Name_____ANSWER KEY_____ Contestant #_____County_____

Senior Retail Meat Cut Identification-2013

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.	72	P	T
2.	68	P	R
3.	83	P	P
4.	79	P	U
5.	56	L	L
6.	61	L	M
7.	21	B	D
8.	25	B	E
9.	24	B	E
10.	31	B	F

Retail Names – to be used in answer column 1 by Clovers, Intermediates, and 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 Intermediates and 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 Retail Meat Cut Identification-2013

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 Clovers, Intermediates, and 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 Intermediates and 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

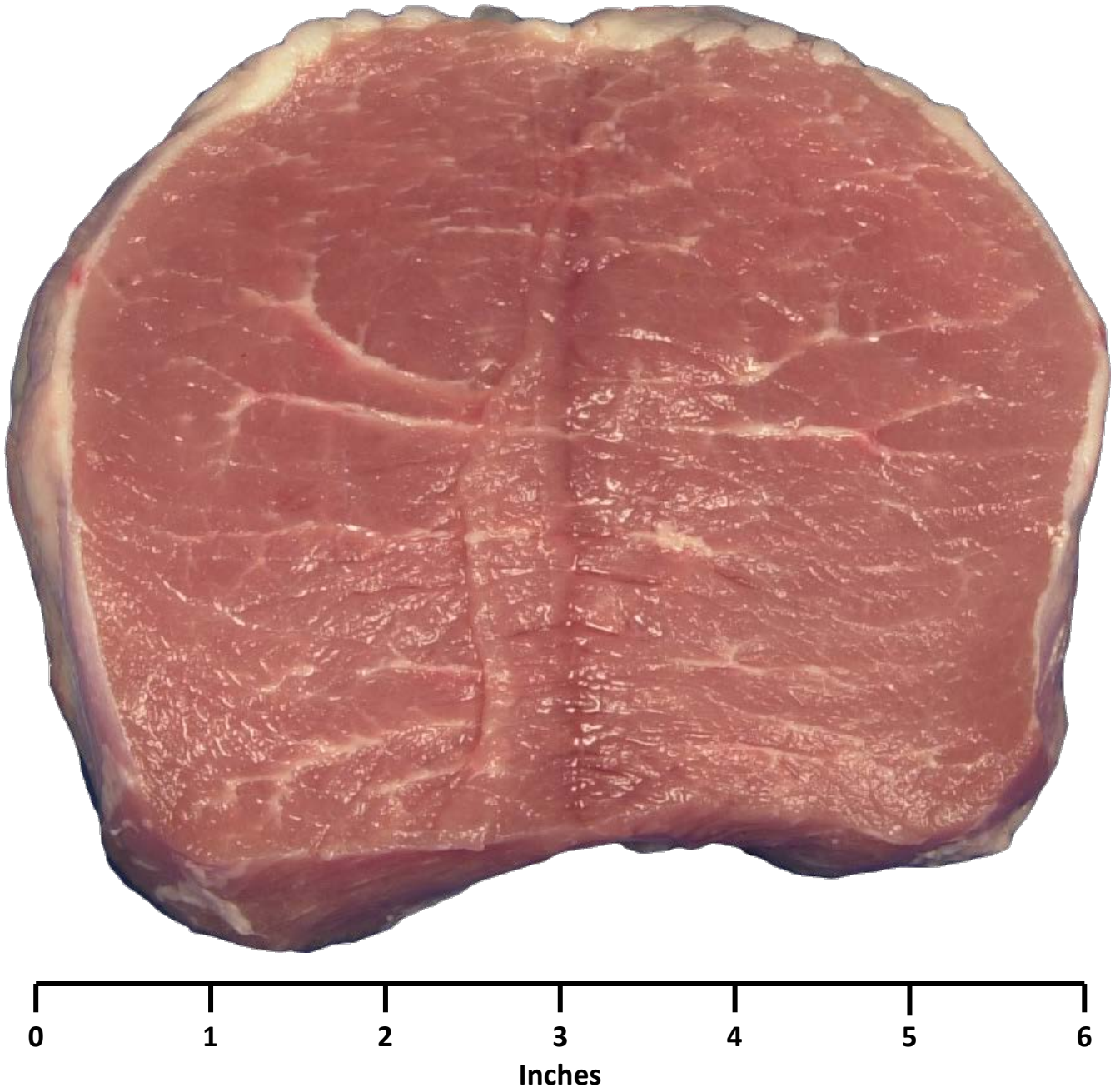
Lamb Wholesale Cuts

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

1



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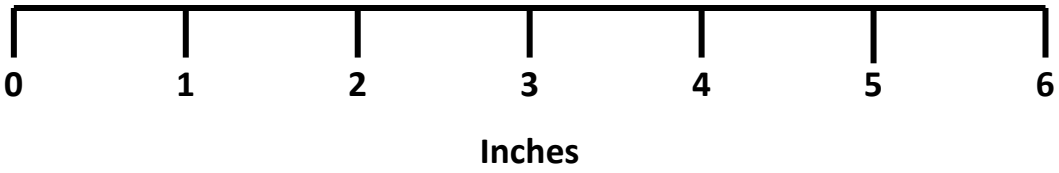

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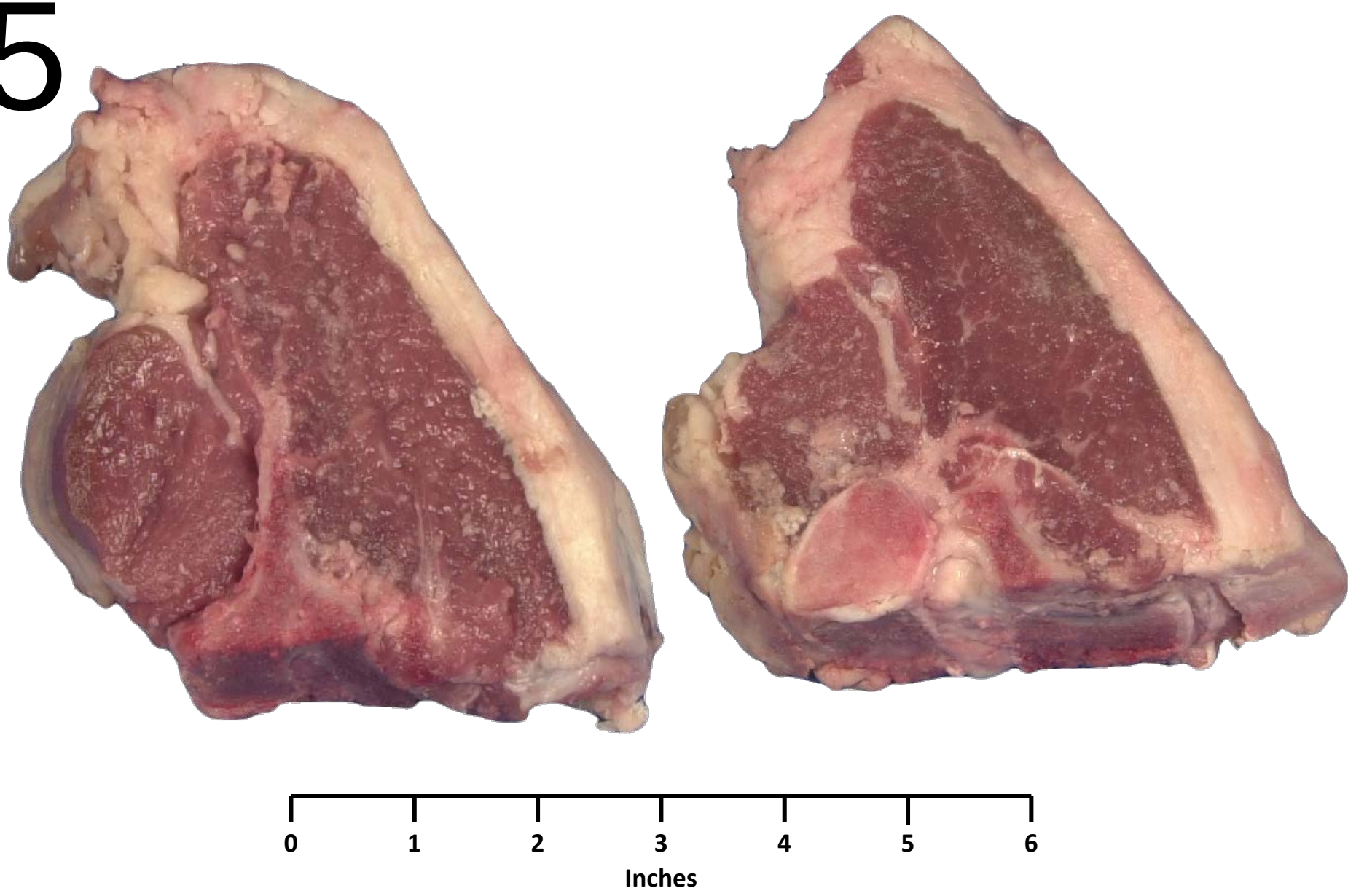

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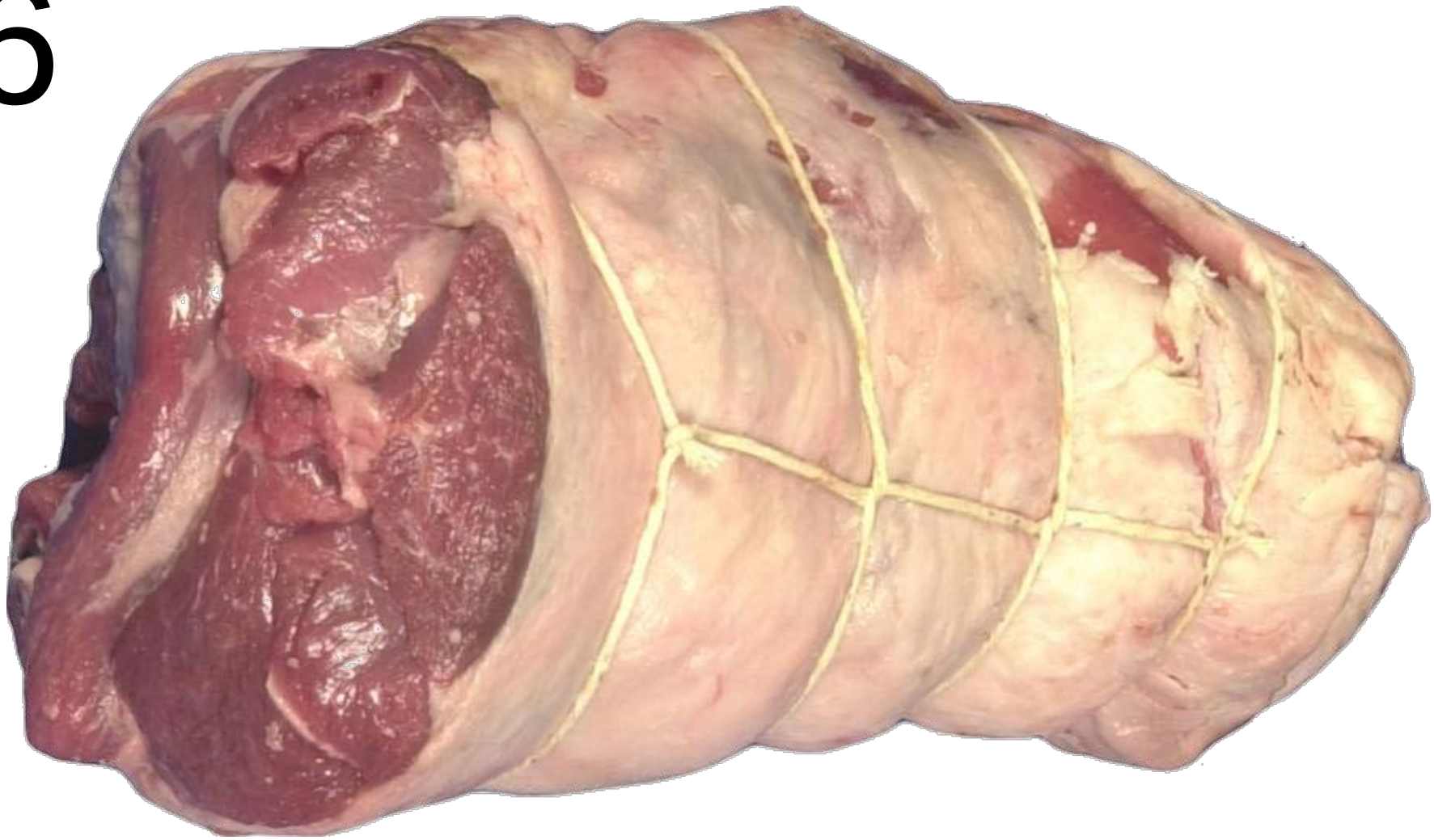

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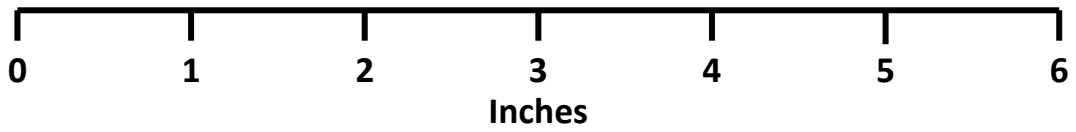

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10

Name____ANSWER KEY_____ Contestant #_____County_____

Senior Livestock Feed Identification-2013

INSTRUCTIONS: For each picture, 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.	42	P	G
2.	37	C	E
3.	18	M	K
4.	3	C	F
5.	14	P	A
6.	11	M	L
7.	36	C	H
8.	71	C	D
9.	15	C	B
10.	1	P	C

Feed Names – to be used in answer column 1 by Clovers, Intermediates, and Seniors

1. Alfalfa meal (dehydrated)
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 Intermediates and 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. Excellent protein source for ruminants, but only limited use in monogastrics (gossypol toxicity).

B. Shelled corn that has been passed through a roller mill to break it into smaller particles.

C. Excellent feedstuff for horses and ruminants (high in protein, minerals, and vitamins).

D. Bulk density = 60 pounds/bushel

E. Bulk density = 32 pounds/bushel

F. Bulk density = 48 pounds/bushel

G. Protein is somewhat low in digestibility due to tannins found in the skin, and has poor amino acid balance.

H. Not widely grown in the U.S. It has less energy and more protein when compared to Corn

I. Most widely used protein source in the U.S.

J. High in protein, and contains active immunoglobulins.

K. Commonly used source of calcium and phosphorus in livestock feeds.

L. Also referred to as bluestone.

Name_____ Contestant #_____County_____

Senior Livestock Feed Identification-2013

INSTRUCTIONS: For each picture, 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 Clovers, Intermediates, and Seniors

1. Alfalfa meal (dehydrated)
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 Intermediates and 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. Excellent protein source for ruminants, but only limited use in monogastrics (gossypol toxicity).

