

Senior Retail Meat Cut Identification – 2018

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).

| | <u>Retail Cut Name</u> | <u>Species of Cut</u> | <u>Wholesale Cut of Origin</u> |
|-----|------------------------|-----------------------|--------------------------------|
| 1. | _____ | _____ | _____ |
| 2. | _____ | _____ | _____ |
| 3. | _____ | _____ | _____ |
| 4. | _____ | _____ | _____ |
| 5. | _____ | _____ | _____ |
| 6. | _____ | _____ | _____ |
| 7. | _____ | _____ | _____ |
| 8. | _____ | _____ | _____ |
| 9. | _____ | _____ | _____ |
| 10. | _____ | _____ | _____ |

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

Beef Retail Meat Cuts

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

Lamb Retail Meat Cuts

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

Pork Retail Meat Cuts

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

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

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

- | | | |
|---------|---------|---------|
| B. Beef | L. Lamb | P. Pork |
|---------|---------|---------|

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

Beef Wholesale Cuts

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

Lamb Wholesale Cuts

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

Pork Wholesale Cuts

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

KEY

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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).

| | <u>Retail Cut Name</u> | <u>Species of Cut</u> | <u>Wholesale Cut of Origin</u> |
|-----|------------------------|-----------------------|--------------------------------|
| 1. | 41 | B | G |
| 2. | 79 | P | U |
| 3. | 49 | L | J |
| 4. | 12 | B | C |
| 5. | 31 | B | F |
| 6. | 68 | P | R |
| 7. | 51 | L | K |
| 8. | 70 | P | T |
| 9. | 6 | B | B |
| 10. | 65 | L | O |

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

Beef Retail Meat Cuts

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

Lamb Retail Meat Cuts

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

Pork Retail Meat Cuts

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

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

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

B. Beef

L. Lamb

P. Pork

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

Beef Wholesale Cuts

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

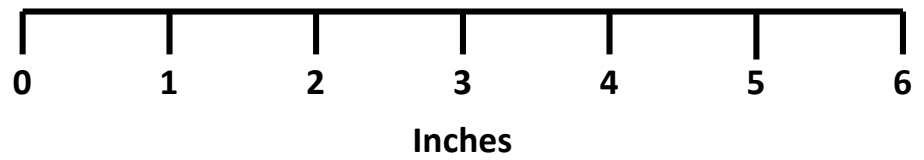
Lamb Wholesale Cuts

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

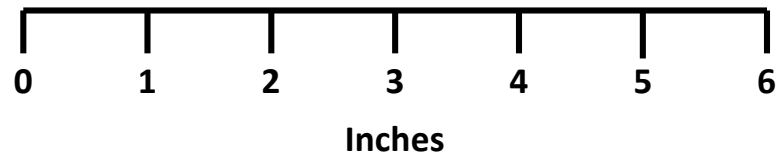
Pork Wholesale Cuts

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

1



2

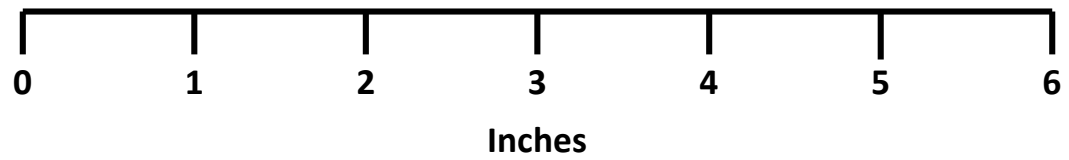


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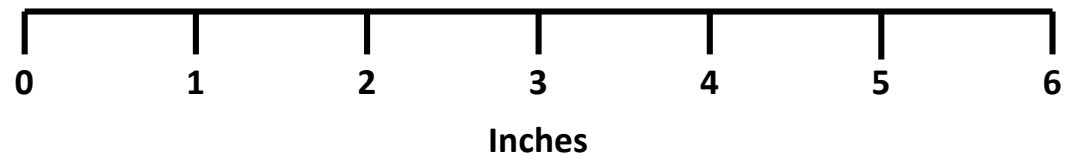


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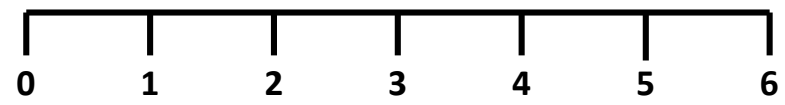
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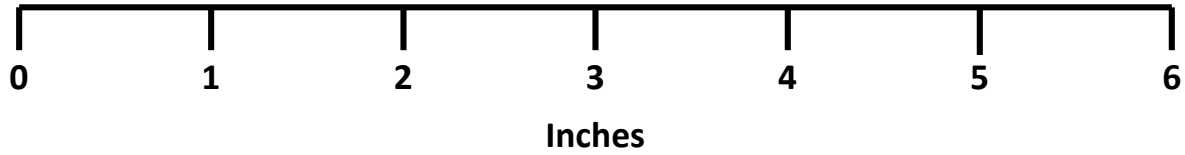


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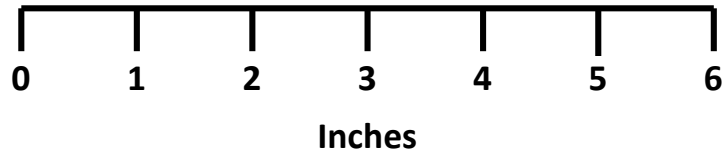


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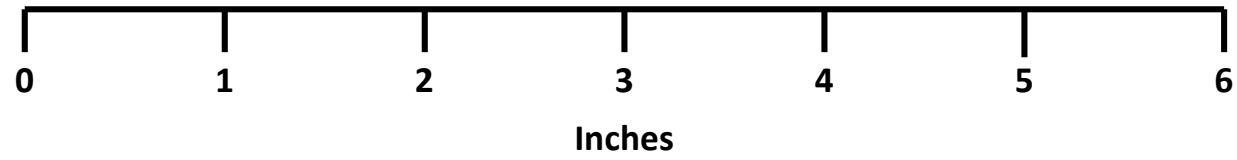
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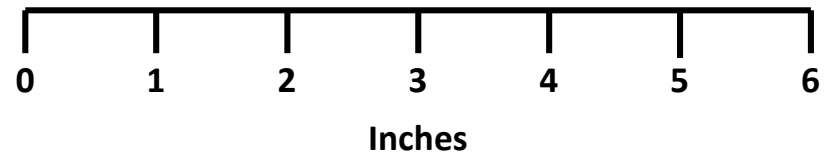
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9



10



Name _____ Contestant # _____ County _____

Senior Livestock Feed Identification – 2018

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

| | Feedstuff Name | Nutrient Group | Characteristics/ Uses |
|-----|----------------|----------------|--------------------------|
| 1. | _____ | _____ | _____ |
| 2. | _____ | _____ | _____ |
| 3. | _____ | _____ | _____ |
| 4. | _____ | _____ | _____ |
| 5. | _____ | _____ | _____ |
| 6. | _____ | _____ | _____ |
| 7. | _____ | _____ | _____ |
| 8. | _____ | _____ | _____ |
| 9. | _____ | _____ | _____ |
| 10. | _____ | _____ | _____ |

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

| Feeds Nutrient Groups – to be used in answer column 2 by Seniors | | |
|---|------------|------------|
| (You may use the letter more than once!!) | | |
| B. By-product feed | M. Mineral | V. Vitamin |
| C. Carbohydrate (energy) | P. Protein | |
| F. Fats (energy) | | |

| Important Characteristics/Uses of Feedstuffs – to be used in answer column 3 by and Seniors | |
|--|---|
| A. Excellent feedstuff for horses that is high in protein, minerals, and vitamins. | H. Produced by grinding the flakes which remain after the oil is extracted from whole flaxseed. |
| B. Shelled corn that has been passed through a roller mill to break it into smaller particles. | I. Whole barley that is subjected to high-moisture steam for a short period of time (usually 1 to 8 minutes) and then rolled to produce a flat flake. |
| C. Byproduct of wheat flour milling that consists of the fine particles of wheat bran, wheat shorts, wheat germ, wheat flour, and some of the offal from the “tail of the mill”. | J. High in protein, and contains active immunoglobulins. |
| D. Bulk density = 56 pounds/bushel | K. Commonly used source of calcium and phosphorus in livestock feeds. |
| E. Bulk density = 32 pounds/bushel | L. Also referred to as bluestone. |
| F. Bulk density = 48 pounds/bushel | M. Dried byproduct of the manufacture of sugar from either sugar beets or, more commonly, sugarcane. |
| G. Rarely fed to livestock in the whole, full-fat form, but can be if first heated to destroy anti-nutritional factors (trypsin inhibitor). | N. Primarily used as a ruminant roughage extender during times when forages are in short supply. |

KEY

Senior Livestock Feed Identification – 2018

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

| | Feedstuff Name | Nutrient Group | Charact- eristics/ Uses |
|-----|-------------------|-------------------|-------------------------------|
| 1. | <u>21</u> | <u>B or C</u> | <u>M</u> |
| 2. | <u>37</u> | <u>C</u> | <u>E</u> |
| 3. | <u>38</u> | <u>B</u> | <u>N</u> |
| 4. | <u>73</u> | <u>B</u> | <u>C</u> |
| 5. | <u>33</u> | <u>P</u> | <u>H</u> |
| 6. | <u>52</u> | <u>P or F</u> | <u>G</u> |
| 7. | <u>1</u> | <u>P or C</u> | <u>A</u> |
| 8. | <u>56</u> | <u>C</u> | <u>I</u> |
| 9. | <u>49</u> | <u>C</u> | <u>D</u> |
| 10. | <u>15</u> | <u>C</u> | <u>B</u> |

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

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

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

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

Name _____ Contestant # _____ County _____

Senior Livestock Breeds Identification – 2018

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 for each part of the question. (150 points total for Seniors).

