



Livestock Judging

A 4-H Animal Science Project

Activity 2, Different Strokes

CREDITS AND ACKNOWLEDGMENTS



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Activity 2

OBJECTIVES: For youth to:

- distinguish between breeds within a species.
- identify sex characteristics within a species.

LIFE SKILLS:

- Acquiring, analyzing and using information.
- Communicating and relating to others.

MATERIALS:

Copy of BREED IDENTIFICATION CARDS

Copy of BREED CHARACTERISTICS CARDS

Copies of FULL OF CHARACTER crossword puzzle for each youth

TIME: 1½ Hours

SETTING: A comfortable room with tables and chairs.

ADVANCE PREPARATION:

Cut out BREED IDENTIFICATION and BREED CHARACTERISTICS CARDS. Write to breed associations requesting pictures of the breed. Pictures of the common breeds will help the youth to recognize breed characteristics.



DIFFERENT STROKES

BACKGROUND BASICS...

A breed is defined as a group of animals with a common origin which are distinguished by characteristics within a species. Breed character is defined as the characteristics that allow the breed of the individual animal to be easily determined. Different purebred breeds have different genetic strengths and weaknesses.

The offspring or progeny of different purebred breeds result in an animal that has genetic advantages compared to its parents. This is called, hybrid vigor or *heterosis*.

Hog Breeds

The eight purebred breeds of hogs most utilized in the United States are the Landrace, Yorkshire, Duroc, Hampshire, Berkshire, and Chester White, Poland China and Spotted breeds.

Generally, the three white breeds—Yorkshire, Landrace, **and** Chester White—excel at mothering or maternal traits, compared with the remaining breeds which have primarily been selected for growth, and carcass merit, or terminal traits.

More information on the eight major purebred hog breeds can be found at <http://www.ansi.okstate.edu/breeds/swine/>

Cattle Breeds

Numerous cattle breeds give influence to the U.S. beef industry. Cattle breeds actually represent animals from two different species, *Bos taurus* and *Bos Indicus*.

The *Bos Taurus* breeds can be categorized into three groups: Dairy, British, and Continental. The *Bos Indicus* breeds used within the U.S. are categorized as American breeds. More information on these and other breeds can be found at <http://www.ansi.okstate.edu/breeds/cattle/>

The Dairy breeds—Ayrshire, Brown Swiss, Guernsey, Holstein, Jersey, and Milking Shorthorn—are primarily utilized for milk production, but castrated bull calves certainly contribute to the beef industry.

The British breeds—Angus, Red Angus, Hereford, and Shorthorn—excel at reproductive efficiency, and marbling deposition or the amount of taste fat within the muscle tissue.

The Continental breeds—Charolais, Chianina, Gelbvieh, Limousin, Maine-Anjou, Salers, and Simmental—generally possess a large mature size, rapid growth rate, and heavy muscling. Each breed displayed distinct color patterns when imported into the U.S., however, the Charolais is now the only Continental breed which does not have black-hided animals.

American breeds—American Brahman, Braford, Brangus, Beefmaster, Red Brangus, and Santa Gertrudis—are all *Bos indicus* breeds of beef cattle developed in the United States. These cattle are known for heat tolerance and resistance to parasite populations. Most of these breeds are a result of crossing two or more breeds.

Sheep Breeds

There are more breeds of sheep than any other meat-animal species. More information on sheep breeds can be found at <http://www.ansi.okstate.edu/breeds/sheep/> Sheep breeds can primarily be categorized into three groups: hair, wool, and meat breeds.

The two primary hair breeds—Dorper and Katahdin—are both easy care breeds which do not require shearing, primarily having hair rather than wool. The Merino, Rambouillet, and Columbia breeds are wool breeds specifically described as finewools which generate a high quality fleece which has a greater processing value for garments. The Lincoln and Cotswald breeds are also wool breeds known as longwool breeds which have a longer fleece. The primary meat breeds used in the U.S. are the Dorset, Hampshire, Montadale, Oxford, Southdown, and Suffolk. These breeds are much faster growing and have greater carcass merit than the wool breeds. The fleece quality is much poorer compared with the wool breeds. These breeds are often referred to as medium-wool breeds.

