

2026

Wisconsin 4-H

Livestock Skill-a-thon

Resource Handbook

A guide for coaches a sponsored by:



Registration are due March 9th through [4-H online](#)

Contest Materials available at: Wisconsin Youth Livestock Page – UW-Extension:
<https://4h.extension.wisc.edu/opportunities/statewide-events-and-opportunities/livestock-guiz-bowl-skillathon-contest/>

Like us on Facebook at: Wisconsin Youth Livestock Program

Instagram: WIYOUTHLVSTK

YouTube: <https://www.youtube.com/c/WisconsinYouthLivestockProgram>

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2026 Wisconsin State 4-H Livestock Quiz Bowl and Skill-a-Thon Contest

Contest Date: Saturday, March 21, 2026

Location: UW-Madison – Animal Sciences Building

1675 Observatory Drive

Madison, WI 53706

Contest Coordinators

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Extension Youth Livestock Specialist

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Objectives:

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. To provide an exciting and fun way for youth to explore their 4-H animal project.
3. To encourage youth to develop teamwork, self-confidence and decision-making skills.
4. To develop committee member organization and leadership skills.

Rules and Regulations

Eligibility

1. All currently enrolled WI 4-H members (grades 3-13) Wisconsin are eligible. Contestants must participate in the division according to their age as of January 1, 2026.
2. **The Junior Division** will include Wisconsin 4-H members who are under 14 years of age as of January 1 of the current year.
3. **Mixed division** has been designated for teams that are any combination of ages BUT the team must contain at least one youth in the junior and senior age division.
4. **The Senior Division** will include Wisconsin 4-H members who are 14 years of age or older as of January 1 of the contest year. Senior team members cannot exceed grade 12 regardless of age.
 - a. 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.
5. **Grade 13 Members (regardless of age)** - WI 4-H members that are in the 13th grade are not eligible to compete on a senior team and are not eligible for national contests. WI 4-H members that are in the 13th grade are only eligible to compete in a mixed team. This is due to national contests happening after the current 4-H year ends. You need to be a currently

enrolled 4-H member at the time of the national contest. Grade 13 members will not be enrolled (due to aging out of the program) during the national contest time and therefore are ineligible to compete.

6. 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.

7. Contestants must not have competed previously in any official post-secondary livestock quiz bowl or livestock quadrathlon contests. Contestant must already have reached his or her 14th birthday, and may not have reached his or her 19th birthday before January 1 of the year in which the National 4-H Contest is held.

8. This resource packet includes several sample applications contestants may see at the contest. Contest coordinators reserve the right to change station activities based on availability of livestock, supplies, etc.

9. **Deadline for registration is March 9, 2026.** Only registrations completed through 4-H online will be accepted. This is a strict deadline as there is much to coordinate.

10. **Cost:** The cost is \$12.00 per Contestant (Checks payable to: UW Madison Extension). Payment can be made electronically when registering, paid the day of the contest, or sent prior to: WI 4-H, Attn: Livestock Quiz Bowl and Skillathon, UW-Madison Division of Extension, 3500 University Ave., Madison, WI 53705

11. **Registration:** Each coach will register their team through 4-H online at:
<https://26livestockskillathonandquizbowl.4honline.com>

Registration must be completed through 4-H online by **March 9, 2026.**

***** Important: You will need to register each team separately. The coach can register multiple teams with their account, but you will need to register each team individually by their contest and age division. Please note, you need to be an enrolled and approved 4-H volunteer to complete 4-H online registrations.**

Each coach will register their team(s) at:

<https://26livestockskillathonandquizbowl.4honline.com>

- Please note, to register a team, you must be a currently enrolled 4-H volunteer. If you are participating as an individual member and not as a team, you will be able to register at that time as well.
- Registration must be completed by March 9th.
- You will need to register each team separately.

