

PANHANDLE DISTRICT 1 4-H

To: County Extension Agents – ANR, FCH, 4-H

From: Dr. JD Ragland Tina Bryant  
Contest Superintendent District 4-H Specialist

Subject: **District 1 Livestock Science Skill-a-thon Contest**

Contest Date: **April 22, 2023**

Location: WTAMU Stanley Schaeffer Ag Ed Learning Center  
22200 Valleyview Rd.

Registration: **Deadline midnight April 6, 2023** via 4-H Online  
**No late entries accepted!**  
Registration Fee: \$10

Age Categories: 3<sup>rd</sup> – 5<sup>th</sup> grade – Junior  
6<sup>th</sup> – 8<sup>th</sup> grade – Intermediate  
9<sup>th</sup> – 12<sup>th</sup> grade – Senior

It is the responsibility of the agents to validate and correct placement of youth in age categories. Counties may move Juniors up to Intermediates, but Intermediates will NOT be allowed to move down to Juniors or up to seniors.

**Contest Format**

1. The contest will be divided into four areas: identification, judging (which consist of meat cuts, wool and/or hay classes), quizzes (quality assurance quiz, and industry quiz.), and a team exercise. Contestants will be divided into groups and have time limits for each station area.
2. The contest will utilize a scantron form. #480-5b (Meat Skill-a-thon)
3. While competing in the event, there will be no conferring between contestants or between a contestant and anyone else except as directed by contest officials. Contestants will be allowed specific time limits to complete each individual class.



Texas A&M AgriLife Extension Service  
6500 Amarillo Blvd. West | Amarillo, TX 79106  
Tel. 806-677-5600 | Fax. 806-677-5644 | [d14-h@ag.tamu.edu](mailto:d14-h@ag.tamu.edu)

4. Contestants may use a blank steno pad or a clipboard, blank paper, and a calculator. The contestants may bring no books, notes, pamphlets, or other reference material into the contest area. All electronic communication devices of any kind are prohibited. Contest officials reserve the right to check all contestant's notepads or clipboards to make sure they are blank just prior to the contest. Violators are subject to contest dismissal.
5. Contestants are not to pick up or touch any item that is being identified or evaluated in the individual competition classes, unless otherwise directed by contest officials. *(The exception is wool classes)*
6. Coaches are invited to review contest materials in the contest area at the conclusion of the event.

## CONTEST CLASSES

The following is a list of common skill-a-thon classes. Please note that actual classes may deviate from this list in an effort to keep current with a rapidly changing livestock industry. All pictures, equipment items, retail meat cuts, feed samples, judging classes, and quizzes will be developed using resources obtained from Texas A&M University and West Texas A&M University.

### Identification (Four Stations will be Selected)

1. Livestock equipment Identification: Identify the proper name for pieces of equipment used in livestock production. Participants **are no longer required to indicate the equipment use.**
2. Livestock Breed Identification: Identify from photographs or pictures livestock (beef cattle, swine, sheep and goat) breeds. Contestants must also match the breed with the most appropriate description supplied for each breed.
3. Retail meat cut identification: Identify beef, lamb, and pork retail cuts from the National 4-H Meat Judging Retail ID List. Contestants will identify the retail cut specie, primal cut, and retail cut name.
4. Feed Sample Identification: identify various samples of feeds and indicate their classification.

### Judging (Three Classes will be Selected)

5. Hay Judging class: Rank a class of four hay samples with analysis information and answer questions about the classes.
6. Wool Judging class: Rank a class of four fleeces and answer questions about the class.
7. Retail Meat Judging class: Rank a class of four retail meat cuts (beef, pork, or lamb) and answer questions about the class

### Quizzes

8. 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.
9. Industry Quiz: Complete a 30-question multiple choice quiz concerning the total livestock industry.

### Team Exercise

10. For senior & intermediate complete teams only. This area will not affect individual scores. Team members are allowed to collaborate on team exercises. Possible team exercises include Keep/Cull – EPD Only, Livestock Performance and Marketing Scenarios, Quality Assurance, and Nutrition and Feeding. All team members should contribute to the presentation. Teams will have 10 minutes to collaborate and 2 minutes to present.

## AWARDS

Top 5 individuals overall

Top 3 teams overall

\*Overall total score will consist of a combination of judging classes, identification scores, and quizzes.

**State Qualifiers:** This is an invitational contest at Texas 4-H Roundup open to seniors.

**Guide with many additional resources:**

[https://texas4-h.tamu.edu/wp-content/uploads/roundup\\_livestock\\_skillathon\\_guide\\_2023.pdf](https://texas4-h.tamu.edu/wp-content/uploads/roundup_livestock_skillathon_guide_2023.pdf)

**Contest Resources:**

**Swine Resources**

- National Swine Registry Skill-a-thon Training <https://nationalswine.com/resources/resources-main.php>
- Texas A&M Swine Skill-a-thon study guide <https://animalscience.tamu.edu/livestockspecies/swine/skillathon/>

- Oklahoma State Swine Breeds - <http://afs.okstate.edu/breeds/swine>
- National Pork Board : <http://www.pork.org/youth-and-education/skillathon-quiz-bowl/>

**Beef Resources**

- Texas A&M Beef Skill-a-thon <https://beefskillathon.tamu.edu/>
- Iowa State Beef Skill-a-thon <https://www.ans.iastate.edu/beef-skillathon>
- Oklahoma State Cattle Breeds - <http://afs.okstate.edu/breeds/cattle/>

**Sheep & Goat Resources**

- Sheep and Goat programs - <http://animalscience.tamu.edu/livestock-species/sheep-goats/>
- Iowa State Sheep Skill-a-thon <https://www.ans.iastate.edu/sheep-skillathon>
- Oklahoma State Sheep Breeds - <http://afs.okstate.edu/breeds/sheep>
- Oklahoma State Goat Breeds - <http://afs.okstate.edu/breeds/goats>
- Maryland Small Ruminant Page - <https://www.sheepandgoat.com/skillathon>

**Meat Judging and Identification Resources**

- <http://www.meatscience.org/students/meat-judging-program/meat-judging-resources/>
- <http://aggiemeat.tamu.edu/meat-identification-pictures/>
- <https://aggiemeat.tamu.edu/example-classes/>

**Equipment Identification**

- Nasco - <https://www.enasco.com/>
- Valley Vet - <https://www.valleyvet.com>
- Sullivan's Supply - <https://www.sullivansupply.com/>
- Weaver Livestock - <https://www.thewinnersbrand.com>

**Feed Sample Identification**

- <https://quizlet.com/22837845/feed-stuff-identification-flash-cards/>
- <https://extension.msstate.edu/sites/default/files/publications/publications/P2834.pdf>
- [http://pubs.ext.vt.edu/content/dam/pubs\\_ext\\_vt\\_edu/400/400-011/400-011\\_pdf.pdf](http://pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/400/400-011/400-011_pdf.pdf)

