

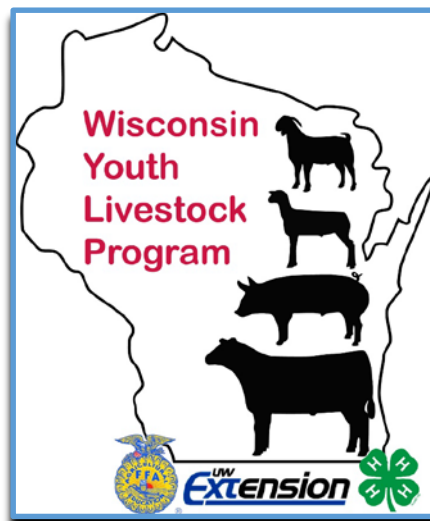
2015

Wisconsin 4-H Livestock Skillathon

Resource Handbook

A guide for coaches and youth

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<http://fyi.uwex.edu/youthlivestock/programs/quizbowlskillathon/>

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2015 Wisconsin State 4-H Livestock Quizbowl and Skill-a-Thon Contest

Contest Date: Saturday, March 7, 2015

Location:

UW-Madison – Animal Sciences Building
1675 Observatory Drive
Madison, WI 53706

Contest Coordinators

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2015 Rules and Regulations

Team and Contestant Eligibility

1. This contest covers the understanding and practical application and the principles of Animal Sciences related to the beef, sheep, swine, and meat goats project areas.
2. All 4-H members (grades 3-13) in the state of Wisconsin are eligible. The contest will be divided into junior (grades 3-8) and senior (grades 9-13) divisions. Contestants must participate in the division according to their **grade** as of January 1, 2015. The top 4-H senior team will be invited to attend the National Skill-a-Thon Contest which will be held in November in Louisville, Kentucky.
3. Teams may consist of three or four members. All members of a four person team will compete, but the member receiving the lowest overall score will automatically be declared the alternate.
4. Contestants must not have competed previously in any official post-secondary livestock quiz bowl or livestock quadrathlon contests.
5. This resource packet includes a number of sample applications contestants may see at the contest. Contest coordinators reserve the right to change station activities based on availability of livestock, supplies, etc.
6. Registration forms are due to UW-Madison Department of Animal Sciences, by February 27, 2015. Please use the Official Registration form for entry which can be found at your county UW-Extension office and also on the WI Youth Livestock Blog site and Facebook page.
7. Fees are \$40.00 per team or \$10.00 per individual. Checks should be made payable to UW-Extension. Entry fee is non-refundable.

Contest Method of Conduct

1. Registration for the contest will begin at 9:00 AM with the contest starting at 9:30 AM.
2. Contestants will be allowed to compete in individual rounds and team activities.
3. During the individual competition round, contestants will be divided into groups and will remain with that assigned group throughout the round of classes. While completing the individual competition classes, there will be no conferring between contestants or between a contestant and anyone else except as directed by contest officials. Once the individual rounds are complete then complete the team activities. If there are too many starting with the individual stations then some teams will start with the team activities.
4. Team members will complete one official answer sheet for each team class representing the combined effort of all team members. Teams will be allowed twenty minutes to complete the group assignment for each class and turn in their answer sheet. During the team competition round of the contest, contestants will only be allowed to confer with their own team members during the time period allowed for each class.
5. **Contestants shall not wear any hats.**
6. Contestants should bring a blank steno pad, clipboard, and blank paper. Contestants may also use a small pocket calculator (programmable calculators will not be permitted). The contestants may not bring books, notes, pamphlets, or other reference materials into the contest area. **Contestants found in contempt of this rule will be disqualified.**
7. Contestants are not to pick up or touch any item that is being identified or evaluated in the individual competition classes, unless it is part of the class, ie: wool judging, etc.

Awards

Junior Awards

Awards for the top three skillathon teams

Awards for the top ten individuals

Senior Awards

Awards for the top three skillathon teams

Awards for the top ten individuals

2015 Skillathon Contest Classes

Disclaimer: Stated classes are just examples of what might be asked or included in the contest. The contest committee reserves the right to add additional, subtract or alter classes that might not be included in this list.

Individual Classes

1. **Retail Meat Cut Identification:** From a provided list, identify the uniformly accepted name of a combination of ten beef, pork, and lamb retail cuts on display, including the species, wholesale cut from which each retail cut originates and the retail cut.
2. **Livestock Feed Identification:** Identify the proper name for ten livestock feeds and identify each corresponding nutrient group. Feed samples and lists of feed names and nutrient groups will be provided.
3. **Livestock Breed Identification:** Identify from photographs or pictures, ten livestock (beef cattle, swine, and sheep) breeds. Seniors must also match the breed with the most appropriate description supplied for each breed.
4. **Meat Judging Class:** Rank two classes of four similar retail cuts of meat. Seniors must also answer five questions for each class.
5. **Fleece and Hay Judging Class:** Rank a class of four hay samples with forage analysis information. Rank a class of four samples of fleece.
6. **Livestock Equipment Identification:** Identify the proper name for ten pieces of equipment used in livestock production. (A list of equipment will be provided.) Seniors must also identify their usage type (ex: breeding).
7. **Quality Assurance Exercise:** Demonstrate how to read a medicine label, calculate withdrawal times, complete a treatment record, and make responsible management decisions regarding quality assurance.
8. **Quiz:** Complete a multiple choice quiz concerning topics relating to the livestock industry.

Skillathon Team Classes

1. **Quality Assurance Exercise:** Demonstrate how to read an animal health product label, calculate dosage rates and withdrawal times, complete a treatment record, be familiar with administration routes, and make responsible management decisions regarding quality assurance.
2. **Animal Breeding Scenarios and Exercise:** Team members will evaluate a breeding animal scenario and make animal selection decisions based upon performance data to rank breeding animals for use within the situation.
3. **Live Judging Class:** Rank one class of live animals and answer a set of questions related to the class.
4. **Welfare Scenario:** Evaluate management systems and practices on farms or in situations on how well animal welfare and care are monitored and decisions made for best practices.

Total team scores will be determined by adding the three highest individual team members' class totals with the total accumulated from the team competition classes.

RETAIL CUT IDENTIFICATION

Retail Cut Identification score sheets are included with this packet.

Contestant Number: _____



4-H Meat Retail Cut Identification Junior Division



| Species | Primal Cut (2 pt) | | |
|--------------------------------|-------------------|---------------|------------------|
| B - Beef | A. Breast | G. Leg | M. Shoulder |
| L - Lamb | B. Brisket | H. Loin | N. Side (Belly) |
| P - Pork (2 pt.) | C. Chuck | I. Plate | O. Spareribs |
| | D. Flank | J. Rib (Rack) | P. Variety Meats |
| | E. Ham | K. Round | Q. Various |
| | F. Jowl | L. Shank | |

| Cut No. | Species (2 pt) | Primal Cut (2 pt) | Retail Name (1 pt) |
|---------|----------------|-------------------|--------------------|
| Ex. | Lamb | Loin | Loin Chop |
| I. | L | G | 10 |

Retail Names (1 pt)

