below and finish filling in the table of treatment records on the reverse side 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 7 points each for a total of 210 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 is a modified live virus? _____

2) When giving NUFLOR GOLD, what is the largest amount that should be administered in one site? ____ml

3) Which of the medications could also be given to horses? _____

4) Which of these is a feed additive for weight gain and feed efficiency? _____

5) Which of the medications has to be rehydrated before use? _____

[OVER]

TREATMENT RECORD

Treatment Date & Time	Steer Treated (Tag #)	Steer Weight	Condition Being Treated	Medication Given	Route Given	Amount Given	Required Withdrawal Period (days)	Date & Time Withdrawal Complete
Dec. 30, 2014 9:00 a.m.	# 57	1200 lbs	Lungworms	Panacur				
Jan.12, 2015 10:00 a.m.	# 49	1000 lbs	Bovine Respiratory Disease	NUFLOR				
Jan. 24, 2015 2:30 p.m.	# 76	1175 lbs	Bovine Viral Diarrhea Virus	Bovi-Shield Gold 5				
Feb. 19, 2015 12:00 noon	# 28	1250 lbs	Foot Rot	Excenel				
Feb. 20, 2015 12:00 noon	# 50	1150 lbs	Bovine Respiratory Disease	Excenel				

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

Steers That Can be Sold Tomorrow

Steers to Hold Until a Later Date

DECEMBER						
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			

JANUARY						
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

FEBRUARY						
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

County_____

Team
Members_____

_____

Senior Team Quality Assurance Exercise –2015

You are a beef producer and operate a 100-head feedlot that also supplies a local meat locker with two or three beef a week. 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 five (5) steers in the sick pen that have reached finish weight and have fully recovered their problems. You want to deliver as many of these steers as possible to be processed on Monday, February 23, 2015 at 6:00 a.m., and need to make sure any withdrawal times are over. Using the five (5) inserts provided, answer the questions below and finish filling in the table of treatment records on the reverse side 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 7 points each for a total of 210 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 is a modified live virus? _____**BOVI-SHIELD GOLD 5**_____

2) When giving NUFLOR GOLD, what is the largest amount that should be administered in one site? __**15**_ml

3) Which of the medications could also be given to horses? _____**PANACUR**_____

4) Which of these is a feed additive for weight gain and feed efficiency? ____**ZILMAX**___

5) Which of the medications has to be rehydrated before use? _____**BOVI-SHIELD GOLD 5**_____

[OVER]

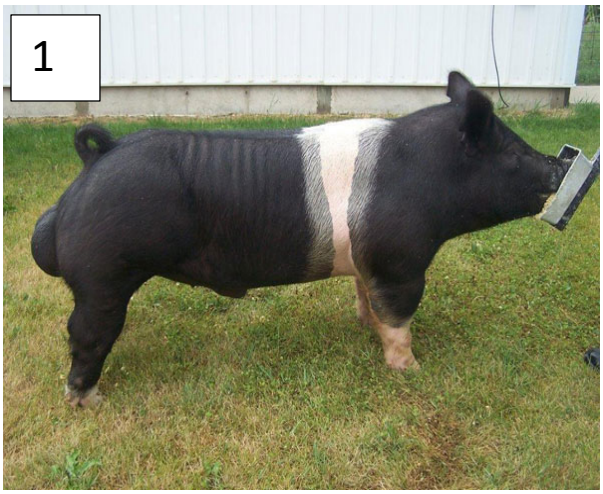
TREATMENT RECORD

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
Dec. 30, 2014 9:00 a.m.	# 57	1200 lbs	Lungworms	Panacur	orally	27.6 mL	8 days	Jan. 7, 2015 9:00 a.m.
Jan.12, 2015 10:00 a.m.	# 49	1000 lbs	Bovine Respiratory Disease	NUFLOR	SC	60 mL	44 days	Feb. 23, 2015 10:00 a.m.
Jan. 24, 2015 2:30 p.m.	# 76	1175 lbs	Bovine Viral Diarrhea Virus	Bovi-Shield Gold 5	IM	2 mL	21 days	Feb. 14, 2015 2:30 p.m.
Feb. 19, 2015 12:00 noon	# 28	1250 lbs	Foot Rot	Excenel	IM or SC	mL	3 days	Feb. 22, 2015 8:00 a.m.
Feb. 20, 2015 12:00 noon	# 50	1150 lbs	Bivine Respiratory Disease	Excenel	IM or SC	23 mL	3 days	Feb. 23, 2015 12:00 noon

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

Steers That Can be Sold Tomorrow	Steers to Hold Until a Later Date
#57	# 49
# 76	# 50
# 28	

Boar Choices



County_____

Team Members_____

_____

Senior Team Breeding Exercise – 2015

You are a genetic advisor for a large scale pork operation in the mid-west. Your job is to select and purchase three boars to go into the company's boar stud. Semen from these three boars will be collected and distributed to units connected to the company. One of the three boars must be a maternal sire and one must be a terminal sire. You have a budget of $8,000.00 to use to purchase these three boars.