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

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

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

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

Some answers will be used more than once

| | | |
|-------------------------------|---------------------|--------------------------|
| A. England | E. Finland | H. Switzerland |
| B. Scotland | F. India / US | I. France |
| C. Ohio, US | G. Bavaria, Germany | J. Iowa and Nebraska, US |
| D. Tees River Valley, England | | K. Pennsylvania, US |

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

Some answers will be used more than once

| <u>Beef Cattle Characteristics/Traits</u> | <u>Sheep Characteristics/Traits</u> |
|--|---|
| A. Foraging Ability and Docility. | I. Lambing Ability, Early Maturity, Vigorous Instinct and Heavy Boned. |
| B. Heavily Muscled, Excellent Growth Rate, Late Maturing. | J. Prolificacy, Wool Production and Mothering Ability. |
| C. Mothering Ability, Disease and Heat Resistant. | K. Growth Rate, Muscling and Leanness. |
| D. Excellent Meat Quality (nicely marbled), Calving Ease, and Hardy. | |
| E. Early Maturity, Reproductive Performance, Mothering Ability, Disposition. | <u>Swine Characteristics/Traits</u> |
| | L. Prolificacy (litter size), milking ability, known as the mother breed. |
| <u>Goats Characteristics/Traits</u> | M. Meat Quality (Intramuscular Fat). |
| F. Hardy, Adaptable Animals that thrive in any climate while maintaining good health. | N. Excellent rate of gain and feed efficiency. |
| G. Meat Yield. | |
| H. High Butterfat Content, Extended Breeding Season, Multi-Purpose use, (milk, meat and hide). | |

KEY

Senior Livestock Breeds Identification – 2018

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 for each part of the question. (150 points total for Seniors).

| | Breed Name | Origin of Breed | Important Traits |
|-----|------------|-----------------|------------------|
| 1. | <u>17</u> | <u>H</u> | <u>F</u> |
| 2. | <u>51</u> | <u>J</u> | <u>M</u> |
| 3. | <u>7</u> | <u>A</u> | <u>A</u> |
| 4. | <u>35</u> | <u>E</u> | <u>J</u> |
| 5. | <u>45</u> | <u>A</u> | <u>K</u> |
| 6. | <u>2</u> | <u>F</u> | <u>C</u> |
| 7. | <u>54</u> | <u>C</u> | <u>M</u> |
| 8. | <u>14</u> | <u>D</u> | <u>E</u> |
| 9. | <u>23</u> | <u>A</u> | <u>H</u> |
| 10. | <u>1</u> | <u>B</u> | <u>D</u> |

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

Beef Breeds

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

Goat Breeds

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

Sheep Breeds

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

Swine Breeds

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

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

Some answers will be used more than once

- | | | |
|-------------------------------|---------------------|--------------------------|
| A. England | E. Finland | H. Switzerland |
| B. Scotland | F. India | I. France |
| C. Ohio, US | G. Bavaria, Germany | J. Iowa and Nebraska, US |
| D. Tees River Valley, England | | K. Pennsylvania, US |

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

Some answers will be used more than once

Beef Cattle Characteristics/Traits

- A. Foraging Ability and Docility.
- B. Heavily Muscled, Excellent Growth Rate, Late Maturing.
- C. Mothering Ability, Disease and Heat Resistant.
- D. Excellent Meat Quality (nicely marbled), Calving Ease, and Hardy.
- E. Early Maturity, Reproductive Performance, Mothering Ability, Disposition.

Goats Characteristics/Traits

- F. Hardy, Adaptable Animals that thrive in any climate while maintaining good health.
- G. Meat Yield.
- H. High Butterfat Content, Extended Breeding Season, Multi-Purpose use, (milk, meat and hide).

Sheep Characteristics/Traits

- I. Lambing Ability, Early Maturity, Vigorous Instinct and Heavy Boned.
- J. Prolificacy, Wool Production and Mothering Ability.
- K. Growth Rate, Muscling and Leanness.

Swine Characteristics/Traits

- L. Prolificacy (litter size), milking ability, known as the mother breed.
- M. Meat Quality (Intramuscular Fat).
- N. Excellent rate of gain and feed efficiency.



1



2



3



4



5



6





8



9



Mark Sneed

10

Name _____ Contestant # _____ County _____

Senior Livestock and Meat Equipment Identification – 2018

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

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

| Equipment Names – to be used in answer column 1 by <u>Seniors</u> | | |
|---|--|-------------------------------|
| | Livestock Equipment | Meat Equipment |
| 1. | All Weather Paintstik | 43. Backfat ruler |
| 2. | Artificial insemination pipettes (Swine) | 44. Band saw |
| 3. | Bowl waterer | 45. Bone dust scraper |
| 4. | Balling gun | 46. Boning knife |
| 5. | Barnes dehorner | 47. Bowl chopper |
| 6. | Cattle clippers | 48. Dehairing machine |
| 7. | Clipper comb | 49. Electrical stunner |
| 8. | Clipper cutter | 50. Emulsifier |
| 9. | Currycomb | 51. Ham net |
| 10. | Disposable syringes | 52. Hand saw |
| 11. | Drench gun | 53. Hard hat |
| 12. | Ear notchers | 54. Loin eye area grid |
| 13. | Ear tag | 55. Meat grinder |
| 14. | Elastrator | 56. Meat grinder auger |
| 15. | Electric branding iron | 57. Meat grinder knife |
| 16. | Electric docker | 58. Meat grinder plate |
| 17. | Electric fence wire roller | 59. Meat grinder stuffing rod |
| 18. | Electric sheep shears | 60. Meat hook |
| 19. | Emasculator (Burdizzo) | 61. Meat tenderizer |
| 20. | Ewe prolapse retainer | 62. Meat trolley |
| 21. | Fencing pliers | 63. Metal knife scabbard |
| 22. | Foot rot shears | 64. Rubber apron |
| 23. | Freeze branding iron | 65. Sharpening steel |
| 24. | Hanging Scale | 66. Smoke house |
| 25. | Hand sheep shears | 67. Thermometer |
| 26. | Lamb tube feeder | 68. Tumbler |
| 27. | Needle teeth nippers | 69. Vacuum sausage stuffer |
| 28. | Nipple waterer | 70. Whale saw |
| 29. | Nose ring | |
| 30. | Nose ring pliers | |
| 31. | Obstetrical (O.B.) chain | |
| 32. | Plastic Sleeve | |
| 33. | Ralgro pellet injector | |
| 34. | Ram marking harness | |
| 35. | Rumen magnate | |
| 36. | Scotch Comb | |
| 37. | Slap tattoo | |
| 38. | SYNOVEX Implant cartridge | |
| 39. | SYNOVEX Implant gun | |
| 40. | T-Post Electric Fence Insulator | |
| 41. | Water Heater | |
| 42. | Wood post electric fence insulator | |

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

- | | |
|--|--|
| <p>A. A non-rusting, electric fence insulator that fits snugly around the web and flange of T-posts.</p> <p>B. A device placed on rams that shows when a ewe has been serviced.</p> <p>C. Used to chop meat for sausages.</p> <p>D. Used to cut up meat carcasses.</p> <p>E. An instrument used for the bloodless castration (young male calves, lambs, and goats) and docking of tails (young lambs and goats). It is used to place a small rubber ring over the scrotum or tail to shut off circulation.</p> <p>F. Used to shear and groom the wool from sheep. Blade lengths typically range from 3 to 6-½ inches.</p> <p>G. An instrument used to control vaginal prolapse in ewes.</p> <p>H. Used to prevent hogs raised outdoors from rooting holes in the ground.</p> <p>I. Used for temporary identification of livestock.</p> | <p>J. An automatic waterer used to provide clean, fresh water to pigs.</p> <p>K. Used to keep water tanks from freezing.</p> <p>L. An instrument used for the bloodless castration of young male calves, lambs, and goats by severing (crushing) the testicular cord.</p> <p>M. Used to clip off the 4 pairs of very sharp teeth found in baby pigs.</p> <p>N. Used to comb (groom) the hair on cattle.</p> <p>O. Used to dock the tails of lambs and piglets. It cauterizes as it cuts the tail to eliminate excessive bleeding.</p> <p>P. Used to administer precise amounts of liquid medications to cattle, goats, sheep and horses.</p> |
|--|--|

KEY

Senior Livestock and Meat Equipment Identification – 2018

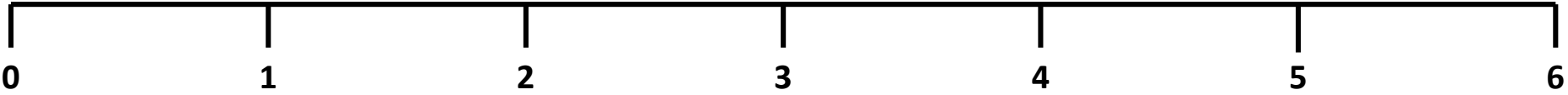
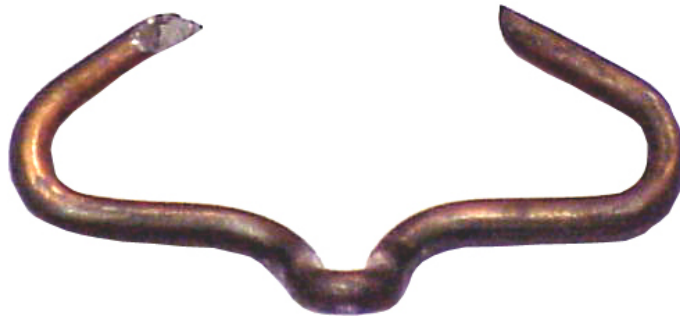
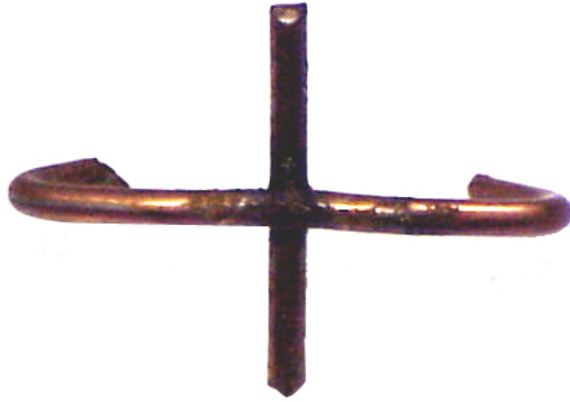
INSTRUCTIONS: For each picture, use the columns on the right to choose the number or letter that indicates your answer for each piece of equipment. Use capital letters and write neatly. **Intermediates** provide answers for livestock/meat equipment names and equipment use. Each question is worth 5 points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

| Equipment Name | Equipment Use | Equipment Names – to be used in answer column 1 by <u>Seniors</u> | | |
|----------------|---------------|---|--|-------------------------------|
| | | Livestock Equipment | | Meat Equipment |
| 1. <u>29</u> | <u>H</u> | 1. All Weather Paintstik. | 26. Lamb tube feeder | 43. Backfat ruler |
| 2. <u>40</u> | <u>A</u> | 2. Artificial insemination pipettes (Swine) | 27. Needle teeth nippers | 44. Band saw |
| 3. <u>14</u> | <u>E</u> | 3. Bowl waterer | 28. Nipple waterer | 45. Bone dust scraper |
| 4. <u>25</u> | <u>F</u> | 4. Balling gun | 29. Nose ring | 46. Boning knife |
| 5. <u>27</u> | <u>M</u> | 5. Barnes dehornor | 30. Nose ring pliers | 47. Bowl chopper |
| 6. <u>41</u> | <u>K</u> | 6. Cattle clippers | 31. Obstetrical (O.B.) chain | 48. Dehairing machine |
| 7. <u>1</u> | <u>I</u> | 7. Clipper comb | 32. Plastic Sleeve | 49. Electrical stunner |
| 8. <u>16</u> | <u>O</u> | 8. Clipper cutter | 33. Ralgro pellet injector | 50. Emulsifier |
| 9. <u>11</u> | <u>P</u> | 9. Currycomb | 34. Ram marking harness | 51. Ham net |
| 10. <u>19</u> | <u>L</u> | 10. Disposable syringes | 35. Rumen magnate | 52. Hand saw |
| | | 11. Drench gun | 36. Scotch Comb | 53. Hard hat |
| | | 12. Ear notchers | 37. Slap tattoo | 54. Loin eye area grid |
| | | 13. Ear tag | 38. SYNOVEX Implant cartridge | 55. Meat grinder |
| | | 14. Elastrator | 39. SYNOVEX Implant gun | 56. Meat grinder auger |
| | | 15. Electric branding iron | 40. T-Post Electric Fence Insulator | 57. Meat grinder knife |
| | | 16. Electric docker | 41. Water Heater | 58. Meat grinder plate |
| | | 17. Electric fence wire roller | 42. Wood post electric fence insulator | 59. Meat grinder stuffing rod |
| | | 18. Electric sheep shears | | 60. Meat hook |
| | | 19. Emasculator (Burdizzo) | | 61. Meat tenderizer |
| | | 20. Ewe prolapse retainer | | 62. Meat trolley |
| | | 21. Fencing pliers | | 63. Metal knife scabbard |
| | | 22. Foot rot shears | | 64. Rubber apron |
| | | 23. Freeze branding iron | | 65. Sharpening steel |
| | | 24. Hanging Scale | | 66. Smoke house |
| | | 25. Hand sheep shears | | 67. Thermometer |
| | | | | 68. Tumbler |
| | | | | 69. Vacuum sausage stuffer |
| | | | | 70. Whale saw |