Chops, Roasts/Pot Roasts, Steaks, Slices

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. American-Style Chop 2. Arm 3. Boneless Arm Roast 4. Whole Picnic Shoulder 5. Sliced Bacon 6. Blade Roast 7. Boston Blade Roast 8. Bottom Round Roast 9. Butterfly Chop 10. Center Ham Slice 11. Eye of the Round Steak 12. Flank Steak 13. Frenched Style Chop 14. Fresh Center Slice 15. Fresh Rump Roast 16. Fresh Side 17. Loin Chop 18. Porterhouse Steak 19. Rib Chop 20. Rib Roast | <ol style="list-style-type: none"> 21. Rib Eye Steak 22. Round Steak 23. Boneless Round Steak 24. Boneless Rump Roast 25. Shoulder, Boneless 26. Sirloin Chop/Steak 27. Skirt, Boneless Steak 28. Smoked Center Slice 29. Smoked Ham, Boneless 30. Smoked Loin Chop 31. Smoked Rib Chop 32. Smoked Rump Portion 33. Smoked Shank Portion 34. Square Cut Arm Roast 35. T-Bone Steak 36. Tenderloin 37. Top Loin 38. Boneless Top Loin Steak 39. Top Round Roast 40. Top Sirloin Steak |
|--|--|

Variety Meats

- | | | |
|------------|------------|-----------|
| 41. Brains | 44. Liver | 47. Tripe |
| 42. Heart | 45. Oxtail | |
| 43. Kidney | 46. Tongue | |

Miscellaneous Other Cuts

- | | |
|--------------------------|-----------------|
| 48. Back Ribs | 58. Short Ribs |
| 49. Beef for Stew | 59. Smoked Hock |
| 50. Whole Brisket | 60. Spareribs |
| 51. Canadian Style Bacon | |
| 52. Country Style Ribs | |
| 53. Fresh Hock | |
| 54. Ground Beef | |
| 55. Ground Pork | |
| 56. Sausage | |
| 57. Sausage Links | |

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

Number
Incorrect _____ _____ _____
x2 *x2* *x1*

Points
Off **50** - _____ = _____

Contestant Number: _____



**4-H Meat Retail
Cut Identification
Senior Division**



| Species | Primal Cut | | |
|-----------------|------------|---------------|------------------|
| B - Beef | A. Breast | G. Leg | M. Shoulder |
| L - Lamb | B. Brisket | H. Loin | N. Side (Belly) |
| P - Pork | C. Chuck | I. Plate | O. Spareribs |
| | D. Flank | J. Rib (Rack) | P. Variety Meats |
| | E. Ham | K. Round | Q. Various |
| | F. Jowl | L. Shank | |

| Cut No. | Species (1 pt) | Primal Cut (1pt) | Retail Name (2pt) | Type (1pt) |
|---------|----------------|------------------|-------------------|------------|
| Ex. | Lamb | Leg | Center | Slice |
| | <i>L</i> | <i>G</i> | <i>10</i> | <i>SI</i> |

| Retail Names | |
|---|-----------------------------------|
| <u>Chops, Roasts/Pot Roasts, Steaks, Slices</u> | |
| 1. American-Style | 32. Round, Boneless |
| 2. Arm | 33. Rump, Boneless |
| 3. Arm, Boneless | 34. 7-Bone |
| 4. Arm Picnic, Whole | 35. Shoulder, Boneless |
| 5. Bacon | 36. Sirloin |
| 6. Blade | 37. Sirloin, Boneless |
| 7. Blade Boston | 38. Sirloin, Flat Bone |
| 8. Bottom Round | 39. Sirloin, Half |
| 9. Butterfly | 40. Sirloin, Pin Bone |
| 10. Center | 41. Sirloin, Round Bone |
| 11. Chuck Eye, Boneless | 42. Sirloin, Wedge Bone |
| 12. Cubed | 43. Skirt, Boneless |
| 13. Double | 44. Smoked Center |
| 14. Eye Round | 45. Smoked Ham, Boneless |
| 15. Flank | 46. Smoked Loin |
| 16. Frenched-Style | 47. Smoked Rib |
| 17. Fresh, Center | 48. Smoked Rump Portion |
| 18. Fresh, Rump Portion | 49. Smoked Shank Portion |
| 19. Fresh, Shank Portion | 50. Smoked shoulder Picnic, Whole |
| 20. Fresh Side | 51. Square Cut |
| 21. Heel of Round | 52. T-Bone |
| 22. Loin | 53. Tenderloin |
| 23. Mock Tender | 54. Tip |
| 24. Neck | 55. Tip, Cap Off |
| 25. Porterhouse | 56. Top Loin |
| 26. Rib | 57. Top Loin, Boneless |
| 27. Rib Eye | 58. Top Loin (Double), Boneless |
| 28. Rib, Large End | 59. Top Round |
| 29. Rib, Small End | 60. Top Sirloin |
| 30. Rib, Small End, Boneless | |
| 31. Round | |
| <u>Variety Meats</u> | |
| 61. Brains | 65. Oxtail |
| 62. Heart | 66. Sweetbreads (beef thymus) |
| 63. Kidney | 67. Tongue |
| 64. Liver | 68. Tripe |
| <u>Miscellaneous Other Cuts</u> | |
| 69. Back Ribs | 81. Ground Beef |
| 70. Bacon, Slab | 82. Ground Pork |
| 71. Beef for Stew | 83. Point Half, Boneless |
| 72. Breast | 84. Riblets |
| 73. Brisket, Whole, Boneless | 85. Sausage |
| 74. Canadian Style Bacon | 86. Sausage Links |
| 75. Corned | 87. Shank |
| 76. Country Style Ribs | 88. Short Ribs |
| 77. Cross Cuts | 89. Sirloin Cutlets |
| 78. Cross Cuts, Boneless | 90. Smoked Hock |
| 79. Flat Half, Boneless | 91. Smoked Jowl |
| 80. Fresh Hock | 92. Spareribs |

| <u>Type of Cut</u> | |
|----------------------|---------------|
| Ch - Chop(s) | Sl - Slice(d) |
| Ro - Roast/Pot Roast | St - Steak |

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

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| Number | _____ | _____ | _____ | _____ |
| Incorrect | <i>x1</i> | <i>x1</i> | <i>x2</i> | <i>x1</i> |
| Points | _____ | _____ | _____ | _____ |
| Off | _____ | _____ | _____ | _____ |

50 - _____ = _____
 Total Points Final Score
 Off

LIVESTOCK FEED IDENTIFICATION

Below are the various feedstuffs that will be selected from for the 2015 Wisconsin 4-H Livestock Skill-A-Thon Contest. Students will be asked to identify 10 feedstuffs and the energy group of which they are categorized. One internet resource that will prove helpful in studying for this portion of the contest is the University of Kentucky's Agripedia site located at <http://www.ca.uky.edu/agripedia/agmania/feedid/>. Additionally, it might be helpful to collect an actual feedstuff bank so students can determine textures and smells associated with each feedstuff that cannot be determined online.

Feed/Feedstuffs

| | |
|--------------------------------------|---------------------|
| Blood Meal | Hay Cube |
| Buckwheat | Soybean Hulls |
| Complete Pelleted Feed | Soybean Meal |
| Cracked Corn | Steam Rolled Barley |
| Corn Gluten Meal | Steam Rolled Oats |
| Dehydrated Alfalfa Meal | Trace Mineral Salt |
| Pellets Dicalcium Phosphate | Urea |
| Distillers Grain | Wheat Middlings |
| Dried Sugar Beet | White Salt |
| Pulp Dried Whey | Whole Grain Oats |
| Dry Molasses | Whole Grain Wheat |
| Fish Meal | Whole Kernel Corn |
| Ground Limestone (Calcium Carbonate) | |

Nutritional Group

- Energy
- Minerals
- Proteins
- Vitamins
- Water

LIVESTOCK BREED IDENTIFICATION

Students identify pictures of livestock from four species (beef, sheep, swine and meat goats). Seniors will also be asked to match the breed description with the appropriate picture and breed.