B. Shelled corn that has been passed through a roller mill to break it into smaller particles.

C. Excellent feedstuff for horses and ruminants (high in protein, minerals, and vitamins).

D. Bulk density = 60 pounds/bushel

E. Bulk density = 32 pounds/bushel

F. Bulk density = 48 pounds/bushel

G. Protein is somewhat low in digestibility due to tannins found in the skin, and has poor amino acid balance.

H. Not widely grown in the U.S. It has less energy and more protein when compared to Corn.

I. Most widely used protein source in the U.S.

J. High in protein, and contains active immunoglobulins.

K. Commonly used source of calcium and phosphorus in livestock feeds.

L. Also referred to as bluestone.

Name____ANSWER KEY_____ Contestant #_____County_____

Senior Livestock Breeds Identification-2013

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.	19	C	G
2.	44	D	N
3.	34	L	J
4.	36	E	M
5.	14	B	D
6.	7	J	C
7.	9	K	E
8.	54	F	S
9.	52	H	P
10.	55	G	O

Breed Names – to be used in answer column 1 by Clovers, Intermediates, and 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 Intermediates and Seniors

A. United States (Louisiana)
B. Tees River Valley in England
C. District of Angora in Asia Minor
D. Sussex, England
E. Hampshire County, England
F. Butler & Warren Counties in Ohio
G. Putnam & Hendricks Counties in Indiana
H. Descendants of the Danish Landrace
I. Denmark
J. Herefordshire, England
K. Maine and Anjou River Valleys in France
L. England

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

Beef Cattle Characteristics/Traits
A. Heat and tick resistance, hardiness, and maternal instincts
B. Growth rate, muscling, early puberty, calving ease, and mothering ability
C. Foraging ability, docile, and good fertility.
D. Early maturity, reproductive performance, mothering ability, disposition, and hardiness.
E. Muscle and growth rate. Originally was red and white in color, but today the breed is many times black or black and white hided and popular for crossbreeding and in the "Club Calf" Industry

Goats Characteristics/Traits
F. Meat Yield, tough, agile, and hardy, also good browsing ability
G. Mohair production Meat production, browsing ability, and not as prolific as other goats.
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, high milk production

Sheep Characteristics/Traits
J. Carcass conformation will breed "out-of-season", and milking ability
K. Carcass conformation, growth rate, lambing percentage, and wool production
L. Carcass conformation, heavy fleece, and lambing percentage.
M. Carcass conformation, growth rate, feed conversion, and milking ability.
N. Carcass conformation, early maturity, and adaptability to varied climates.

Swine Characteristics/Traits
O. Aggressive breeder and high growth rate.
P. Prolificacy (litter size), milking ability, mothering ability.
Q. Extreme muscling and leanness.
R. Excellent rate of gain and feed efficiency.
S. Meat quality (intramuscular fat)

Name_____ Contestant #_____County_____

Senior Livestock Breeds Identification-2013

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 Clovers, Intermediates, and 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 Intermediates and Seniors

A. United States (Louisiana)
B. Tees River Valley in England
C. District of Angora in Asia Minor
D. Sussex, England
E. Hampshire County, England
F. Butler & Warren Counties in Ohio
G. Putnam & Hendricks Counties in Indiana
H. Descendants of the Danish Landrace
I. Denmark
J. Herefordshire, England
K. Maine and Anjou River Valleys in France
L. England

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

Beef Cattle Characteristics/Traits
A. Heat and tick resistance, hardiness, and maternal instincts
B. Growth rate, muscling, early puberty, calving ease, and mothering ability
C. Foraging ability, docile, and good fertility.
D. Early maturity, reproductive performance, mothering ability, disposition, and hardiness.
E. Muscle and growth rate. Originally was red and white in color, but today the breed is many times black or black and white hided and popular for crossbreeding and in the "Club Calf" Industry

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F. Meat Yield, tough, agile, and hardy, also good browsing ability
G. Mohair production Meat production, browsing ability, and not as prolific as other goats.
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, high milk production

Sheep Characteristics/Traits
J. Carcass conformation will breed "out-of-season", and milking ability
K. Carcass conformation, growth rate, lambing percentage, and wool production
L. Carcass conformation, heavy fleece, and lambing percentage.
M. Carcass conformation, growth rate, feed conversion, and milking ability.
N. Carcass conformation, early maturity, and adaptability to varied climates.

Swine Characteristics/Traits
O. Aggressive breeder and high growth rate.
P. Prolificacy (litter size), milking ability, mothering ability.
Q. Extreme muscling and leanness.
R. Excellent rate of gain and feed efficiency.
S. Meat quality (intramuscular fat)

1

2

3

4

5


6
Christy Collins

7

8

9

10

Name___ANSWER KEY___ Contestant #_____County_____

Senior Livestock/Meat Equipment Identification-2013

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** and **Seniors** provide answers for livestock/meat equipment names and equipment use. **Each question is worth 5 points (100 points total for Intermediates and Seniors).**

	Equipment Name	Equipment Use
1.	25	F
2.	28	I
3.	18	K
4.	36	M
5.	42	C
6.	44	D
7.	55	H
8.	22	O
9.	17	E
10.	9	N or J

Equipment Names – to be used in answer column 1 by Clovers, Intermediates, and 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 dehorner
17. Electric fence wire roller
18. Electric sheep shears
19. Emasculator
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 implant cartridge
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. Wood post electric fence insulator

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 and Intermediates and Seniors

A. Used to pick up meat pieces during fabrication.

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

C. A non-rusting, electric fence insulator that can be nailed to wooden posts.

D. Used to cut up meat carcasses.

E. Used to quickly roll up electric fence wire for storage, or to quickly let out electric fence wire when putting up an electric fence.

F. Used to shear and groom the wool from sheep. Blade lengths typically range from 3 to 6-½ inches.

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

H. Used to grind meat for hamburger and sausages.

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

J. Used to remove dirt and loose hair from cattle when grooming.

K. Used to shear and groom the wool from sheep. Powered by an electric motor

L. Used by shearers to quickly replace the clipper comb and clipper cutter on cattle clippers.

M. Used to comb (groom) the hair on cattle.

N. Used to remove dirt and loose hair from cattle when grooming.

O. Used to trim hooves of cattle, sheep, and goats to help prevent foot diseases.

Name_____ Contestant #_____County_____

Senior Livestock/Meat Equipment Identification-2013

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** and **Seniors** provide answers for livestock/meat equipment names and equipment use. Each question is worth 5 points (100 points total for Intermediates and Seniors).

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

Equipment Names – to be used in answer column 1 by Clovers, Intermediates, and 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 dehorner
17. Electric fence wire roller
18. Electric sheep shears
19. Emasculator
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 implant cartridge
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. Wood post electric fence insulator

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 and Intermediates and Seniors

A. Used to pick up meat pieces during fabrication.

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

C. A non-rusting, electric fence insulator that can be nailed to wooden posts.

D. Used to cut up meat carcasses.

E. Used to quickly roll up electric fence wire for storage, or to quickly let out electric fence wire when putting up an electric fence.

F. Used to shear and groom the wool from sheep. Blade lengths typically range from 3 to 6-½ inches.

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

H. Used to grind meat for hamburger and sausages.

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

J. Used to remove dirt and loose hair from cattle when grooming.

K. Used to shear and groom the wool from sheep. Powered by an electric motor

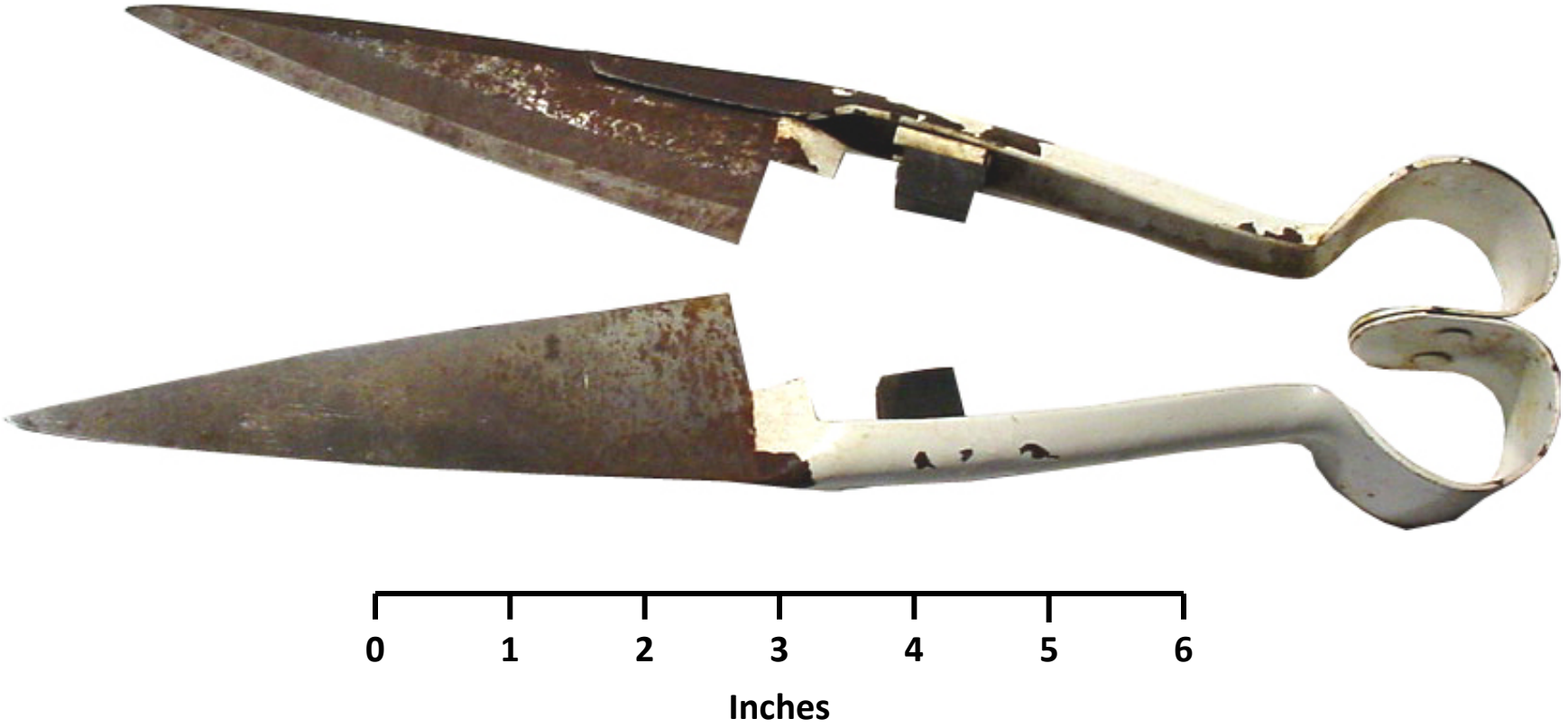
L. Used by shearers to quickly replace the clipper comb and clipper cutter on cattle clippers.

M. Used to comb (groom) the hair on cattle.

N. Used to remove dirt and loose hair from cattle when grooming.

O. Used to trim hooves of cattle, sheep, and goats to help prevent foot diseases.

1



2

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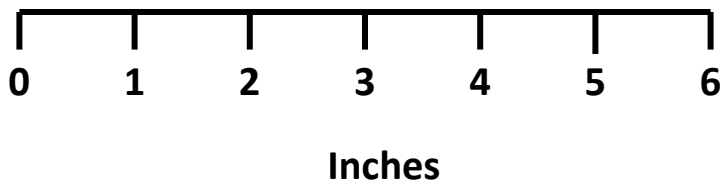

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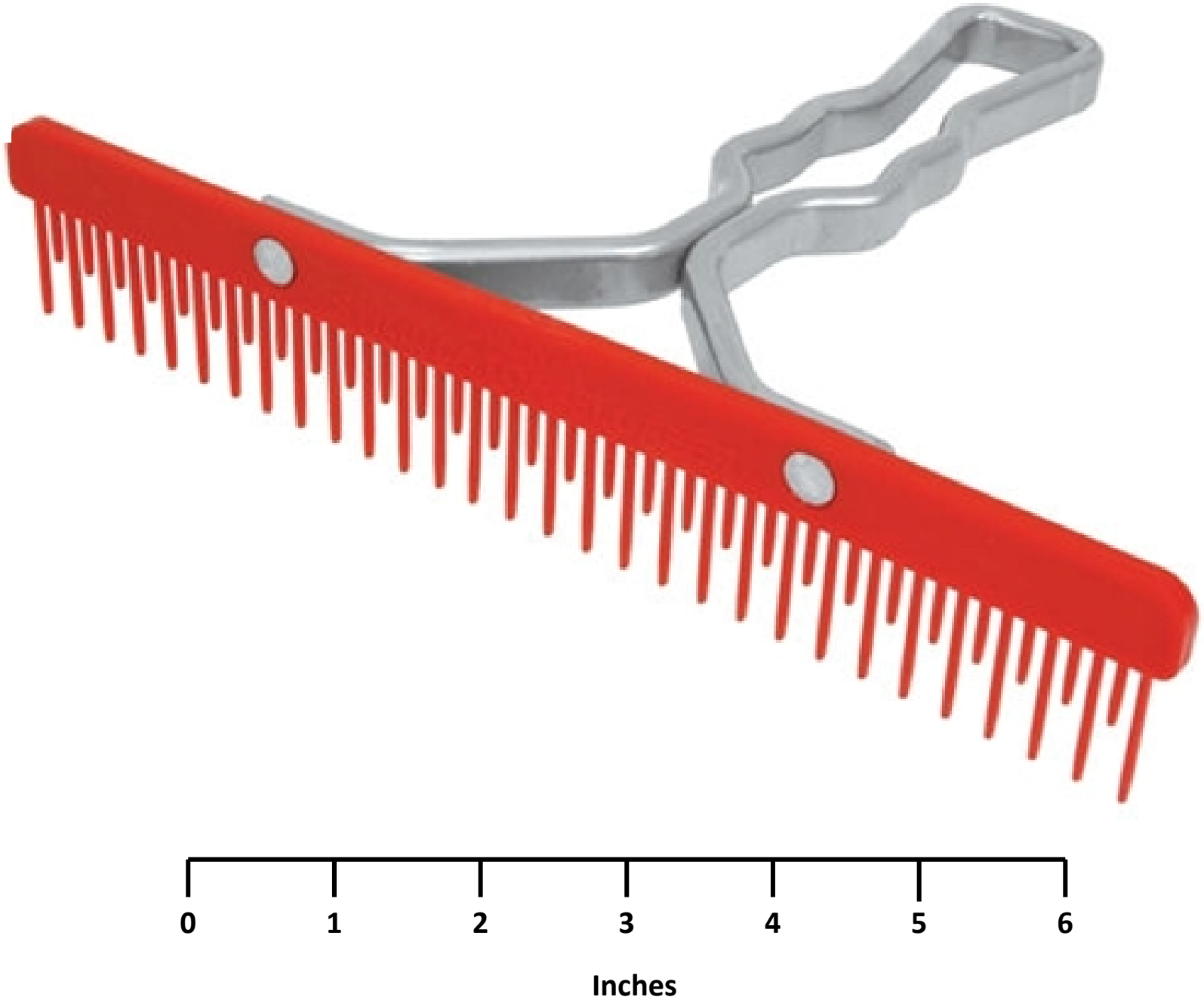