How to register your team:

1. Click on this link (same as the one above):
<https://26livestockskillathonandquizbowl.4honline.com>
2. Click on the blue button in the lower right corner that says “Register.”
3. Enter your email address and click on the Send Email button to get a link to log in emailed to you. If you are an existing family, make sure you use the same email address as your family login in 4-H Online.
4. Click on your name in the existing names – you will be able to enter team member names in later questions.
5. It will ask you what type of registration you want to do, if you are registering a county team, click on county registration. If you are registering as an individual without a team, click on individual registration.
6. You will go through the questions to register the team.
7. On the Payment screen, if paying by Credit Card is enabled for the event, you will be able to enter credit card information or you can click on Pay by Check (checks are sent ahead of time or brought to the contest). You will only be able to pay with a credit card during this process and not the day of the event. If paying by check, click on that button. Then, click on the next button.
8. You will receive a confirmation email.
9. If you have a second team to register, you will complete this same process.

Contact Jill Jorgensen in the State 4-H Office with any registration questions
jill.jorgensen@wisc.edu or 262-219-2971 or Mike Farrey at mike.farrey@wisc.edu

All information is on the Extension 4-H website at:

<https://4h.extension.wisc.edu/opportunities/statewide-events-and-opportunities/livestock-quiz-bowl-skillathon-contest/>

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. No smart watches or cell phones are allowed.**
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, i.e.: 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

2026 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.

**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. **

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.
5. **Reproduction and Genetics (new in 2020):** Members should be prepared to identify parts and discuss reproduction strategies; genetics forecasting resulting progeny from a mating.

JUNIOR & MIXED RETAIL CUT IDENTIFICATION

Retail Cut Identification score sheets are included with this packet.

Meat Retail Cut Identification



Species		
B Beef	P Pork	L Lamb

Primal Cuts	
A Breast	H Rib or Rack
B Brisket	I Round
C Chuck	J Shoulder
D Flank	K Side (Belly)
E Ham or Leg	L Spareribs
F Loin	M Variety Meats
G Plate	N Various Meats

Retail Cuts

Roasts/Pot Roasts	Chops
1 American Style	65 Arm Chop
2 Arm Picnic	66 Blade Chop
3 Arm Roast	67 Blade Chop (Bnls)
4 Arm Roast (Bnls)	68 Butterflied Chop (Bnls)
5 Back Ribs	69 Country Style Ribs
6 Blade Roast	70 Loin Chop
7 Blade Boston	71 Rib Chop
8 Bottom Round Roast (Bnls)	72 Rib Chop (Frenched)
9 Bottom Round Rump Roast (Bnls)	73 Sirloin Chop
10 Brisket, Whole (Bnls)	74 Top Loin Chop
11 Center Loin Roast	75 Top Loin Chop (Bnls)
12 Center Rib Roast	
13 Eye Roast (Bnls)	
14 Eye Round Roast	
15 Flat Half (Bnls)	
16 Frenched Style	
17 Fresh Side	
18 Leg Roast (Bnls)	
19 Loin Roast	
20 Mock Tender Roast	
21 Petite Tender	
22 Rib Roast	
23 Rib Roast (Frenched)	
24 Ribs (Denver Style)	
25 Rump Portion	
26 Seven (7) Bone Roast	
27 Shank Portion	
28 Short Ribs	
29 Shoulder Roast (Bnls)	
30 Sirloin Roast	
31 Sirloin Half	
32 Spareribs	
33 Square Cut (Whole)	
34 Tenderloin (Whole)	
35 Tip Roast (Bnls)	
36 Tip, Cap Off Roast	
37 Top Loin Roast (Bnls)	
38 Top Roast (Bnls)	
39 Top Round Roast	
40 Tri-Tip Roast	