Junior Livestock Breed Identification

(ANSWER KEY)

Contestant # _____

Name _____

(Place the letter of the correct breed in the blanks beside the number that corresponds to the pictures)

Description

1. ____ F ____

2. ____ T ____

3. ____ AA ____

4. ____ C ____

5. ____ X ____

6. ____ V ____

7. ____ J ____

8. ____ R ____

9. ____ Y ____

10. ____ B ____

Beef Breeds

- A. Angus
- B. Brahman
- C. Charolais
- D. Chianina
- E. Gelbvieh
- F. Hereford
- G. Limousin
- H. Santa Gertrudis
- I. Shorthorn
- J. Simmental

Sheep Breeds

- M. Cheviot
- N. Columbia
- O. Corriedale
- P. Dorset
- Q. Finnsheep
- R. Hampshire
- S. Katahdin
- T. Merino
- U. Rambouillet
- V. Southdown
- W. Suffolk

Swine Breeds

- X. Berkshire
- Y. Chester White
- Z. Duroc AA.
- Hampshire
- BB. Hereford
- CC. Landrace
- DD. Pietrain
- EE. Poland China
- FF. Spot
- GG. Yorkshire

Meat Goats

- HH. Boer
- II. Spanish
- JJ. Pygmy
- KK. Kiko
- LL. Angora
- MM. Mytonic

Points will be assigned:
5 points/Breed ID

Senior Livestock Breed Identification

(ANSWER KEY)

Name _____

Contestant # _____

(Place the letter of the correct breed and the letter of the correct breed description in the blanks beside the number that corresponds to the pictures)

BREED/ Description

1. BB z _____

2. D c _____

3. N__ __w__

4. __DD ff _____

5. __FF__ __gg__

6. I__ __j__

7. H i _____

8. S__ __s__

9. G h _____

10. P__ __v__

Beef Breeds

A. Angus
B. Brahman
C. Charolais

D. Chianina
E. Gelbvieh

F. Hereford
G. Limousin

H. Santa Gertrudis
I. Shorthorn
J. Simmental

Sheep Breeds

M. Cheviot
N. Columbia
O. Corriedale
P. Dorset

Q. Finnsheep
R. Hampshire
S. Katahdin
T. Merino
U. Rambouillet
V. Southdown
W. Suffolk

Swine Breeds

X. Berkshire
Y. Chester White
Z. Duroc
AA. Hampshire
BB. Hereford
CC. Landrace
DD. Pietrain
EE. Poland China
FF. Spot
GG. Yorkshire

Meat Goats

HH. Boer
II. Spanish
JJ. Pygmy
KK. Kiko
LL. Angora
MM. Mytonic

Beef Breed Descriptions

- a. Developed in Switzerland, noted for high growth rate, milking ability, and carcass cutability.
b. Hardy British breed which in recent years combined polled and horned associations.
c. Large framed, developed in Italy as dual purpose for beef and draft.
d. British breed with highest number of registration in the U. S. noted for mothering ability and carcass marbling.
e. High growth breed originally from France known for cutability.
f. *Bos indicus* breed with heat and insect tolerance.
g. Developed in Germany with good carcass cutability and relatively early puberty.
h. Developed in France with moderate growth rate and frame size and high carcass cutability.
i. Developed in Texas by crossing the Brahman and Shorthorn breeds.
j. British breed with three distinct color patterns.

Sheep Breed Descriptions

- m. Small framed, early maturing meat breed developed in England.
n. Small sized meat breed noted for its hardiness from Scotland.
o. Large framed, English, meat breed with black face and wool cap.
p. Very fine fleece breed with heavy wool production from Spain.
q. Large frame wool breed developed from crossing Lincoln or Leicester rams on Merino ewes.
r. Wool breed developed in France and Germany from Merino breed.
s. Hair breed developed in U. S. that does not require shearing because it sheds its' wool.
t. Large framed, black faced breed known for high growth rate and carcass cutability from England.
u. Lighter muscled breed from Finland noted for prolificacy.
v. English, white face, meat breed known for out of season breeding.
w. Large frame U. S. breed, developed from Lincolns and Rambouillets.

Swine Breed Descriptions

- w. Noted for high growth rate, durability, and pork quality, developed in New Jersey and New York.
x. Known as a maternal breed with droopy ears, developed in PA.
y. Dual purpose breed, red with white markings on head and lower body.
aa. Black and white, developed in U. S., noted for rapid growth and as aggressive breeders.
bb. Lean, heavy muscled, black breed with six white points and droopy ears.
cc. Known as "Mother Breed", they are typically long bodied and sound with erect ears.
dd. Predominantly black with erect ears, originally from England noted for pork quality tenderness and marbling.
ee. Noted for large litters and large droopy ears, generally refined in bone.
ff. Noted for extreme muscle volume and shape, with a high propensity for stress which is related to pork quality concerns.
gg. Terminal sire breed with unique color markings noted for cutability.

Meat Goat Breed Descriptions

- HH. Developed in South Africa, horned with loped ears, showing a variety of color patterns.
II. Known as the "brush or scrub goat, imported from Mexico to the US.
JJ. Developed in Africa, known as the Cameroon Dwarf Goat
KK. Developed in New Zealand mating feral goats to dairy goats for meat.
LL. Goat that produces Mohair and not as prolific as other meat goat breeds.
MM. A multi-purpose breed for pets, food and fiber, i.e. "fainting goats"

Points will be assigned:
3 points/Breed ID and
2 point/Breed Description

MEAT JUDGING

Meat Judging Class: Rank two classes of four similar retail cuts of meat (100 possible points). Seniors must also answer five questions for each class (50 points). For more information on placing meat cuts please refer to the Skill-A-Thon Contest Resource List

FLEECE/HAY JUDGING

Fleece and Hay Judging Class: (100 possible points) Rank a class of four hay samples with forage analysis information. Rank a class of four samples of fleece. For more information on evaluation of hay and fleece samples please refer to the Indiana 4-H/FFA Skill-A-Thon Contest Resource list.

2015 Hay Judging Class

Scenario: The hay being ranked will be fed to cattle during early lactation. In addition to the hay, their rations will also be supplemented with grain. Any hay remaining will be marketed to other local beef producers.

| | Hay #1 | Hay #2 | Hay #3 | Hay #4 |
|----------------------|---------------|---------------|---------------|---------------|
| Dry Matter | 91.96 | 90.27 | 92.03 | 90.05 |
| Crude Protein | 15.75 | 17.83 | 16.22 | 18.67 |
| ADF* | 34.91 | 27.83 | 33.67 | 26.53 |
| NDF* | 47.39 | 41.34 | 42.46 | 39.05 |
| TDN* | 57 | 58 | 57 | 59 |
| RFV* | 112 | 135 | 123 | 141 |

Official Placing: 4-2-3-1 Cuts: 3-3-5

* **ADF** = Acid Detergent Fiber

* **RFV** = Relative Feed Value

* **TDN** = Total Digestible Nutrients

* **NDF** = Neutral Detergent Fiber

LIVESTOCK EQUIPMENT IDENTIFICATION

Livestock Equipment Identification: (50 possible points) Identify the proper name for ten pieces of equipment used in livestock production. (A list of equipment will be provided.) Seniors must also identify their usage type (ex: breeding).