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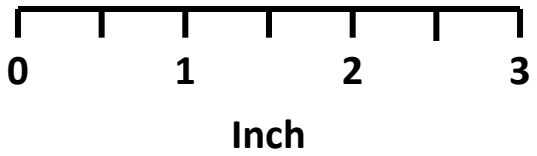

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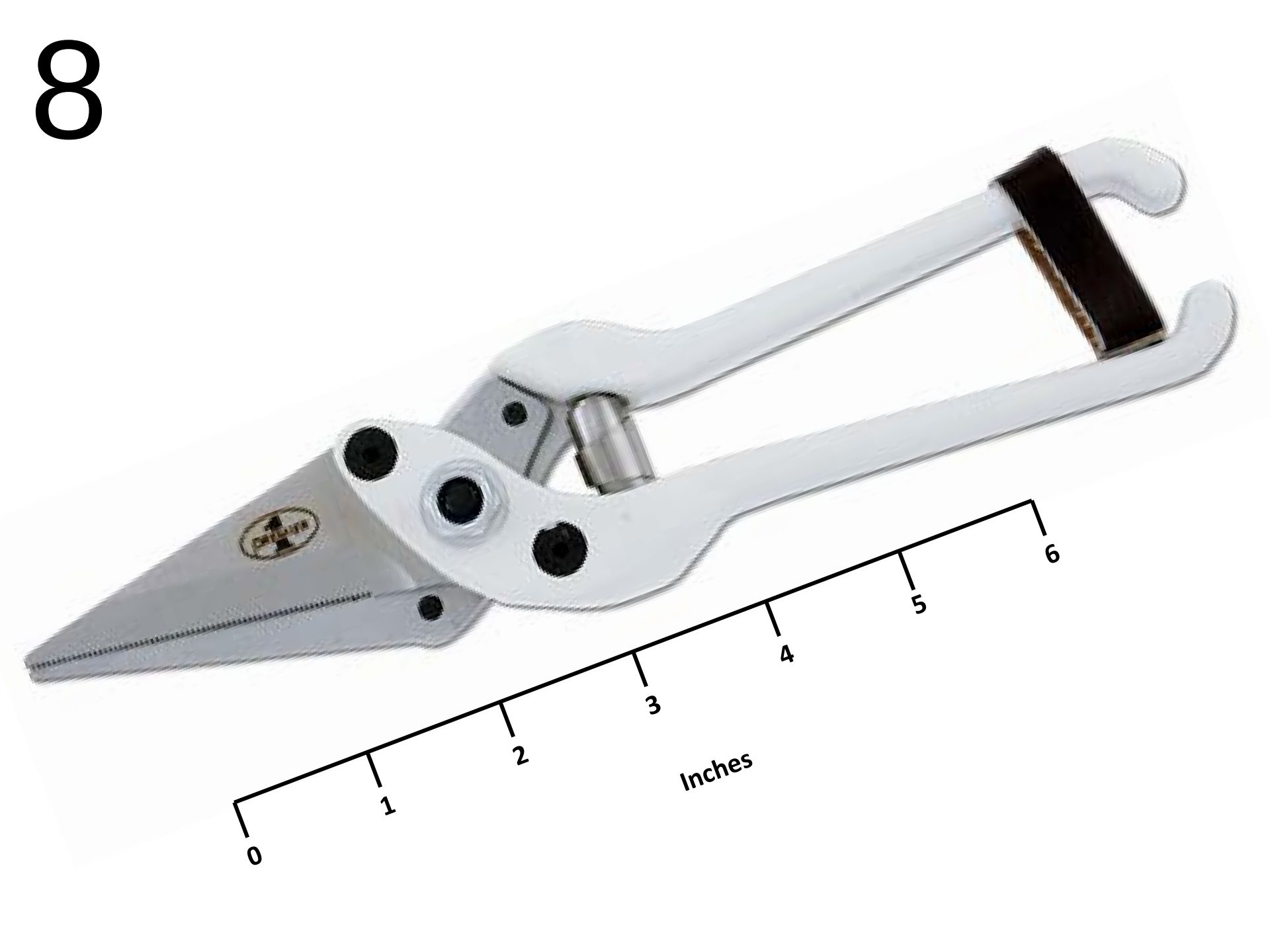

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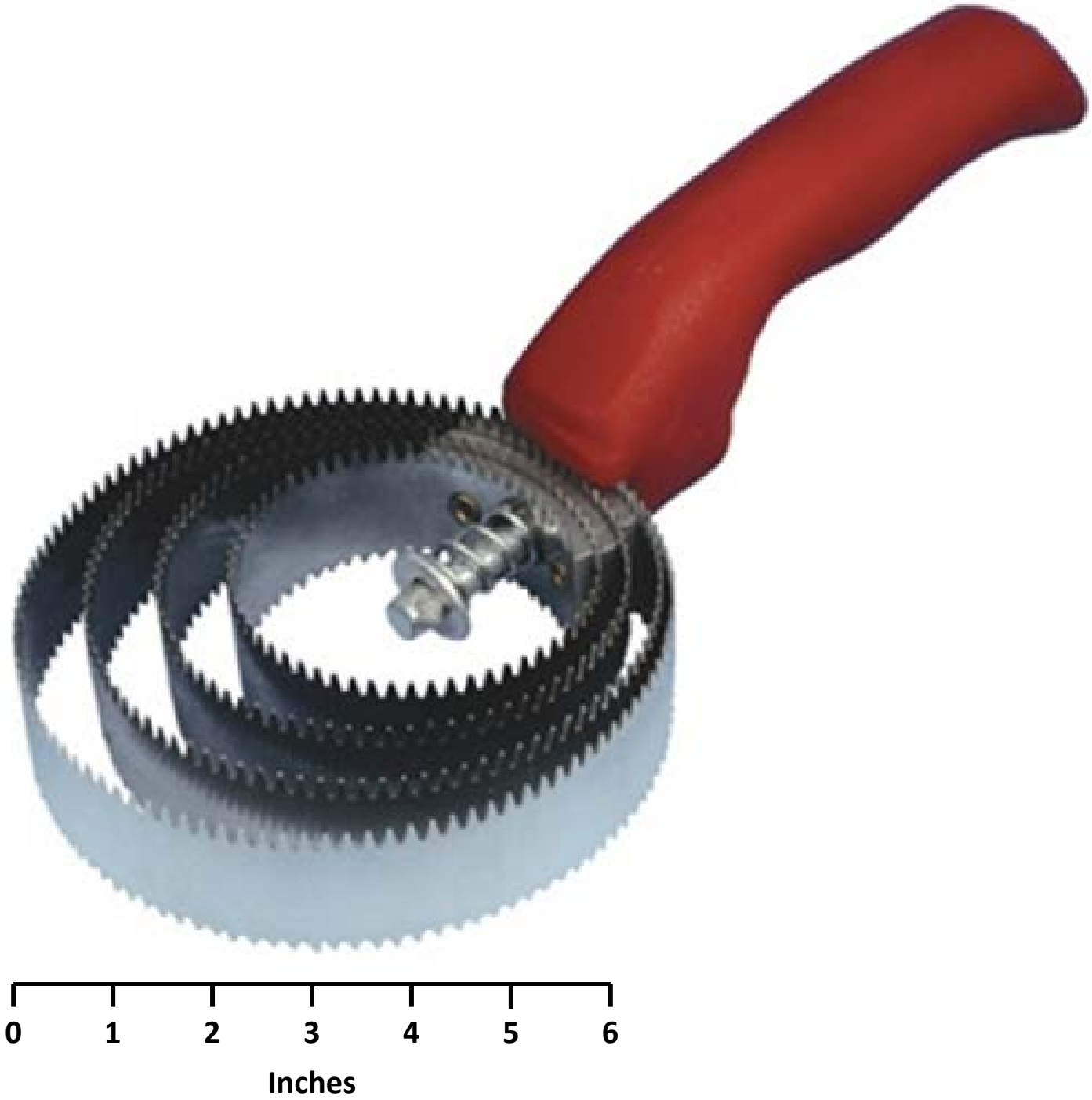

Senior Retail Meat Judging - 1 (2013)

Name___ANSWER KEY__ Contestant #_____ County_____

Official Placing 2-1-4-3

Cuts of 3-3-2

(Placing the meat is worth a possible 50 points, each question is worth 10 points per question for a total of 50 points, for a Grand Total of 100 points possible)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Retail Meat Judging 1_____

A	1 2 3 4	**45**
B	1 2 4 3	**47**
C	1 3 2 4	**37**
D	1 3 4 2	**39**
E	1 4 2 3	**41**
F	1 4 3 2	**33**
G	2 1 3 4	**48**
H	2 1 4 3	**50**
I	2 3 1 4	**43**
J	2 3 4 1	**40**
K	2 4 1 3	**47**
L	2 4 3 1	**42**
M	3 1 2 4	**32**
N	3 1 4 2	**26**
O	3 2 1 4	**35**
P	3 2 4 1	**32**
Q	3 4 1 2	**23**
R	3 4 2 1	**26**
S	4 1 2 3	**38**
T	4 1 3 2	**30**
U	4 2 1 3	**41**
V	4 2 3 1	**36**
W	4 3 1 2	**25**
X	4 3 2 1	**28**

[Questions on back]

Questions

1.) Which chop displayed the lightest muscling in the class? __3___

2.) Which chop displayed the heaviest muscling in the class? __2___

3.) Which chop displayed the largest area of exposed bone mass in the class? ___3__

4.) Which chop was the fattest in the class? __4___

5.) Which chop contained the smallest tenderloin in the class? __3___

Senior Retail Meat Judging - 1 (2013)

Name_____ Contestant #_____ County_____

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Retail Meat Judging 1_____

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	

[Questions on back]

Questions

1.) Which chop displayed the lightest muscling in the class? _____

2.) Which chop displayed the heaviest muscling in the class? _____

3.) Which chop displayed the largest area of exposed bone mass in the class? _____

4.) Which chop was the fattest in the class? _____

5.) Which chop contained the smallest tenderloin in the class? _____

Senior Retail Meat Judging - 2 (2013)

Name__ANSWER KEY_____ Contestant #_____ County_____

Official Placing 4-1-3-2

Cuts of 2-2-4

(50 points possible)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Retail Meat Judging 2_____

A	1 2 3 4	**32**
B	1 2 4 3	**36**
C	1 3 2 4	**36**
D	1 3 4 2	**44**
E	1 4 2 3	**44**
F	1 4 3 2	**48**
G	2 1 3 4	**26**
H	2 1 4 3	**30**
I	2 3 1 4	**24**
J	2 3 4 1	**26**
K	2 4 1 3	**32**
L	2 4 3 1	**30**
M	3 1 2 4	**34**
N	3 1 4 2	**42**
O	3 2 1 4	**28**
P	3 2 4 1	**30**
Q	3 4 1 2	**44**
R	3 4 2 1	**38**
S	4 1 2 3	**46**
T	4 1 3 2	**50**
U	4 2 1 3	**40**
V	4 2 3 1	**38**
W	4 3 1 2	**48**
X	4 3 2 1	**42**

Senior Retail Meat Judging - 2 (2013)

Name_____ Contestant #_____ County_____

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Retail Meat Judging 2_____

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 Hay Judging-2013

Name____ANSWER KEY_____ Contestant #_____ County_____

Official Placing 4-3-2-1

Cuts of 4-2-6

(50 points possible)

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

_Hay Judging _____

A	1 2 3 4	**12**
B	1 2 4 3	**16**
C	1 3 2 4	**14**
D	1 3 4 2	**20**
E	1 4 2 3	**22**
F	1 4 3 2	**24**
G	2 1 3 4	**18**
H	2 1 4 3	**22**
I	2 3 1 4	**26**
J	2 3 4 1	**38**
K	2 4 1 3	**34**
L	2 4 3 1	**42**
M	3 1 2 4	**22**
N	3 1 4 2	**28**
O	3 2 1 4	**28**
P	3 2 4 1	**40**
Q	3 4 1 2	**40**
R	3 4 2 1	**46**
S	4 1 2 3	**34**
T	4 1 3 2	**36**
U	4 2 1 3	**40**
V	4 2 3 1	**48**
W	4 3 1 2	**44**
X	4 3 2 1	**50**

[TURN OVER for Scenario and Forage Analysis Information]

Senior Hay Judging-2013

Scenario:
You have the following four (4) lots of hay to use as feed for your commercial beef cow herd. You will use all four (4) lots of hay at some point during the year. Rank the four hay samples in the order that you would utilize them as the most **cost effective** sole ration for your mature cows in the middle third of gestation to maintain their body condition score (BCS) of a number five (5). Basically you will rank the lots of hay in order to most cost-effectively meet the nutritional requirements of your spring-calving cows from November until they calve in February.

Nutrient Requirements for 1200 pound, cow in the middle third of gestation.