From the terminal side growth and performance is important, while on the maternal side production must improve. These boars must have the structural integrity to survive in the confinement setting.

Please study the data and look over the pictures of the boars and decide who you will select to place in the company boar stud. Your employer also said, that your last choices of boars were over budget and did not produce enough semen to meet the needs of the farm units. Choose wisely, answer the below then discuss your choices with the Contest Official. Please include the positives of why you chose the three boars that you did, and the reasons for not choosing at least two of the other boars.

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

Questions: (Circle Your Answers)

1.) Which boar is the short hipped, round muscled poor balanced boar?

1 2 3 4 5 6 7 8

2.) Which boar would you choose as a maternal sire?

1 2 3 4 5 6 7 8

3.) Between the down eared boars, which boar has the small testicles boar?

1 2 3 4 5 6 7 8

4.) Between the black belted boars, which boar is wrinkled hided?

1 2 3 4 5 6 7 8

5.) Which boar visually appears to be the most adapted to confinement?

1 2 3 4 5 6 7 8

6.) Which boar does not fit well into the $8,000 budget?

1 2 3 4 5 6 7 8

7.) Which boar appears to be the non-purebred?

1 2 3 4 5 6 7 8

8.) Which two boars are potential littermates?

1 2 3 4 5 6 7 8

9.) Which boar am I describing, tall fronted, large scaled, fine boned and small footed?

1 2 3 4 5 6 7 8

10.) Between the three Duroc boars, which boar is rugged designed, and stout featured?

1 2 3 4 5 6 7 8

Boar Prices:

1. $2,750

2. $1,750

3. $800

4. $6,500

5. $2,500

6. $1,000

7. $850

8. $3,500

Data on Boars expressed in EPDs:

Boar#	NBA	WTE	DAYS	BF	LBS	FE	SPI	MLI	TSI
1	+0.17	-0.15	-3.52	-0.02	+1.75	-0.02	110	115	112
2	+0.28	-0.19	-3.6	-0.02	+1.21	-0.04	109	114	115
3	-0.12	+0.12	-1.9	-0.2	+0.95	+0.01	102	102	101
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	+0.17	-0.15	-3.52	-0.02	+1.75	-0.02	110	115	112
6	-0.35	+0.25	+1.5	-0.35	+0.56	+0.15	92	92	98
7	-0.15	+0.12	-1.8	-0.01	+0.91	+0.04	101	101	101
8	+0.35	-0.21	-3.65	-0.02	+1.2	-0.03	111	116	109

EXPLANATION OF TERMS:

Expected Progeny Difference (EPD) – An EPD is the best estimate of a sire's or dam's genetic worth, given the information available. It is the actual difference in performance a producer can expect from future progeny of a sire or dam, relative to the future progeny of an average tested parent.

Swine Testing and Genetic Evaluation System (STAGES™) – A genetic evaluation system provided to the members of the four breed associations of the National Swine Registry (NSR). STAGES™ utilizes performance records for numerous growth, carcass and maternal measures to predict the genetic value of each pig and its parents.

EPDs:

Back-fat (BF): Expressed in inches, this EPD is a predictor of the difference in external fat thickness at the 10th rib. Animals with negative (-) EPDs for back-fat will produce offspring that have less back-fat at harvest than offspring of parents with higher EPDs.

Pounds of Lean (LBS): A genetic predictor of pounds of fat-free lean adjusted to a 185-pound carcass, or Approximately a 250-pound live weight. This EPD is calculated from the EPDs for Back-fat and Loin Eye Area. A sire with a positive (+) EPD for LBS will produce offspring that yield a higher percentage of lean and have a greater chance of obtaining full-value on a lean-based carcass grid.