Contestant Number _____

Livestock Equipment Identification - Junior Scorecard (Grades 8th and under)

Place the letter of the correct piece of equipment in the blank matching the number on the item.

- | | | |
|-----------|----------------------------|-----------------------------|
| 1. _____ | A. Ammonia sensor | AA. Hoof trimmer |
| 2. _____ | B. Antiseptic applicator | BB. Intravenous set |
| 3. _____ | C. Balling gun | CC. Knife steel |
| 4. _____ | D. Beef cattle frame stick | DD. Lamb boot |
| 5. _____ | E. Beef Halter | EE. Lamb tube feeder |
| 6. _____ | F. Breeding catheter | FF. Nasal cannula |
| 7. _____ | G. Cattle clippers | GG. Needle teeth clippers |
| 8. _____ | H. Cattle straw A. I. gun | HH. Nipple waterer |
| 9. _____ | I. Cauterizing tail docker | II. Nose lead |
| 10. _____ | J. Curry comb | JJ. Pig obstetrical forceps |
| | K. Dehorner | KK. Pig resuscitator |
| | L. Disposable syringe | LL. Pistol grip syringe |
| | M. Drench gun | MM. Prolapse ring retainer |
| | N. Ear notchers | NN. Ralgro implant gun |
| | O. Ear tag pliers | OO. Ram marking harness |
| | P. Elastrator | PP. Rumen magnet |
| | Q. Electric fence tester | QQ. Scalpel |
| | R. Electronic I.D. tag | RR. Scotch Comb |
| | S. Emasculator | SS. Shearer's screwdriver |
| | T. Ewe spoon | TT. Sheep shears |
| | U. Foot rot shears | UU. Swine breeding spirette |
| | W. Freeze branding iron | WW. Test tube |
| | X. Heat detection patch | XX. Transfer needle |
| | Y. Hog snare | YY. Vacutaner |
| | Z. Hoof chisel | ZZ. Wool card |

Contestant Number _____

Livestock Equipment Identification - Senior Scorecard
(Grades 9th and above)

Place the letter of the correct piece of equipment in the blank matching the number on the item.

I.D. Use Category

1. _____ 1. _____
2. _____ 2. _____
3. _____ 3. _____
4. _____ 4. _____
5. _____ 5. _____
6. _____ 6. _____
7. _____ 7. _____
8. _____ 8. _____
9. _____ 9. _____
10. _____ 10. _____

Equipment I.D. List

- | | | | |
|----|-------------------------|-----|-------------------------|
| A. | Ammonia sensor | AA. | Hoof trimmer |
| B. | Antiseptic applicator | BB. | Intravenous set |
| C. | Balling gun | CC. | Knife steel |
| D. | Beef cattle frame stick | DD. | Lamb boot |
| E. | Beef Halter | EE. | Lamb tube feeder |
| F. | Breeding catheter | FF. | Nasal cannula |
| G. | Cattle clippers | GG. | Needle teeth clippers |
| H. | Cattle straw A. I. gun | HH. | Nipple waterer |
| I. | Cauterizing tail docker | II. | Nose lead |
| J. | Curry comb | JJ. | Pig obstetrical forceps |
| K. | Dehorner | KK. | Pig resuscitator |
| L. | Disposable syringe | LL. | Pistol grip syringe |
| M. | Drench gun | MM. | Prolapse ring retainer |
| N. | Ear notchers | NN. | Ralgro implant gun |
| O. | Ear tag pliers | OO. | Ram marking harness |
| P. | Elastrator | PP. | Rumen magnet |
| Q. | Electric fence tester | QQ. | Scalpel |
| R. | Electronic I.D. tag | RR. | Scotch Comb |
| S. | Emasculator | SS. | Shearer's screwdriver |
| T. | Ewe spoon | TT. | Sheep shears |
| U. | Foot rot shears | UU. | Swine breeding spirette |
| V. | Forage probe | VV. | Tattoo pliers |
| W. | Freeze branding iron | WW. | Test tube |
| X. | Heat detection patch | XX. | Transfer needle |
| Y. | Hog snare | YY. | Vacutaner |
| Z. | Hoof chisel | ZZ. | Wool card |

Equipment Use Category List

- | | |
|---|---|
| <i>A. Breeding</i> | <i>F. Fitting and showing</i> |
| <i>B. Castration/docking</i> | <i>G. Identification</i> |
| <i>C. Dehorning</i> | <i>H. Obstetrical/neonatal</i> |
| <i>D. Emergency or preventive health treatment</i> | <i>I. Vaccination/product administration</i> |
| <i>E. Facilities/animal restraint</i> | <i>J. Diagnostic (animal or environment)</i> |

QUALITY ASSURANCE - INDIVIDUAL

Quality Assurance Exercise: (50 possible points) Demonstrate how to read a medicine label, calculate withdrawal times, complete a treatment record, and make responsible management decisions regarding quality assurance.

Contestant Number: KEY

2015 4-H Skill A thon Quality Assurance exercise –JUNIOR Division
10 questions –5 points each for a total of 50 points

Please reference KENT First Rate Show Lamb Diet 18DQ feed tag when answering these questions

- True or False** (*circle one*) Withdrawal times are the minimum amount of time, usually in number of days, that must pass from the time the medication is administered until the animal can be slaughtered for meat consumption.
- True or False** (*circle one*) This feed needs to be mixed with corn and oats before I feed it to my lambs.
- My lamb weighs 75 pounds. How much feed should my lamb consume per day to provide the recommended amount of the active drug ingredient.
 - 1.875 pounds
 - 2.53 pounds
 - 1.57 pounds
- Yes or No** (*circle one*) We are taking both lambs and pigs together to a preview show this weekend. If we run low on pig feed, will I violate label warnings by feeding this lamb feed to my pigs?
- I am concerned about my lambs getting coccidiosis. What minimum length of time should I feed this feed to prevent coccidiosis?
 - 10 Days
 - 3 weeks
 - 4 weeks
- Yes or No** (*circle one*) I just weaned lambs from my ewes and they weigh 40 .45 pounds. Can I start giving them this feed to eat?
- What are the 3 primary ingredients in this feed?
 - corn, alfalfa meal, fishmeal
 - corn, barley, oats
 - corn, oats, grain by-products
- Which 2 feed ingredients list both minimum and maximum on the guaranteed analysis?
 - crude fat and calcium
 - salt and selenium
 - calcium and salt
- 18.0% What percent crude protein is in this feed?
- Yes or No** (*circle one*) I am also feeding another feed to my lambs containing bentonite. Can I feed them both feeds at the same time?

First Rate Show Lamb Diet 18DQ Medicated

Product Description

Kent First Rate™ Show Lamb Diet 18DQ is an 18% protein, texturized product for growing and finishing show lambs. It is a diet with a very specific combination and ratio of ingredients designed to optimize the genetic growth potential of sheep. Kent First Rate™ Show Lamb Diet 18DQ incorporates multiple protein and energy sources; precise, highly absorbable minerals and vitamin fortification; yeast; and appetite enhancers.