Dry Matter:	21 pounds per day
Crude Protein:	7.1%
Total Digestible Nutrients	50%

Forage Analysis

	Hay Lot #1 **Grass/Legume Mixed**	***Hay Lot #2*** **2nd cutting Orchardgrass**	***Hay Lot #3*** **1st cutting Orchardgrass**	***Hay Lot #4*** **Mixed Grass**
Dry Matter	***88.6%***	***88.6%***	***87.9%***	***88.9%***
Crude Protein	***15.2%***	***13.5%***	***12.7%***	***8.4%***
Acid Detergent Fiber	***41.5%***	***44.2%***	***44.8%***	***49.9%***
Neutral Detergent Fiber	***61.4%***	***63.2%***	***64.1%***	***66.2%***
Total Digestible Nutrients	***65.5%***	***61.5%***	***59.6%***	***53.2%***
Price per Ton	***$145***	***$110***	***$100***	***$80***

Senior Hay Judging-2013

Name_____ Contestant #_____ County_____

Contestant Number _____
Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

_Hay Judging _____

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]

Senior Hay Judging-2013

Scenario:
You have the following four (4) lots of hay to use as feed for your commercial beef cow herd. You will use all four (4) lots of hay at some point during the year. Rank the four hay samples in the order that you would utilize them as the most **cost effective** sole ration for your mature cows in the middle third of gestation to maintain their body condition score (BCS) of a number five (5). Basically you will rank the lots of hay in order to most cost-effectively meet the nutritional requirements of your spring-calving cows from November until they calve in February.

Nutrient Requirements for 1200 pound, cow in the middle third of gestation.

Dry Matter:	21 pounds per day
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Total Digestible Nutrients	50%

Forage Analysis

	Hay Lot #1 **Grass/Legume Mixed**	***Hay Lot #2*** **2nd cutting Orchardgrass**	***Hay Lot #3*** **1st cutting Orchardgrass**	***Hay Lot #4*** **Mixed Grass**
Dry Matter	***88.6%***	***88.6%***	***87.9%***	***88.9%***
Crude Protein	***15.2%***	***13.5%***	***12.7%***	***8.4%***
Acid Detergent Fiber	***41.5%***	***44.2%***	***44.8%***	***49.9%***
Neutral Detergent Fiber	***61.4%***	***63.2%***	***64.1%***	***66.2%***
Total Digestible Nutrients	***65.5%***	***61.5%***	***59.6%***	***53.2%***
Price per Ton	***$145***	***$110***	***$100***	***$80***

Name___Answer Key____ Contestant #_____ County_____

Quality Assurance-Individual-Senior-2013

You are the manager of a beef cattle feedlot operation that finishes over 20,000 head of steers and heifers each year. Use the **Optaflexx ® 45** label to answer the **10 questions** below relating to beef cattle feedlot management. **(Each question is worth 5 points per question for a total of 50 points)**

1.) How should Optaflexx ® 45 be administered?

A.) Injected intramuscularly

C.) Injected subcutaneously

B.) Injected intravenously

D.) Mixed in a complete feed ration

2.) What is the active ingredient in Optaflexx ® 45?

A.) Ractopamine Hydrochloride – 11.34 kilograms per 25 pounds

B.) Ractopamine Hydrochloride – 45.4 grams per pound

C.) Ractopamine Hydrochloride – 100 grams per kilogram

D.) Both B and C are correct

3.) How many pounds of Optaflexx ® 45 would be needed per ton to reach a concentration of 27 ppm of the active ingredient in a Type C medicated feed?

A.) 0.18

C.) 0.54

B.) 0.36

D.) 0.72

4.) How should Optaflexx ® 45 be stored?

A.) Stored in a refrigerator

C.) Stored at room temperature in a dry area

B.) Stored at or below 30° Celsius

D.) Stored in a cold, moist, dark area

5.) Optaflexx ® 45 is labeled to treat which one of the following diseases/disease causing organisms?

A.) Bovine Respiratory Disease

C.) *Mannheimia haemolytica*

B.) *Pasteurella multocida*

D.) Optaflexx ® 45 is not labeled to treat any disease

[OVER]

6.) Optaflexx ® 45 would generally be considered a _____?

A.) Antibiotic

C.) Vaccine

B.) Probiotic

D.) Growth promotant

7.) In which one of the following production situations would Optaflexx ® 45 be best utilized?

A.) Your feedlot finishes cattle with mostly Angus genetics and you sell cattle on a carcass grid that pays premiums for carcasses that meet Certified Angus Beef® requirements (basically USDA Choice and Prime with small price discounts for USDA Yield Grade 4 and 5 carcasses).

B.) **Your feedlot finishes cattle that are mostly half–blood Continental/Angus genetics and you sell cattle on a grid that pays premiums for USDA Choice and Select carcasses with large price discounts for USDA Yield Grade 4 and 5 carcasses.**

C.) Your feedlot finishes cattle on pasture for the "grass fed" beef trade emphasizing organic and "natural" production methods.

D.) Both A and C would utilize Optaflexx ® 45 fairly well.

8.) Optaflexx ® 45 is a trademark of_____?

A.) Elanco Animal Health

C.) Pfizer Animal Health

B.) **Eli Lilly and Company**

D.) Fort Dodge Animal Health

9.) Which of the following is true?

A.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will decrease ribeye area in feedlot steers.

B.) **Optaflexx ® 45 (at the 24.6 gram per ton level) will improve USDA Yield Grade of feedlot steers by lowering the number. (For example, go from a USDA Yield Grade 4 to a USDA Yield Grade 3)**

C.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will improve USDA Yield Grade of feedlot steers by increasing the number. (For example, go from a USDA Yield Grade 3 to a USDA Yield Grade 4)

D.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will improve the leg confirmation score of feedlot lambs

10.) How long should Optaflexx ® 45 be used in the feed ration?

A.) From weaning until 3 days before harvest

C.) The last 60 days of the feeding period

B.) **The last 28-42 days of the feeding period**

D.) The last 120 days of the feeding period

Name_____ Contestant #_____ County_____

Quality Assurance-Individual-Senior-2013

You are the manager of a beef cattle feedlot operation that finishes over 20,000 head of steers and heifers each year. Use the **Optaflexx ® 45** label to answer the **10 questions** below relating to beef cattle feedlot management.

1.) How should Optaflexx ® 45 be administered?

A.) Injected intramuscularly

B.) Injected intravenously

C.) Injected subcutaneously

D.) Mixed in a complete feed ration

2.) What is the active ingredient in Optaflexx ® 45?

A.) Ractopamine Hydrochloride – 11.34 kilograms per 25 pounds

B.) Ractopamine Hydrochloride – 45.4 grams per pound

C.) Ractopamine Hydrochloride – 100 grams per kilogram

D.) Both B and C are correct

3.) How many pounds of Optaflexx ® 45 would be needed per ton to reach a concentration of 27 ppm of the active ingredient in a Type C medicated feed?

A.) 0.18

B.) 0.36

C.) 0.54

D.) 0.72

4.) How should Optaflexx ® 45 be stored?

A.) Stored in a refrigerator

B.) Stored at or below 30° Celsius

C.) Stored at room temperature in a dry area

D.) Stored in a cold, moist, dark area

5.) Optaflexx ® 45 is labeled to treat which one of the following diseases/disease causing organisms?

A.) Bovine Respiratory Disease

B.) *Pasteurella multocida*

C.) *Mannheimia haemolytica*

D.) Optaflexx ® 45 is not labeled to treat any disease

[OVER]

6.) Optaflexx ® 45 would generally be considered a _____?

A.) Antibiotic C.) Vaccine

B.) Probiotic D.) Growth promotant

7.) In which one of the following production situations would Optaflexx ® 45 be best utilized?

A.) Your feedlot finishes cattle with mostly Angus genetics and you sell cattle on a carcass grid that pays premiums for carcasses that meet Certified Angus Beef® requirements (basically USDA Choice and Prime with small price discounts for USDA Yield Grade 4 and 5 carcasses).

B.) Your feedlot finishes cattle that are mostly half–blood Continental/Angus genetics and you sell cattle on a grid that pays premiums for USDA Choice and Select carcasses with large price discounts for USDA Yield Grade 4 and 5 carcasses.

C.) Your feedlot finishes cattle on pasture for the "grass fed" beef trade emphasizing organic and "natural" production methods.

D.) Both A and C would utilize Optaflexx ® 45 fairly well.

8.) Optaflexx ® 45 is a trademark of_____?

A.) Elanco Animal Health C.) Pfizer Animal Health

B.) Eli Lilly and Company D.) Fort Dodge Animal Health

9.) Which of the following is true?

A.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will decrease ribeye area in feedlot steers.

B.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will improve USDA Yield Grade of feedlot steers by lowering the number. (For example, go from a USDA Yield Grade 4 to a USDA Yield Grade 3)

C.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will improve USDA Yield Grade of feedlot steers by increasing the number. (For example, go from a USDA Yield Grade 3 to a USDA Yield Grade 4)

D.) **Optaflexx ® 45** (at the 24.6 gram per ton level) will improve the leg confirmation score of feedlot lambs

10.) How long should Optaflexx ® 45 be used in the feed ration?

A.) From weaning until 3 days before harvest C.) The last 60 days of the feeding period

B.) The last 28-42 days of the feeding period D.) The last 120 days of the feeding period

Elanco® AF0630-25B

For use in Feeds For Cattle
Fed In Confinement For Slaughter Only

Optaflexx® 45™

Ractopamine Hydrochloride

Net Weight 25 lb (11.34 kg)

Type A Medicated Article

Do Not Feed Undiluted

Active Drug Ingredient: Ractopamine Hydrochloride - 45.4 g per lb (100 g per kg)

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

Indication: **Complete Feed:** For increased rate of weight gain, improved feed efficiency and increased carcass leanness in cattle fed in confinement for slaughter during the last 28 to 42 days on feed.
Top Dress Feed: For increased rate of weight gain and improved feed efficiency in cattle fed in confinement for slaughter during the last 28 to 42 days on feed.
Note: Carcass leanness effects are not an approved indication for use when feeding ractopamine by Top Dress Feeding methods.

Complete Feed

Indications	Appropriate Concentration of Ractopamine in Type C Medicated Feed[a]	Ractopamine (mg/hd/d)
Increased Rate of Weight Gain, and Improved Feed Efficiency	8.2 to 24.6 g/ton (9 ppm to 27 ppm)	70-430
Increased Rate of Weight Gain, Improved Feed Efficiency, and Increased Carcass Leanness	9.8 to 24.6 g/ton (11 ppm to 27 ppm)	90-430

[a] Based on 90% Dry Matter Basis

Carcass Measurements	Effect of Ractopamine[a]		
	8.2 grams/ton (9 ppm)	16.4 grams/ton (18 ppm)	24.6 grams/ton (27 ppm)
Hot Carcass Weight, lbs	↑	↑	↑
Dressing Percentage, %	NC	↑[b]	↑[b]
Carcass Percent Fat, %	NC	↓	↓
12th Rib Fat Thickness, in.	NC	NC	NC
Average Rib Eye Area, sq. in.	↑	↑	↑
USDA Yield Grade	NC	NC	↓[c]
Marbling Score	NC	NC	NC
Rate of Carcass Lean Gain per Day	NC	↑	↑
Efficiency of Carcass Lean Gain per Day	NC	↑	↑

[a] The effect of ractopamine on parameters listed in this table is supported by data generated at the doses tested in the clinical field efficacy trials.
NC = No Change, ↑ = Increased, ↓ = Decreased
[b] Steers Only
[c] Reduction indicates an improvement in USDA Yield Grade.

Top Dress Feed

Indications	Appropriate Concentration of Ractopamine in Type C Medicated Feed[a]	Ractopamine (mg/hd/d)
Increased Rate of Weight Gain and Improved Feed Efficiency	Appropriate Concentration of Ractopamine in a minimum of 1.0 lb **Top Dressed** Type C Medicated Feed[a] (maximum of 800 g/ton)	70-400

[a] Based on 90% Dry Matter Basis

Inert Ingredients: Ground corn cobs.

Mixing Directions (Complete Feed): Thoroughly mix Optaflexx 45 Type A Medicated Article in a ton of appropriate feed ingredients or diluents according to the table below to obtain the proper concentration in the Type B Medicated Feed (maximum 4,920 g/ton). The following table gives examples of how some Type B Medicated Feed concentrations can be prepared:

Pounds of Optaflexx 45[a] To Add Per Ton To Make a Type B Medicated Feed	Resulting Ractopamine Concentration in Type B Medicated Feed[b] grams/ton	grams/pound
36.1	1,640	0.82
72.2	3,280	1.64
108.3	4,920	2.46

[a] Optaflexx 45 contains 45.4g ractopamine hydrochloride per pound
[b] Based on 90% Dry Matter Basis

Thoroughly mix Optaflexx 45 Type A Medicated Article in a ton of complete cattle feed according to the table below to obtain the proper concentration in the Type C Medicated Feed. Prepare an intermediate pre-blend of the premix prior to mixing in a complete feed. Thoroughly mix the required amount in a convenient quantity of feed ingredients then add to the remaining feed ingredients to make one ton of complete feed.

Pounds of Optaflexx 45[a] Per Ton To Make a Type C Medicated Feed	Resulting Ractopamine Concentration in Type C Medicated Feed[b]
0.18	8.2 grams/ton (9 ppm)
0.36	16.4 grams/ton (18 ppm)
0.54	24.6 grams/ton (27 ppm)

[a] Optaflexx 45 contains 45.4g ractopamine hydrochloride per pound
[b] Based on 90% Dry Matter Basis

Mixing Directions (Liquid Type B Feeds): Thoroughly mix Optaflexx Type A Medicated Article in a ton of appropriate feed ingredients or diluents according to the table below to obtain the proper concentration in the Type B Medicated Feed (maximum 2300 g/ton).

Maintain supplement pH at 4.5 to 7.5. For stored liquid Type B medicated feeds containing ractopamine, recirculate immediately prior to use for not less than 10 minutes, moving not less than 1% of the tank contents per minute from the bottom of the tank to the top. Recirculate daily as described even when not in use.