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

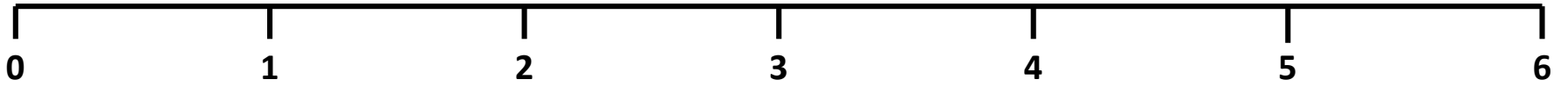
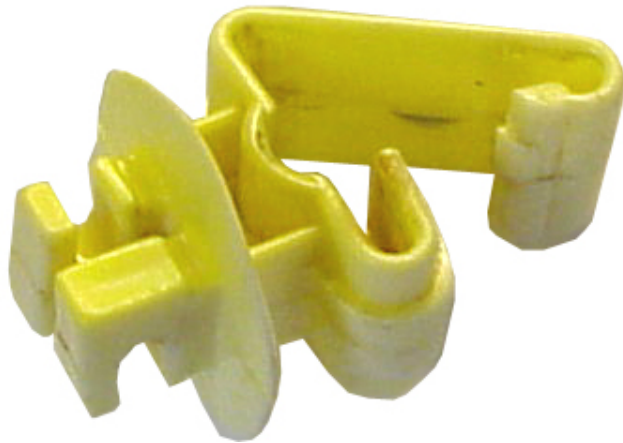
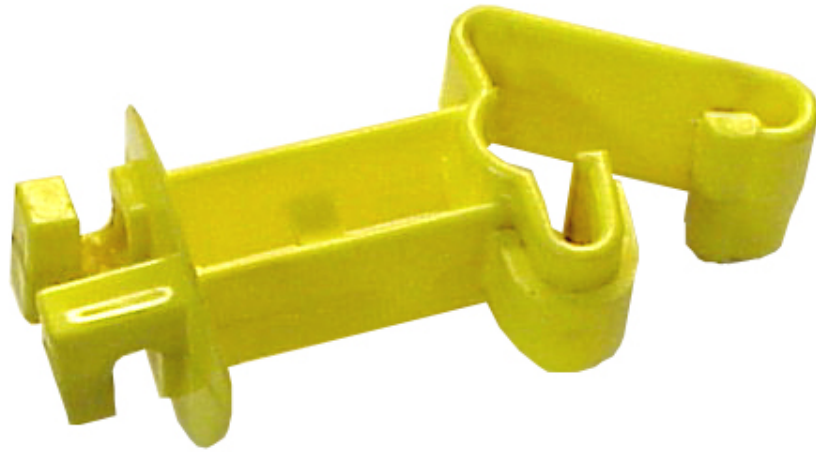
- | | |
|--|--|
| <p>A. A non-rusting, electric fence insulator that fits snugly around the web and flange of T-posts.</p> <p>B. A device placed on rams that shows when a ewe has been serviced.</p> <p>C. Used to chop meat for sausages.</p> <p>D. Used to cut up meat carcasses.</p> <p>E. An instrument used for the bloodless castration (young male calves, lambs, and goats) and docking of tails (young lambs and goats). It is used to place a small rubber ring over the scrotum or tail to shut off circulation.</p> <p>F. Used to shear and groom the wool from sheep. Blade lengths typically range from 3 to 6-½ inches.</p> <p>G. An instrument used to control vaginal prolapse in ewes.</p> <p>H. Used to prevent hogs raised outdoors from rooting holes in the ground.</p> <p>I. Used for temporary identification of livestock.</p> | <p>J. An automatic waterer used to provide clean, fresh water to pigs.</p> <p>K. Used to keep water tanks from freezing.</p> <p>L. An instrument used for the bloodless castration of young male calves, lambs, and goats by severing (crushing) the testicular cord.</p> <p>M. Used to clip off the 4 pairs of very sharp teeth found in baby pigs.</p> <p>N. Used to comb (groom) the hair on cattle.</p> <p>O. Used to dock the tails of lambs and piglets. It cauterizes as it cuts the tail to eliminate excessive bleeding.</p> <p>P. Used to administer precise amounts of liquid medications to cattle, goats, sheep and horses.</p> |
|--|--|

1



Inches

2



Inches

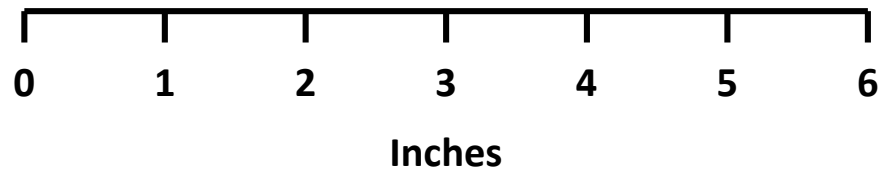
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Inches

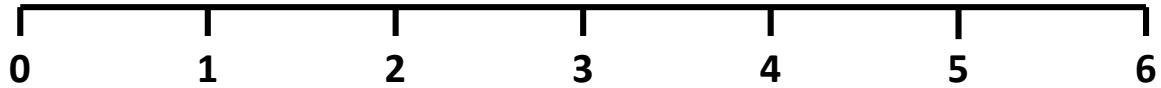
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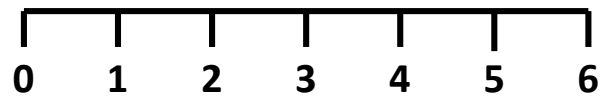


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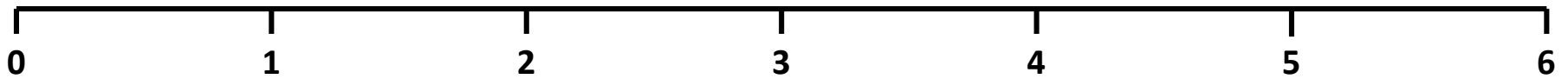
Inches

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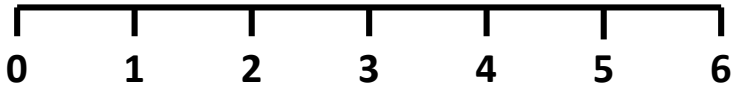
Inches

7



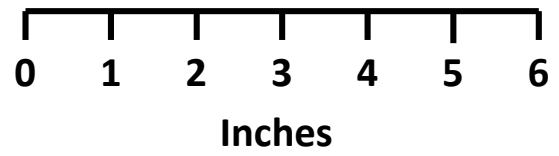
Inches

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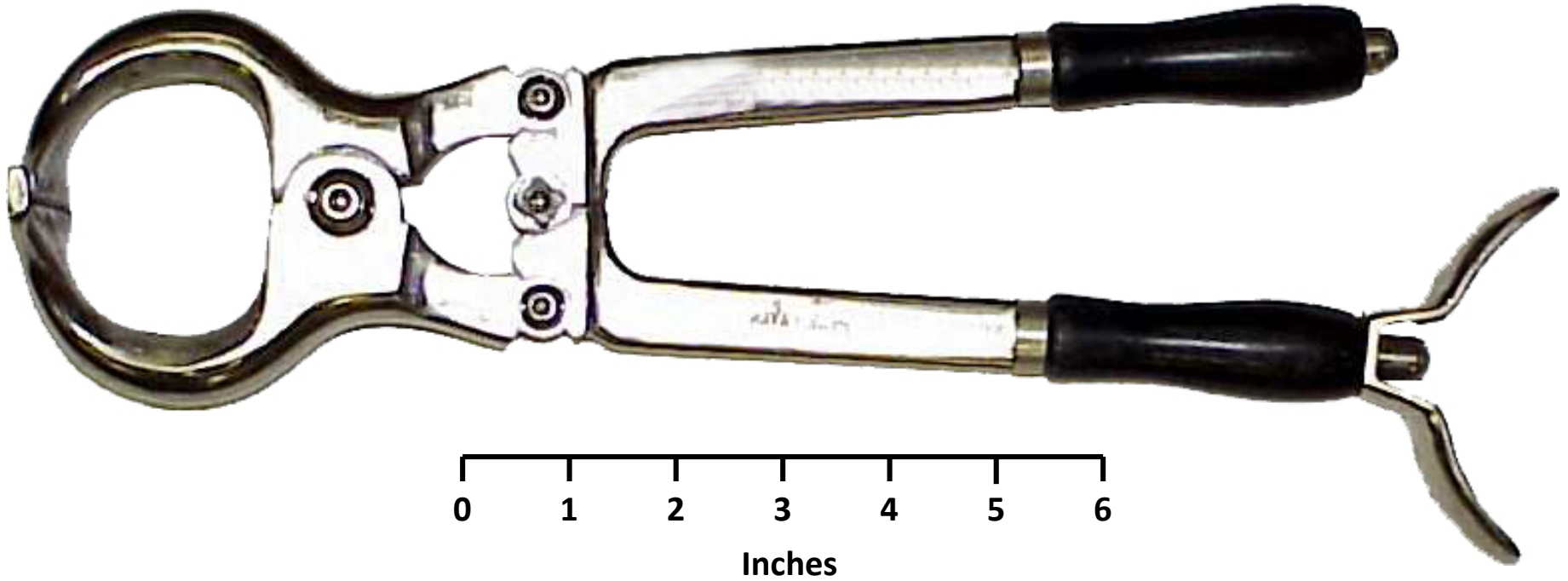


Inches

9



10



Name _____ Contestant# _____ County _____

Senior Individual Quality Assurance – 2018

You manage a 1000 head feed lot. Your feed sales representative has suggested including a product called Optaflexx in your finishing ration for market heifers. You are unfamiliar with this product and want to do further research before feeding it. Use the Optaflexx trial summary provided and your knowledge of quality assurance management to answer the **10 questions**.

Circle the best answer. (10 questions worth 5 points per question for 50 total points).