Days to 250 pounds (DAYS): A prediction of an individual's genetic merit for growth performance to a 250-pound live weight. Animals with a negative (-) EPD for DAYS will produce offspring that require fewer days to reach market weight when compared to the offspring of individuals with positive (+) genetic values for DAYS. Selection on this EPD will produce progeny that aid in earlier building close outs.

Feed Efficiency (FE): Expressed in pounds, this EPD is a predictor of the amount of feed required to generate one pound of gain during the finishing phase of production and is calculated from the EPDs for BF and DAYS. Selection of sires with negative (-) EPDs will produce progeny that more efficiently convert feed to gain when compared to sires with higher EPDs for FE. This EPD can be used to genetically decrease feed costs.

Number Born Alive (NBA): An expression of the genetic merit for the number of live pigs farrowed in a litter. Daughters of sires with positive (+) EPDs for NBA will farrow a greater number of live pigs than daughters of sires with lower EPDs for NBA.

Number Weaned (NW): A genetic predictor of the total number of pigs weaned within a given parity. Daughters of sires with positive (+) EPDs for NW will wean larger litters than daughters of sires with lower genetic values for NW.

Loin Eye Area (LEA): Expressed in square inches, this EPD is a predictor of an individual's genetic merit for 10th rib loin eye area adjusted to a 250-pound live weight. Animals with a positive (+) EPD for LEA will produce progeny with more loin muscle when compared to the offspring of animals with negative (-) genetic values for LEA.

Wean to Estrus Interval (WTE): Expressed in days, this EPD is a genetic predictor of the number of days required for a female to return to a serviceable heat after weaning. Daughters of sires with negative (-) EPDs for WTE will require fewer days to return to estrus after weaning than daughters of sires with higher EPDs. This EPD is the most efficient selection tool for genetic improvement of fertility and non-productive sow days.

Sow Productivity Index (SPI): An economic index that ranks individuals for reproductive traits. SPI weights the EPDs for Number Born Alive, Number Weaned and Litter Weight relative to their economic values. Each point of SPI represents $1 per litter produced by every daughter of a sire. When sow efficiency is the primary concern, SPI may be the most effective selec- tion tool for simultaneous improvement of maternal traits.

Maternal Line Index (MLI): An economic index designed for selection of seed-stock used to produce replacement gilts for crossbreeding programs. MLI weights EPDs for both terminal and maternal traits relative to their economic values, with approximately twice as much emphasis on reproductive traits relative to post-weaning traits. Each point of MLI rep- resents $1 per litter produced by every daughter of a sire.

Terminal Sire Index (TSI): An economic index designed for the selection of seed-stock for use in a terminal crossbreeding program. Animals selected for high TSI are designed to excel in lean growth and efficiency from weaning to harvest. TSI weights EPDs for Back-fat, Days to 250 Pounds, Pounds of Lean, and feed/ pound of gain relative to their economic values. Each additional index point difference is equal to $0.10 per market hog.

Actual Data:

Weight Per Day of Age (Wda): Based on actual weight and age, this measure is the weight gained per day of age averaged over the life of the pig.

10th Rib Back-fat (Bf): Expressed in inches, this is an actual ultrasound measure of back-fat at the 10th rib and is adjusted to 250 pounds.

Loin Eye Area (Lea): Expressed in square inches, this is the actual ultrasound measurement of the loin eye size at the 10th rib and is adjusted to 250 pounds.

Intramuscular Fat (Imf): Expressed as a percentage, this value is an ultrasound measure of the lipid con- tent of the loin muscle. Higher levels of Transmuscular Fat (IMF) are desired for meat quality based markets.

Actual Number Born Alive (Nba): This value is the actual number of pigs born from the dam's parity when the pig was born and are measurements taken from the pig's dam.

Actual Number Weaned (Nw): This value is the actual number of pigs weaned from the dam's parity when the pig was born and are measurements taken from the pig's dam.

Litter Weight (Lwt): This is the actual cumulative weight of all pigs weaned from the pigs birth litter. This weight is recorded on the pig's dam and is adjusted to 21 days of lactation.

Pictures, Data and Terms supplied by the "National Swine Registry"

County____Answer Key

Team Members_____

_____

Senior Team Breeding Exercise – 2015

You are a genetic advisor for a large scale pork operation in the mid-west. Your job is to select and purchase three boars to go into the company's boar stud. Semen from these three boars will be collected and distributed to units connected to the company. One of the three boars must be a maternal sire and one must be a terminal sire. You have a budget of $8,000.00 to use to purchase these three boars.