**Wool Judging**

- <https://texas4-h.tamu.edu/wp-content/uploads/Judging-Wool-and-Mohair.pdf>

**Hay Judging**

- <https://www.ces.ncsu.edu/files/library/19/Hay%20Judging%20Resources.doc><https://extension.msstate.edu/sites/default/files/publications/publications/P2834.pdf>
- <https://cherokee.agrilife.org/4-h/hay-judging/>
- [https://extension.umd.edu/sites/extension.umd.edu/files/\\_images/locations/charles\\_county/Hay%20Judging%20Example%20Class%20with%20Photos%202018.pdf](https://extension.umd.edu/sites/extension.umd.edu/files/_images/locations/charles_county/Hay%20Judging%20Example%20Class%20with%20Photos%202018.pdf)

**National Livestock Skill-a-Thon**

- <https://extension.umd.edu/charles-county/4-h-youth/2019-national-4-h-livestock-judging-skillathon-and-quiz-bowl>

**Texas FFA Livestock Quiz Question Bank**

- [https://www.texasffa.org/docs/2017-21%20Livestock\\_QBank\\_Export\\_Key\\_71269.pdf](https://www.texasffa.org/docs/2017-21%20Livestock_QBank_Export_Key_71269.pdf)

Meat Skillathon Form #480-5b															Team Name / Additional Info																	
Incorrect Marks: Correct Mark:																																
Team #		State	Last Name										First Name										Placing Classes									
																							Mark one answer in each column!									
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Team Quality Assurance										Individual Quality Assurance Quiz										Questions									
1	A	B	C	D	E	11	A	B	C	D	E	21	A	B	C	D	E	1	1	2	3	4							
2	A	B	C	D	E	12	A	B	C	D	E	22	A	B	C	D	E	2	1	2	3	4							
3	A	B	C	D	E	13	A	B	C	D	E	23	A	B	C	D	E	3	1	2	3	4							
4	A	B	C	D	E	14	A	B	C	D	E	24	A	B	C	D	E	4	1	2	3	4							
5	A	B	C	D	E	15	A	B	C	D	E	25	A	B	C	D	E	5	1	2	3	4							
6	A	B	C	D	E	16	A	B	C	D	E	26	A	B	C	D	E	6	1	2	3	4							
7	A	B	C	D	E	17	A	B	C	D	E	27	A	B	C	D	E	7	1	2	3	4							
8	A	B	C	D	E	18	A	B	C	D	E	28	A	B	C	D	E	8	1	2	3	4							
9	A	B	C	D	E	19	A	B	C	D	E	29	A	B	C	D	E	9	1	2	3	4							
10	A	B	C	D	E	20	A	B	C	D	E	30	A	B	C	D	E	10	1	2	3	4							

  

Team Questions										Industry Quiz									
1	A	B	C	D	E	11	A	B	C	D	E	21	A	B	C	D	E		
2	A	B	C	D	E	12	A	B	C	D	E	22	A	B	C	D	E		
3	A	B	C	D	E	13	A	B	C	D	E	23	A	B	C	D	E		
4	A	B	C	D	E	14	A	B	C	D	E	24	A	B	C	D	E		
5	A	B	C	D	E	15	A	B	C	D	E	25	A	B	C	D	E		
6	A	B	C	D	E	16	A	B	C	D	E	26	A	B	C	D	E		
7	A	B	C	D	E	17	A	B	C	D	E	27	A	B	C	D	E		
8	A	B	C	D	E	18	A	B	C	D	E	28	A	B	C	D	E		
9	A	B	C	D	E	19	A	B	C	D	E	29	A	B	C	D	E		
10	A	B	C	D	E	20	A	B	C	D	E	30	A	B	C	D	E		

  

Team Keep/Cull	#	Keep/Cull
1	K	C
2	K	C
3	K	C
4	K	C
5	K	C
6	K	C
7	K	C
8	K	C



1	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
2	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
3	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
4	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
5	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
6	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
7	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
8	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
9	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N
10	B P L	A B C D E F G H I J	A B C D E F G H I J	D M O N

Breed Identification	
Breed	Description
1 A B C D E	1 A B C D E
2 A B C D E	2 A B C D E
3 A B C D E	3 A B C D E
4 A B C D E	4 A B C D E
5 A B C D E	5 A B C D E
6 A B C D E	6 A B C D E
7 A B C D E	7 A B C D E
8 A B C D E	8 A B C D E
9 A B C D E	9 A B C D E
10 A B C D E	10 A B C D E

Equipment Identification	
Equipment	Use
1 A B C D E F G H I J	1 A B C D E F G H I J
2 A B C D E F G H I J	2 A B C D E F G H I J
3 A B C D E F G H I J	3 A B C D E F G H I J
4 A B C D E F G H I J	4 A B C D E F G H I J
5 A B C D E F G H I J	5 A B C D E F G H I J
6 A B C D E F G H I J	6 A B C D E F G H I J
7 A B C D E F G H I J	7 A B C D E F G H I J
8 A B C D E F G H I J	8 A B C D E F G H I J
9 A B C D E F G H I J	9 A B C D E F G H I J
10 A B C D E F G H I J	10 A B C D E F G H I J

Feed Identification	
Feed	Class.
1 A B C D E F G H I J	1 A B C
2 A B C D E F G H I J	2 A B C
3 A B C D E F G H I J	3 A B C
4 A B C D E F G H I J	4 A B C
5 A B C D E F G H I J	5 A B C
6 A B C D E F G H I J	6 A B C
7 A B C D E F G H I J	7 A B C
8 A B C D E F G H I J	8 A B C
9 A B C D E F G H I J	9 A B C
10 A B C D E F G H I J	10 A B C

<b>Equipment Identification Guide</b> <a href="#">click here for the National Study Guide</a> <i>Note: Most questions in the equipment identification section will be selected from this list. However, the contest committee reserves the right to utilize equipment not listed here for the contest.</i>		
Heat or Hot Iron	Paint Sticks/Chalk	Vanometer
Freeze Brand	Heatmount Detector	Nipple Waterer
Traditional Ear Tagger	Chin Ball Marker	Odor Spray for Gilts, Sows, & Boars
Traditional Ear Tags	Scrotal Tape	AI Catheter
Electronic Ear Tags	Semen Straw	AI Saddle
Brisket Tag	Ampule	Dummy Sow or Mount
Ankle Strap/Leg Tag	Straw Cutter	Obstetrical Snare
Electric Dehorner	Semen Cane and Goblet	Heat Lamp
Tube Dehorner	Thaw Unit	Gestation Stall
Barnes Dehorner	Insemination Rod	Farrowing Stall
OB or Dehorning Wire	Breeding Sheaths	Hog Snare
Calf Weaner	CIDR	Sorting Panel
Teat Slitter	CIDR Applicator	Hog Flapper
Hoof Blocks	Nitrogen Tank	Rattle Cup
Cowslips	Artificial Vagina (AV)	Paddle Stick
Hoof Trimmer	Rice Pelvimeter	Electric Prod
Scotch Comb	Calf Straps	Backfat Ruler
Curry Comb	Squeeze Chute	Ribeye Grid
Oral Calf Drencher	Rope Halter	Elastrator
Dose Syringe	Nose Tongs	Emasculatome
Cattle Speculum	Cattle Prod	Emasculator
Frick Speculum	Ear Notchers	Marking Harness
Implant Gun	Tattoo Gun	Sheep Paint
Automatic Dose Syringe	Tooth Nippers	Electro-Ejaculator
Balling Gun	Pig Resuscitator	Lambing Jug
Prolapse Ring	Ewe Spoon	Lamb Puller
Pritchard Nipple	Feeding Tube	Hand Shears
Wool Card	Hoof Trimmer	Shearing Screwdriver
Wool Rake/Shedding Comb	Trimming Stand	Gambrel Restrainer