1. What is the active ingredient in Optaflexx?

- | | |
|-----------------------|-------------------------------|
| A.) monensin | C.) Flexx |
| B.) Gamma-cyhalothrin | D.) ractopamine hydrochloride |

2. What does the control group represent?

- | | |
|----------------------------|------------------------------|
| A.) Cattle fed 100 mg/hd/d | C.) Cattle not fed Optaflexx |
| B.) Cattle fed 200 mg/hd/d | D.) Cattle easy to work with |

3. What percentage of the heifers in the trial fed 300 mg/hd/d had a USDA quality grade of Choice or Higher?

- | | |
|-------------|-------------|
| A.) 64.8 % | C.) 63.56 % |
| B.) 98.76 % | D.) 100 % |

4. On average, what happened to the marbling score when dosage of Optaflexx increased?

- | | |
|---------------|---------------|
| A.) Increased | C.) No change |
| B.) Decreased | D.) Modest |

5. **By how many pounds did hot carcass weight increase for cattle fed at 300 mg/hd/d when compared to the control?**

A.) 753.3 pounds

C.) 0.3 pounds

B.) 17.8 pounds

D.) 14.1 pounds

6. **What is Optaflexx?**

A.) Beta-antagonist

B.) Illegal

C.) Beta-agonist

D.) Made in China

7. **How many total studies met all the selection criteria in this summary?**

A.) 16 studies

B.) 28 studies

C.) 42 studies

D.) 12,342 studies

8. **How is Optaflexx used?**

A.) Off-Label

B.) On-Label

C.) Not Used

D.) Both A and B

9. **When fed as a top dress, Optaflexx should be fed at a 90% DM basis continuously in a minimum of 1.0 lb/hd/d. What is the appropriate range?**

A.) 90 – 430 mg/hd/d

C.) 28 - 42 mg/hd/d

B.) 70 – 400 mg/hd/d

D.) 8.2 – 24.6 mg/hd/d

10. **Your goal is to increase feed efficiency and ribeye area in the cattle you feed based off of previous years cut out data on your cattle. Should you feed Optaflexx?**

A.) No, it does not increase ribeye area

C.) Yes, feed as much as possible

B.) No, it is too expensive

D.) Yes, if used as directed

Name _____ KEY _____ Contestant# _____ County _____

Senior Individual Quality Assurance – 2018

You manage a 1000 head feed lot. Your feed sales representative has suggested including a product called Optaflexx in your finishing ration for market heifers. You are unfamiliar with this product and want to do further research before feeding it. Use the Optaflexx trial summary provided and your knowledge of quality assurance management to answer the **10 questions**.

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B.) Gamma-cyhalothrin

D.) ractopamine hydrochloride

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C.) Cattle not fed Optaflexx

B.) Cattle fed 200 mg/hd/d

D.) Cattle easy to work with

3. What percentage of the heifers in the trial fed 300 mg/hd/d had a USDA quality grade of Choice or Higher?

A.) 64.8 %

C.) 63.56 %

B.) 98.76 %

D.) 100 %

4. On average, what happened to the marbling score when dosage of Optaflexx increased?

A.) Increased

C.) No change

B.) Decreased

D.) Modest

5. By how many pounds did hot carcass weight increase for cattle fed at 300 mg/hd/d when compared to the control?

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7. How many total studies met all the selection criteria in this summary?

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D.) 12,342 studies

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D.) Both A and B

9. When fed as a top dress, Optaflexx should be fed at a 90% DM basis continuously in a minimum of 1.0 lb/hd/d. What is the appropriate range?

A.) 90 – 430 mg/hd/d

C.) 28 - 42 mg/hd/d

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D.) 8.2 – 24.6 mg/hd/d

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A.) No, it does not increase ribeye area

C.) Yes, feed as much as possible

B.) No, it is too expensive

D.) Yes, if used as directed

Effects of Optaflexx® on Performance and Carcass Characteristics in Finishing Heifers: 16-trial Summary

Elanco Study No. T4VUS130001

Elanco

Optaflexx®

Study overview

A meta-analysis of 16 trials was conducted to quantify the effects of Optaflexx dose level on performance and carcass characteristics in finishing heifers.

Key study results

- Compared to the control, Optaflexx fed at 200 mg/hd/d:
 - Improved feed efficiency by 12.5%
 - Increased live weight gain by 11.9 lbs
 - Increased hot carcass weight (HCW) by 9.4 lbs
 - Increased dressing percent by 0.2 units
- Compared to the control, Optaflexx fed at 300 mg/hd/d:
 - Improved feed efficiency by 18.8%
 - Increased live weight gain by 17.8 lbs
 - Increased HCW by 14.1 lbs
 - Increased dressing percent by 0.3 units

Background information

TRIAL DESIGN

- Trial selection criteria
 - Experimental unit was pen or lot
 - Negative control and at least one Optaflexx treatment
 - On-label use for dose and duration
 - Period performance data (28 to 42 days)
- A total of 16 studies met selection criteria

STATISTICS

- Data were analyzed in SAS using mixed effects regression models with Optaflexx intake (mg/hd/d) as the primary predictor
- The meta-analysis used a regression model that inversely weighted each study to its variation — the more variation there was in a study, the less weight the study was given in the analysis
- Differences were deemed statistically significant if $P < 0.05$

MATERIALS AND METHODS

- Total head — 12,342
 - Control: 5,387 hd
 - 100 mg/hd/d Optaflexx: 172 hd
 - 200 mg/hd/d Optaflexx: 5,139 hd
 - 300 mg/hd/d Optaflexx: 1,644 hd
- Research conducted in 8 states
- Initial weight ranged from 1,015 to 1,267 lbs
- Final weight ranged from 1,097 to 1,362 lbs
- Hot carcass weight ranged from 638 to 813 lbs
- Average duration of Optaflexx feeding was 32.3 days

Study results

Table 1. Live performance of heifers comparing multiple Optaflexx doses

| | Optaflexx treatment, mg/hd/d | | | | SEM | P-value | |
|--------------------------------------|------------------------------|-------|-------|-------|------|---------|-----------|
| | 0 | 100 | 200 | 300 | | Linear | Quadratic |
| Live weight gain, lbs | 72.8 | 78.7 | 84.6 | 90.6 | 3.62 | < 0.01 | 0.62 |
| Response over controls, lbs | — | 5.9 | 11.9 | 17.8 | — | — | — |
| Daily gain, lbs | 2.56 | 2.76 | 2.96 | 3.16 | 0.10 | < 0.01 | 0.92 |
| Response over controls, % | — | 7.8 | 15.7 | 23.5 | — | — | — |
| DM intake, lbs/d | 20.30 | 20.18 | 20.36 | 20.14 | 0.63 | 0.97 | 0.23 |
| Feed conversion | 7.78 | 7.30 | 6.81 | 6.32 | 0.21 | < 0.01 | 0.39 |
| Response over control, % improvement | — | 6.3 | 12.5 | 18.8 | — | — | — |

Table 2. Carcass characteristics of heifers comparing multiple Optaflexx doses

| | Optaflexx treatment, mg/hd/d | | | | SEM | P-value | |
|---|------------------------------|-------|-------|-------|-------|---------|-----------|
| | 0 | 100 | 200 | 300 | | Linear | Quadratic |
| Dress, % | 62.54 | 62.64 | 62.74 | 62.84 | 0.46 | 0.03 | 0.98 |
| Response over controls, units | — | 0.1 | 0.2 | 0.3 | — | — | — |
| HCW, lbs | 739.2 | 743.9 | 748.6 | 753.3 | 8.59 | < 0.01 | 0.07 |
| Response over controls, lbs | — | 4.7 | 9.4 | 14.1 | — | — | — |
| 12th rib back fat thickness, in | 0.59 | 0.60 | 0.61 | 0.62 | 0.023 | 0.42 | 0.51 |
| Ribeye area, in² | 13.28 | 13.42 | 13.57 | 13.72 | 0.187 | < 0.01 | 0.91 |
| Response over controls, in ² | — | 0.14 | 0.29 | 0.44 | — | — | — |
| Calculated USDA yield grade | 2.94 | 2.92 | 2.90 | 2.88 | 0.098 | 0.38 | 0.12 |
| Marbling score^a | 540 | 538 | 537 | 536 | 7.3 | 0.32 | 0.84 |

^aMarbling score — 500=Small⁰⁰, 600=Modest⁰⁰.

Table 3. USDA quality-grade distribution of heifers comparing multiple Optaflexx doses

| | Optaflexx treatment, mg/hd/d ^a | | | | SEM | P-value |
|----------------------------|---|-------|-------|-------|------|---------|
| | 0 | 100 | 200 | 300 | | Linear |
| Prime, % | 1.59 | 1.46 | 1.35 | 1.24 | 0.20 | < 0.01 |
| Choice, % | 68.84 | 67.15 | 65.39 | 63.56 | 0.18 | < 0.01 |
| Select, % | 28.10 | 29.79 | 31.52 | 33.30 | 0.19 | < 0.01 |
| Standard/No roll, % | 1.47 | 1.61 | 1.75 | 1.90 | 0.03 | 0.01 |

^aDegrees of freedom (DF) = 17; Treatment x duration interaction P = 0.56.

Table 4. USDA yield-grade distribution of heifers comparing multiple Optaflexx doses

| | Optaflexx treatment, mg/hd/d ^a | | | | SEM | P-value |
|-------------------------|---|-------|-------|-------|------|---------|
| | 0 | 100 | 200 | 300 | | Linear |
| Yield grade 1, % | 11.30 | 11.92 | 12.58 | 13.27 | 0.23 | < 0.01 |
| Yield grade 2, % | 39.55 | 40.44 | 41.31 | 42.13 | 0.23 | < 0.01 |
| Yield grade 3, % | 38.50 | 37.55 | 36.57 | 35.57 | 0.23 | < 0.01 |
| Yield grade 4, % | 9.73 | 9.22 | 8.73 | 8.27 | 0.25 | < 0.01 |
| Yield grade 5, % | 0.92 | 0.86 | 0.81 | 0.76 | 0.03 | 0.02 |

^aDF = 15; Treatment x duration interaction P = 0.31.

Key findings

- Live and carcass weight gain increased as the dose of Optaflexx increased
- Effects on carcass characteristics and USDA quality and yield grades changed with increasing doses of Optaflexx, resulting in slight shifts in yield- and quality-grade distributions
- In a highly dynamic marketplace, Optaflexx is the only beta-agonist that gives cattle feeders more management options,* allowing them to respond to changes in the market while optimizing both live and carcass performance

*Based on zero-day withdrawal and dose range.

The label contains complete use information, including cautions and warnings. Always read, understand and follow the label and use directions.

Optaflexx: Complete feed

For increased rate of weight gain and improved feed efficiency: Feed 8.2 to 24.6 g/ton of ractopamine hydrochloride (90% DM basis) continuously in a complete feed to provide 70 to 430 mg/hd/d for the last 28 to 42 days on feed.

For increased rate of weight gain, improved feed efficiency and increased carcass leanness: Feed 9.8 to 24.6 g/ton of ractopamine hydrochloride (90% DM basis) continuously in a complete feed to provide 90 to 430 mg/hd/d for the last 28 to 42 days on feed.

Optaflexx: Top dress

For increased rate of weight gain and improved feed efficiency: Feed 70 to 400 mg/hd/d of ractopamine hydrochloride (90% DM basis) continuously in a minimum of 1.0 lb/hd/d top dress Type C medicated feed (maximum 800 g/ton ractopamine hydrochloride) during the last 28 to 42 days on feed.