Steaks
41 Arm Steak
42 Blade Steak
43 Bottom Round Steak
44 Center Slice
45 Eye Steak (Bnls)
46 Eye Round Steak
47 Flank Steak
48 Mock Tender Steak
49 Porterhouse Steak
50 Ribeye, Lip-On Steak
51 Round Steak
52 Round Steak (Bnls)
53 Sirloin Cutlets
54 Skirt Steak (Bnls)
55 T-Bone Steak
56 Tenderloin Steak
57 Tip, Cap Off Steak
58 Top Blade (Bnls) Flat Iron Steak
59 Top Loin Steak
60 Top Loin (Bnls) Steak
61 Top Round Steak
62 Top Sirloin Steak (Bnls)
63 Top Sirloin Cap Off Steak (Bnls)
64 Top Sirloin Cap Steak (Bnls)

Cookery Methods

D Dry Heat
M Moist Heat
D/M Dry or Moist Heat



County _____

Contestant Name _____

Contestant Number _____

ID #	Specie	Retail	Score
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Number Incorrect			
Points Off			
	Total Points Off	Final Score	

Total Score: _____

SENIOR RETAIL CUT IDENTIFICATION

Meat Retail Cut Identification



Species		
B Beef	P Pork	L Lamb

Primal Cuts	
A Breast	H Rib or Rack
B Brisket	I Round
C Chuck	J Shoulder
D Flank	K Side (Belly)
E Ham or Leg	L Spareribs
F Loin	M Variety Meats
G Plate	N Various Meats

Retail Cuts	
Roasts/Pot Roasts	Chops
1 American Style	65 Arm Chop
2 Arm Picnic	66 Blade Chop
3 Arm Roast	67 Blade Chop (Bnls)
4 Arm Roast (Bnls)	68 Butterflied Chop (Bnls)
5 Back Ribs	69 Country Style Ribs
6 Blade Roast	70 Loin Chop
7 Blade Boston	71 Rib Chop
8 Bottom Round Roast (Bnls)	72 Rib Chop (Frenched)
9 Bottom Round Rump Roast (Bnls)	73 Sirloin Chop
10 Brisket, Whole (Bnls)	74 Top Loin Chop
11 Center Loin Roast	75 Top Loin Chop (Bnls)
12 Center Rib Roast	
13 Eye Roast (Bnls)	Variety Meats
14 Eye Round Roast	76 Heart
15 Flat Half (Bnls)	77 Kidney
16 Frenched Style	78 Liver
17 Fresh Side	79 Oxtail
18 Leg Roast (Bnls)	80 Tongue
19 Loin Roast	81 Tripe
20 Mock Tender Roast	
21 Petite Tender	Various Meats
22 Rib Roast	82 Beef for Stew
23 Rib Roast (Frenched)	83 Cubed Steak
24 Ribs (Denver Style)	84 Ground Beef
25 Rump Portion	85 Ground Pork
26 Seven (7) Bone Roast	86 Hocks
27 Shank Portion	87 Sausage Link/Pattie
28 Short Ribs	88 Shank
29 Shoulder Roast (Bnls)	
30 Sirloin Roast	Smoked/Cured
31 Sirloin Half	89 Brisket, Corned
32 Spareribs	90 Center Slice
33 Square Cut (Whole)	91 Ham (Bnls)
34 Tenderloin (Whole)	92 Hocks
35 Tip Roast (Bnls)	93 Loin Chop
36 Tip, Cap Off Roast	94 Picnic (Whole)
37 Top Loin Roast (Bnls)	95 Rib Chop
38 Top Roast (Bnls)	96 Rump Portion
39 Top Round Roast	97 Shank Portion
40 Tri-Tip Roast	98 Slab Bacon
	99 Sliced Bacon