Note: Participants are not required to list a “use” for the 2019-2020 contest.



Texas 4-H Youth Development Program

**Beef Breed Identification Guide 2019-2020**

*Note: Most questions in the breed identification section will be selected from this list. However, the contest committee reserves the right to utilize livestock breeds not listed here for the contest. [click here for the National Study Guide](#)*

Breed	Traits & Characteristics
American Braford	Brahman and Hereford cross, Red with white on head, belly and feet. Developed in Florida in 1947, Heat and insect resistant, Great fertility and maternal qualities, A separate Australian bloodline was developed in Queensland between 1946-1952
Angus	Polled, solid black, Medium size, Originated in Scotland, Introduced to US in 1873, Great marbling, Early maturity, The founder believed black was the, proper color for the breed instead of the red recessive gene
Beefalo	American bison and cattle mix, Dense, fine coat varied in color, Large breed, Developed in California during the 1970s, Weather resistant, Beef is low in fat and cholesterol, Low birth rates
Beefmaster	Brahman, Hereford and Milking, Shorthorn mix, Light to dark red, Medium size, Developed in Texas during the early 1950s, Heat and insect resistant, High fertility, First American composite breed
Belted Galloway	Polled, black with white "belt" on barrel, Large size, Originated in Scotland, Easy Calving, Disease resistant, Adaptable, The Belted Galloway Association was previously named the Dun and Belted Galloway Association before 1951.
Brahman	Light grey to red with loose skin in neck, area, prominent hump, Medium size, Originated in India Heat, drought and insect resistant, Weak calving intervals, Popularity limited to southern region of US, Breed produces an oily secretion which creates a natural insect repellent
Braford	Cross between a Brahman and Hereford, Red with white underbelly, head, and feet, similar to the Hereford, Stockier than a Hereford due to the Brahman influence, Brafords were developed both in Australia in 1946 and in Florida in 1947, Strong maternal ability, Early puberty and calving ease, Heat and insect resistance, Tend to thrive in warmer climates
Brangus	Brahman and angus mix, Polled, black with hump, Medium to large size, Developed in US in 1949, Weather resistant, Good maternal traits, Late maturity, Registered brangus must be 3/8 brahman and 5/8 angus.
Charolais	White, Large size, Developed in France, Introduced to US in 1936, Fast growth, Muscling, Late maturity, All color variations of the breed are considered "recorded" by the American Charolais Association except for black
Chianina	White to grey with black nose, eyes, tongue and switch, Large size, Originated in Italy, Genetics were introduced in 1971 but the first American bull was born in 1972, Resistant to eye problems, Heat, insect and disease resistance, Growth rate, Small udders, Late maturity
Devon	Chestnut or light to deep red, Medium size, Originated in England, Introduced to US in 1623, Heat and disease resistant, Early maturity, Growing calving difficulty amongst, offspring with larger sires, Coats are short during summer and grow longer for winter
Dexter	Mainly black but can be red or dun, Small size, Originated in Ireland, Longevity, Early maturity, Good temperament, Known to the Irish as the "Poor man's cattle"
Florida Cracker	Black, red or spotted with varied, coloration, horns that curve upward, Small to medium size, Developed in Florida, Heat and disease resistant, Small scale meat production, Purebreds are endangered due to excessive crossbreeding
Galloway	Polled; black, dun, red or white with long curly coat, Medium size, Originates in Scotland, Introduced to US in 1866, Tolerant of harsh colder climates, Excellent maternal traits
Gelbvieh	Polled, reddish gold to russet or black, Medium to large size, Originates in Germany, Introduced to US in 1971, Early puberty, Large scrotums, The South African Gelbvieh Association reported that when bitten by ticks, blood flow to that region is constricted so that the tick starves.
Hereford	Horns pointing downward, red with white, face, belly, feet and tail, Large size, Originates in England, Introduced to US in 1817, High libido, Fertility, Adaptable, named Herefordshire
Limousin	Golden-red with lighter pigment around, eyes, muzzle, belly and rear area, Large size, Originates in France, Introduced to US in early 1930s, Carcass quality, High fertility, Known as the "butcher's animal" in France