Senior Quiz – 2018

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

- 1.) What class of nutrients are considered the body's fuel?
 - a. Roughages
 - b. Energy
 - c. Vitamins
 - d. Minerals

- 2.) How many steers are born in the United States each year?
 - a. 0
 - b. 10,000
 - c. 100,000
 - d. 1,000,000

- 3.) The recommended time frame to castrate lambs and pigs is?
 - a. Day born
 - b. First 2 weeks of age
 - c. 5 weeks of age
 - d. 10 weeks of age

- 4.) What may cause hay to be yellow or brownish in color?
 - a. Bleached out by the sun
 - b. Rained on
 - c. Stored in the bale at too high moisture
 - d. All of these

- 5.) Which of these is the least desirable, lowest quality roughage?
 - a. Alfalfa
 - b. Timothy
 - c. Clover
 - d. Fescue

- 6.) What is docking?
 - a. Vaccinating
 - b. Detailing
 - c. Dehorning
 - d. Castrating

- 7.) What is a concern of swine breeders where baby pigs get dehydrated, have scours and have a high mortality rate?
 - a. PEDv
 - b. Rhinitis
 - c. Parakaratosis
 - d. Gestation

- 8.) What is the most important thing to provide livestock?
 - a. Show Feed
 - b. Vitamins
 - c. Water
 - d. Salt

- 9.) Programs such as “Berkshire Gold”, or “Certified Hereford Beef “are called?
- a. Organic
 - b. Boxes of meat
 - c. Cheap products
 - d. Branded Products or niche market
- 10.) What is the most acceptable weight on market hogs?
- a. 75 – 125
 - b. 125 – 225
 - c. 250 – 325
 - d. 375 – 450
- 11.) When would it be recommended to give iron shots to swine after birth?
- a. First 48 hours
 - b. 48 days
 - c. 84 days
 - d. 480 days
- 12.) What is most important when selecting breeding animals to be used as replacements?
- a. Color and breed
 - b. Structural and reproductive soundness
 - c. Bone and foot size
 - d. Muscle
- 13.) Which breed would you select for mothering ability and marbling?
- a. Hereford
 - b. Chianina
 - c. Charolais
 - d. Angus
- 14.) What Quality Grade would you expect a beef animal with extra fat cover and intra - muscular fat to receive?
- a. 1 or 2
 - b. Select
 - c. High Choice
 - d. 5 or 6
- 15.) Which state is the leading cattle producing state east of the Mississippi?
- a. Kentucky
 - b. Texas
 - c. Illinois
 - d. Maine
- 16.) What is the most important vitamin for a breeding beef animal?
- a. Vitamin A
 - b. Vitamin C
 - c. Vitamin T
 - d. Vitamin Z
- 17.) What is included at Livestock Judging Contests?
- a. Classes of animals
 - b. Questions
 - c. Reasons
 - d. All of the above

- 18.) Which one is not a common parasite of cattle?
- a. Grubs
 - b. Birds
 - c. Lice
 - d. Flies
- 19.) Calcium and Phosphorous are?
- a. Vitamins
 - b. Proteins
 - c. Minerals
 - d. Oils
- 20.) Feeding cattle grain that is too finely ground can cause?
- a. Extra growth
 - b. Bloat
 - c. More Profit
 - d. Less days on feed
- 21.) A normal beef steer will consume what percent of its body weight in feed each day?
- a. 1%
 - b. 2.5%
 - c. 10%
 - d. 25%
- 22.) Long periods of stress prior to the harvest of beef cattle causes?
- a. Dark Cutter
 - b. Better Quality Grade
 - c. Better Yield Grade
 - d. Extra Carcass Weight
- 23.) Which is the most common method used to supplement feed to beef calves on pasture prior to weaning?
- a. Provide extra water
 - b. Providing poor quality hay or straw
 - c. Creep feeding
 - d. None of these
- 24.) What is the proportion of total variation for a given trait that is passed on directly from parent to offspring?
- a. Heterozygous
 - b. Homozygous
 - c. Heritability
 - d. Both A and C
- 25.) Which of these is not used to identify new born lambs in the flock setting?
- a. Ear Notches
 - b. Tagging
 - c. Paint branding
 - d. DNA

KEY

Senior Quiz – 2018

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

1.) What class of nutrients are considered the body's fuel?

- a. Roughages
- b. Energy
- c. Vitamins
- d. Minerals

2.) How many steers are born in the United States each year?

- a. 0
- b. 10,000
- c. 100,000
- d. 1,000,000

3.) The recommended time frame to castrate lambs and pigs is?

- a. Day born
- b. First 2 weeks of age
- c. 5 weeks of age
- d. 10 weeks of age

4.) What may cause hay to be yellow or brownish in color?

- a. Bleached out by the sun
- b. Rained on
- c. Stored in the bale at too high moisture
- d. All of these

5.) Which of these is the least desirable, lowest quality roughage?

- a. Alfalfa
- b. Timothy
- c. Clover
- d. Fescue

6.) What is docking?

- a. Vaccinating
- b. Detailing
- c. Dehorning
- d. Castrating

7.) What is a concern of swine breeders where baby pigs get dehydrated, have scours and have a high mortality rate?

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- c. Bone and foot size
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- b. Questions
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- b. Birds
- c. Lice
- d. Flies

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- a. Vitamins
- b. Proteins
- c. Minerals
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- a. Heterozygous
- b. Homozygous
- c. Heritability
- d. Both A and C

25.) Which of these is not used to identify new born lambs in the flock setting?

- a. Ear Notches
- b. Tagging
- c. Paint branding
- d. DNA

Senior Retail Meat Judging Class 1 – 2018

Name _____ Contestant # _____ County _____

Placing is worth a possible 50 points

Contestant Number _____

Placing Score _____

*University of Kentucky
College of Agriculture
Animal Sciences Department*

Contestant's Name

Address

County

Class: 1. Bone in Ribeyes

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

Senior Retail Meat Judging Class 1 – 2018

Placing is worth a possible 50 points

Official: 1-4-2-3 Cuts: 3-4-2

| | |
|---|---------------------|
| Contestant Number _____ | |
| Placing Score _____ | |
| <i>University of Kentucky</i> | A 1 2 3 4 40 |
| <i>College of Agriculture</i> | B 1 2 4 3 46 |
| <i>Animal Sciences Department</i> | C 1 3 2 4 38 |
| | D 1 3 4 2 42 |
| Contestant's Name | E 1 4 2 3 50 |
| _____ | F 1 4 3 2 48 |
| _____ | G 2 1 3 4 33 |
| | H 2 1 4 3 39 |
| Address | I 2 3 1 4 24 |
| _____ | J 2 3 4 1 21 |
| _____ | K 2 4 1 3 36 |
| | L 2 4 3 1 27 |
| | M 3 1 2 4 29 |
| County | N 3 1 4 2 33 |
| _____ | O 3 2 1 4 22 |
| | P 3 2 4 1 19 |
| | Q 3 4 1 2 30 |
| Class: <u>1. Bone in Ribeyes</u> | R 3 4 2 1 23 |
| | S 4 1 2 3 47 |
| | T 4 1 3 2 45 |
| | U 4 2 1 3 40 |
| | V 4 2 3 1 31 |
| | W 4 3 1 2 36 |
| | X 4 3 2 1 29 |

Senior Retail Meat Judging Class 2 – 2018

Name _____ Contestant # _____ County _____

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

| | |
|---|--|
| Contestant Number _____ | |
| Placing Score _____ | |
| <i>University of Kentucky College of Agriculture Animal Sciences Department</i> | |
| Contestant's Name _____ _____ | |
| Address _____ _____ | |
| County _____ | |
| Class <u>Retail Meat Class 2 Strip Steaks</u> | |

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

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

QUESTIONS

- 1) Which steak has the most external fat cover and least amount of edible product? _____
- 2) Which steak has the least amount of tail waste? _____
- 3) Between 3 and 4, which steak has less seam fat? _____
- 4) Between 1 and 2, which steak has the more uniform and more correctly textured marbling? _____
- 5) Between 3 and 4, which steak has a more correct shape to the eye? _____

Senior Retail Meat Judging Class 2 – 2018

Official: 2-3-4-1 Cuts: 4-2-7

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|---|---------|-----------|
| Contestant Number _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Placing Score _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>University of Kentucky College of Agriculture Animal Sciences Department</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contestant's Name _____ _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address _____ _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| County _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class <u>Retail Meat Class 2 Strip Steaks</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"><tr><td>A</td><td>1 2 3 4</td><td>21</td></tr><tr><td>B</td><td>1 2 4 3</td><td>19</td></tr><tr><td>C</td><td>1 3 2 4</td><td>17</td></tr><tr><td>D</td><td>1 3 4 2</td><td>11</td></tr><tr><td>E</td><td>1 4 2 3</td><td>13</td></tr><tr><td>F</td><td>1 4 3 2</td><td>9</td></tr><tr><td>G</td><td>2 1 3 4</td><td>34</td></tr><tr><td>H</td><td>2 1 4 3</td><td>32</td></tr><tr><td>I</td><td>2 3 1 4</td><td>43</td></tr><tr><td>J</td><td>2 3 4 1</td><td>50</td></tr><tr><td>K</td><td>2 4 1 3</td><td>39</td></tr><tr><td>L</td><td>2 4 3 1</td><td>48</td></tr><tr><td>M</td><td>3 1 2 4</td><td>26</td></tr><tr><td>N</td><td>3 1 4 2</td><td>20</td></tr><tr><td>O</td><td>3 2 1 4</td><td>39</td></tr><tr><td>P</td><td>3 2 4 1</td><td>46</td></tr><tr><td>Q</td><td>3 4 1 2</td><td>27</td></tr><tr><td>R</td><td>3 4 2 1</td><td>40</td></tr><tr><td>S</td><td>4 1 2 3</td><td>20</td></tr><tr><td>T</td><td>4 1 3 2</td><td>16</td></tr><tr><td>U</td><td>4 2 1 3</td><td>33</td></tr><tr><td>V</td><td>4 2 3 1</td><td>42</td></tr><tr><td>W</td><td>4 3 1 2</td><td>25</td></tr><tr><td>X</td><td>4 3 2 1</td><td>38</td></tr></table> | A | 1 2 3 4 | 21 | B | 1 2 4 3 | 19 | C | 1 3 2 4 | 17 | D | 1 3 4 2 | 11 | E | 1 4 2 3 | 13 | F | 1 4 3 2 | 9 | G | 2 1 3 4 | 34 | H | 2 1 4 3 | 32 | I | 2 3 1 4 | 43 | J | 2 3 4 1 | 50 | K | 2 4 1 3 | 39 | L | 2 4 3 1 | 48 | M | 3 1 2 4 | 26 | N | 3 1 4 2 | 20 | O | 3 2 1 4 | 39 | P | 3 2 4 1 | 46 | Q | 3 4 1 2 | 27 | R | 3 4 2 1 | 40 | S | 4 1 2 3 | 20 | T | 4 1 3 2 | 16 | U | 4 2 1 3 | 33 | V | 4 2 3 1 | 42 | W | 4 3 1 2 | 25 | X | 4 3 2 1 | 38 |
| A | 1 2 3 4 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 1 2 4 3 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | 1 3 2 4 | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | 1 3 4 2 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E | 1 4 2 3 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F | 1 4 3 2 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G | 2 1 3 4 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H | 2 1 4 3 | 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | 2 3 1 4 | 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| J | 2 3 4 1 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | 2 4 1 3 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L | 2 4 3 1 | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | 3 1 2 4 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | 3 1 4 2 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | 3 2 1 4 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 3 2 4 1 | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q | 3 4 1 2 | 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R | 3 4 2 1 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | 4 1 2 3 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | 4 1 3 2 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U | 4 2 1 3 | 33 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V | 4 2 3 1 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W | 4 3 1 2 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X | 4 3 2 1 | 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