Features and Benefits

Steam-rolled and cracked corn – *improves carbohydrate availability, releasing more energy for gain.*

Steam-rolled barley – *provides unique fermentation and a source of energy to improve gain and facilitate proper finish.*

Oats – *improve diet texture, promoting appetite and gain, while providing a unique combination of digestible fiber and energy.*

Multiple protein sources (including fish meal) – *provide for maximum muscle expression and development, plus high-quality wool production.*

Dehydrated alfalfa meal – *digestible fiber source provides delayed energy release, calcium, phosphorus, and vitamins.*

High-vitamin levels – *improve energy and protein metabolism, feed utilization, immunity, and overall health to help fight stress in show environments.*

Yeast – *improves palatability and feed digestion, leading to increased gain and feed efficiency while promoting stable rumen fermentation.*

Sodium molybdate with no added copper – *reduces the likelihood of copper toxicity.*

Ammonium chloride – *aids in the prevention of urinary calculi (water belly).*

Molasses – *increases palatability and intake for improved acceptance and average daily gain.*

Feeding Directions

Gradually adapt lambs 60 pounds or heavier to First Rate™ Show Lamb Diet 18DQ. Lambs should consume First Rate™ Show Lamb Diet 18DQ at the rate of 0.25 lb per 10 lb of body weight to provide 22.7 mg of decoquinate per 100 lb of body weight. Feed at least 28 days during periods of exposure or when experience indicates coccidiosis is likely to be a hazard. It may also be desirable to feed 0.25 to 0.5 lb of good-quality hay per head, daily.

Do not use in feed containing bentonite.

Do not feed to sheep producing milk for food.

Specialty (6601)

6/01

First Rate™ Show Lamb Diet 18DQ Medicated

A complete grain feed for growing and finishing show lambs.

For the prevention of coccidiosis caused by *Eimeria ovinoidalis*, *Eimeria parva*, *Eimeria bakuensis* and *Eimeria crandallis*.

ACTIVE DRUG INGREDIENT

Decoquinate 0.00198% (18 gm/ton)

GUARANTEED ANALYSIS

Crude Protein, min. 18.0%

This includes not more than 1.3% equivalent crude protein from non-protein nitrogen (NPN from Ammonium Chloride)

Crude Fat, min. 3.0%

Crude Fiber, max. 7.5%

Calcium (Ca), min. 0.8%

Calcium (Ca), max. 1.3%

Phosphorus (P), min. 0.4%

Salt (NaCl), min. 0.4%

Salt (NaCl), max. 0.9%

Selenium (Se), min. 0.3 ppm

Vitamin A, min. 6,000 IU/lb

Vitamin D3, min. 600 IU/lb

Vitamin E, min. 37 IU/lb

Warning: This feed should be used in accordance with directions on this label. Feed to ruminants only.

INGREDIENTS

Corn, Barley, Oats, Dehydrated Alfalfa Meal, Processed Grain By-Products, Plant Protein Rations, Fishmeal, Cane Molasses, Vegetable Oil, Calcium Carbonate, Salt, Ammonium Chloride, Animal Fat, Yeast Culture, Vitamin A Acetate, Cholecalciferol (source of Vitamin D3), Vitamin E Supplement, Niacin Supplement, Calcium Iodate, Manganous Oxide, Ferrous Sulfate, Cobalt Carbonate, Zinc Oxide, Magnesium Oxide, Sodium Molybdate, Sodium Selenite, Natural and Artificial Flavors, Ethoxyquin and BHT(preservatives).

QUIZ

Quiz: (50 possible points) Complete a quiz concerning the total livestock industry.

2015 Livestock Skill A Thon - KEY Junior Written Test

- C 1. A _____ is a castrated male lamb.
A) Ram B) Steer C) Wether D) Ewe
- C 2. _____ is the weight of a lamb taken within 24 hours after birth.
A) Birth date B) Weaning Weight C) Birth Weight D) Yearling Weight
- A 3. Which of the following beef breeds originated in Scotland and is known for its carcass quality and mothering ability. These animals are polled with a black, smooth coat.
A) Angus B) Hereford C) Charolais D) Shorthorn
- D 4. Animals develop a comfortable space around them; as a person enters the space the animal becomes tense. This space is called the animal's _____.
A) Handler B) Quality Zone C) Dam D) Flight Zone
- B 5. _____ is the removal of the testicles.
A) Docking B) Castration C) Weaning D) Injection
- C 6. A _____ contains the correct amount of nutrients to nourish an animal during a 24 hour period.
A) Concentrate B) Roughage C) Balanced Ration D) Digestion
- C 7. A _____ is an intact male pig
A) Ram B) Bull C) Boar D) Stallion
- A 8. _____ is the most essential and cheapest of all the nutrients provided to livestock.
A) Water B) Protein C) Vitamins D) Minerals
- C 9. Which of the following is a breed of swine?
A) Angus B) Dorset C) Duroc D) Piedmontese
- D 10. Which of the following are products provided by hogs?
A) Heart Valves B) Medicines C) Paint brushes D All of the Above
- B 11. Which of the following is a breed of sheep?
A) Hereford B) Southdown C) Chester White D) Polled Hereford
- D 12. Processing a new litter of pigs includes _____.
A) Weighing B) Cord Care C) Clipping Needle Teeth D) All of the above

C 13. The muscle, bone and fat associated with the slaughter of an animal is called the _____.

- A) Retail Cut B) Dressing C) Carcass D) None of the above

C 14. A group of cattle managed together is called a _____.

- A) Flock B) Grade C) Herd D) Sire

B 15. An animal whose parents are of the same breed is called a _____.

- A) Ram B) Purebred C) Crossbred D) Ewe

D 16. Mutton is the meat from _____ older than 12 months of age.

- A) Swine B) Dairy C) Beef D) Sheep

D 17. Which of the following are beef industry careers?

- A) Feedlot Manager B) Herd Manager C) Meat Inspector D) All of the above

A 18. A _____ medication can sold at farm supply stores and purchased without a prescription.

- A) Over the Counter B) Prescription C) Withdrawal Time D) None of the above

C 19. A _____ is a young female pig that has not had a litter of pigs.

- A) Heifer B) Sow C) Gilt D) Ewe

C 20. _____ is the period of time that must pass between the last treatment with a drug and slaughter.

- A) Over the Counter B) Prescription C) Withdrawal Time D) Extra label drug use

C 21. The ideal mature weight for market steers is _____ pounds.

- A) 250 to 300 B) 750 to 900 C) 1100 to 1350 D) 1500 to 1800

A 22. _____ refers to the general body shape of the pig as determined by its skeleton and muscle structure.

- A) Conformation B) Withdrawal Time C) Balance D) Cow-hocked

A 23. Which of the following is a form of identification of beef animals?

- A) Tattooing B) Ear notching C) Tail Docking D) Castration

D 24. With this condition the hocks of an animal are too close together.

- A) Splayfooted B) Pigeon Toed C) Post Legged D) Cow Hocked

B 25. The _____ gene is a condition in swine that makes them susceptible to external stress associated with animal movement and changes in their environment. Animals testing positive for the gene can die when stress occurs.

- A) Napole B) Porcine Stress Syndrome C) Pseudorabies D) Dysentery

2015 Livestock Skill A Thon - KEY
Senior Written Test

A 1. Which of the following breeds of cattle was developed by the United States Department of Agriculture?

- A) Brangus B) Gelbvieh C) Angus D) Hereford

C 2. _____ is an inflammation of the udder or mammary gland caused by a bacterial infection.

- A) Lactation B) Ketosis C) Mastitis D) Dystocia

D 3. _____ is a form of inbreeding in which an attempt is made to concentrate the inheritance of an outstanding ancestor in a herd.

- A) Crossbreeding B) Heterosis C) Out crossing D) Line Breeding

A 4. _____ is a disease that affects lambs and is caused by a lack of vitamin E and selenium. Lambs affected cannot walk or nurse properly.