## Texas 4-H Youth Development Program

Maine Anjou	Black or red with white markings on head, belly, rear legs and tail, Medium to large size, Originates in France, Introduced to US around 1970 by artificial insemination, Feed efficiency, Aggressive bulls, One of the largest French cattle breeds
Murray Grey	Dark grey to light silver, dun or black, Medium size, Originates in Australia, Introduced to US around 1972, Good temperament, Good marbling, Preferred imported beef breed of the Japanese
Piedmontese	White to light grey with black horns, hooves, eyes, ears, mouth and tail, Medium size, Originates in Italy, Introduced to US around 1979, Carcass quality, Early maturing, Low fat beef, The myostatin gene is naturally mutated which allows unrestricted muscle development or double muscling
Pinzgauer	Dark chestnut with white marks on back, flanks and belly, Medium to large size, Originates in Austria, Introduced to US around 1974, Fertility, Easy calving, High weaning weights, Adaptable, Breed was crossbred with red Friesian to improve milk output and udder shape in 1969.
Polled Hereford	Polled, red with white belly, face and feet, Large size, Developed in Iowa, docile temperament, Fast maturity, Adaptable, Breed began with a mutation that left offspring without horns.
Red Angus	Polled, red, Medium size, Originates in England/ Scotland, Maternal traits, Longevity, High fertility, Intramuscular marbling
Salers	Polled or horned, dark mahogany to black, Originates in France, Introduced to US in 1975, Large, well-shaped pelvic area, Calving ease, Good soundness
Santa Gertridis	Brahman and shorthorn mix, Cherry red with short smooth coat, Developed in Texas in the 1920s, Heat tolerance, Tick and bloat resistant, Ease of calving, All present day Santa Gertrudis descend from Monkey; the breed's foundation sire
Scottish Highland	Red, black, yellow, dun and white with long silky hair, big horns pointing upward, Small to medium size, Originates in Scotland, Introduced to US in late 1890s, Tolerant of extreme colder temperatures, Great mothering ability, Less tolerant of tropical settings, Late maturity, Beef breed of choice for the British Royal Family; the family keeps a large herd.
Shetland	White with black to brown markings (resembles a Holstein), Small to medium size, Originates in Scotland, Rapid growth, Fertility, Ease of calving, Classified as at risk by the Rare Breeds Survival Trust in Britain
Shorthorn	Red or roan and white (sometimes speckled), Medium to large size, Originates in England, Introduced to the US in 1783, Calving ease, Fertility, Rapid growth, Directors of the Beef Shorthorn Cattle Society called to have Maine Anjou blood mixed into the bloodline for better muscling.
Simmental	Gold to red with white markings, Large size, Originates in Switzerland, Introduced to the US in 1967, High and long term fertility, Short calving intervals, Great mothering ability, Considered one of the oldest cattle breeds in the world, Known as "fleckvieh" in Germany and Austria
Sussex	Dark red with a white tail switch, Medium size, Originates in England, High fertility, Easy calving, Great mothering ability, Can travel long distances on rough terrain, Breed development for beef industry didn't occur until the 1800s
Tarentaise	Tan with darkening around eyes and neck, black nose, udder and hooves, Medium size, Originates in France, Introduced to the US in 1973, Early puberty, Good pelvic size, Adaptability, Used solely for milk production in France
Telemark	Horns pointing upward, white with brown streak on barrel and brown ears, Small to medium size, Originates in Norway, Good grazers, Norway's oldest breed of cattle
Texas Longhorn	Long horns pointing upward, color variation and spotting, Medium to large size, Developed in Texas, Disease and parasite resistant, Aggressive, Lean meat, Breed fashioned entirely in US
Wagyu	Straight horns that darken with length, black or red, Medium size, Originates in Japan, Introduced to US in 1976, Early maturity in females, Low birth weights, Exceptional marbling, Some breeders give cattle beer in the summer to stimulate appetite and massage to reduce stress and muscle stiffness
Watusi	Long and thick horns, brown and white pattern variations, Medium size, Originates in Uganda, Introduced to US in 1960, Tolerant of extreme weather, Low birth weights, Lean meat, Breed was primarily used for milk in Africa because large herds were a symbol of wealth
White Park	White with black ears and muzzles, Medium size, Originates in Wales, Good grazers, Good marbling, Breed nearly extinct— less than 50 left in the US





Texas 4-H Youth Development Program

**Swine Breed Identification Guide 2019-2020**

*Note: Most questions in the breed identification section will be selected from this list. However, the contest committee reserves the right to utilize livestock breeds not listed here for the contest. [click here for the National Study Guide](#)*

Breed	Traits & Characteristics
Berkshire	Yorkshire, lincolnshire and bedforshire mix, Black with white points, erect ears, Medium size, Originates in England, Introduced to US in 1823, Fast growth, Flavorful meat, Cleanness, Marketed as black pork in Japan and held at premium price
Chester White	White, medium droopy ears, Medium to large size, Developed in Pennsylvania between 1815-1818, Mothering ability, Soundness, Muscle quality, Originally named Chester County White
Duroc	Descends of red hogs brought to America with Columbus and Desoto, Light golden to mahogany red, droopy ears, Large size, Developed in the New York/ New Jersey area during the 1800s, Weather resistant, Mothering ability
Hampshire	Black with white "belt" across shoulders that covers the front legs, erect ears, Large size, Originates in England/ Scotland, Introduced to the US between 1825-1835, Mothering ability, Longevity in sows, Minimal back fat, Produces large loin eyes, The breed has several nicknames: McGee hog, McKay, saddleback, ring middle and thin rind
Hereford	Duroc, Chester White and Poland China cross, Red with white face, feet and belly, droopy ears, Medium size, Developed in Missouri in 1902, Early maturity, Feed efficiency, Quiet and docile disposition, The breed's popularity began to decline during the 1960s
Landrace	White, droopy ears slanting forward, Large size, Originates in Denmark, Introduced to the US in 1934, Ideal for crossbreeding, Farrow large piglets, Heavy milkers, Denmark refused to export purebreds for many years to defend their title as the chief bacon exporting country
Mangalitsa	Blonde, red, black or white with curly hair, erect ears are most common, Medium to large size, Originates in Hungary, Germany, Strong maternal traits, Small litters (usually about 6 piglets), Resistant to harsh colder climates, Meat has a longer shelf life than other pork, Classified as a rare breed, The black Mangalitsa went extinct during the 1970s
Meishan	Black with wrinkled skin, long droopy ears, Small to medium size, Originates in China, Introduced to the US in 1989, Slow growth rate, Early maturity, Large amount of back fat, One of the most prolific breeds of pigs in the world— it's common that sows have 2 litters of 15-16 offspring per year
Mulefoot	Black, erect ears, Medium size, Originates in US, Fast growth rate, Hardy, Toes are fused together which makes the feet resemble hooves, fitting the name mulefoot
Pietrain	White with gray to black spots, erect ears, Medium to large size, Originated in Belgium, Prolific females, Good lean to fat ratio (meat tends to be more lean), weak mothering ability, weak milkers, Carries the halothane gene which causes porcine stress syndrome, Purebreds are rarely used for meat
Poland China	Black with white points, droopy ears, Medium to large size, Developed in Ohio in 1850, Feed efficiency, Lean pork, One of the oldest American swine breeds
Red Wattle	Red with wattles, erect ears with floppy tips, Medium to large size, Originates in Australia, Introduced to US during the late 1700s, Good mothers, Adaptable, Lean carcass, Better suited for outdoor foraging, Breed has never reached popularity in America
Saddleback	Large and deep in the body, Black coloring with a white band around the withers, shoulders, and front legs, Some white is allowed on the nose, tail, and hind feet and it is lop-eared, Hardy and have thrived in hot climatic conditions, such as Nigeria, Strong maternal qualities
Spots	Poland china and Big China (now extinct) mix, Black and white with spots, erect ears, Large size, Developed in Indiana, Introduced to US between the late 1800s and early 1900s, Feed efficiency, Gain rate, Longevity in sows, Referred to as "spots" after the National Spotted Poland China Record changed its name to National Spotted Swine Record
Tamworth	Red, erect ears, Medium size, Originates in Ireland, Introduced to US in 1882, Excellent mothers, Resistant to sunburn, Lean meat, Most active breed of swine, almost extinct in America after WWII
Yorkshire	White, erect ears, Large size, Originates in England, Introduced to US during the 1830s, Soundness, Low back fat, Lean meat, Called "English large white" in England, Most popular swine breed in America