QUESTIONS

- 1) Which steak has the most external fat cover and least amount of edible product? 1
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- 5) Between 3 and 4, which steak has a more correct shape to the eye? 3

Senior Hay Judging Class - 2018

Name _____ Contestant # _____ County _____

(50 points possible)

| | | |
|---|---|---------|
| Contestant Number _____ | | |
| Placing Score _____ | | |
| <i>University of Kentucky College of Agriculture Animal Sciences Department</i> | A | 1 2 3 4 |
| | B | 1 2 4 3 |
| Contestant's Name _____ _____ | 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 |
| Address _____ _____ | 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 |
| County _____ | 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 |
| Class <u>Hay Judging Class</u> | R | 3 4 2 1 |
| | S | 4 1 2 3 |
| | T | 4 1 3 2 |
| | U | 4 2 1 3 |
| | V | 4 2 3 1 |
| | W | 4 3 1 2 |
| | X | 4 3 2 1 |

[Turn over for Scenario and Forage Analysis Information]

Scenario:

You are backgrounding a load of feeder heifers with an average weight of 400 pounds. These cattle have been purchased from a local stockyard and have not been vaccinated or started on feed. Rank the four hay samples in the order that you would utilize them as the most cost effective source of forage for these feeder heifers. A commercial preconditioning feed will be feed for the first 3 weeks of the backgrounding period in addition to the hay that you choose. Ultimately the hay you choose will be the main source of feed for the next 60 days.

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

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

Forage Analysis

| | Hay Lot #1 2017 2nd Cutting Orchardgrass | Hay Lot #2 2014 Late Cut Grass Mixture | Hay Lot #3 2017 2nd Cutting Orchardgrass | Hay Lot # 4 2014 Late Cut Grass Mixture |
|---|--|---|--|--|
| Dry matter | 88.6% | 88.9% | 88.6% | 88.9% |
| Crude protein | 12.6% | 7.4% | 12.7% | 8.5% |
| Acid detergent fiber (ADF) | 44.8% | 49.9% | 44.6% | 49.7% |
| Neutral detergent fiber (NDF) | 67.3% | 69.2% | 67.5% | 69.4% |
| Total digestible nutrients (TDN) | 64.6% | 50.0% | 65.5% | 52.0% |
| Price per ton | \$110 | \$85 | \$110 | \$85 |

Senior Hay Judging Class – 2018

Official: 3-1-4-2 Cuts: 3-7-2

(50 points possible)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Contestant Number _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Placing Score _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>University of Kentucky College of Agriculture Animal Sciences Department</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contestant's Name _____ _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address _____ _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| County _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Class <u>Hay Judging Class</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"><tr><td>A</td><td>1 2 3 4</td><td>33</td></tr><tr><td>B</td><td>1 2 4 3</td><td>23</td></tr><tr><td>C</td><td>1 3 2 4</td><td>45</td></tr><tr><td>D</td><td>1 3 4 2</td><td>47</td></tr><tr><td>E</td><td>1 4 2 3</td><td>25</td></tr><tr><td>F</td><td>1 4 3 2</td><td>37</td></tr><tr><td>G</td><td>2 1 3 4</td><td>24</td></tr><tr><td>H</td><td>2 1 4 3</td><td>14</td></tr><tr><td>I</td><td>2 3 1 4</td><td>27</td></tr><tr><td>J</td><td>2 3 4 1</td><td>20</td></tr><tr><td>K</td><td>2 4 1 3</td><td>7</td></tr><tr><td>L</td><td>2 4 3 1</td><td>10</td></tr><tr><td>M</td><td>3 1 2 4</td><td>48</td></tr><tr><td>N</td><td>3 1 4 2</td><td>50</td></tr><tr><td>O</td><td>3 2 1 4</td><td>39</td></tr><tr><td>P</td><td>3 2 4 1</td><td>32</td></tr><tr><td>Q</td><td>3 4 1 2</td><td>43</td></tr><tr><td>R</td><td>3 4 2 1</td><td>34</td></tr><tr><td>S</td><td>4 1 2 3</td><td>18</td></tr><tr><td>T</td><td>4 1 3 2</td><td>30</td></tr><tr><td>U</td><td>4 2 1 3</td><td>9</td></tr><tr><td>V</td><td>4 2 3 1</td><td>12</td></tr><tr><td>W</td><td>4 3 1 2</td><td>33</td></tr><tr><td>X</td><td>4 3 2 1</td><td>24</td></tr></table> | A | 1 2 3 4 | 33 | B | 1 2 4 3 | 23 | C | 1 3 2 4 | 45 | D | 1 3 4 2 | 47 | E | 1 4 2 3 | 25 | F | 1 4 3 2 | 37 | G | 2 1 3 4 | 24 | H | 2 1 4 3 | 14 | I | 2 3 1 4 | 27 | J | 2 3 4 1 | 20 | K | 2 4 1 3 | 7 | L | 2 4 3 1 | 10 | M | 3 1 2 4 | 48 | N | 3 1 4 2 | 50 | O | 3 2 1 4 | 39 | P | 3 2 4 1 | 32 | Q | 3 4 1 2 | 43 | R | 3 4 2 1 | 34 | S | 4 1 2 3 | 18 | T | 4 1 3 2 | 30 | U | 4 2 1 3 | 9 | V | 4 2 3 1 | 12 | W | 4 3 1 2 | 33 | X | 4 3 2 1 | 24 |
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| C | 1 3 2 4 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D | 1 3 4 2 | 47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| I | 2 3 1 4 | 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| J | 2 3 4 1 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | 2 4 1 3 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L | 2 4 3 1 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | 3 1 2 4 | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N | 3 1 4 2 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | 3 2 1 4 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Q | 3 4 1 2 | 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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[Turn over for Scenario and Forage Analysis Information]

Scenario:

You are backgrounding a load of feeder heifers with an average weight of 400 pounds. These cattle have been purchased from a local stockyard and have not been vaccinated or started on feed. Rank the four hay samples in the order that you would utilize them as the most cost effective source of forage for these feeder heifers. A commercial preconditioning feed will be feed for the first 3 weeks of the backgrounding period in addition to the hay that you choose. Ultimately the hay you choose will be the main source of feed for the next 60 days.

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

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

Forage Analysis

| | Hay Lot #1 2017 2nd Cutting Orchardgrass | Hay Lot #2 2014 Late Cut Grass Mixture | Hay Lot #3 2017 2nd Cutting Orchardgrass | Hay Lot # 4 2014 Late Cut Grass Mixture |
|---|--|---|--|--|
| Dry matter | 88.6% | 88.9% | 88.6% | 88.9% |
| Crude protein | 12.6% | 7.4% | 12.7% | 8.5% |
| Acid detergent fiber (ADF) | 44.8% | 49.9% | 44.6% | 49.7% |
| Neutral detergent fiber (NDF) | 67.3% | 69.2% | 67.5% | 69.4% |
| Total digestible nutrients (TDN) | 64.6% | 50.0% | 65.5% | 52.0% |
| Price per ton | \$110 | \$85 | \$110 | \$85 |

Leftovers and Food Safety

Often when we cook at home or eat in a restaurant, we have leftovers. To ensure that leftovers are safe to eat, make sure the food is cooked to a safe temperature and refrigerate the leftovers promptly. Not cooking food to a safe temperature and leaving food out at an unsafe temperature are the two main causes of foodborne illness. Safe handling of leftovers is very important to reducing foodborne illness. Follow the [USDA Food Safety and Inspection Service's](#) recommendations for handling leftovers safely.

Cook Food Safely at Home

The first step in having safe leftovers is cooking the food safely. Use a food thermometer to make sure that the food is cooked to a safe, minimum internal temperature.

- **Red meats:** Cook all raw beef, pork, lamb and veal steaks, chops, and roasts to a minimum internal temperature of 145° F as measured with a food thermometer before removing meat from the heat source. For safety and quality, allow meat to rest for at least three minutes before carving or consuming. For reasons of personal preference, consumers may choose to cook meat to higher temperatures.
- **Ground meats:** Cook all raw ground beef, pork, lamb, and veal to an internal temperature of 160° F as measured with a food thermometer.
- **Poultry:** Cook all poultry to an internal temperature of 165° F as measured with a food thermometer.

Keep Food out of the "Danger Zone"

Bacteria grow rapidly between the temperatures of 40° F and 140° F. After food is safely cooked, hot food must be kept hot at 140° F or warmer to prevent bacterial growth. Discard any cold leftovers that have been left out for more than 2 hours at room temperature (1 hour when the temperature is above 90 °F).

Cool Food Rapidly

To prevent bacterial growth, it's important to cool food rapidly so it reaches as fast as possible the safe refrigerator-storage temperature of 40° F or below. To do this, divide large amounts of food into shallow containers. A big pot of soup, for example, will take a long time to cool, inviting bacteria to multiply and increasing the danger of foodborne illness. Instead, divide the pot of soup into smaller containers so it will cool quickly.

Cut large items of food into smaller portions to cool. For whole roasts or hams, slice or cut them into smaller parts. Cut turkey into smaller pieces and refrigerate. Slice breast meat; legs and wings may be left whole.

Wrap Leftovers Well

Cover leftovers, wrap them in airtight packaging, or seal them in storage containers. These practices help keep bacteria out, retain moisture, and prevent leftovers from picking up odors from other food in the refrigerator.

Store Leftovers Safely

Leftovers can be kept in the refrigerator for 3 to 4 days or frozen for 3 to 4 months. Although safe indefinitely, frozen leftovers can lose moisture and flavor when stored for longer times in the freezer.

Thaw Frozen Leftovers Safely

Safe ways to thaw leftovers include the refrigerator, cold water and the microwave oven. Refrigerator thawing takes the longest but the leftovers stay safe the entire time. After thawing, the food should be used within 3 to 4 days or can be refrozen.

Microwave thawing is the fastest method. When thawing leftovers in a microwave, continue to heat it until it reaches 165° F as measured with a food thermometer. Foods thawed in the microwave can be refrozen after heating it to this safe temperature.

Reheat Leftovers Safely

When reheating leftovers, be sure they reach 165° F as measured with a food thermometer. Reheat sauces, soups and gravies by bringing them to a rolling boil. Cover leftovers to reheat. This retains moisture and ensures that food will heat all the way through.

County _____

Team Members: _____

Senior Team Quality Assurance Exercise – 2018

In today's Food Industry, it is becoming more and more important that we have trained, qualified individuals to provide research based information that is guided by common sense about the food we raise, provide and sell to the general population. Food Safety jobs are in high demand. They give you the opportunity to make a difference in local, state, national and international markets. Plus, with the continued growth in population and need for safe, affordable food, this allows for job security. Your mission at the Quality Assurance Station is work together as a team to answer the following questions which deal with food safety and animal / human contact dealing with influenza. Take your time but work efficiently. This is a double station so you have **24 minutes** to work through this activity and **you do not defend to a listener** at this station. (Each correct answer for questions 1-9 are worth 10 points each. Questions 10-31 are worth 5 points each. Questions 1-9 and 10-31 combine for a total of 200 points).