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Boar Prices:

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2. **$1,750**
3. **$800**
4. **$6,500**
5. **$2,500**
6. **$1,000**
7. **$850**
8. **$3,500**

Senior Team Feeding Exercise-2015
County_____

You are the manager of a progressive commercial farrow to finish swine operation. You need to consider options to reduce your feed cost for the operation. Review the grow/finish rations below. All rations are balanced to meet the protein/amino acid and vitamin/mineral requirements and all transportation and storage cost are reflected in the final costs of the ration.

Ration Number	***Ingredients***	***% of Ration***	***Price per Pound as Fed***
Ration 1	Ground Corn	60%	$0.12
	Distillers Dried Grains	30%	
	Soybean Meal	6.25%	
	Vitamin/Mineral Premix	1.875%	
	Amino Acid Premix	1.875%	
Ration 2	Ground Corn	85%	$0.14
	Soybean Meal	11.75%	
	Vitamin/Mineral Premix	1.625%	
	Amino Acid Premix	1.625%	
Ration 3	Shelled Corn	84%	$0.10
	Cottonseed Meal	10.5%	
	Vitamin/Mineral Premix	1.75%	
	Amino Acid Premix	3.75%	
Ration 4	Commercial Swine Grower- Complete	100%	$0.20

Rank the feeds according to how you would feed them from first to last to meet the needs of the above scenario. You may consider economics of the ration, quality and physical characteristics of the feedstuffs contained in the ration, and physiological and digestive considerations of the animals being feed. Answer the following questions. Finally explain to the contest official why you choose your 1st choice.

_____ _____ _____ _____

Circle your answers:

1. **Which ration would be best suited for cattle?**

   1 2 3 4

2. **What is the cost of a ton of the Commercial Swine Grower?**

   A. $4000.00 C. $400.00

   B. $2000.00 D. $20.00

3. **In Ration #1, how much soybean meal would be included in one ton of feed?**

   A. 125 pounds C. 12.5 pounds

   B. 625 pounds D. 6.2 pounds

4. **Which ration should have a guaranteed analysis on a feed tag attached to the 50 pound bag it would be sold in at your feed dealership?**

   1 2 3 4

5. **Which ration contains a By-product?**

   1 2 3 4

Senior Team Feeding Exercise-2015
County_____Answer Key_____

You are the manager of a progressive commercial farrow to finish swine operation. You need to consider options to reduce your feed cost for the operation. Review the grow/finish rations below. All rations are balanced to meet the protein/amino acid and vitamin/mineral requirements and all transportation and storage cost are reflected in the final costs of the ration.

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	Vitamin/Mineral Premix	1.75%	
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Ration 4	Commercial Swine Grower- Complete	100%	$0.20

Rank the feeds according to how you would feed them from first to last to meet the needs of the above scenario. You may consider economics of the ration, quality and physical characteristics of the feedstuffs contained in the ration, and physiological and digestive considerations of the animals being feed. Answer the following questions. Finally explain to the contest official why you choose your 1st choice. (Your Placing is worth 50 pts, questions are worth 10 pts each for a total of 50 points and your discussion is worth is worth 100 points for a total of 200 possible pts.)

_____**1**_____ _____**2**_____ _____**4**_____ _____**3**____

CUTS:___2-5-3___

Circle your answers:

1. **Which ration would be best suited for cattle?**

   1 2 **3** 4

2. **What is the cost of a ton of the Commercial Swine Grower?**

   A. $4000.00 **C. $400.00**

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   1 2 3 **4**

5. **Which ration contains a By-product?**

   1 2 3 4

Senior Team Feed Class – 2015

Name_____ANSWER KEY_____ Contestant #_____

County_____

Official Placing = 1-2-4-3

Cuts = 2-5-3

(50 points possible)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Team Feed scores____

A	1 2 3 4	47
B	1 2 4 3	50
C	1 3 2 4	39
D	1 3 4 2	34
E	1 4 2 3	45
F	1 4 3 2	37
G	2 1 3 4	45
H	2 1 4 3	48
I	2 3 1 4	35
J	2 3 4 1	28
K	2 4 1 3	41
L	2 4 3 1	31
M	3 1 2 4	29
N	3 1 4 2	24
O	3 2 1 4	27
P	3 2 4 1	20
Q	3 4 1 2	17
R	3 4 2 1	15
S	4 1 2 3	38
T	4 1 3 2	30
U	4 2 1 3	36
V	4 2 3 1	26
W	4 3 1 2	20
X	4 3 2 1	18