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**Goat Breed Identification Guide 2019-2020**

*Note: Most questions in the breed identification section will be selected from this list. However, the contest committee reserves the right to utilize livestock breeds not listed here for the contest. [click here for the National Study Guide](#)*

American Cashmere	Varied in color, horned, Small to medium size, Originates in Australia/ New Zealand, Introduced to US during the 1980s, Tolerant, Independent, Primarily used for fiber and cashmere production, 60% of the world's supply of cashmere is produced in China
Angora	Mainly white but can be a variety of colors with long curly hair, long ears, Small size, Originates in Asia Minor, Great browsers, Not prolific, Doesn't do well in wet climates, Weak offspring, Produces the finest mohair– mainly used for mohair production instead of meat production
Boer	White body with brown on neck and face area, long ears and horned, Large size, Originates in South Africa, Introduced to the US in 1993, Good browsers, Early maturity, Extended breeding season, Low maintenance, First caprine breed involved in meat performance testing
Kiko	Varied coloration but mainly white, horned, Medium to large size, Developed in New Zealand, introduced to the US in the 1990s, Parasite resistance, Rapid growth rate in kids, Maternal instincts, The original breeders still controls the breed in New Zealand
Myotonic	White and black to brown with spots, horned, Medium to large size, Originates in US (eastern), Breed development in Tennessee in 1880, Good mothers, Easy kidding, Prolific, Carries a recessive gene activated by excitement or fear that causes the goat to stiffen and faint
Nubian	Varied coloration but mainly red or tan with short hair, roman nose and long ears, Large size, Developed in England, Introduced to US in 1896, Heat tolerant, Adaptable, Extended breeding seasons
Pygmy	Mainly an agouti pattern but can be varied in color, straight medium- long hair with erect ears, Small size, Originates in Cameroon, Introduced to US in 1959, Docile disposition, Multiple breeding seasons, Primarily used as pets in America
Spanish	Variation in color with straight mediumlong hair, large ears, Small size, Originates in Spain, Introduced to US in the 1540s, Hardy, Active, Can breed out of season, Breed is listed on the American Breed Conservancy watch list because purebred numbers are threatened by crossbreeding



Texas 4-H Youth Development Program

**Sheep Breed Identification Guide 2019-2020**

*Note: Most questions in the breed identification section will be selected from this list. However, the contest committee reserves the right to utilize livestock breeds not listed here for the contest. [click here for the National Study Guide](#)*

Border Leicester	White with bald face and black nose, long erect ears and roman nose; polled, Large size, Developed in England, Introduced to US in the 1850s, Excellent mothers, Strong lambs, Fast growth, Two strains of the breed were developed – bluecaps and redlegs, Red legs were preferred because of their hardy nature, Most Leicester descend from redlegs
Cheviot	Long white wool with black muzzle and bald white face, polled with long erect ears; can be horned, Large size, Originates in England/ Scotland, Introduced to US in 1838, Hardy, Easy lambing, Good mothers, Early maturity, Breed has a distinctive helical crimp that helps reduce fleece rot and fly strike
Columbia	Lincoln and Rambouillet cross, White with bald face, horned, Large size, Developed in Wyoming in 1912, developed by the USDA, Hardy, Adaptable, Fast growth
Corriedale	White wool with white face and black nose, polled, Large size, Originates in North Otago, New Zealand, Introduced to the US in 1914, High fertility, Adaptable, Good carcass quality, Second most popular breed of sheep in the world after the merino
Dartmoor	White to golden with curly wool, white face; horned, Medium size, Originates in England, Lean carcass, Tolerant of harsh winters, Good carcass quality
Dorper	White with black face and neck area or white only, can be horned, Medium size, Originates in South Africa, Mothering ability, Rapid growth, Adaptability, World desired sheep skin– called cape gloves
Dorset	White with open faces, horned, Medium size, Originates in England, Introduced to the US in 1860, Hardy, Adaptable, Prolific, Good mothers, Lambing ease, Most popular white face breed in US
Finnsheep	White with bald face and white legs, polled, Medium size, Originates in Finland, Introduced to the US in 1968, Prolific, Short gestation, Large litters, Fast growth
Hampshire	White with black legs and dark face, polled, Large size, Originates in England, Introduced to the US in 1840, Soundness, Feed conversion, Fast growth
Jacob	White with black spots, four black distinctive horns, Small to medium size, Originates in England, Introduced to the US in the early 1900s, Lambing ease, Resistant to parasites, Not good in extreme temperatures, Hoof problems, Weak flocking behavior, Used as guard animals, Named after, Jacob, the first person recorded in the bible to practice selective breeding of livestock
Katahdin	St. Croix, Southdown, Hampshire, Suffolk cross, White to brown pattern variation with long fine hair in chest area, polled, Medium to large size, Developed in Maine, Introduced to the US in 1976, Adaptable, Resistant to parasites, Mothering ability, Moderate flocking behavior, Breed named after Mt. Katahdin– the highest mountain in Maine
Lincoln	White, black or grey with long locks of wool, polled, Medium to large size, Originates in England, Introduced to the US in the 1800s, Average prolificacy, Muscular carcass, Breed has the longest fleece in the world
Montadale	Columbia and cheviot cross, White with bare legs and open face, black nostrils and hooves; polled, Medium size, Developed in US during the 1940s, Strong maternal traits, Strong lambs, Rapid growth, Lean carcasses
Oxford	White with dark face and legs, polled, Large size, Originates in England, Introduced to US in 1846, Docile, Easy lambing, Early maturity, Largest of the down breeds
Rambouillet	White with open face, horned, Medium to large size, Originates in France, Introduced to US in 1840, Adaptable, Hardy, Breed developed on Louis XVI's farm
Romanov	Grey or tan with black legs and faces, sometimes has a white crest on head; polled, Medium to large size, Originates in Russia, Introduced to US in 1980s, Early puberty, No specific breeding season, Low birth mortality, Known for quadruplets, quintuplets and sextuplets