The following table gives examples of how some Type B Medicated Feed concentrations can be prepared:

Pounds of Optaflexx 45[a] To Add Per Ton To Make a Liquid Type B Medicated Feed	Resulting Ractopamine Concentration in Liquid Type B Medicated Feed grams/ton	grams/pound
36.1	1,640	0.82
44.1	2,000	1.00
50.7	2,300	1.15

[a] Optaflexx 45 contains 45.4g ractopamine hydrochloride per pound

Mixing Directions for Preparing Type C Medicated Top Dress Feed: Thoroughly mix Optaflexx 45 Type A Medicated Article in a ton of appropriate feed ingredients or diluents according to the table below to obtain the proper concentration in the Type C Medicated Feed (maximum 800 g/ton). The following table gives examples of how some Type C Medicated Top Dress Feed concentrations can be prepared:

Pounds of Optaflexx 45[a] To Add Per Ton To Make Type C Medicated Top Dress Feed	Resulting Ractopamine Concentration in Type C Top Dress Medicated Feed[b]		
Top Dress	grams/ton	grams/pound	mg/pound
2.20	100	0.05	50
4.41	200	0.10	100
6.61	300	0.15	150
8.81	400	0.20	200
17.62	800	0.40	400

[a] Optaflexx 45 contains 45.4g ractopamine hydrochloride per pound
[b] Based on 90% Dry Matter Basis

Directions for Use (Complete Feed): Feed continuously to cattle fed in confinement for slaughter as the sole ration for the last 28 to 42 days on feed.

Directions for Use (Type C Medicated Top Dress Feed): Feed continuously to cattle fed in confinement for slaughter a Type C Medicated Feed containing up to a maximum of 800 g/ton ractopamine (see mixing direction table) to provide 70 to 400 mg/head/day for the last 28 to 42 days on feed. Type C Medicated Top Dress feed must be fed in a minimum of 1.0 lb per head per day to provide 70 to 400 mg/head/day.

CAUTION: Not for animals intended for breeding.

NOT FOR HUMAN USE

WARNING: The active ingredient in Optaflexx, ractopamine hydrochloride, is a beta-adrenergic agonist. Individuals with cardiovascular disease should exercise special caution to avoid exposure. Not for use in humans. Keep out of the reach of children. The Optaflexx 45 formulation (Type A Medicated Article) poses a low dust potential under usual conditions of handling and mixing. When mixing and handling Optaflexx, use protective clothing, impervious gloves, protective eye wear, and a NIOSH-approved dust mask. Operators should wash thoroughly with soap and water after handling. If accidental eye contact occurs, immediately rinse eyes thoroughly with water. If irritation persists, seek medical attention. The material safety data sheet contains more detailed occupational safety information. To report adverse effects, access medical information, or obtain additional product information, call 1-800-428-4441.

Store at Room Temperature. Avoid Moisture.
Expiration Date and Lot Number are printed on the bag. Not to be used after the expiry date.

Restricted Drug (California) - Use Only as Directed - NADA # 141-221, Approved by FDA

Elanco Animal Health
A Division of Eli Lilly and Company
Indianapolis, IN 46285, U.S.A.

Optaflexx® 45

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BG5850DEAMB (V03-01-2010)

Name__ANSWER KEY_____ Contestant #_____County_____

Senior Quiz-2013

Circle the correct answer to the question.

(Each question is worth 2 points each for a total of 50 points)

1.) _____are the "building blocks" of proteins.

a. Carbohydrates
b. **Amino Acids**
c. Fats
d. Vitamins

2.) Which beef animal would most likely produce a USDA Prime, Yield Grade 4 carcass?

a. **1065 pound Angus heifer with a rib eye area of 10.55 square inches and .80 backfat**
b. 1125 pound Charolais cross steer with a rib eye area of 13.35 square inches and .30 backfat
c. 1405 pound cull Holstein cross cow that is 6 years old
d. 1415 pound cull Hereford cross cow that is 12 years old

3.) The term "cowhocked" refers to what condition?

a. Too little set to the hocks
b. Too much set to the hocks
c. Swelling on the hocks
d. **Hocks turn in**

4.) Which of the following management techniques should be used to prevent disease in a swine operation?

a. Vaccination
b. Sanitation
c. Isolation of purchased breeding stock from the herd
d. **All of these**

5.) A mature beef cow would probably be able to consume 3% of her body weight per day of which one of the following feeds?

a. **Alfalfa/Orchardgrass Pasture**
b. Mature Tall Fescue Hay
c. Weathered Corn Stalks
d. Trace Mineral Block

[OVER]

6.) Which ram would be the best choice as a terminal sire to be bred to a flock of finewool crossbred ewes?

a. **A Hampshire ram with adjusted ribeye area scan of 4.2 square inches and % Lamb Crop EPD of -1.2**
b. A Polypay ram with adjusted ribeye area scan of 2.2 square inches and % Lamb Crop EPD of +4.7
c. A Columbia ram with adjusted ribeye area scan of 2.9 square inches and % Lamb Crop EPD of +3.5
d. A Rambouillet ram with adjusted ribeye area scan of 2.5 square inches and % Lamb Crop EPD of +6.5

7.) Which of the following might cause scours in a herd of meat goats?

a. Change in a feed ration
b. Parasites
c. Coccidiosis
d. **All of the above**

8.) Which is true concerning feed requirements of beef cattle?

a. Beef cattle require more pounds of protein as they mature
b. Beef cattle require more pounds of energy as they mature
c. Beef cattle require a higher percent of crude protein as they mature
d. **Both a and b are correct**

9.) Which is a medium wool breed of sheep?

a. **Polled Dorset**
b. Rambouillet
c. Katahdin
d. Dorper

10.) Which of the following is correct concerning IBR (Infectious Bovine Rhinotracheitis)?

a. Feeder calves should be vaccinated against this disease
b. Sows should be given antimicrobials to treat this disease
c. IBR may cause eye infections (pinkeye) in beef cattle
d. **Both a and c are correct**

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

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

12.) Which statement is false concerning the USDA Yield Grade of a beef carcass?

a. **USDA Yield Grade 1 carcasses are fat and light muscled**
b. USDA Yield Grade 5 carcasses are fat and light muscled
c. USDA Yield Grade compares the differences in yield of boneless, closely trimmed, retail cuts
d. Ribeye area is an important part in determining USDA Yield Grades

13.) Which one of the following management practices are performed on baby lambs in most commercial sheep flocks within a few weeks of birth?

a. Dock tails
b. Clip needle teeth
c. Castrate ram lambs
d. **Both a and c**

14.) Which of the following products would be used to deworm beef cattle?

a. Feed grade fat
b. Prostaglandin
c. Antiviral
d. **Anthelmintic**

15.) The North American International Livestock Exposition is located where?

a. Houston
b. **Louisville**
c. Denver
d. Kansas City

16.) Which of the following is not an energy feed?

a. **Fish meal**
b. Barley
c. Steam flaked corn
d. Soybean hulls

17.) Overeating disease or enterotoxemia usually occurs in which of the following situations?

a. Sudden death of newborn pigs due to mastitis
b. **Sudden death of a feedlot lamb recently placed on a high energy feed ration**
c. Sudden outbreak of abortions in beef cattle due to weather stress
d. None of these

18.) Which one of these Continental breeds of cattle is more maternally oriented?

a. Angus
b. Limousin
c. Brahman
d. **Simmental**

[OVER]

19.) If you breed a Hereford bull that is heterozygous polled (genotype: Pp) to a herd of Angus cows that are all homozygous polled (genotype: PP), how many of the calves will have horns?

a. 100%
b. 75%
c. 25%
d. **0%**

20.) Which forage should be the highest quality?

a. Round bales of weathered corn stalks stored outside
b. **Round bales of 2nd cutting, orchardgrass/red clover hay stored inside**
c. Round bales of mature, tall fescue hay stored outside
d. Square bales of weather damaged, mature, tall fescue hay stored inside

21.) Why would you feed an ionophore to a meat goat?

a. **To prevent coccidiosis**
b. To treat a viral infection
c. To improve conception rates
d. To manage fescue toxicosis

22.) Which of the following is considered a by-product feed?

a. Corn Gluten Feed
b. Soybean Hull Pellets
c. Distillers Dried Grains
d. **All of these are by-product feeds**

23.) Which wholesale cut of beef should generate the highest value retail cuts?

a. The shank
b. **The loin**
c. The chuck
d. The round

24.) The period of time from conception to calving is called_____?

a. **Gestation**
b. Lactation
c. Generation interval
d. Postpartum interval

25.) Which of the following beef cattle diseases or disorders may reduce performance of calves in a feedlot setting?

a. Bloat
b. Shipping Fever
c. Foot Rot
d. **All of the above**

Name_____ Contestant #_____County_____

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Senior Quality Assurance Exercise-Team-2013
County____ANSWER KEY_____

Your team manages a large, progressive farrow-to-wean swine operation. Use the provided vaccine/medication labels to answer the questions below relating to swine management. **(Each question is worth 20 points each for a total of 200 points)**

1.) Which product is used to induce parturition in sows?

a.) FarrowSure® Gold
c.) LITTERGUARD®
b.) Improvest®
d.) **LUTALYSE®**

2.) What is the active ingredient in the product from number 1 above?

a.) Synthetically produced testosterone
c.) Naturally occurring pregnant mare serum
b.) **Naturally occurring prostaglandin F2 alpha**
d.) Chemically produced sodium chloride

3.) How should the product be administered from number 1 above?

a.) **2 mL injected intramuscularly**
c.) 5 mL injected intramuscularly
b.) 5 mg injected intramuscularly
d.) 10 mL injected intramuscularly

4.) Why might you want to induce parturition in sows?

a.) **Increase consistency in pigs within a farrowing group**

b.) Increase piglet mortality

c.) Reduce feed costs during the finishing phase

d.) None of these

5.) _____ will provide maternal antibodies to protect against neonatal diarrhea in pigs whose mother has been vaccinated.

a.) FarrowSure® Gold
c.) **LITTERGUARD®**
b.) Improvest®
d.) LUTALYSE®

[OVER]

6.) The label for the product in number 5 above mentions "Good animal husbandry and herd health management practices should be employed". What do think that statement might include?

a.) Having a valid VCPR (vet-client-patient relationship)

b.) Using antibiotics to treat pigs with pneumonia due to poor building ventilation and overcrowding

c.) Providing balanced feed rations that meet all nutritional requirements of pigs

d.) **Both a and c are correct**

7.) The product in number 5 above is a _____.

a.) Growth promotant

b.) **Vaccine**

c.) Injectable antimicrobial

d.) Feed grade antibiotic

8.) Which product is used as an aid in preventing reproductive failure caused by PPV, erysipelas, and leptospirosis?

a.) **FarrowSure® Gold**

b.) Improvest®

c.) LITTERGUARD®

d.) LUTALYSE®

9.) Which statement is true about the product in number 8 above?

a.) It contains a Killed Virus

b.) Breeding boars as well as sows/gilts may be vaccinated with this product

c.) It should be stored below 0° C

d.) **Both a and b are true statements**

10.) Which animal health company supplies/distributes/manufactures all four (4) of these products?

a.) **Pfizer Animal Health**

b.) Merck Animal Health

c. Fort Dodge Animal Health

d. Valley View Veterinarian Supply

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County_____

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FarrowSure® GOLD

Pfizer Animal Health

Parvovirus Vaccine
Killed Virus
Erysipelothrix Rhusiopathiae-Leptospira Canicola-Grippotyphosa-Hardjo-Icterohaemorrhagiae-Pomona Bacterin

DESCRIPTION

FarrowSure GOLD is for vaccination of healthy breeding swine as an aid in preventing reproductive failure caused by porcine parvovirus (PPV), erysipelas caused by *Erysipelothrix rhusiopathiae,* and leptospirosis caused by *Leptospira canicola, L. grippotyphosa, L. hardjo, L. icterohaemorrhagiae,* and *L. pomona.* An 18-week duration of immunity following vaccination has been demonstrated against erysipelas. FarrowSure GOLD is a liquid preparation of porcine parvovirus grown on an established porcine cell line, a serum-free, clarified *E. rhusiopathiae* culture, and whole cell cultures of the 5 *Leptospira* serovars identified above. The antigens have been chemically inactivated and adjuvanted with 2 adjuvants, including Amphigen®, to enhance the immune response.

DIRECTIONS

General Directions: Shake well. Aseptically administer 2 mL intramuscularly.
Primary Vaccination: Healthy swine should receive 2 doses 3-5 weeks apart with the second dose administered 2-4 weeks prior to breeding. Healthy gilts, however, should receive the second dose as near as possible to 14 days prior to breeding.
Revaccination: Revaccination with a single dose is recommended prior to subsequent breedings. Boars should be revaccinated semiannually.
Good animal husbandry and herd health management practices should be employed.

SAFETY

The safety of FarrowSure GOLD was demonstrated under field conditions in approximately 1,340 sows and gilts receiving single or multiple doses. No serious systemic or allergic reactions were observed following vaccination.

Efficacy of the fractions of FarrowSure GOLD was demonstrated in controlled challenge-of-immunity and immunogenicity tests. Additionally, duration-of-immunity studies demonstrated that FarrowSure GOLD protected pigs against *E. rhusiopathiae* challenge 18 weeks after the second vaccination.

PRECAUTIONS

Store at 2°-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze.

Use entire contents when first opened.

Sterilized syringes and needles should be used to administer this vaccine.

Do not vaccinate within 21 days before slaughter.

Contains gentamicin as preservative.

Transient injection site swelling and/or inappetance may occur following vaccination.

As with many vaccines, anaphylaxis may occur after use. Initial antidote of epinephrine is recommended and should be followed with appropriate supportive therapy.

This product 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 immunocompromised, or the vaccine is not administered in accordance with label directions.

Technical inquiries should be directed to Pfizer Animal Health Veterinary Services, (800) 366-5288 (USA), (800) 461-0917 (Canada).
For veterinary use only

DOSES
50 doses – 100 mL
250 doses – 500 mL

Improvest®

(Gonadotropin Releasing Factor Analog-Diphtheria Toxoid Conjugate, 0.2 mg/mL)

Sterile Solution for Injection

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

DESCRIPTION: IMPROVEST is a sterile solution containing Gonadotropin Releasing Factor Analog-Diphtheria Toxoid Conjugate. Each mL contains 0.2 mg Gonadotropin Releasing Factor Analog-Diphtheria Toxoid Conjugate, 150 mg of diethylaminoethyl-dextran hydrochloride, 1 mg chlorocresol, sodium hydroxide as needed to adjust pH and water for injection.

INDICATIONS FOR USE: IMPROVEST is indicated for the temporary immunological castration (suppression of testicular function) and reduction of boar taint in intact male pigs intended for slaughter.