Using the attached handout answer the following 9 questions.

They are worth 10 points each for a total of 90 points. Please circle your answer.

1. The best instrument to use to determine proper cooking temperature is?
 - a. Knife
 - b. Eye ball
 - c. Outdoor Thermometer
 - d. Cooking Thermometer
2. To thaw frozen ground beef, you should?
 - a. Take out of package and thaw in hot water
 - b. Place on top shelf of refrigerator just on the rack
 - c. Thaw in microwave
 - d. Thaw on the counter
3. Veal steaks should be cooked to a minimum internal temperature of?
 - a. 160 degrees
 - b. 145 degrees
 - c. 140 degrees
 - d. 90 degrees
4. After properly placing leftovers in a sealed container?
 - a. There is no risk of bacteria
 - b. Leave on the counter
 - c. Place in the refrigerator
 - d. Place in a cool 60⁰ cabinet
5. Large portions of meat or large pots of soup/stew should be?
 - a. Divided into smaller portions or containers
 - b. Leave out to cool on the counter
 - c. Placed in refrigerator as is
 - d. Reheat to 100 degrees & leave out 2 hrs

Questions 14-18 are matching temperatures with food safety terms. They are worth 5 points each.

- _____ 14. Refrigerator temperature will not kill bacteria
- _____ 15. Hot enough to prevent most harmful bacteria from growing
- _____ 16. Food Temperature Danger Zone
- _____ 17. Freezer temperature will not kill bacteria
- _____ 18. Hot enough to kill most harmful bacteria

Options for 14 – 18.

- A. 160° to 212°
- B. -20° to 0°
- C. 140° to 160°
- D. 32° to 40°
- E. 40° to 140°

Questions 19 -31 are Random Food Safety Questions. They are worth 5 points each. Please circle answers.

19. Placing grilled meats on the plate that held the raw meat is an example of:
- a. Contamination
 - b. Cross - contamination
 - c. Cross – cooking
20. Tiny microorganisms which cause foodborne illness are called:
- a. Lice
 - b. Flagella
 - c. Bacteria
21. What is the Food Temperature Danger Zone?
- a. 10 – 15 degrees
 - b. 40 – 140 degrees
 - c. 160 – 212 degrees
22. In order to multiply, most bacteria need:
- a. Cold & Dry conditions
 - b. Placed in a freezer
 - c. Warm and Moist conditions
23. What are the most common symptoms of foodborne illness?
- a. Stomach and Bowel issues
 - b. Sneezing and Cough
 - c. Sore feet and legs

24. The abbreviation for the government agency that is concerned with cause and control of disease:
- a. FFA
 - b. FDA
 - c. HUD
 - d. CDC
25. The safest place to store raw meats in the refrigerator is:
- a. On the top shelf
 - b. On the bottom shelf
 - c. On the counter
26. Who is **least** at risk to contract a foodborne illness?
- a. A tiny baby
 - b. An elderly person
 - c. A lively teenager
27. Which food does **not** have to be kept cold to be safe?
- a. Eggs
 - b. Meat
 - c. Apple
28. After using a cutting board for raw beef, what needs to be done?
- a. Wipe with a paper towel
 - b. Switch to Poultry
 - c. Wash with soap and hot water
29. Which is the most unsafe to eat?
- a. A washed apple
 - b. Cookie dough with raw egg in it
 - c. Cold tuna sandwich
30. Recommended handwashing takes how long?
- a. 5 seconds
 - b. 20 seconds
 - c. 5 minutes
 - d. 20 minutes
31. What is a foodborne illness?
- a. An illness caused by eating too much food.
 - b. An illness caused by eating foods that are high in fat and cholesterol.
 - c. An illness caused by disease causing microorganisms in food.

County _____

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In today's Food Industry, it is becoming more and more important that we have trained, qualified individuals to provide research based information that is guided by common sense about the food we raise, provide and sell to the general population. Food Safety jobs are in high demand. They give you the opportunity to make a difference in local, state, national and international markets. Plus, with the continued growth in population and need for safe, affordable food, this allows for job security. Your mission at the Quality Assurance Station is work together as a team to answer the following questions which deal with food safety and animal / human contact dealing with influenza. Take your time but work efficiently. This is a double station so you have **24 minutes** to work through this activity and **you do not defend to a listener** at this station. (Each correct answer for questions 1-9 are worth 10 points each. Questions 10-31 are worth 5 points each. Questions 1-9 and 10-31 combine for a total of 200 points).

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a. 160 degrees **b. 145 degrees** c. 140 degrees d. 90 degrees
4. After properly placing leftovers in a sealed container?
a. There is no risk of bacteria **c. Place in the refrigerator**
b. Leave on the counter d. Place in a cool 60⁰ cabinet
5. Large portions of meat or large pots of soup/stew should be?
a. Divided into smaller portions or containers c. Placed in refrigerator as is
b. Leave out to cool on the counter d. Reheat to 100 degrees & leave out 2 hrs

6. The proper cooking temperature for a medium-rare steak is 130⁰ F. However according to foodsafety.gov it should at least be cooked to a minimal internal temperature of?

- a. 150⁰ b. 120⁰ c. 145⁰ d. 160⁰

7. Turkey should be served when?

- a. When the outside is nice and brown c. Internal temperature of 165⁰
b. You taste it and it is awesome d. Internal temperature of 145⁰

8. When reheating foods in a microwave you should?

- a. Stir and or turn the food to evenly cook c. Cook till the lid blows off
b. Set on an appropriate time for the food d. Both A and B

9. When dealing with preparing and keeping food safe, we are concerned with?

- a. Virus b. Bacteria c. Petrel d. Prius

Questions 10-13 deal with animal/human contact dealing with influenza.
They are worth 5 points each. Please circle your answer.

10. What is a “zoonotic disease”?

- a. Any disease that an animal at a Zoo gets. c. A disease where you see Zoo animals
b. There is no such thing as zoonotic disease d. Disease transmitted from animal to human

11. What are fomites?

- a. A special brush for show animals. c. Any object that can spread a disease from touch
b. A small biting animal d. A brand of disinfectant for show barns

12. When should exhibitors report that pigs are ill to the show veterinarian?

- a. Anytime an animal becomes ill during a show c. When animals have a fever
b. Never d. Both A and C

13. When should you disinfect equipment used with your animals at a show?

- a. After every show c. No need, doesn't matter
b. Depends on value of your animals d. Only if you think they are dirty

Questions 14-18 are matching temperatures with food safety terms. They are worth 5 points each.

- D. 14. Refrigerator temperature will not kill bacteria
- C. 15. Hot enough to prevent most harmful bacteria from growing
- E. 16. Food Temperature Danger Zone
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27. Which food does **not** have to be kept cold to be safe?

- a. Eggs b. Meat c. Apple

28. After using a cutting board for raw beef, what needs to be done?

- a. Wipe with a paper towel b. Switch to Poultry c. Wash with soap and hot water

29. Which is the most unsafe to eat?

- a. A washed apple b. Cookie dough with raw egg in it c. Cold tuna sandwich

30. Recommended handwashing takes how long?

- a. 5 seconds b. 20 seconds c. 5 minutes d. 20 minutes

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- a. An illness caused by eating too much food.
b. An illness caused by eating foods that are high in fat and cholesterol.
c. An illness caused by disease causing microorganisms in food.

Sim-Angus Bull Data

SPRING 2018 EPDs

| Bull # 1 | CE | Brth | Wean | Year | ADG | MCE | Milk | MWW | Stay | Doc | CW | YG | Marb | BF | REA | Shr | API | TI |
|---------------------|-----------|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|------------|-----------|-----------|-------------|-----------|------------|------------|------------|-----------|
| EPD | 9.0 | 1.1 | 70.3 | 104.4 | 0.21 | 2.9 | 21.2 | 56.3 | 7.3 | 11.9 | 33.4 | -0.29 | 0.42 | -0.044 | 0.84 | -0.14 | 123.2 | 76.2 |
| ACC | 0.53 | 0.62 | 0.45 | 0.46 | 0.46 | 0.40 | 0.39 | 0.41 | 0.31 | 0.20 | 0.39 | 0.27 | 0.40 | 0.25 | 0.32 | 0.16 | | |
| % | 75 | 65 | 25 | 35 | 50 | 90 | 50 | 30 | 80 | 40 | 35 | 30 | 35 | 45 | 15 | 99 | 55 | 30 |

| Bull # 2 | CE | Brth | Wean | Year | ADG | MCE | Milk | MWW | Stay | Doc | CW | YG | Marb | BF | REA | Shr | API | TI |
|---------------------|-----------|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|------------|-----------|-----------|-------------|-----------|------------|------------|------------|-----------|
| EPD | 13.0 | 1.1 | 61.6 | 89.1 | 0.17 | 12.0 | 20.3 | 51.1 | 13.1 | 9.5 | 24.4 | 0.04 | 0.59 | 0.035 | 0.33 | -0.30 | 153.6 | 79.0 |
| ACC | 0.33 | 0.40 | 0.34 | 0.33 | 0.33 | 0.29 | 0.28 | 0.30 | 0.13 | 0.22 | 0.28 | 0.18 | 0.17 | 0.19 | 0.16 | 0.01 | | |
| % | 15 | 35 | 55 | 55 | 75 | 15 | 60 | 55 | 25 | 80 | 60 | 99 | 1 | 99 | 99 | 60 | 3 | 10 |

| Bull # 3 | CE | Brth | Wean | Year | ADG | MCE | Milk | MWW | Stay | Doc | CW | YG | Marb | BF | REA | Shr | API | TI |
|---------------------|-----------|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|------------|-----------|-----------|-------------|-----------|------------|------------|------------|-----------|
| EPD | 10.8 | 0.8 | 64.3 | 110.6 | 0.29 | 5.5 | 12.3 | 44.5 | 10.9 | 9.1 | 37.7 | -0.22 | 0.30 | -0.032 | 0.78 | -0.37 | 136.6 | 75.0 |
| ACC | 0.84 | 0.86 | 0.83 | 0.83 | 0.83 | 0.81 | 0.81 | 0.82 | 0.44 | 0.44 | 0.58 | 0.37 | 0.45 | 0.42 | 0.38 | 0.21 | | |
| % | 35 | 30 | 40 | 10 | 10 | 85 | 99 | 90 | 55 | 85 | 15 | 90 | 20 | 90 | 55 | 25 | 20 | 20 |

| Bull # 4 | CE | Brth | Wean | Year | ADG | MCE | Milk | MWW | Stay | Doc | CW | YG | Marb | BF | REA | Shr | API | TI |
|---------------------|-----------|-------------|-------------|-------------|------------|------------|-------------|------------|-------------|------------|-----------|-----------|-------------|-----------|------------|------------|------------|-----------|
| EPD | 7.1 | 3.9 | 74.3 | 109.2 | 0.22 | 6.4 | 22.6 | 59.7 | 3.0 | 11.5 | 40.2 | -0.44 | 0.28 | -0.069 | 1.20 | -0.36 | 111.6 | 77.2 |
| ACC | 0.36 | 0.42 | 0.36 | 0.37 | 0.37 | 0.30 | 0.31 | 0.32 | 0.28 | 0.13 | 0.31 | 0.25 | 0.40 | 0.25 | 0.31 | 0.18 | | |
| % | 75 | 90 | 10 | 15 | 10 | 80 | 40 | 15 | 99 | 40 | 10 | 10 | 20 | 35 | 2 | 30 | 75 | 15 |

Sim-Angus Bull Data

2018 Senior Team Breeding Activity

Team Name: _____

Team Members: _____

You are the owner operator of a highly regarded Purebred Angus and Sim-Angus cow herd in Kentucky. Customers from across the United States visit your farm looking for high quality cattle to use in their commercial herds. Most of your bulls go to operations that run an Angus cow base or some type of an F-1 cross of angus/Hereford. You have recently partnered with a high end restaurant to provide them with steaks that will grade choice or better. This allows you another avenue of helping your bull customers merchandise their calves at a premium. You are an entrepreneur and are always looking for ways to improve your ability to merchandise your product. Answer the questions that follow and explain to the listener, which heifer you would pick to breed to bull number 2 and why, which female you would pick to breed to bull number three and why, and which bull do you feel could cause the most potential issues for an individual who works off the farm, has limited feed resources and prefers longevity in his cow herd. **(Each Heifer will have a point value for a total of 25 pts on who you select to breed to bulls 2 and 3 for a total of 50 points. There are ten questions over the data worth 10 points each for a total of 100 pts. Your presentation to the listener is worth 50 points. Total for Breeding Activity 200 pts.)** Turn Paper Over to Finish this Activity.