- A) White Muscle Disease B) Foot Rot C) Navel ill D) Parasites

B 5. _____ involves the collection of embryos from a donor cow and implanting them in other cows called recipients.

- A) Pasture Breeding B) Embryo Transfer C) AI D) Handmating

C 6. Which of the following is a swine breed developed in America. The breed is solid red, has droopy ears and grows quickly.

- A) Chester White B) Tamworth C) Duroc D) Spot

A 7. Thread like structures that contain genes are called _____.

- A) Chromosomes B) Genetics C) Heterosis D) None of the above

B 8. Which of the following is a trait of economic importance in beef cattle?

- A) Reproductive Performance B) Growth Rate
C) Conformation D) All of the Above

C 9. _____ is a figure used to describe how offspring will perform in relation to the average performance of other animals in the breed.

- A) MPPA B) 205 Day Adjusted Weaning Weight
C) EPD D) 365 Day Adjusted Yearling Weight

C 10. The length of gestation for a ewe is _____.

- A) 83 to 92 days B) 93 to 102 days C) 143 to 152 days D) 193 to 202 days

A 11. The term used to describe the expression of genetic traits is _____.

- A) Phenotype B) Genotype C) Qualitative D) Quantitative

C 12. Iron injections are given to baby pigs to prevent _____.

- A) Flu B) Parvovirus C) Anemia D) Infection

D 13. _____ is the hormone that maintains pregnancy.
A) Oxytocin B) Testosterone C) Estrogen D) Progesterone

B 14. The _____ gene is a condition in swine that makes them susceptible to external stress associated with animal movement and changes in their environment. Animals testing positive for the gene can die when stress occurs.
A) Napole B) Porcine Stress Syndrome C) Pseudorabies D) Dysentery

_____ 15. _____ is the hormone that causes the secondary sex characteristics in the ram/boar/bull.
A) Oxytocin B) Testosterone C) Estrogen D) Progesterone

B 16. Which of the following is NOT a method of castration used for lambs?
A) The knife method B) Docking
C) Elastrator C) Burdizzo

C 17. The pig is a simple stomached animal called a _____.
A) Ruminant B) Hind gut fermenter C) Monogastric D) None of the above

A 18. Beef animals are called _____ because they have a four-compartment stomach.
A) Ruminants B) Hind gut fermenters C) Monogastrics D) None of the above

C 19. Beef carcass _____ grades are based upon marbling and maturity.
A) Yield B) Rib eye area C) Quality D) Fat thickness

B 20. _____ is a term that is used to describe wool that is badly matted or tangled.
A) Tags B) Cotted C) Dead wool D) Shrink

A 21. _____ causes swelling and lameness.
A). Foot Rot B) BVD C) Pinkeye D) Hardware disease

C 22. _____ is a fungus that gets into the skin and develops a rough condition where the hair drops out in patches.
A) Foot Rot B) Shipping Fever C) Ringworm D) Pinkeye

B 23. An operation that produces lamb and wool that is destined for the consumer is called a _____.
A) Club Lamb Flock B) Commercial Flock
C) Herd D) None of the above

D 24. Which of the following breeds of cattle was developed in Texas? The breed is 5/8 Shorthorn and 3/8 Brahman. They are known for their growth rate, long life and hardiness.
A) Saler B) Angus C) Polled Hereford D) Santa Gertrudis

D 25. Animals with this condition the hocks of an animal are too close together.
A) Splayfooted B) Pigeon Toed C) Post Legged D) Cow Hocked

QUALITY ASSURANCE EXERCISE

TEAM EXAMPLE

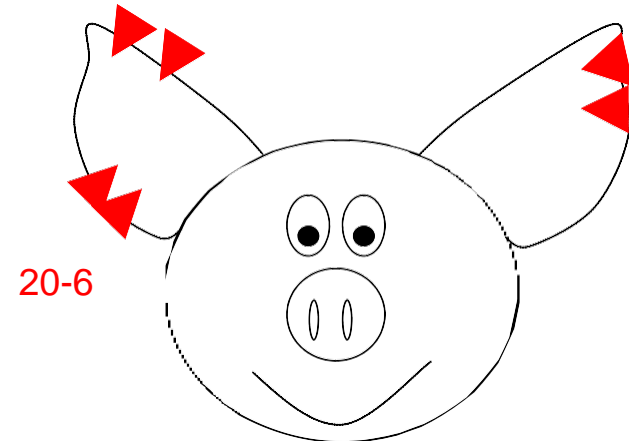
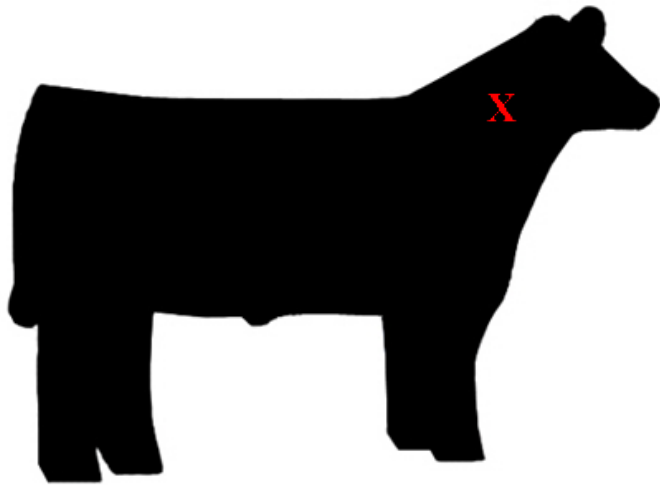
Quality Assurance Exercise: (100 possible points) Demonstrate how to read an animal health product label, calculate dosage rates and withdrawal times, complete a treatment record, be familiar with administration routes, and make responsible management decisions regarding quality assurance.

TEAM CLASS

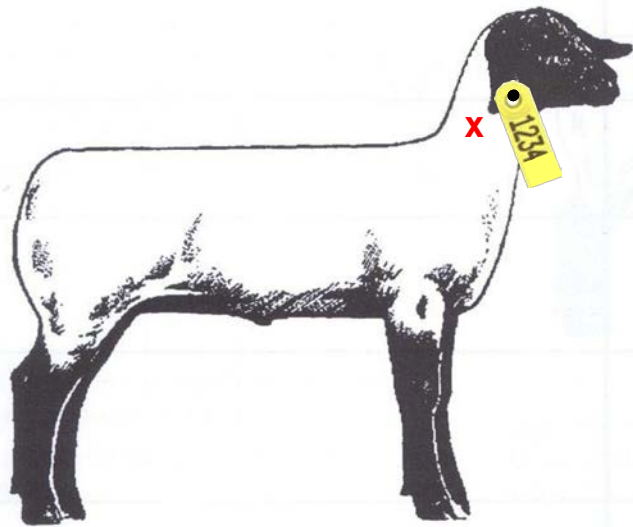
Team Name: Team
Number
: _____

2015 Wisconsin 4-H Livestock Skill-A-Thon Contest Team Quality Assurance Exercise (100 Points)

Place an "X" on the proper location for a subcutaneous injection on this steer. (5 points)



This market hog needs to be ear-notched, he was the 6th pig processed from the 20th litter born on the farm this year. Mark the appropriate position of the notches on the above drawing. (10 points Seniors/5 points Juniors)



This 4-H market lamb was born on January 28, 2015 weighing 15 pounds.

Today is July 30, 2015 and it is ready for market at 130 pounds.