DOSAGE AND ADMINISTRATION: IMPROVEST should be administered via subcutaneous injection into the post auricular region of the neck. A safety injector should be used, preferably one which has a dual safety system providing both a needle guard and a mechanism to prevent accidental operation of the trigger. Each intact male pig should receive two 2-mL doses of IMPROVEST. The first dose should be administered no earlier than 9 weeks of age. The second dose should be administered at least 4 weeks after the first dose. Pigs should be slaughtered no earlier than 3 weeks and no later than 10 weeks after the second dose. In case of misdosing, the animal should be re-dosed immediately.

CONTRAINDICATIONS: Do not use IMPROVEST in intact male pigs intended for breeding because of the disruption of reproductive function. Not approved for use in female pigs and barrows.

WARNINGS:

WITHDRAWAL PERIODS:
No withdrawal period is required when used according to labeling.

Not for Human Use. Keep Out of Reach of Children.

USER SAFETY WARNINGS:
Warning for person administering IMPROVEST: Accidental self injection could affect reproductive physiology of both men and women and may adversely affect pregnancy. **Pregnant women should not administer this product. Women of childbearing age should exercise extreme caution when handling this product.** Special care should be taken to avoid accidental self injection and needle stick injury when administering the product. Protective clothing including, but not limited to, safety glasses and gloves should be worn. Use a safety injector, preferably one which has a dual safety system providing both a needle guard and a mechanism to prevent accidental operation of the trigger. In case of eye contact, rinse immediately with copious amounts of water. In case of skin contact, wash immediately with soap and water. The product should be stored safely out of the reach of children. As a reminder, it is the prescribing veterinarian's responsibility to inform drug administrators of the user safety warnings associated with IMPROVEST.

Advice to the user in the event of accidental self injection: In the event of accidental self injection, wash the injury thoroughly with clean running water. Seek prompt medical attention and take the package leaflet with you. Do not administer the product, and/or any other product with a similar action, in the future.

Advice to the physician: Accidental self injection could affect reproductive physiology of both men and women and may adversely affect pregnancy. If self injection with IMPROVEST is suspected, reproductive physiology should be monitored by assay of testosterone or estrogen levels (as appropriate). The risk of a physiological effect is greater after a second or subsequent accidental injection than after a first injection. The patient should be advised not to administer IMPROVEST, and/or any other product with a similar action, in the future.

For customer service, to report suspected adverse reactions or to obtain a copy of the Material Safety Data Sheet (MSDS) call 1-800-336-5288.

PRECAUTIONS: Subcutaneous injection in intact male pigs can cause a transient local injection site reaction that may result in trim loss at slaughter.

ADVERSE REACTIONS: The field study observations from field effectiveness studies were consistent with the observations made during the target animal safety studies of transient inflammation at the injection sites. IMPROVEST did not cause unusual clinical signs or an unexpected frequency or severity of injection site reactions. Adverse events, as reported, were not uniquely attributable to IMPROVEST.

TARGET ANIMAL SAFETY:
Margin of Safety: The safety of two doses of IMPROVEST was evaluated in intact male swine. Thirty 9-week old intact boars received two subcutaneous doses of IMPROVEST in the same location 14 days apart. The boars received one of three treatments: Saline Control (12-mL), IMPROVEST at the intended dose (2-mL, 1X), or IMPROVEST at 6 times the intended dose (12-mL, 6X). Boars were clinically monitored daily. In addition, observation and measurement of injection sites, body weight, quantitative feed consumption, hematology, and clinical chemistry analyses were also obtained. A complete postmortem examination was conducted on each boar 14 days after the second injection. IMPROVEST, administered subcutaneously at the label dose (2-mL) resulted in mild transient injection site reactions at the 1X dose and caused clinical signs of systemic inflammation at 6X the intended dose. The signs of inflammation included depression, stiffness of the neck lasting up to five days, reduction in feed intake, and lower body weights. Multiple swollen joints and associated lameness, which may be signs of systemic inflammation, were observed in one 6X boar. Evaluation of blood work revealed increased white blood cell counts (eosinophilia and neutrophilia); slight increases in total serum protein (above normal reference range in 50% of the 6X boars) and globulin (above the normal reference range in 40% of the 6X boars); and slight decreases in serum albumin in 6X boars. Injection sites for the 6X boars showed clinically detectable firmness persisting in all animals for 14 days after the second injection. Pain and sensitivity at the injection site persisted for up to five days, and erythema and heat were more prominent in the 6X boars than in the 1X boars. Mild to moderate chronic inflammation and discoloration in the subcutaneous tissues at the injection site were observed. In all IMPROVEST treated boars, atrophy of testes, prostate, and bulbourethral glands were observed as expected consequences associated with the intended effect of the drug. At the label 2-mL dose, IMPROVEST may cause transient injection site inflammation.

Injection Site Safety: Injection site safety was evaluated following the injection of IMPROVEST into healthy 17-week old boars. The treated boars received two 2-mL doses of IMPROVEST into the same injection site location 28 days apart, while the control boars received saline. Daily monitoring included clinical evaluation and observation and measurement of injection sites. Two days after the second injection, postmortem observations of injection sites were conducted. All clinical signs of observable injection site swelling were resolved within 24 hours, and pain on palpation resolved by 48 hours post-injection. Firmness persisted for up to 11 days after the first injection in 10% of boars. Gross injection site alterations consisted of subcutaneous edema with tan or red discoloration. Two 2-mL injections of IMPROVEST, administered 28 days apart into the same location resulted in transient injection site reactions following each injection and resulted in discoloration of tissue at the injection site which was observable approximately 48 hours after the second injection.

Field Safety: During the conduct of the nine location field effectiveness study, IMPROVEST did not cause unusual clinical signs or an unexpected frequency or severity of injection site reactions. The field safety observations from this study were consistent with the observations made during the target animal safety studies of transient inflammation at the injection sites. Adverse events, as reported, were not uniquely attributable to IMPROVEST.

EFFECTIVENESS: IMPROVEST is an injectable sterile solution containing an incomplete analog of natural gonadotropin releasing factor (GnRF) conjugated to diphtheria toxoid in an adjuvanted formulation. Immunization with a two dose regimen of IMPROVEST, with a four week interval between doses, stimulates the pig's immune system to produce antibodies which can neutralize its own GnRF. Pigs given an initial dose of IMPROVEST are immunologically primed but do not produce sufficient antibodies to have any physiological effect. Following receipt of the second dose, the pig's immune system responds with a strong antibody response. These antibodies bind to and neutralize circulating GnRF in the bloodstream. Neutralization of GnRF blocks the hypothalamic-pituitary-gonadal endocrine axis, thereby suppressing testicular function, including both sex hormone production and reproductive capability, thereby providing temporary immunological castration in these injected boars.

Evidence of temporary immunological castration was provided in a series of studies showing that within 1-2 weeks after the second injection of IMPROVEST, anti-GnRF antibody levels increase significantly. With this rise in anti-GnRF antibodies, the levels of gonadal sex hormones were substantially reduced, the size of the testes, and spermatogenesis suppressed, as was the expression of typical male behaviors (aggression and sexual, e.g., mounting). Full immunological castration was demonstrated to last from 3 to 10 weeks after the second dose.

IMPROVEST injected boars will start to return to full reproductive function at a variable period after this time, as evidenced by increases in male sex hormones, testicle size, and intact male behavior. IMPROVEST should not be used in boars intended for breeding purposes.

Evidence to assess the acceptability of pork from IMPROVEST treated pigs was provided through a series of consumer taste panels using consumers deemed sensitive to the taste of "tainted" meat. The presence of boar taint was evaluated on the basis of pork aroma and flavor and not by chemical analysis. Four consumer taste panel studies were conducted to demonstrate the difference of pork generated from IMPROVEST treated boars and intact boars. A surgically castrated male group was not evaluated during these studies. In these four studies, 767 sensitive consumers evaluated cooked pork loin samples from IMPROVEST treated and intact boars. These pigs were raised to market weight, injected with IMPROVEST as per product labelling and slaughtered 3 to 10 weeks after receipt of the second IMPROVEST injection. The consumers found the aroma and flavor of pork from the IMPROVEST injected pigs to be more acceptable than from the intact boars in all four studies.

STORAGE INFORMATION: Store under refrigeration at 2°-8°C (36°-46°F). Once broached, product may be stored under refrigeration for 28 days. Store bottles in carton until used. Protect from light. Protect from freezing.

HOW SUPPLIED: IMPROVEST is available in the following package sizes:
20 mL bottle, 100 mL bottle, 250 mL bottle, 500 mL bottle.

NADA # 141-322, Approved by FDA

Revised: September 2011 11443202

Pfizer Animal Health

Distributed by
Pfizer Animal Health
Division of Pfizer Inc
New York, NY 10017

LUTALYSE® STERILE SOLUTION

Pfizer Animal Health

Dinoprost Tromethamine injection

DESCRIPTION

This product contains the naturally occurring prostaglandin F2 alpha (dinoprost) as the tromethamine salt. Each mL contains dinoprost tromethamine equivalent to 5 mg dinoprost: also, benzyl alcohol, 16.5 mg added as preservative. When necessary, pH was adjusted with sodium hydroxide and/or hydrochloric acid. Dinoprost tromethamine is a white or slightly off-white crystalline powder that is readily soluble in water at room temperature in concentrations to at least 200 mg/mL.

INDICATIONS

For intramuscular use for parturition induction in swine. LUTALYSE Sterile Solution is indicated for parturition induction in swine when injected within 3 days of normal predicted farrowing.

The response to treatment varies by individual animals with a mean interval from administration of 2 mL LUTALYSE (10 mg dinoprost) to parturition of approximately 30 hours. This can be employed to control the time of farrowing in sows and gilts in late gestation.

Management Considerations: Several factors must be considered for the successful use of LUTALYSE Sterile Solution for parturition induction in swine. The product must be administered at a relatively specific time (treatment earlier than 3 days prior to normal predicted farrowing may result in increased piglet mortality). It is important that adequate records be maintained on (1) the average length of gestation period for the animals on a specific location, and (2) the breeding and projected farrowing dates for each animal. This information is essential to determine the appropriate time for administration of LUTALYSE.

WARNING

User Safety: Not for human use. Women of childbearing age, asthmatics, and persons with bronchial and other respiratory problems should exercise **extreme caution** when handling this product. In the early stages, women may be unaware of their pregnancies. Dinoprost tromethamine is readily absorbed through the skin and can cause abortion. Accidental spillage on the skin should be washed off immediately with soap and water.

Residue Warnings: No milk discard or preslaughter drug withdrawal period is required for labeled uses in cattle. No preslaughter drug withdrawal period is required for labeled uses in swine. Use of this product in excess of the approved dose may result in drug residues. Do not use in horses intended for human consumption.

Animal Safety Warnings: Severe localized clostridial infections associated with injection of LUTALYSE have been reported. In rare instances, such infections have

resulted in death. Aggressive antibiotic therapy should be employed at the first sign of infection at the injection site whether localized or diffuse.

PRECAUTIONS

- Do not administer intravenously (I.V.) as this route might potentiate adverse reactions.

- No vial stopper should be entered more than 20 times. For this reason, the 100 mL bottle should only be used for cattle. The 30 mL bottle may be used for cattle, swine, or mares.

- As with all parenteral products careful aseptic techniques should be used to decrease the possibility of post-injection bacterial infections. The vial stopper should be cleaned and disinfected prior to needle entry. Only sterile needles should be used and the same needle should not be used more than once.

- Nonsteroidal anti-inflammatory drugs may inhibit prostaglandin synthesis; therefore this class of drugs should not be administered concurrently.

The most frequently observed side effects were erythema and pruritus, slight incoordination, nesting behavior, itching, urination, defecation, abdominal muscle spasms, tail movements, hyperpnea or dyspnea, increased vocalization, salivation, and at the 100 mg (10X) dose only, vomiting. These side effects are transitory, lasting from 10 minutes to 3 hours, and were not detrimental to the health of the animal.

DOSES

As with any multi-dose vial, practice aseptic techniques in withdrawing each dose. Adequately clean and disinfect the vial stopper prior to entry with a sterile needle and syringe. No vial closure should be entered more than 20 times.

LUTALYSE Sterile Solution will induce parturition in swine at 10 mg (2 mL) when injected intramuscularly.

LUTALYSE Sterile Solution is available in 30 and 100 mL vials.

LITTERGUARD®

Pfizer Animal Health

Escherichia Coli Bacterin

DESCRIPTION

The bacterin is prepared from chemically inactivated strains of *E. coli.* A sterile adjuvant is used to enhance the immune response.

INDICATIONS

LITTERGUARD® is for vaccination of healthy pregnant sows and gilts for passive transfer of protective maternal antibodies to their pigs against neonatal diarrhea caused by enterotoxigenic strains of *Escherichia coli* having the K99, K88, 987P, or F41 adherence factors. The addition of F41 now offers broader protection than previously available.

DIRECTIONS

1. General Directions: Shake well. Aseptically administer 2 mL intramuscularly or subcutaneously.

2. Primary Vaccination: Healthy pregnant swine should receive 2 doses administered 3 weeks apart during the last half of pregnancy. The second dose should be given at least 2 weeks before farrowing.

3. Revaccination: Pregnant swine should be revaccinated with a single dose at least 2 weeks before each subsequent farrowing.

4. Good animal husbandry and herd health management practices should be employed.

WARNING

Do not vaccinate within 21 days before slaughter.

PRECAUTIONS

Store at 2°-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze.

Use entire contents when first opened.

Sterilized syringes and needles should be used to administer this vaccine.

As with many vaccines, anaphylaxis may occur after use. Initial antidote of epinephrine is recommended and should be followed with appropriate supportive therapy.

This product 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 immunocompromised, or the vaccine is not administered in accordance with label directions.

For veterinary use only.

DISCUSSION

Disease Description: Enterotoxigenic strains of *E. coli* are among the most important etiologic agents of porcine neonatal diarrhea. Studies have shown that enterotoxigenic *E. coli* isolated from diarrheic pigs have 2 characteristics in common: (1) they have pili, surface antigenic structures which attach the bacteria to cells of the intestinal epithelium; and (2) they express enterotoxins, causing the intestinal cells to secrete body fluids and electrolytes into the gut lumen. The results are diarrhea, dehydration, and in severe cases, death. The 4 major pili types associated with neonatal enteric colibacillosis in swine are K99, K88, 987P,[1] and F41.[2]

Trial Data: Safety and Efficacy: No adverse reactions to LITTERGUARD® were reported in experimental tests, or in clinical trials conducted by independent veterinarians. Anaphylaxis occasionally has been observed in field use (see Cautions). Susceptible pigs are protected by receiving colostral antibodies from vaccinated dams. Thus, adequate and timely consumption of colostrum by the neonatal pig is essential for protection. Controlled challenge-of-immunity tests were conducted involving 110 gilts and sows and their litters. Fractions of LITTERGUARD® were tested for effectiveness separately and in combination. Results showed that vaccination of pregnant swine with 2 doses of LITTERGUARD® significantly reduced the incidence and severity of neonatal diarrhea in their litters.