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Shetland	Varied coloration with long wool, black face and legs; horned, Small to medium size, Originates in Scotland, Introduced to US in 1986, Tails don't need docking– fluke shaped, Good mothers, Lambing ease, Slow maturity, Smallest of British sheep breeds
Shropshire	White to straw with black face and feet, polled, Medium size, Originates in England, Introduced to US in 1855, Adaptable, Longevity, Prolific, Named the “farm flock favorite”
South African Merino	White with open face, polled, Medium to large size, Originates in South Africa, High fertility, Wool ideal for sportswear because it absorbs unpleasant odors
Southdown	Gray to brown with wool on face and legs, polled, Small to medium size, Originates in England, Introduced to US in 1824, Early maturing, Lambing ease, Adaptable to wet climates, Oldest breed of the down sheep
St. Croix	Mainly white but can be brown, tan or black; polled, Medium size, Originates in Caribbean, Introduced to US in 1975, Excellent foragers, High fertility, Parasite resistant, Adaptable, Classified as a rare breed
Suffolk	White with black head, legs and hooves; polled, Large size, Originates in Caribbean, Introduced to US in 1888, Hardy, Great mothers, Spider lamb syndrome common breed, The University of Idaho played a major part in advancing the breed in western states
Targhee	Rambouillet, Lincoln and Corriedale cross, Light brown to white with bald face, polled, Large size, Developed in Idaho, Introduced to US in 1930s, Long breeding season, Mothering ability, Popular in South Dakota
Texel	White and brown with bald face or legs, black nose and hooves; polled, Medium size, Developed in Netherlands, Introduced to US in 1985, Muscle development, Feed efficiency, Leanness, Fast growth, Breed broke the world record for sheep sales being sold at \$231,000 in Scotland in 2009
Tunis	White or cream with copper-red legs and face, polled, Medium size, Originated from North Africa and Middle East area, Introduced to US in 1799, Disease resistance, Tolerant, Feed efficiency, Extended breeding season, Excellent mothers, Classified as rare by the American livestock Breeds Conservancy, Increasing popularity in Eastern states



# 2012 FFA and 4-H Retail Meat Identification Codes

Beef Primal	Retail Cut Name	Cookery Method	Specie	Primal	Name	Cookery
<b>Brisket</b>	Corned	Moist	B	B	89	M
	Flat Half, Bnls	Moist	B	B	15	M
	Whole, Bnls	Moist	B	B	10	M
<b>Chuck</b>	7-bone Pot-Roast	Moist	B	C	26	M
	Arm Pot-Roast	Moist	B	C	03	M
	Arm Pot-Roast, Bnls	Moist	B	C	04	M
	Blade Roast	Moist	B	C	06	M
	Eye Roast, Bnls	Dry/Moist	B	C	13	M
	Eye Steak, Bnls	Dry	B	C	45	D
	Mock Tender Roast	Moist	B	C	20	M
	Mock Tender Steak	Moist	B	C	48	M
	Petite Tender	Dry	B	C	21	D
	Shoulder Pot Roast (Bnls)	Dry/Moist	B	C	29	D/M
	Top Blade Steak (Flat Iron)	Dry	B	C	58	D
<b>Flank</b>	Flank Steak	Dry/Moist	B	D	47	D/M
<b>Loin</b>	Porterhouse Steak	Dry	B	F	49	D
	T-bone Steak	Dry	B	F	55	D
	Tenderloin Roast	Dry	B	F	34	D
	Tenderloin Steak	Dry	B	F	56	D
	Top Loin Steak	Dry	B	F	59	D
	Top Loin Steak, Bnls	Dry	B	F	60	D
	Top Sirloin Cap Steak, Bnls	Dry	B	F	64	D
	Top Sirloin Steak, Bnls Cap Off	Dry	B	F	63	D
	Top Sirloin Steak, Bnls	Dry	B	F	62	D
	Tri Tip Roast	Dry	B	F	40	D
<b>Plate</b>	Short Ribs	Moist	B	G	28	M
	Skirt Steak, Bnls	D/M	B	G	54	D/M
<b>Rib</b>	Rib Roast	Dry	B	H	22	D
	Ribeye Roast, Bnls	Dry	B	H	13	D
	Ribeye Steak, Bnls	Dry	B	H	45	D
	Ribeye Steak, Lip-On	Dry	B	H	50	D
<b>Round</b>	Bottom Round Roast	Dry/Moist	B	I	08	D/M
	Bottom Round Rump Roast	Dry/Moist	B	I	09	D/M
	Bottom Round Steak	Moist	B	I	43	M
	Eye Round Roast	Dry/Moist	B	I	14	D/M
	Eye Round Steak	Dry/Moist	B	I	46	D/M
	Round Steak	Moist	B	I	51	M
	Round Steak, Bnls	Moist	B	I	52	M
	Tip Roast - Cap Off	Dry/Moist	B	I	36	D/M
	Tip Steak - Cap Off	Dry	B	I	57	D
	Top Round Roast	Dry	B	I	39	D
	Top Round Steak	Dry	B	I	61	D
<b>Various</b>	Beef for Stew	Moist	B	N	82	M
	Cubed Steak	Dry/Moist	B	N	83	D/M
	Ground Beef	Dry	B	N	84	D

Variety Meats	Retail Cut Name	Cookery Method	Specie	Primal	Name	Cookery
	Heart	Dry/Moist	B	M	76	D/M
	Heart	Dry/Moist	L	M	76	D/M
	Heart	Dry/Moist	P	M	76	D/M
	Kidney	Dry/Moist	B	M	77	D/M
	Kidney	Dry/Moist	L	M	77	D/M
	Kidney	Dry/Moist	P	M	77	D/M
	Liver	Dry/Moist	B	M	78	D/M
	Liver	Dry/Moist	L	M	78	D/M
	Liver	Dry/Moist	P	M	78	D/M
	Oxtail	Moist	B	M	79	M
	Tongue	Dry/Moist	B	M	80	D/M
	Tongue	Dry/Moist	L	M	80	D/M
	Tongue	Dry/Moist	P	M	80	D/M
	Tripe	Moist	B	M	81	M

Pork Primal	Retail Cut Name	Cookery Method	Specie	Primal	Name	Cookery
<b>Ham/Leg</b>	Pork Fresh Ham Center Slice	Dry/Moist	P	E	44	D/M
	Pork Fresh Ham Rump Portion	Dry/Moist	P	E	25	D/M
	Pork Fresh Ham Shank Portion	Dry/Moist	P	E	27	D/M
	Smoked Ham, Bnls	Dry	P	E	91	D
	Smoked Ham, Center Slice	Dry	P	E	90	D
	Smoked Ham, Rump Portion	Dry	P	E	96	D
	Smoked Ham, Shank Portion	Dry	P	E	97	D
	Tip Roast, Bnls	Dry	P	E	35	D
	Top Roast, Bnls	Dry/Moist	P	E	38	D
<b>Loin</b>	Back Ribs	Dry/Moist	P	F	05	D/M
	Blade Chops	Dry/Moist	P	F	66	D/M
	Blade Chops, Bnls	Dry/Moist	P	F	67	D/M
	Blade Roast	Dry/Moist	P	F	06	D/M
	Butterflied Chops Bnls	Dry	P	F	68	D
	Center Loin Roast	Dry	P	F	11	D
	Center Rib Roast	Dry	P	F	12	D
	Country Style Ribs	Dry/Moist	P	F	69	D/M
	Loin Chops	Dry	P	F	70	D
	Rib Chops	Dry	P	F	71	D
<b>Shoulder</b>	Sirloin Chops	Dry	P	F	73	D
	Sirloin Cutlets	Dry	P	F	53	D
	Sirloin Roast	Dry	P	F	30	D
	Smoked Pork Loin Chop	Dry	P	F	93	D
	Smoked Pork Loin Rib Chop	Dry	P	F	95	D
	Tenderloin, Whole	Dry	P	F	34	D
	Top Loin Chops	Dry	P	F	74	D
	Top Loin Chops, Bnls	Dry	P	F	75	D
	Top Loin Roast, Bnls	Dry	P	F	37	D
<b>Side/Belly</b>	Arm Picnic, Whole	Dry/Moist	P	J	02	D/M
	Arm Roast	Dry/Moist	P	J	03	D/M
	Arm Steak	Dry/Moist	P	J	41	D/M
	Blade Boston Roast	Dry/Moist	P	J	07	D/M
	Blade Steak	Dry/Moist	P	J	42	D/M
	Smoked Picnic, Whole	Dry/Moist	P	J	94	D/M
	Slab Bacon	Dry	P	K	98	D
	Sliced Bacon	Dry	P	K	99	D
	Fresh Side	Moist	P	K	17	M
<b>Spareribs</b>	Pork Spareribs	Dry/Moist	P	L	32	D/M
<b>Various</b>	Ground Pork	Dry	P	N	85	D
	Hock	Moist	P	N	86	M
	Pork Cubed Steak	Dry/Moist	P	N	83	D/M
	Pork Sausage Links	Dry	P	N	87	D
	Sausage	Dry	P	N	87	D
	Smoked Pork Hock	Moist	P	N	92	M