County: _____

Team Members: _____

2018 Senior Team Breeding Activity

10 questions worth 10 points each for a total of 100 points.

1. Which bull's daughters would potentially be moderate framed, require less inputs / labor and should stay in the herd longer? _____
2. Which bull would pose the most issues with labor, feed resources and offspring grading choice? _____
3. Which bull's daughters would potentially be large framed, heavy muscled and would have a hard stay reaching an extended life in the herd? _____
4. Which bull is the oldest or at least has had the most data collected? _____
5. Which bull's offspring are probably the most alert when humans enter their space? _____
6. Which bull has the best combination of indexes? _____
7. Which bull's offspring should have the most likelihood of meeting the needs of the high-end restaurant? _____
8. Which bull's, daughter's offspring will probably need to be provided a creep feeder? _____
9. I have some cows that are so easy keeping their offspring are always High Prime and Yield grade 5's. Which bull should I use to improve my bottom line on a Grid basis? _____
10. Which bull is not an answer to any other question? _____

Selection Portion: 25 points for each question for a total of 50 points.

- A. Which heifer would you AI to bull #2? _____
- B. Which heifer would you AI to bull #3? _____

Discuss your decision with the listener. Discussion is worth 50 points.

Score for Discussion _____

| |
|---------------------------|
| <u>Total Score</u> |
|---------------------------|

2018

Senior Team Breeding Activity KEY

10 questions worth 10 points each for a total of 100 points.

1. Which bull's daughters would potentially be moderate framed, require less inputs / labor and should stay in the herd longer? 2
2. Which bull would pose the most issues with labor, feed resources and offspring grading choice? 4
3. Which bull's daughters would potentially be large framed, heavy muscled and would have a hard stay reaching an extended life in the herd? 4
4. Which bull is the oldest or at least has had the most data collected? 3
5. Which bull's offspring are probably the most alert when humans enter their space? 3
6. Which bull has the best combination of indexes? 2
7. Which bull's offspring should have the most likelihood of meeting the needs of the high-end restaurant? 2
8. Which bull's, daughter's offspring will probably need to be provided a creep feeder? 3
9. I have some cows that are so easy keeping their offspring are always High Prime and Yield grade 5's. Which bull should I use to improve my bottom line on a Grid basis? 4
10. Which bull is not an answer to any other question? 1

Selection Portion: 25 points for each question for a total of 50 points.

- A. Which heifer would you AI to bull #2? _____
- B. Which heifer would you AI to bull #3? _____

Discuss your decision with the listener. Discussion is worth 50 points.

Score for Discussion _____

| |
|---------------------------|
| <u>Total Score</u> |
|---------------------------|

Team Name _____

Team Number _____

2018 Kentucky Skillathon – Senior Team Activity

You have purchased a group of 10 feeder pigs (average weight = 65 lb.) at \$0.90/lb. Your plans are to feed the pigs for 100 days and sell them at 250 lb. for freezer pork.

1. What is the expected daily gain per day for each pig? lb/d 2decimals
2. If the expected feed/gain efficiency is 3.0, what is the expected total feed consumption for the group? lb
3. If feed cost is \$320/ton, what is the estimated total group feed cost? Total \$
4. What is the feed cost of gain per pig? \$/lb, 2 decimals
5. If you are considering a premix to add to your feed and the inclusion rate was 5% of the total amount of feed, how much of the premix would you need to purchase? lb,
6. If the premix was packaged in 50lb bags costing \$20/bag, what is your total premix cost? \$, 2 decimals
7. What is breakeven live price (\$/cwt) you would have to receive to cover your investment in pigs and feed (not including premix)? \$ /cwt, 2 decimals
8. If your customers preferred to purchase pigs on a carcass price basis, what would be an equivalent carcass price? Assume your pigs will dress 72% \$ /cwt, 2 decimals
9. Based on a \$1.25/lb. carcass price, your projected net return above pig and feed costs should be _____ for the pen of pigs. \$ 2 decimals
10. If miscellaneous costs were an additional \$10/pig and you estimated that you spent 60 minutes per day on your pig project what was your return to your labor? (express on an hourly basis) \$/hr, 2 Decimals

Score

Team Name _____ Team Number _____

Team Members _____

2018 Kentucky Skillathon Contest – Senior Team Feeding Activity
10 pts. / question and 100 points for your explanation for 200 point total.

You have purchased a group of 10 feeder pigs (average weight = 65 lb.) at \$0.90/lb. Your plans are to feed the pigs for 100 days and sell them at 250 lb. for freezer pork. Explain how you think the pigs have grown, why people might want to buy from you and will you make a profit?

1. What is the expected daily gain per day for each pig?

lb/d 2decimals

2. If the expected feed/gain efficiency is 3.0,
what is the expected total feed consumption for the group?

lbs

3. If feed cost is \$320/ton, what is the estimated total group
feed cost?

Total \$

4. What is the feed cost of gain per pig?

\$/lb, 2 decimals

5. If you are considering a premix to add to your feed and the inclusion rate was 5% of the total
amount of feed, how much of the premix would you need to purchase?

lb

6. If the premix was packaged in 50lb bags costing \$20/bag, what is your total premix cost?

\$, 2 decimals

7. What is breakeven live price (\$/cwt) you would have to receive to cover your investment in pigs
and feed (not including premix)?

\$/cwt, 2 decimals

8. If your customers preferred to purchase pigs on a carcass price basis, what would be an
equivalent carcass price? Assume your pigs will dress 72%

\$/cwt, 2 decimals

9. Based on a \$1.25/lb carcass price, your projected net return above pig and feed costs should
be _____ for the pen of pigs.

\$ 2 decimals

10. If miscellaneous costs were an additional \$10/pig and you estimated that you spent 60 minutes
per day on your pig project what was your return to your labor? (express on an hourly basis)

\$/hr, 2 Decimals

KEY

2018 Kentucky Skillathon Contest – Senior Team Feeding Activity
10 pts. / question and 100 points for your explanation for 200 point total.

You have purchased a group of 10 feeder pigs (average weight = 65 lb.) at \$0.90/lb. Your plans are to feed the pigs for 100 days and sell them at 250 lb. for freezer pork.

1. What is the expected daily gain per day for each pig?

$$(250 \text{ lb} - 65 \text{ lb}) / 100 \text{ d} = 1.85 \text{ lb/hd/d}$$

1.85 lb/d

lb/d 2decimals

2. If the expected feed/gain efficiency is 3.0,
 what is the expected total feed consumption for the group?

$$(3.0 \text{ lb feed/lb gain}) \times 1.85 \text{ lb gain} = 5.55 \times 100 \text{ d} = 550 \times 10 \text{ pigs} = 5,550 \text{ lb feed}$$

5,550 lb feed

lbs

3. If feed cost is \$320/ton, what is the estimated total group
 feed cost?

$$(5,550 \text{ lb feed} / 2,000 \text{ lb per ton}) = 2.775 \text{ tons feed}$$

$$2.775 \text{ tons} \times \$320 / \text{ton} = \$888.00 \text{ total feed cost}$$

\$888.00 feed cost

Total \$

4. What is the feed cost of gain per pig?

$$\$888.00 \text{ feed cost} / [(250 \text{ lb} - 65 \text{ lb} = 185 \text{ lb gained}) \times 10 \text{ pigs}]$$

$$\text{So, } \$888 / 1850 = \$0.48/\text{lb.}$$

\$.48/lb

\$/lb, 2 decimals

5. If you are considering a premix to add to your feed and the inclusion rate was 5% of the total
 amount of feed, how much of the premix would you need to purchase?

$$5,550 \text{ lb feed} \times .05 = 277.50 \text{ lb}$$

277.50 lb

lbs

6. If the premix was packaged in 50lb bags costing \$20/bag, what is your total premix cost?

$$277.5 \text{ lb} / 50 \text{ lb} = 5.55 \text{ bags. So, you have to round to 6 bags}$$

$$6 \text{ bags} \times \$20/\text{bag} = \$120.00$$

\$120.00

\$, 2 decimals

7. What is breakeven live price (\$/cwt) you would have to receive to cover your investment in pigs
 and feed (not including premix)?

$$[10 \text{ pigs} \times (65 \text{ lb} \times .90 = \$58.50)] = \$585 \text{ purchase price}$$

$$\$585.00 \text{ purchase price} + \$888.00 \text{ feed cost} = \$1473.00$$

$$\$1473.00 / (10 \text{ pigs} \times 250 \text{ lb} = 2,500 \text{ lb sold}) = 0.5892 \times 100 \text{ (because it is cwt)}$$

\$58.92/cwt.

\$/cwt, 2 decimals

8. If your customers preferred to purchase pigs on a carcass price basis, what would be an
 equivalent carcass price? Assume your pigs will dress 72%

$$\$58.92 / .72 = \$81.83$$

\$81.83/cwt.

\$/cwt, 2 decimals

9. Based on a \$1.25/lb carcass price, your projected net return above pig and feed costs should
 be _____ for the pen of pigs.

$$10 \text{ pigs} \times (250 \text{ x} .72) \times (\$1.25) = \$2,250.00 \text{ income}$$

$$\$2,250 - [\$585 \text{ (pigs)} + \$888 \text{ (feed)}]$$

$$\$2250 - \$1473 = \$777.00$$

\$777.00

\$ 2 decimals

10. If miscellaneous costs were an additional \$10/pig and you estimated that you spent 60 minutes
 per day on your pig project what was your return to your labor? (express on an hourly basis)

$$[\$777 - (10 \text{ pigs} \times \$10)] / (100 \text{ days} \times 1 \text{ hr.})$$

$$(\$777 - \$100) / 100 = \$677/100\text{hrs} = \$6.77/\text{hr}$$

\$6.77/hr.

\$/hr, 2 Decimals