Senior Team Breeding Exercise-2013 County___**ANSWER KEY**_____

You are the owners/managers of a commercial beef cow/calf operation that consists of around 100 Commercial Angus cows and replacement heifers. You have been "stacking" Angus genetics for several generations so most all of the females in the herd are at least $^{7}/_{8}$ or 87.5% Angus blood. Your primary market has been selling feeder calves at weaning, but the weaning weights are not where you want them to be (average of around 510 pounds).

It is time to replace two (2) of your herd bulls. Your group decides that you want to continue selling feeder calves, but are now going to background the calves for at least 45 days past weaning (to increase the sale weight of your calves) and you are going to continue to raise your own replacement heifers, but will also try and develop a market to sell replacement heifers to other area beef producers.

Your team's assignment is to select two (2) of the eight (8) bulls to meet the following goals and requirements of your commercial cow/calf operation:

1.) Increase weaning weights

2.) Produce high quality replacement heifers to keep or sell to other producers

3.) Of the two (2) herd bulls you decide to purchase, one (1) bull will only be bred to mature cows and the other bull will be bred to heifers.

4.) The feed and labor supply of the operation is average. Feed consists of pasture in the spring, summer, and fall and round bales of tall fescue hay when no pasture is available. The farm operation also has a large grain crop enterprise (corn, soybeans, and wheat), so most of the available farm labor is focused on the crops.

You may choose any two (2) of the bulls. After your team has selected the two (2) bulls, answer the questions, and explain to the contest official why you chose the two (2) bulls that you did.

EPD's for the Bulls

Bull #	Breed	Calving Ease	Weaning Weight	Yearling Weight	Maternal Calving Ease	Maternal Milk	Maternal Milk and Growth	Marbling	Ribeye Area	CHB$
1	Hereford	+4.4	+38	+51	+1.5	+18	+37	+0.09	+0.22	+20
2	Hereford	-2.5	+40	+59	+0.1	+11	+31	+0.15	-0.02	+24
Breed Average	—	**+2.8**	**+27**	**+47**	**+0.9**	**+16**	**+29**	**+0.02**	**+0.12**	**+14**

CHB$ = Certified Herford Beef Index, this index is used by producers as a terminal index that compares bulls where all their calves are either retained through finishing or sold in a backgrounding program and no replacements are kept.

Bull #	Breed	Calving Ease	Weaning Weight	Yearling Weight	Maternal Calving Ease	Maternal Milk	Daughters Mature Weight	Marbling	Ribeye Area	$B
3	Angus	-1	+59	+105	+3	+35	+45	+54	+.22	+64
4	Angus	+10	+55	+89	+14	+20	+14	+42	+.45	+57
Breed Average	—	**+5**	**+46**	**+83**	**+8**	**+23**	**+30**	**+0.40**	**+0.30**	**+55**

$B = Beef value, an index that is used by producers as a terminal index that compares different bulls according to post-weaning growth and carcass value.

Bull #	Breed	Calving Ease	Weaning Weight	Yearling Weight	Maternal Calving Ease	Milk	Stayability	Marbling	Ribeye Area	API
5	Simmental	+9	+45	+59	+5	+5	+12	+0.23	+0.15	+99
6	Simmental	+10	+49	+62	+7	+7	+22	+0.18	+0.19	+114
Breed Average	—	**+7**	**+32**	**+58**	**+3**	**+4**	**+18**	**+0.15**	**+0.10**	**+106**

API = All Purpose Index, this index compares the value of a bull to be bred to heifers and mature cows with a part of the heifer calves to be kept for replacements and the other heifer and steers calves to be finished and sold on grade and yield.

Bull #	Breed	Calving Ease	Weaning Weight	Yearling Weight	Calving Ease (Daughters)	Milk	Stayability	Marbling	Ribeye Area	FM
7	Gelbvieh	+107	+45	+80	+101	+18	+6	+0.01	+0.22	+10
8	Gelbvieh	+118	+52	+77	+109	+16	+10	+0.09	+0.19	+12
Breed Average	—	**+108**	**+40**	**+77**	**+102**	**+16**	**+5**	**+0.02**	**+0.13**	**+9**

FM = Feedlot Merit, an EPD that is used to compare bulls according to how their calves will perform in a feedlot setting by combing growth and feed efficiency.

Circle the bull's number and breed that answers the questions.

(Correctly choosing the "mature cow" bull and the "heifer" bull is worth 25 points for each bull for a total of 50 points. The 10 questions are worth 5 points each for a total of 50 points, making the written portion worth a total of 100 points. The oral portion is worth 100 points for a Grand Total of 200 points)

Which bull did you choose to be bred to the mature cows?

1-Hereford	2-Hereford	3-Angus	4-Angus	5-Simmental	6-Simmental	7-Gelbvieh	8-Gelbvieh
22	5	8	5	22	25	17	23

Which bull did you choose to be bred to the heifers?

1-Hereford	2-Hereford	3-Angus	4-Angus	5-Simmental	6-Simmental	7-Gelbvieh	8-Gelbvieh
25	0	0	22	10	15	10	15

1) Of the Angus Bulls, which one has a lower input, easier fleshing phenotype and also according to the data, his daughters should be more productive in a limited feed environment?

1-Hereford 2-Hereford 3-Angus 4-Angus 5-Simmental 6-Simmental 7-Gelbvieh 8-Gelbvieh

2) Which breed should offer the least heterosis in this production scenario?

Hereford Angus Simmental Gelbvieh

3) Of all the EPD and Index calculations on these bulls, which one column of data gives you the most information and relates best to the goals of our commercial cow/calf operation?

CHB$ $B API FM

4) According to the data, which of the Gelbvieh bull's daughters should have the most longevity as a mature cow?

1-Hereford 2-Hereford 3-Angus 4-Angus 5-Simmental 6-Simmental 7-Gelbvieh 8-Gelbvieh

5) Which Hereford bull should sire the calves with higher USDA Quality Grade carcasses?

1-Hereford **2-Hereford** **3-Angus** **4-Angus** **5-Simmental** **6-Simmental** **7-Gelbvieh** **8-Gelbvieh**

6) Which Simmental bull has the most balanced set of EPDs?

1-Hereford **2-Hereford** **3-Angus** **4-Angus** **5-Simmental** **6-Simmental** **7-Gelbvieh** **8-Gelbvieh**

7) Which bull would be the least suited to be bred to heifers and to keep replacement heifers out of due to his excessive growth and milk EPDs?

1-Hereford **2-Hereford** **3-Angus** **4-Angus** **5-Simmental** **6-Simmental** **7-Gelbvieh** **8-Gelbvieh**

8) Which bull is the least rugged and massive in his design from the ground up?

1-Hereford **2-Hereford** **3-Angus** **4-Angus** **5-Simmental** **6-Simmental** **7-Gelbvieh** **8-Gelbvieh**

9) Which one of the British Breed bulls best combines straightness of lines, muscle, and balance to the highest degree?

1-Hereford **2-Hereford** **3-Angus** **4-Angus** **5-Simmental** **6-Simmental** **7-Gelbvieh** **8-Gelbvieh**

10) Which Continental Breed bull is the closest to breed average in his Milk EPD?

1-Hereford **2-Hereford** **3-Angus** **4-Angus** **5-Simmental** **6-Simmental** **7-Gelbvieh** **8-Gelbvieh**

Senior Team Breeding Exercise-2013 County_____

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FM = Feedlot Merit, an EPD that is used to compare bulls according to how their calves will perform in a feedlot setting by combing growth and feed efficiency.

Circle the bull's number and breed that answers the questions.

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   CHB$ $B API FM

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1-Hereford 2-Hereford 3-Angus 4-Angus 5-Simmental 6-Simmental 7-Gelbvieh 8-Gelbvieh

9) Which one of the British Breed bulls best combines straightness of lines, muscle, and balance to the highest degree?

1-Hereford 2-Hereford 3-Angus 4-Angus 5-Simmental 6-Simmental 7-Gelbvieh 8-Gelbvieh

10) Which Continental Breed bull is the closest to breed average in his Milk EPD?

1-Hereford 2-Hereford 3-Angus 4-Angus 5-Simmental 6-Simmental 7-Gelbvieh 8-Gelbvieh

Bull # 1 - Hereford

Bull # 2 - Hereford

Bull # 3 - Angus

Bull # 4 - Angus

Bull # 5 - Simmental

Bull # 6 - Simmental

Bull # 7 - Gelbvieh

Bull # 8 - Gelbvieh

Senior Team Feeding Exercise-2013 County_____**ANSWER KEY**_____

Your team is advising several 4-H/FFA members how to best feed their showpigs from 150 pounds until they reach market weight and are shown at the Kentucky State Fair 4-H/FFA Youth Market Hog Show. All of these 4-H and FFA members bought their pigs together from the same breeder on one load to get them at a discounted price. Unfortunately, the youth did not seek your advice before purchasing the prospect showpigs and they mostly bought pigs that are extremely lean, too heavily muscled, slower growing and tighter and shallower in their body and rib design. These pigs are not what is "trendy" in the showring currently. The goal through the final part of the feeding period is to try and "soften up" the pigs, add more center body, flesh, and make them have a more productive look.

Review the attached feed tags. Rank the four feeds according to how you would feed them from first to last to meet the needs of the above scenario. All of the feeds may be purchased for $20.00 per 50 pound bag at your local feed store. You may consider economics of the feed, quality and physical characteristics of the ingredients contained in the feed, and physiological and digestive considerations of the animals being feed. Answer the five questions relating to the feeds and then explain to the contest official why you ranked the feeds as you did. **(Ranking the feed correctly is worth 50 points. The 5 questions are worth 10 points each for a total of 50 points, making the written portion worth a total of 100 points. The oral portion is worth 100 points for a Grand Total of 200 points).**

Rank the four feeds: **1st** ___**3**_____ **2nd** ___**2**_____ **3rd** _____**4**_____ **4th** _____**1**____

Cuts of 7-3-2

Circle the answers to the questions below:

1) **Which feed contains a medication?**
Feed #1 Kent Hands Down Feed #2 Kent Prime Time Feed #3 Kent Conditioner **Feed #4 Kent ShowMeal 184 T40**

2) **What is the main ingredient in all four feeds?**
Ground Corn Soybean Meal Cottonseed Meal Fat

3) **Which feed does not contain Chromium?**
Feed #1 Kent Hands Down Feed #2 Kent Prime Time **Feed #3 Kent Conditioner** Feed #4 Kent ShowMeal 184 T40

4) **All four feeds contain porcine meat and bone meal, which animal does that come from?**
Cow Chicken **Pig** Fish

5) **Which feed contains the Crude Protein, Lysine, and Crude Fat levels to best achieve the goals of the above scenario?**
Feed #1 Kent Hands Down Feed #2 Kent Prime Time **Feed #3 Kent Conditioner** Feed #4 Kent ShowMeal 184 T40

Senior Team Feeding-2013

Name__ANSWER KEY__ Contestant #_____ County_____

Official Placing 3-2-4-1

Cuts of 7-3-2

Contestant Number _____

Placing Score _____

University of Kentucky
College of Agriculture
Animal Sciences Department

Contestant's Name

_____

_____

Address

_____

_____

County

_____

Class

__Team Feeding __

A	1 2 3 4	**24**
B	1 2 4 3	**14**
C	1 3 2 4	**31**
D	1 3 4 2	**28**
E	1 4 2 3	**11**
F	1 4 3 2	**18**
G	2 1 3 4	**29**
H	2 1 4 3	**19**
I	2 3 1 4	**41**
J	2 3 4 1	**43**
K	2 4 1 3	**21**
L	2 4 3 1	**33**
M	3 1 2 4	**43**
N	3 1 4 2	**40**
O	3 2 1 4	**48**
P	3 2 4 1	**50**
Q	3 4 1 2	**42**
R	3 4 2 1	**47**
S	4 1 2 3	**13**
T	4 1 3 2	**20**
U	4 2 1 3	**18**
V	4 2 3 1	**30**
W	4 3 1 2	**32**
X	4 3 2 1	**37**

Senior Team Feeding Exercise-2013 County_____

Your team is advising several 4-H/FFA members how to best feed their showpigs from 150 pounds until they reach market weight and are shown at the Kentucky State Fair 4-H/FFA Youth Market Hog Show. All of these 4-H and FFA members bought their pigs together from the same breeder on one load to get them at a discounted price. Unfortunately, the youth did not seek your advice before purchasing the prospect showpigs and they mostly bought pigs that are extremely lean, too heavily muscled, slower growing and tighter and shallower in their body and rib design. These pigs are not what is "trendy" in the showring currently. The goal through the final part of the feeding period is to try and "soften up" the pigs, add more center body, flesh, and make them have a more productive look.

Review the attached feed tags. Rank the four feeds according to how you would feed them from first to last to meet the needs of the above scenario. All of the feeds may be purchased for $20.00 per 50 pound bag at your local feed store. You may consider economics of the feed, quality and physical characteristics of the ingredients contained in the feed, and physiological and digestive considerations of the animals being feed. Answer the five questions relating to the feeds and then explain to the contest official why you ranked the feeds as you did. (Ranking the feed correctly is worth 50 points. The 5 questions are worth 10 points each for a total of 50 points, making the written portion worth a total of 100 points. The oral portion is worth 100 points for a Grand Total of 200 points).

Rank the four feeds: **1st _____** **2nd _____** **3rd _____** **4th _____**

Circle the answers to the questions below:

1) **Which feed contains a medication?**
Feed #1 Kent Hands Down Feed #2 Kent Prime Time Feed #3 Kent Conditioner Feed #4 Kent ShowMeal 184 T40

2) **What is the main ingredient in all four feeds?**
Ground Corn Soybean Meal Cottonseed Meal Fat

3) **Which feed does not contain Chromium?**
Feed #1 Kent Hands Down Feed #2 Kent Prime Time Feed #3 Kent Conditioner Feed #4 Kent ShowMeal 184 T40

4) **All four feeds contain porcine meat and bone meal, which animal does that come from?**
Cow Chicken Pig Fish

5) **Which feed contains the Crude Protein, Lysine, and Crude Fat levels to best achieve the goals of the above scenario?**
Feed #1 Kent Hands Down Feed #2 Kent Prime Time Feed #3 Kent Conditioner Feed #4 Kent ShowMeal 184 T40

Hands Down®

Product Description

A complete feed designed to optimize appearance and performance of genetically superior lines of show pigs. This product can also be used as a feed for breeders preparing pigs for sale.