Lamb Primal	Retail Cut Name	Cookery Method	Specie	Primal	Name	Cookery
<b>Breast</b>	Ribs (Denver Style)	Dry/Moist	L	A	24	D/M
<b>Leg</b>	American Style Roast	Dry	L	E	01	D
	Center Slice	Dry	L	E	44	D
	Frenched Style Roast	Dry	L	E	16	D
	Leg Roast, Bnls	Dry	L	E	18	D
	Sirloin Chops	Dry	L	E	73	D
	Sirloin Half	Dry	L	E	31	D
<b>Loin</b>	Loin Chops	Dry	L	F	70	D
	Loin Roast	Dry	L	F	19	D
<b>Rib</b>	Rib Chops	Dry	L	H	71	D
	Rib Chops Frenched	Dry	L	H	72	D
	Rib Roast	Dry	L	H	22	D
	Rib Roast, Frenched	Dry	L	H	23	D
<b>Shoulder</b>	Arm Chops	Dry/Moist	L	J	65	D/M
	Blade Chops	Dry/Moist	L	J	66	D/M
	Square Cut	Dry/Moist	L	J	33	D/M
<b>Various</b>	Shank	Moist	L	N	88	M



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Feedstuffs Identification Guide 2019-2020	
<i>Note: Most questions in the feed identification section will be selected from this list. However, the contest committee reserves the right to utilize feedstuffs not listed here for the contest.</i>	
Feed Name	Class
Alfalfa Cubes	Protein
Alfalfa, Dehydrated	Protein
Barley, Rolled	Energy
Beet Pulp, Dried	Energy
Canola Meal	Protein
Copper Sulfate	Mineral
Corn, Cracked	Energy
Corn, Ground	Energy
Corn, Steam Flaked	Energy
Corn, Whole	Energy
Cottonseed Hulls	Energy
Cottonseed Meal	Protein
Cottonseed, Whole	Protein or Energy
Dicalcium Phosphate	Mineral
Dried Distillers Grain	Energy
Feather Meal	Protein
Fish Meal	Protein
Limestone	Mineral
Milo, Ground	Energy
Milo, Whole	Energy
Mollasses, Dried	Energy
Mollasses, Liquid	Energy
Oats, Rolled	Energy
Oats, Whole	Energy
Peanut Meal	Protein
Range Cubes	Protein or Energy
Rice Hulls	Energy
Rye, Whole	Energy
Soybean Hulls	Energy
Soybean Meal	Protein
Soybeans, Whole	Protein
Sunflower Meal	Protein
Trace-Mineral	Mineral
Urea	Protein
Wheat, Whole	Energy
Wheat Middlings	Energy
Whey, Dried	Protein
White Salt	Mineral



## Team Exercise Examples

Note: The following are examples of team exercises. Actual scenarios may vary from these examples.

### Beef Performance & Marketing Example

Score \_\_\_\_\_

Team Number \_\_\_\_\_

#### National 4-H Livestock Skillathon Contest Evaluation of Performance and Marketing Information

**Directions:** Your challenge is to determine which bid to use to receive the most total dollars for each pen of cattle. Also answer the designated questions. *Bids can only be used once.*



Pen 1: Straight bred Simmental cattle, spring born. On feed for 275 days. Diet consists of 62% high moisture corn, 28% wet gluten, 10% protein supplement on a dry matter basis. Vitamin E: 400 IU for the last 120 days. Implanted once with Compudose. Estimated Average Harvest Weight: 850 pounds. Dressing percent was 61%.



Pen 2:  
Straight bred Dairy cattle (Holsteins, and Brown Swiss), various birthdates. On feed for 300 days. Diet consists of 62% high moisture corn, 28% wet gluten, 10% protein supplement on a dry matter basis. Vitamin E: 400 IU for the last 120 days. Implanted once with Compudose. Estimated Average Harvest Weight: 850 pounds. Dressing percent of 59%.



**Pen 3:**

Straight bred Limousin cattle, spring born. On feed for 150 days. Diet consists of 62% high moisture corn, 28% wet gluten, 10% protein supplement on a dry matter basis. Vitamin E: 400 IU for the last 120 days. Estimated Average Harvest Weight: 650 pounds.

You have been offered 4 bids for each of the 3 pens of cattle. The bids are:

**Bid A:** Live cattle price of \$70/cwt. Weighed at the local elevator with a 3% pencil shrink. You pay the trucking.

**Bid B:** In the meat bid of \$1.14 per pound of dressed weight for the Laura's Lean program. You stand the condemned cattle. You pay the trucking.

**Bid C:** Base price of \$130/cwt of carcass weight, with the following premiums and discounts (per 100 pounds of carcass weight). You stand the condemned cattle. The buyer pays trucking.

Prime	\$+35	Less than YG 1	\$25
Choice	\$+30	Yield Grade 1	\$15
Select	\$0	Yield Grade 2	\$0
Standard	-\$5	Yield Grade 3	-\$5
Dark Cutters	-\$30	Yield Grade 4	-\$15
		over 800 pounds	-\$15
		Under 550 pounds	-\$20

Carcass weights

**Bid D:** Base price of \$138/cwt of carcass weight, with the following premiums and discounts (per 100 pounds of carcass weight). You stand the condemned cattle. The buyer pays half of the trucking.