Steaks
41 Arm Steak
42 Blade Steak
43 Bottom Round Steak
44 Center Slice
45 Eye Steak (Bnls)
46 Eye Round Steak
47 Flank Steak
48 Mock Tender Steak
49 Porterhouse Steak
50 Ribeye, Lip-On Steak
51 Round Steak
52 Round Steak (Bnls)
53 Sirloin Cutlets
54 Skirt Steak (Bnls)
55 T-Bone Steak
56 Tenderloin Steak
57 Tip, Cap Off Steak
58 Top Blade (Bnls) Flat Iron Steak
59 Top Loin Steak
60 Top Loin (Bnls) Steak
61 Top Round Steak
62 Top Sirloin Steak (Bnls)
63 Top Sirloin Cap Off Steak (Bnls)
64 Top Sirloin Cap Steak (Bnls)

Cookery Methods
D Dry Heat
M Moist Heat
D/M Dry or Moist Heat



County _____

Contestant Name _____

Contestant Number _____

ID #	Specie	Primal	Retail	Score
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Number Incorrect				
Points Off				
		=		
	Total Points Off		Final Score	

Total Score: _____

LIVESTOCK FEED IDENTIFICATION

Below are the various feedstuffs that will be selected from for the 2026 Wisconsin 4-H Livestock Skill-A-Thon Contest. Students could be asked to identify 10 feedstuffs and the energy group of which they are categorized. 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
Buckwheat
Complete Pelleted Feed
Cracked Corn
Corn Gluten Meal
Dehydrated Alfalfa Meal
Pellets
Dicalcium Phosphate
Distillers Grain
Dried Sugar Beet Pulp
Dried Whey
Dry Molasses
Fish Meal
Ground Limestone (Calcium Carbonate)

Hay Cube
Soybean Hulls
Soybean Meal
Steam Rolled Barley
Steam Rolled Oats
Trace Mineral Salt
Urea
Wheat Middlings
White Salt
Whole Grain Oats
Whole Grain Wheat
Whole Kernel Corn

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 & Mixed Livestock Breed Identification

(ANSWER KEY)

Name _____

Contestant # _____

(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

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. <u>Angus</u>
B. <u>Brahman</u>
C. <u>Charolais</u>
D. <u>Chianina</u>
E. <u>Gelbvieh</u>
F. <u>Hereford</u>
G. <u>Limousin</u>
H. <u>Santa Gertrudis</u>
I. <u>Shorthorn</u>
J. <u>Simmental</u>

Sheep Breeds

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

Swine Breeds

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

Meat Goats

HH. <u>Boer</u>
II. <u>Spanish</u>
JJ. <u>Pygmy</u>
KK. <u>Kiko</u>
LL. <u>Angora</u>
MM. <u>Mytonic</u>

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 association
- c. Large framed, developed in Italy as dual purpose for beef and draft.
- d. British breed with highest number of registrations 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, whiteface, meat breed known for out of season breeding.
- w. Large frame U. S. breed, developed from Lincolns and Rambouillets.

Swine Breeds

- x. Noted for high growth rate, durability, and pork quality, developed in New Jersey and New York.
- y. Known as a maternal breed with droopy ears, developed in PA.
- z. 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.
- gg. Noted for extreme muscle volume and shape, with a high propensity for stress which is related to pork quality concerns.
- hh. Terminal sire breed with unique color markings noted for cutability.

Meat Goat 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"

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.

2020 Hay Judging Class – EXAMPLE

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 & Mixed Scorecard (under 14 years of age)

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. 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 |
| | W. Freeze branding iron | WW. Spirette 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
(14 years of age and older)**

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

I.D.

Equipment I.D. List

- | | | |
|-----------|----------------------------|-----------------------------|
| 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. Rumens 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. Vacutainer |
| | Z. Hoof chisel | ZZ. Wool card |

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

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 decoquinatone 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.

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

Decoquinatone 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.