Place an “X” on the proper location for a subcutaneous injection on this lamb. (5 points)

Use the attached product labels to complete the following records and determine if the withdrawal times on all medications have been met. (3 points each seniors/5 points each juniors)

Treatment Record

Animal ID #: 1234 (5 points)

| Treatment Date | Condition Being Treated | Animal's Weight | Product Name (Info was provided for Juniors only)* | Dosage | Route Administered | Withdrawal Time | Date Withdrawal Completed |
|----------------|---------------------------------|-----------------|---|---------|--------------------|-----------------|---------------------------|
| *1/29/2015 | Vitamin E Supplement | 15 lbs. | Vital E—300 | 2—3 mL | IM or SQ | None | N/A |
| 2/11/2015 | White Muscle Disease Prevention | 25 lbs. | BO-SE | 1 mL | IM or SQ | 14 days | 2/25/2005 |
| 3/25/2015 | Worming | 50 lbs. | Levasole | 1 bolus | Oral | 72 hours | 3/28/2005 |
| 4/22/2015 | Clostridium Vaccination | 65 lbs. | Covexin 8 | 5 mL | SQ | 21 days | 5/13/2005 |
| 6/17/2015 | Clostridium Vaccination Booster | 100 lbs. | Covexin 8 | 2 mL | SQ | 21 days | 7/8/2005 |

*Note to coaches: Top line and product name was provided for Juniors only.

LIVESTOCK SCENERIO

TEAM EXAMPLE

Animal Breeding Scenarios and Exercise: (100 possible points) Team members will evaluate a breeding animal scenario and make animal selection decisions based upon performance data to rank breeding animals for use within the situation. Examples from previous contests (including National Contest) follow.

2015 Animal Breeding Scenario - Team Exercise

Team Name _____ Team Number _____

Ram Selection Scenario

You are a Midwest sheep rancher who needs to purchase rams for your two flocks of ewes. One flock of ewes consists of purebred Suffolk females who have been selected over the years to excel in maternal traits, including genetic resistance to Scrapie disease and Spider Lamb Syndrome. Thirty percent of the ewe lambs are kept annually as replacements from this purebred flock. Top quality rams are retained as stud bucks or sold to other purebred producers at national sales. All other lambs are retained and fed to market weight in the family-owned feedlot.

Your second flock of ewes consists of crossbred females (Suffolk X Columbia) who have been selected for post-weaning growth and prolificacy. All offspring from this flock are sold at weaning to a lamb buyer in Colorado, who puts the lambs in a feedlot and feeds them to market weight. The lamb buyer is a regular customer because he knows this commercial flock is genetically resistant to the Spider Lamb Syndrome.

Suffolk Ram Performance Data

| | | Expected Progeny Differences | | | | | | | | |
|-----------------------|------------|------------------------------|--------------|------|-------------|----------------------|---------------------------|--------------------|----------------------|-------------|
| Ram No. | Name | Weaning Weight | Post Weaning | Milk | Milk & Gain | Number of Lambs Born | Number of Lambs with wts. | Codon 171 Genotype | Spider Lamb Genotype | *Birth Type |
| 1 | Star | 3.2 | 3.5 | 1.2 | 1.9 | 2.8 | 151 | RR | NN | TW |
| 2 | Chapman | 1.4 | 1.7 | 0.1 | 0.8 | 0.7 | 08 | QQ | NS | S |
| 3 | Donner | -1.4 | -2.5 | 0.0 | -0.7 | 1.6 | 17 | RR | NN | S |
| 4 | Eagle | 2.8 | 5.6 | 1.5 | 2.9 | 2.9 | 43 | QR | NS | TR |
| 5 | Perfection | 3.1 | 4.7 | -0.1 | 0.7 | 3.4 | 51 | RR | NN | TW |
| 6 | Horse | 0.5 | 0.6 | 0.2 | 0.4 | 2.5 | 40 | QR | NN | TW |
| 7 | Slacker | 3.1 | 5.3 | 1.6 | 2.1 | 4.7 | 149 | RR | NN | TW |
| 8 | Outlier | 1.2 | 2.5 | -2.5 | -0.1 | -3.1 | 35 | QR | NN | S |
| Breed Averages | | 1.1 | 2.1 | 0.2 | 0.9 | 1.23 | | | | |

*S = single *TW = twin *TR = triplet

Team Name _____ **KEY** _____ Team Number _____

QUESTIONS

1. Which two rams are best suited for use in the purebred flock? _____ Star (1) and Slacker (7) _____
2. Which ram has no genetic resistance to the Scrapie disease? _____ Chapman (2) _____
3. Which ram is most likely to sire the slowest growing progeny to 120 days-of-age? _____ Donner (3) _____
4. Which ram will improve prolificacy the most? _____ Slacker (7) _____
5. Which ram is least suited for use in your flock of crossbred ewes? _____ Chapman (2) _____
6. Which two rams should you purchase to meet the goals of your crossbred flock? _____ Perfection (5) and Slacker (7) _____
7. Which two rams are not genetically resistant to the Spider Lamb Syndrome? _____ Chapman (2) and Eagle (4) _____
8. Which two rams are the most proven? _____ Star (1) and Slacker (7) _____
9. Which ram's daughters would you expect to generate the lowest number of lambs born? _____ Outlier (8) _____
10. Which ram has two siblings? _____ Eagle (4) _____
11. Which of the rams that were born a twin, offers the least post weaning growth? _____ Horse (6) _____
12. Which ram is the least suited as a maternal sire? _____ Outlier (8) _____
13. Which two rams have the most balanced performance profile when considering a combination of growth, maternal traits and Scrapie resistance? _____ Star (1) and Slacker (7) _____
14. Which ram would be well suited for your crossbred ewes, except for the fact that he is not genetically resistant to Spider Lamb Syndrome? _____ Eagle (4) _____
15. Which ram is below breed average for all of the listed traits except "number of lambs born"? _____ Donner (3) _____

National/Wisconsin 4-H Livestock Skillathon Resource Materials:

*Suggested Study Materials Include But Are Not Limited To The Following List.

Updated: 12/2014

Swine Resources

OSU Swine Resource Handbook For market and breeding projects 4-H circular 134 R

The Ohio State University
<http://estore.osu-extension.org/productdetails.cfm?PC=2525>

National Hog Farmer

Monthly Periodical
7900 International Drive, Suite 300
Minneapolis, MN 55425

Livestock E-Quiz: <http://web.extension.illinois.edu/equiz/>

Illinois Trail - Technology and Research: Allied & Integrated Livestock Linkages

<http://il-traill.outreach.uiuc.edu>

Illini Porknet (Ask the Expert): <http://porknet.outreach.uiuc.edu/index.cfm>

PORK magazine: <http://www.Porkmag.com>

Quality Assurance materials from National Pork Board:

<http://www.pork.org/Home.aspx>
Youth Pork Quality Assurance Program
<http://www.pork.org/Certification/21/youthPqaPlus.aspx>
Phone: 800-456-7675

Information on all swine breeds: <http://www.ansi.okstate.edu>

American Meat Institute: <http://www.meatami.org>

Pork Industry Handbook

<http://persephone.agcom.purdue.edu/agcom>

4-H Swine Literature:

Swine 1 – Growing with Swine (revised 2004)
Swine 2 – Becoming Swine Smart (revised 2004)
Swine 3 – Entering the Arena (revised 2004)
Swine Helper's Guide (revised 2004)
Available from your Extension offices
4-H CCS Materials – Available at www.n4hccs.org

Swine care Handbook (2003) www.pork.org (under publications)
<http://www.pork.org/filelibrary/animalwell-being/swine%20care%20handbook%202003.pdf>