Features and *Benefits*

Optimum levels of amino acids and energy which ***allow the pig to express its genetic potential for growth and muscling.***

Complexed trace minerals ***for improved bioavailability essential in carbohydrate, lipid and protein metabolism.***

Potassium chloride ***provides a source of electrolytes.***

Biotin, folic acid and pyridoxine are water-soluble vitamins involved in energy and amino acid metabolism ***for lean tissue growth and proper skeletal development.***

Multiple protein sources, quality grains and synthetic amino acids are used to formulate amino acid balance required ***to optimize lean tissue growth and rate of gain in genetically superior lines of show pigs.***

KENT

Hands Down®

For show pigs

GUARANTEED ANALYSIS

Crude Protein, min.	20.0%
Lysine, min.	1.3%
Crude Fat, min.	6.0%
Crude Fiber, max.	4.5%
Calcium (Ca), min.	0.8%
Calcium (Ca), max.	1.3%
Phosphorus (P), min.	0.8%
Salt (NaCl), min.	0.4%
Salt (NaCl), max.	0.9%
Chromium (Cr), min.	200 ppb
Selenium (Se), min.	0.3 ppm
Zinc (Zn), min.	215 ppm
Vitamin A, min.	6,300 IU/lb
Vitamin D_3, min.	800 IU/lb
Vitamin E, min.	35 IU/lb
Menadione, min.	2.4 mg/lb
Riboflavin, min.	6.3 mg/lb
Niacin, min.	42 mg/lb
d-Pantothenic Acid, min.	32 mg/lb
Vitamin B_{12}, min.	0.021 mg/lb
Biotin, min.	0.30 mg/lb

INGREDIENTS **4**

Ground Corn, Soybean Meal, Porcine Meat and Bone Meal, Dried Whey, Dried Cheese Product, Soybean Hulls, Fish Meal, Feeding Oat Meal, Animal Plasma, Lactose, Corn Distillers Dried Grains with Solubles, Wheat Middlings, Cane Sugar, Dicalcium Phosphate, Monocalcium Phosphate, Calcium Carbonate, Animal Fat, Yucca Schidigera Extract, Salt, L-Lysine, L-Threonine, L-Tryptophan, DL-Methionine, Vitamin D3 Supplement, Vitamin A Acetate, Vitamin E Supplement, Menadione Dimethylpyrimidinol Bisulfite (source of Vitamin K Activity), Riboflavin Supplement, Niacin Supplement, Choline Chloride, Calcium Pantothenate, Vitamin B12 Supplement, Folic Acid, Biotin, Pyridoxine Hydrochloride, Natural and Artificial Flavors, Saccharin Sodium, Hydrolyzed Brewers Dried Yeast, Dried Brewers Yeast, Reed-Sedge Peat, Lignin Sulfonate, Potassium Chloride, Zinc Methionine Complex, Copper Amino Acid Complex, Manganese Amino Acid Complex, Manganese Sulfate, Ferrous Sulfate, Copper Sulfate, Calcium Iodate, Zinc Sulfate, Zinc Oxide, Selenium Yeast, Sodium Selenite, Monosodium Glutamate, Chromium Tripicolinate, L-Carnitine, Propionic, Acetic, Benzoic, & Sorbic Acid (preservatives), Ethoxyquin and BHT (preservatives).

Yeast sources block the colonization of pathogens ***allowing microflora balance in the gastrointestinal tract.***

Cheese whey, a quality milk protein, is used ***to improve palatability and pig performance.***

Appetein® provides a ***source of immunoglobulins and is an excellent source of amino acids.***

Micro-Aid® as ***an aid in the control of manure and/or ammonia odor.***

Swine (2690)

(continued on back)

NutriVantage™ technology ***which can help aid in nutrient availability, digestion and can help combat stress and provide immune system support.***

show bloom!™ ***for intake and feed utilization, superior skin and hair quality muscle tone and development.***

Feeding Directions

Feed as the sole diet to show pigs.

Prime Time

Product Description

A complete feed designed to optimize the appearance and performance of genetically superior show pigs.

Features and *Benefits*

Locked formulas ***ensure quality ingredients and consistent nutrition.***

Multiple protein and carbohydrate sources including high quality grains, milk products, fish meal, feeding oatmeal, and plasma are utilized ***resulting in excellent feed conversion and maximum performance.***

Amino acid balanced formula.

High levels of calcium and phosphorous ***to support bone and skeletal growth.***

Complexed trace minerals ***for improved bio-availability.***

Added vitamins ***for improved nutrient utilization and immune system support.***

show bloom!™ ***for superior skin and hair quality, intake and feed utilization, muscle development and tone.***

Biotin ***for added skin, hair, and hoof health.***

NutriVantage™ technology ***which can help aid nutrient availability and digestion.***

Micro-Aid® ***for reduced odor particularly in confined areas.***

KENT®

Prime Time

For show pigs.

GUARANTEED ANALYSIS

Crude Protein, min.	18.0%
Lysine, min.	1.15%
Crude Fat, min.	6.0%
Crude Fiber, max.	5.0%
Calcium (Ca), min.	0.8%
Calcium (Ca), max.	1.3%
Phosphorus (P), min.	0.8%
Salt (NaCl), min.	0.3%
Salt (NaCl), max.	0.8%
Chromium (Cr), min.	200 ppb
Selenium (Se), min.	.0.3 ppm
Zinc (Zn), min.	200 ppm
Vitamin A, min.	5,820 IU/lb
Vitamin D_3, min.	770 IU/lb
Vitamin E, min.	.33 IU/lb
Menadione, min.	.2.2 mg/lb
Riboflavin, min.	.4.6 mg/lb
Niacin, min.	28 mg/lb
d-Pantothenic Acid, min.	26 mg/lb
Vitamin B_{12}, min.	.0.018 mg/lb
Biotin, min.	.0.18 mg/lb

INGREDIENTS **10**

Ground Corn, Soybean Meal, Porcine Meat and Bone Meal, Dried Whey, Dried Cheese Product, Soybean Hulls, Fish Meal, Feeding Oat Meal, Animal Plasma, Lactose, Corn Distillers Dried Grains with Solubles, Wheat Middlings, Cane Sugar, Dicalcium Phosphate, Monocalcium Phosphate, Calcium Carbonate, Animal Fat, Yucca Schidigera Extract, Salt, L-Lysine, L-Threonine, L-Tryptophan, DL-Methionine, Vitamin D3 Supplement, Vitamin A Acetate, Vitamin E Supplement, Menadione Dimethylpyrimidinol Bisulfite (source of Vitamin K Activity), Riboflavin Supplement, Niacin Supplement, Choline Chloride, Calcium Pantothenate, Vitamin B12 Supplement, Folic Acid, Biotin, Pyridoxine Hydrochloride, Natural and Artificial Flavors, Hydrolyzed Brewers Dried Yeast, Dried Brewers Yeast, Reed-Sedge Peat, Lignin Sulfonate, Potassium Chloride, Zinc Methionine Complex, Copper Amino Acid Complex, Manganese Amino Acid Complex, Manganese Sulfate, Ferrous Sulfate, Copper Sulfate, Calcium Iodate, Zinc Sulfate, Zinc Oxide, Selenium Yeast, Sodium Selenite, Chromium Tripicolinate, L-Carnitine, Propionic, Acetic, Benzoic, & Sorbic Acid (preservatives), Ethoxyquin and BHT (preservatives).

Feeding Directions

Feed as the sole diet to show pigs.

Conditioner

Product Description

A complete feed designed to optimize the appearance, growth, and performance of genetically superior lines of show pigs.

Features and *Benefits*

Lower crude protein and lysine levels ***will allow pigs to grow and perform yet will help minimize a leaner, harder appearance.***

6% fat ***in combination with lower protein and lysine can help achieve a "softer" look.***

Contains no added chromium ***which can reduce backfat.***

Locked formulas ***ensure quality ingredients and consistent nutrition.***

Multiple protein and carbohydrate sources including high quality grains, milk products, fish meal, feeding oatmeal, and plasma are utilized ***resulting in excellent feed conversion and maximum performance.***

Amino acid balanced formulas.

Complexed trace minerals ***for improved bio-availability.***

Added vitamins ***for improved nutrient utilization and immune system support.***

show bloom!™ ***for superior skin and hair quality, intake and feed utilization, muscle development and tone.***

Biotin ***for added skin, hair, and hoof health.***

NutriVantage™ technology ***which can help aid in nutrient availability and digestion.***

Micro-Aid® ***for reduced odor particularly in confined areas.***

Feeding Directions

Feed as the sole diet to show pigs.

Micro-Aid® is a registered trademark of Distributors Processing, Inc.
show bloom™! is a registered trademark of F.L. Emmert Co.

KENT

Conditioner

For show pigs.

GUARANTEED ANALYSIS

Crude Protein, min.	16.0%
Lysine, min.	1.0%
Crude Fat, min.	6.0%
Crude Fiber, max.	5.0%
Calcium (Ca), min.	0.7%
Calcium (Ca), max.	1.2%
Phosphorus (P), min.	0.7%
Salt (NaCl), min.	0.3%
Salt (NaCl), max.	0.8%
Selenium (Se), min.	0.3 ppm
Zinc (Zn), min.	200 ppm
Vitamin A, min.	5,290 IU/lb
Vitamin D3, min.	700 IU/lb
Vitamin E, min	30 IU/lb
Menadione, min	2 mg/lb
Riboflavin, min	4.2 mg/lb
Niacin, min	26 mg/lb
d-Pantothenic Acid, min	25 mg/lb
Vitamin B12, min.	0.016 mg/lb
Biotin, min	0.09 mg/lb

INGREDIENTS **6**

Ground Corn, Soybean Meal, Porcine Meat and Bone Meal, Dried Whey, Dried Cheese Product, Soybean Hulls, Cane Sugar, Fish Meal, Feeding Oat Meal, Animal Plasma, Lactose, Corn Distillers Dried Grains with Solubles, Wheat Middlings, Dicalcium Phosphate, Monocalcium Phosphate, Calcium Carbonate, Animal Fat, Yucca Schidigera Extract, Salt, L-Lysine, L-Threonine, L-Tryptophan, DL-Methionine, Vitamin A Acetate, Vitamin D3 Supplement, Vitamin E Supplement, Menadione Dimethylpyrimidinol Bisulfite (source of Vitamin K Activity), Riboflavin Supplement, Niacin Supplement, Choline Chloride, Calcium Pantothenate, Vitamin B12 Supplement, Folic Acid, Biotin, Pyridoxine Hydrochloride, Saccharin Sodium, Natural and Artificial Flavors, Hydrolyzed Brewers Dried Yeast, Dried Brewers Yeast, Reed-Sedge Peat, Lignin Sulfonate, Potassium Chloride, Zinc Methionine Complex, Copper Amino Acid Complex, Manganese Amino Acid Complex, Manganese Sulfate, Ferrous Sulfate, Copper Sulfate, Calcium Iodate, Zinc Sulfate, Zinc Oxide, Selenium Yeast, Sodium Selenite, L-Carnitine, Propionic, Acetic, Benzoic, & Sorbic Acid (preservatives), Ethoxyquin and BHT (preservatives).

NEW!

KENT

showfeeds

show pig feed

ShowMeal 184 T40 #2661

Medicated

For increased rate of weight gain and improved efficiency - grower feeds.

ACTIVE DRUG INGREDIENT

Tylosin.....40 gm/ton

GUARANTEED ANALYSIS

Crude Protein, min..... 18.0%
Lysine, min 1.0%
Crude Fat, min..... 4.0%
Crude Fiber, max 5.0%
Calcium (Ca), min 0.5%
Calcium (Ca), max..... 1.0%
Phosphorus (P), min..... 0.6%
Salt (NaCl), min..... 0.3%
Salt (NaCl), max 0.8%
Chromium (Cr), min.....200 ppb
Selenium (Se), min ..... 0.3 ppm
Zinc (Zn), min ..... 215 ppm
Vitamin A, min .....6,430 IU/lb
Vitamin D3, min .....820 IU/lb
Vitamin E, min.....36 IU/lb
Menadione, min ..... 2.3 mg/lb
Riboflavin, min..... 6 mg/lb
Niacin, min..... 46 mg/lb
d-Pantothenic Acid, min..... 31 mg/lb
Vitamin B12, min ..... 0.02 mg/lb
Biotin, min ..... 0.15 mg/lb

INGREDIENTS

Ground Corn, Soybean Meal, Porcine Meat and Bone Meal, Dried Whey, Dried Cheese Product, Soybean Hulls, Fish Meal, Feeding Oat Meal, Animal Plasma, Lactose, Corn Distillers Dried Grains with Solubles, Wheat Middlings, Dicalcium Phosphate, Monocalcium Phosphate, Calcium Carbonate, Animal Fat, Yucca Schidigera Extract, Salt, L-Lysine, L-Threonine, L-Tryptophan, DL-Methionine, Vitamin D3 Supplement, Vitamin A Acetate, Vitamin E Supplement, Menadione Dimethylpyrimidinol Bisulfite (source of Vitamin K Activity), Riboflavin Supplement, Niacin Supplement, Choline Chloride, Calcium Pantothenate, Vitamin B12 Supplement, Folic Acid, Biotin, Pyridoxine Hydrochloride, Saccharin Sodium, Natural and Artificial Flavors, Hydrolyzed Brewers Dried Yeast, Dried Brewers Yeast, Reed-Sedge Peat, Potassium Chloride, Zinc Methionine Complex, Copper Amino Acid Complex, Manganese Amino Acid Complex, Manganese Sulfate, Ferrous Sulfate, Copper Sulfate, Calcium Iodate, Zinc Sulfate, Zinc Oxide, Selenium Yeast, Sodium Selenite, Chromium Tripicolinate, L-Carnitine, Propionic, Acetic, Benzoic, & Sorbic Acid (preservatives), Ethoxyquin and BHT (preservatives).