2020 Livestock Skill A Thon - KEY Junior & Mixed 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 off 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 be 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

2020 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 D) 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*

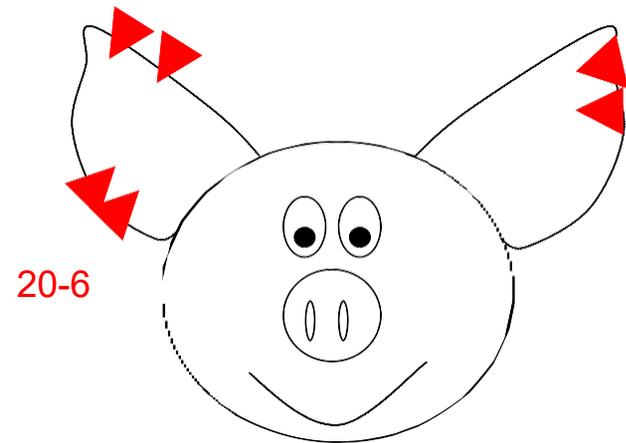
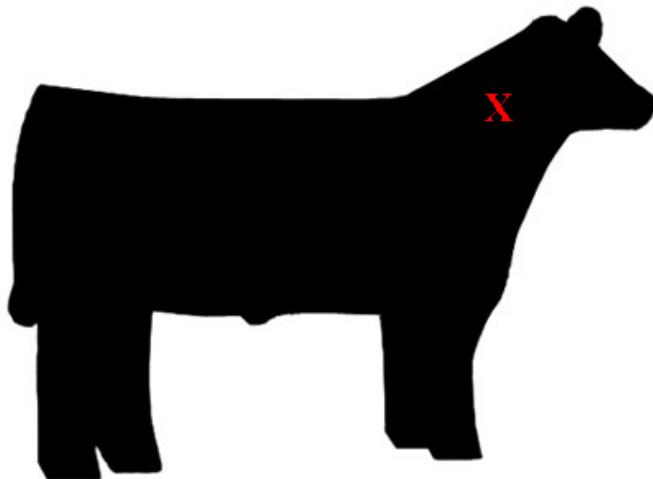
Quality Assurance Exercise: (100 possible points) Demonstrate how to read an animal health product label, calculate dosage rates and withdrawal times, complete a treatment record, be familiar with administration routes, and make responsible management decisions regarding quality assurance.

TEAM CLASS

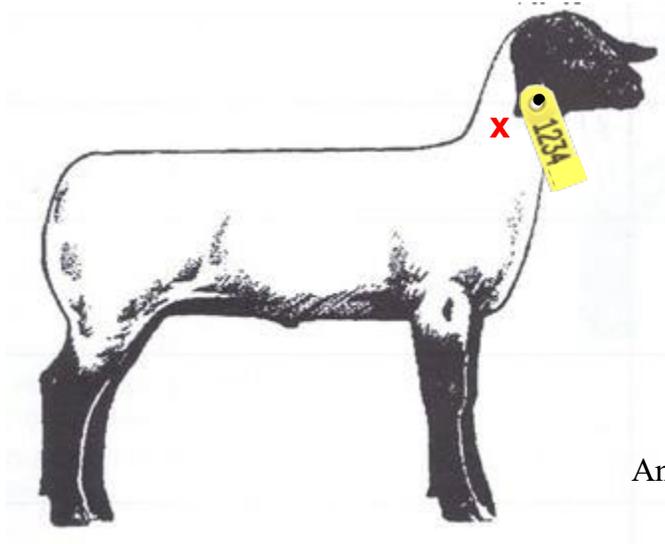
Team Name: Team
Number

2020 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, 2020 weighing 15 pounds.

Today is July 30, 2020 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 <i>(Info was provided for Juniors only)*</i>	Dosage	Route Administered	Withdrawal Time	Date Withdrawal Completed
*1/29/2020	Vitamin E Supplement	15 lbs.	Vital E—300	2—3 mL	IM or SQ	None	N/A
2/11/2020	White Muscle Disease Prevention	25 lbs.	BO-SE	1 mL	IM or SQ	14 days	2/25/2005
3/25/2020	Worming	50 lbs.	Levasole	1 bolus	Oral	72 hours	3/28/2005
4/22/2020	Clostridium Vaccination	65 lbs.	Covexin 8	5 mL	SQ	21 days	5/13/2005
6/17/2020	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 SCENARIO *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.