National Pork Board Swine Quiz and Skillathon Resources:

<http://www.pork.org/Resources/4394/Skillathonandquizbowl.aspx>

A list of information for Quiz Bowl and Skillathon competitions – very good resource list
<http://www.pork.org/youth-and-education/skillathon-quiz-bowl/>

Wisconsin Youth Livestock Resource Webpage:

University of Wisconsin Madison and UW-Extension

1675 Observatory Drive, Madison, WI 53706

Phone: (608) 263-4304

<http://fyi.uwex.edu/youthlivestock/>

National Directory of State Extension Services: <http://www.csrees.usda.gov/Extension/>

Beef Resources

4-H Beef Literature:

Beef 1 – Bite into Beef (revised 2005)

Beef 2 – Here's the Beef (revised 2005)

Beef 3 – Leading the Charge (revised 2005)

Beef Helper's Guide (revised 2005)

Available from your Extension offices

4-H CCS Materials – Available at www.n4hccs.org

Illini Beefnet (Ask the Expert): <http://beefnet.outreach.uiuc.edu/index.cfm>

OSU Beef Resource Handbook

4-H circular 117R

The Ohio State University <http://estore.osu-extension.org/productdetails.cfm?PC=2313>

Illinois Beef Handbook –

<http://web.extension.illinois.edu/oardc/downloads/43908.pdf>

Beef Production and Management Decisions 2nd Edition by Robert Taylor

Feeds and Feeding by Morrison and Morrison

Forages, Fourth Edition by Maurice E. Heath, Robert F. Barnes and Darrel S. Metcalfe

Meat Evaluation Handbook by National Cattlemen's Beef Association

Information on all beef breeds: <http://www.ansi.okstate.edu>

Sheep Resources

OSU Sheep Resource Handbook

4-H circular 194 R

The Ohio State University PH. 614-292-1607

<http://estore.osu-extension.org/productdetails.cfm?sku=194R>

Sheep Production Handbook - Formerly called the sheep industry development handbook or SID
803-771-3500 ext. 46

4-H Literature: Available from your Extension offices

Sheep 1 – Lambs, Rams, and You (revised 2000)

Sheep 2 – Shear Delight (revised 2000)

Sheep 3 – Leading the Flock (revised 2000)

Sheep Helper's guide

4-H CCS Materials – Available at www.n4hccs.org

Goat Resources

4-H Literature:

Meat Goats

Meat Goat 1 – Just Browsing

Meat Goat 2 – Growing up with Meat Goats

Meat Goat 3 – Meating the Future

Meat Goat Helper's Guide

Available from your extension offices

4-H CCS Materials – Available at www.n4hccs.org

American Boer Goat Association: <http://www.abga.org/>

Information on breeds: <http://www.ansi.okstate.edu/breeds/goats/>

International Boer Goat Association

P. O. Box 663 Spicewood, TX 78669

Toll Free phone: 877-640-4242 Toll Free Fax:

877-640-4060 Web: <http://abga.org/>

OSU Goat Resource Handbook

4-H circular 135 R

The Ohio State University PH. 614-292-1607

<http://estore.osu-extension.org/productdetails.cfm?sku=135R>

The 4-H Meat Goat Project: An Introduction - http://www.uwyo.edu/4-h/projects/goats/meatgoat_manual.pdf

Texas A&M University Meat Goat Resources: http://texas4-h.tamu.edu/project_meatgoats

North Carolina State University Meat Goat Materials:

http://www.cals.ncsu.edu/an_sci/extension/animal/4hyouth/Meat%20Goats.htm

Penn State University Meat Goat Materials:

<http://bedford.extension.psu.edu/agriculture/goat/Goat%20Lessons.htm>

Langston University Goat Materials: Training & Certification for Meat Goat Producers.

<http://www.luresext.edu/goats/training/QAtoc.html>

Forage Resources

Forages CD-ROM Companion

Volume 1 – An Introduction to Grassland Agriculture Volume 2 –

The Science of Grassland Agriculture Iowa State University Press

Ames, IA 50014

Orders: 1-800-862-6657

Office: 1-515-292-3348

Forages-The Science of Grassland Agriculture, 4th Edition

by Maurice E. Heath, Robert F. Barnes, Darrel S. Metcalfe Iowa State University Press

Ames, IA 50014

Orders: 1-800-862-6657

Online at: <http://www.amazon.com/Forages-Volume-Introduction-Grassland-Agriculture/dp/0813804213>

Pennsylvania Forage Handbook

Penn State College of Agricultural Sciences 217 Ag
Administration Bldg.
University Park, PA 16802 Phone:
814-865-2541

Southern Forages

Circulation Department Potash &
Phosphate Institute
655 Engineering Drive, Suite 110
Norcross, Georgia 30092-2843
Phone: 770-447-0335
Price: \$25.00

Forage Web Links

Purdue University

<http://www.agry.purdue.edu/ext/forages/forageid/forageid.htm>

University of Idaho

<http://www.cals.uidaho.edu/edcomm/pdf/BUL/BUL0547.pdf>

UW-Extension

<http://www.uwex.edu/ces/forage/articles.htm>

University of Kentucky

<http://www.uky.edu/Ag/Forage/ForageBooks.htm>

Meat Resources

ITCS Instructional Materials

1401 South Maryland
Drive Urbana IL 61801
USA (217) 244-3906
(800) 345-6087 (orders only)
FAX (217) 333-0005
<http://im.itcs.illinois.edu/MDS100a.htm>

Flash Cards

Retail Meat Cut Identification-Flash Card Set

This is the easiest way to teach or learn to recognize the common retail cuts of beef, pork, and lamb! These 5"x7" cards, with cut descriptions on the back, showcase 126 full-color photographs of the retail cuts of meat. Each image is printed on high-quality, glossy- finished card stock and comes in a custom-designed box.

<https://pubsplus.illinois.edu/X180c.html>

X187b 150 cards \$75.00

MEATS – Online Web Resources

ICEV Media – Great listing of online tools/judging classes

<http://www.icevonline.com/ag-l-judging.php>

Texas A&M – Listing of relevant meats judging contacts

<http://agrillife.org/4hmeat/academics/meat-science/4h/resources/>

Texas A&M Meat Judging Online Judging Tools

<http://agrillife.org/4hmeat/academics/meat-science/4h/meat-judging/>

American Meat Science Association

<http://www.meatscience.org/page.aspx?id=539>

Nasco Farm and Ranch Catalog

<http://www.enasco.com/c/farmandranch/Learning+Aids/Meat+Grading+%26+Judging/>

Online Meats Identification and Placing Classes

Texas A&M University Aggie Meat Judging Resources

<http://aggiemeat.tamu.edu/>

University of Nebraska–Lincoln Meats Judging Resources

<http://ansc-cpanel.unl.edu/meats/id/>

University of Kentucky Agripedia Meats Judging

Resources <http://www.ca.uky.edu/agripedia/agmania/meats/>

“Retail Meat Identification” App on Itunes or Play Store: \$2.99 - University of Illinois

The Guide to Identifying Meat Cuts

Booklet published cooperatively by American Meat Science Association, National Cattlemen’s Beef Association and National Pork Producers Council focused on meat labeling, meat safety, cuts of meats, nutrition labeling, wrapping meat, and meat cookery.

ONLINE at: http://issuu.com/beefcheckoff/docs/meat_cuts_guide



**Registrations are due
February 27!**

See you on March 7!