Prime	\$10	Yield Grade 1	\$7
Choice (Ave. & High)	\$4	Yield Grade 2	\$3
CAB	\$7	Yield Grade 3	\$0
(Black Hide, Ave & High Choice)		Yield Grade 4	-\$20
Select	-\$8		
No rolls	-\$12	Over 951 pounds	-\$20
Standards & Dark Cutters	-\$30	Under 550 pounds	-\$20



Pen Number 1 (Simmental) Sold on Bid \_\_\_\_\_

Pen Number 2 (Dairy) Sold on Bid \_\_\_\_\_

Pen Number 3 (Limousin) sold on Bid \_\_\_\_\_

**Questions based on the Simmental Pen: Additional information. You are feeding a group of 500 steers and weighed 525 pounds at the beginning and cost \$600/head. During the feed trial they consumed 1300 tons of feed which had an average cost of \$155 per ton. The total cost of other expenses were \$14 per head. Calculate the following measures.**

1. To the nearest tenth, what was the average daily gain \_\_\_\_\_ lb./day for the pen?
2. To the nearest tenth, what was the feed conversion on this pen? \_\_\_\_\_
3. To the nearest hundredth, what was the total feed cost per head \$ \_\_\_\_\_/head
4. To the nearest hundredth, what was the average daily feed cost per head \$ \_\_\_\_\_/head
5. To the nearest hundredth, what was the total feed cost per pound of gain \$ \_\_\_\_\_/lb.

**You have 2 minutes as a team to tell the station monitor why you selected your Bid choice for each plan.**



## EPD Keep/Cull Scenario

### KEEP/CULL SUFFOLK EWES

**SCENARIO:** Suffolk breeder who keeps the superior females for replacements and sells commercial rams to be used on whiteface ewes. Feed and labor are above average.

No.	Date Lambed	90 - Day Wt. FEPD	Maternal Pounds Weaned FEPD	Maternal Lambs Born FEPD
1	1/27/19	-3.0	+0.9	+0.05
2	1/31/19	+3.4	+1.1	+0.06
3	1/31/19	+4.3	+1.8	+0.08
4	1/31/19	+3.1	+1.8	+0.08
5	2/03/19	+0.5	0.0	-0.01
6	2/06/19	+0.1	-0.3	-0.03
7	2/15/19	+2.8	+1.3	+0.05
8	3/03/19	+2.3	+0.8	+0.02

You will have 10 minutes to agree on your placing as a team and 2 minutes to present your reasons as a team.





## Team Feeding &amp; Nutrition Example

**National 4-H Livestock Skillathon Contest**  
**Nutrition Station: Team Activity**

TEAM: \_\_\_\_\_

**Your Team Tasks:**

- A. Identify the following feeds and whether they are considered a forage/roughage, (F) concentrate (C), protein supplement (P) or vitamin/mineral (M). (20 points)

**Feed Identification:**

Number	Feed Name	Description (F, C, P, or M)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

**Feed Analysis & Pricing Information:**

Feed Number	Dry Matter	%CP	%TDN	Price
1	0.89	18.0	65	\$150/Ton
2	0.89	7.5	60	\$75/Ton
3	0.85	5.0	59	\$15/Ton
4	0.33	8.0	67	\$28/Ton
5	0.87	8.0	89	
6	0.89	13.3	77	
7	0.90	48.7	83	
8	0.30	29.5	112	
9	0.91	0.0	0	
10	0.97	0.0	0	



**B. Ration Mixing:****Team Feeding Scenario:**

You have 200 lb ewes that are in late gestation, currently in average condition and from which you expect approximately a 180% lamb crop. Select appropriate feeds from those above, weigh out the correct amount (as-fed basis) of each feed for **a complete diet for one day that will meet one ewe's TDN, protein and dry matter intake needs.**

- Assume that mineral needs will be met and balanced appropriately, so do not select any minerals for ingredients.
- Assume that you will be feeding at least some grain due to the limited rumen capacity of the late gestation ewe.
- Consider the overall cost of the ration.
- The table provides room for up to four ingredients. It may or may not be necessary to use four different ingredients.

When finished with the ration, your team will be expected to provide a brief explanation to judges regarding:

- the feeds you selected
- whether the ration meets the animal's needs
- if there could be any improvements or changes made in your ration
- how the cost of the ration compares to other potential rations
- other information you deem appropriate.

Name of Ingredient	DRY MATTER BASIS			AS-FED BASIS
	Lbs of <b>Dry Matter</b> of this ingredient in ration	Lbs of <b>CP</b> provided by this ingredient	Lbs of <b>TDN</b> provided by this ingredient	Lbs of Ingredient to Feed
Totals from all Ingredients				
Ewe Nutrient Requirements				
Difference between provided and required nutrients				

Scoring for this section: 80 points based on the following:

20 points for selection of appropriate ingredients

20 points for approximate correct amounts

40 points for check that ration meets nutrient needs and oral explanation



Ewe Nutrient Requirements						
	Ewe Wt.	TDN (Lbs/day)	CP (Lbs/day)	Ca	P	
Maint.	110	1.2	0.21	2.0	1.8	
	132	1.3	0.23	2.3	2.1	
	154	1.5	0.25	2.5	2.4	
	176	1.6	0.27	2.7	2.8	
	198	1.7	0.29	2.9	3.1	
Flush-	110	2.1	0.33	5.3	2.6	
ing	132	2.2	0.34	5.5	2.9	
	154	2.3	0.36	5.7	3.2	
	176	2.5	0.38	5.9	3.6	
	198	2.6	0.39	6.1	3.9	
Early Gest.	110	1.5	0.25	2.9	2.1	
	132	1.6	0.27	3.2	2.5	
	154	1.7	0.29	3.5	2.9	
	176	1.8	0.31	3.8	3.3	
	198	1.9	0.33	4.1	3.6	
Late Gest	110	2.1	0.38	5.9	3.4	
to lamb	132	2.2	0.40	6.0	4.0	
crop	154	2.3	0.42	6.2	4.5	
(< 130 - 150%)	176	2.4	0.44	6.3	5.1	
	198	2.5	0.47	6.4	5.7	
L. Gest	110	2.4	0.43	6.2	3.4	
hi lamb	132	2.6	0.45	6.9	4.0	
crop	154	2.8	0.47	7.6	4.5	
(175 - 225%)	176	2.9	0.49	8.3	5.1	
	198	3.0	0.51	8.9	5.7	
Lactating	110	3.0	0.67	8.9	6.1	
singles	132	3.3	0.70	9.1	6.6	
	154	3.6	0.73	9.3	7.0	
	176	3.7	0.76	9.5	7.4	
	198	3.8	0.78	9.6	7.8	
Lactating	110	3.4	0.86	10.5	7.3	
twins	132	3.7	0.89	10.7	7.7	
	154	4.0	0.92	11.0	8.1	
	176	4.3	0.96	11.2	8.6	
	198	4.6	0.99	11.4	9.0	