2020 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

Ram No.	Name	Expected Progeny Differences					Number of Lambs Born	Number of Lambs with wts.	Codon 171 Genotype	Spider Lamb Genotype	*Birth Type
		Weaning Weight	Post Weaning	Milk	Milk & Gain						
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 10/19

Swine

OSU Swine Resource Handbook

4-H circular 134R

The Ohio State University

<https://extensionpubs.osu.edu/swine-resource-handbook-for-market-and-breeding-projects/>

4-H 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 <https://4-h.org/parents/curriculum/>

National Pork Board Swine Quiz and Skillathon Resources:

<http://www.pork.org/youth-and-education/skillathon-quiz-bowl/>

Pork Checkoff Quick Facts publication:

<http://www.pork.org/pork-quick-facts/>

Seedstock Edge: www.nationalswine.com

National Swine Registry, West Lafayette, IN

Nasco Farm & Ranch Catalog

Fort Atkinson, WI 1-800-558-9595

<http://www.enasco.com>

National Hog Farmer

Monthly Periodical

7900 International Drive, Suite 300

Minneapolis, MN 55425 <http://www.nationalhogfarmer.com/>

OSU Swine Learning Lab Interactive CD

The Ohio State University; Phone: 614-292-4848

<https://ohio4h.org/sites/ohio4h/files/d6/files/CD%20flyer%20smallest.pdf>

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

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

<http://livestocktrail.illinois.edu/>

Illini Porknet (Ask the Expert): <http://livestocktrail.illinois.edu/porknet/>

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

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

American Meat Institute: <https://www.meatinstitute.org/>

Pork Industry Handbook

<https://www.usporkcenter.org/jobs-resources/pork-industry-handbook/>

Beef

UNL Beef Manual Handbook

This is an updated manual that replaces the OSU beef manual
Download is electronic and costs approximately \$40.

<http://marketplace.unl.edu/ne4h/4h4200.html>

OSU Beef Resource Handbook

4-H circular 117R

The Ohio State University

<https://extensionpubs.osu.edu/beef-resource-handbook/>

4-H 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 <https://4-h.org/parents/curriculum/>

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

Illini Beefnet (Ask the Expert): <http://web.extension.illinois.edu/oardc/>

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

For Mixed and Senior Divisions:

Nebguides: UNL Extension Publications

Beef Cattle Implant Update and Synchronizing Estrus in Beef Cattle, can be found at

<http://beef.unl.edu/learning/estrussynch.shtml>

Sheep

Sheep Resource Handbook

4-H circular 194R

The Ohio State University; Phone number 614-292-1607

<https://extensionpubs.osu.edu/sheep-resource-handbook-for-market-and-breeding-projects/>

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 <https://4-h.org/parents/curriculum/>

Meat Goats

OSU Goat Resource Handbook

4H 135R– The Ohio State

University Phone number 614-292-1607

<https://extensionpubs.osu.edu/goat-resource-handbook/>

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 <https://4-h.org/parents/curriculum/>

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

Information on Goat 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/>

New Hampshire Extension Goat Resources: <https://extension.unh.edu/4-H-Animal-and-Ag-Science/4-H-Meat-Goat-Page>

The 4-H Meat Goat Project: An Introduction - <https://extension.unh.edu/blog/new-hampshire-4-h-goat-project-overview>

Texas A&M University Meat Goat Resources:

https://extension.unh.edu/resources/files/Resource002493_Rep3663.pdf

North Carolina State University Meat Goat Materials:

<https://youthlivestock.ces.ncsu.edu/>

Penn State University Meat Goat Materials:

<https://extension.psu.edu/animals-and-livestock/goats>

Iowa State Meat Goat Resources:

<http://www.extension.iastate.edu/4h/projects/meat-goat>

<http://www.extension.iastate.edu/4h/page/meat-goat-judging>

Cornell University Meat Goat Fact Sheets: <http://4h.ansci.cornell.edu/animal-programs/goats/meat-goats/>

Langston University Goat Materials: Search this site for a variety of goat related tools and resources. <http://www.luresext.edu/>

Other Helpful Resources:

4-H Literature: Vet Science Curriculum Books

Book 1 – From Airedales to Zebras (2004)

Book 2 – All Systems Go (2004)

Book 3 – On The Cutting Edge (2004)

Helper's Guide (2004)

Available from your extension offices

4-H CCS Materials – Available at <https://4-h.org/parents/curriculum/>

The Meat We Eat (13th edition, Interstate Publishers, Inc.) 510 North Vermillion St., PO Box 50, Danville, IL 61834. Phone 800-843-4774. It is also available from www.amazon.com

Websites & Current Event References:

A small percentage of questions will be based on current events in the beef, sheep and swine industries. Since studying from these may appear to be overwhelming, keep these points in mind. Think about major issues that has affected the livestock industry in many ways such as: animal diseases, exports, animal ID, environmental issues, and regulator changes. The following on-line resources will be used to develop these questions:

1. **American Sheep Industry Association** website at: www.sheepusa.org
2. **National Cattlemen's Beef Association** website at: www.beef.org
3. **National Pork Board** website at: www.pork.org
4. **American Meat Institute** website at: <https://www.meatinstitute.org/>
5. **Pork Magazine** (questions related to current industry issues, at: www.porkmag.com, you need to subscribe for a free subscription.
6. **Beef Magazine** (questions related to current industry issues, at: <http://www.beefmagazine.com/>
7. **National Hog Farmer Magazine** (questions related to current industry issues), website at: <http://nationalhogfarmer.com/>
8. **Meatingplace.com** (an on-line community for red meat and poultry processors in North America, questions related to current industry issues, January) website at: www.meatingplace.com
9. **Drovers CattleNetwork** (questions related to current industry issues) website at: <https://www.drovers.com/resources>
10. **American Boer Goat Association** - <http://www.abga.org/>
11. **Aphis** – www.aphis.usda.gov
12. **Wisconsin Livestock Identification Consortium** www.wiid.org
13. **Wisconsin/USDA Ag Statistics (NASS):**
http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_State_Level/Wisconsin/

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- <https://www.uidaho.edu/cals/kimberly-research-and-extension-center/research/forage>

UW-Extension- <https://fyi.uwex.edu/forage/>

University of Kentucky- <http://www.uky.edu/Aq/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 (updated 2017)

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://www.enasco.com/p/Retail-Meat-Cut-Flash-Cards%2BC30003?searchText=f_lash+cards+meat

175 cards \$97.25

Online Web Resources

QUIZLET– online tool with a variety of resources

<https://quizlet.com/> - use key words to search for sets. These are tools that people have uploaded to the site; they may or may not be accurate.

ICEV Media – Great listing of online tools/judging classes

https://www.icevonline.com/search?search_paths%5B%5D=&query=judging&submit

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

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

<http://meatscience.org/students/meat-judging-program/national-4-h-meat-judging>

Nasco Farm and Ranch Catalog

<https://www.enasco.com/q?question=meats&x=0&y=0>

Online Meats Identification and Placing Classes Texas

A&M University Aggie Meat Judging Resources

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

Texas Tech University Meat Judging Resources

<http://www.depts.ttu.edu/meatscience/classes.php>

University of Nebraska–Lincoln Meats Judging Resources

<https://animalscience.unl.edu/pase-and-cde-meats-contest>

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: https://www.beefresearch.org/CMDocs/BeefResearch/PE/GuideToID_MeatCuts.pdf



**Registrations are due
March 9th**

See you on March 21st!