The table below shows the correct gender terminology within each of the species. These terms will often be combined to give even more information about a specific animal (i.e. heifer calf, wether lamb).

	BEEF CATTLE	SWINE	SHEEP
INTACT MALE	BULL	BOAR	RAM
MALE CASTRATED PRIOR TO DEVELOPMENT OF SECONDARY SEXUAL CHARACTERISTICS	STEER	BARROW	WETHER
FEMALE THAT HAS WENT THROUGH THE BIRTHING PROCESS	COW	SOW	EWE
YOUNG FEMALE WITH NO PRONGENY	HEIFER	GILT	EWE
VERY YOUNG PROGENY	CALF	PIG	LAMB



INTRODUCTION

Like humans, all animals have a genetic make-up. In livestock, it is easy to categorize groups based on their breed and sex characteristics. It is important for you to be able to distinguish among the types, breeds, and sexes. Ideal types and desirable characteristics vary widely among the sexes, breeds and use of the animal. Industry demands have the greatest impact on the desirable types within a breed or sex category and these will be discussed further in Activity 3. Today we will explore the different breed and sex characteristics within each species and learn to identify some of the more prominent traits of each. You will also get to know each other and learn to work together as a team through the "What Am I?" game.

DO

PLAY WHAT AM I?

- Divide youth into two groups
- Give each youth in the first group one BREED IDENTIFICATION Card. The youth in the second group each get one BREED CHARACTERISTICS clue card.
- Have the youth circulate around the room finding the match to their breed characteristics clue or their breed card. This can be done by asking yes/no questions, by process of elimination and by the members helping each other find the person with their matching card.
- Have youth sit down when they find their matches.
- After everyone is seated, have each pair stand up and tell the group about the characteristics of their breed. If the information is incorrect, have youth continue their search.
- Be sure that all the breeds and characteristics are covered.



REFLECT

- Did you have difficulty finding your breed's characteristics or breed identification?
- Which sheep breed has the greatest fleece quality?

Merino

- List some similarities among the swine breeds.

Example: Poland China and Berkshire each are black with six white points.

- How are American breeds of beef cattle different from the British or Continental breeds?

American breeds were all developed here in the US and are a hybrid cross of at least two breeds. These animals are more adapted to tropical environments than British or Continental breed cattle.

- What is the purpose of crossing the breeds during reproduction?

This results in heterosis or hybrid vigor.

- Does the proper development of sexual characteristics influence the animal's net worth? Why?

yes. the improper development of necessary sexual characteristics could produce an animal who is infertile or has other reproductive malfunctions and is of very little use to the producer. Development of desirable sexual characteristics could influence whether the animal gets chosen for reproductive or slaughter purposes, therefore having an influence on the animal's net worth.

- Did you make any friends or meet someone new?

APPLY

- Visit an exhibit of animals (Fair, youth show...) or a local ranch or farm. Discuss the characteristics and positive/negative attributes of each breed that you encounter, as well as identify the animal's sex.
- Complete the FULL OF CHARACTER Crossword puzzle.



Breed Identification

Angus —English, black, polled cattle breed, known for meat quality and reproductive efficiency.

Charolais —Continental cream colored cattle breed, known for growth, which originated in France.

Oxford —Meat sheep breed which is a Cotswold and Hampshire hybrid.

American Brahman — *Bos indicus* (cattle of India) cattle breed that is grey or red, has a large hump and drooping ears. Known for heat tolerance and parasite resistance.

Berkshire —Black hog breed with six white points, erect ears, known for meat quality.

Dorper— Hair sheep breed known for meat yield that is solid white or white with a black head. Developed in S. Africa.

Shorthorn —English cattle breed that can be red, white, or roan.

Landrace —Maternal white hog breed with very large, floppy ears.

Beefmaster —American, *Bos Indicus* cattle breed that is Brahman, Hereford and Shorthorn. Developed at the Lasater Ranch.

Montadale—Meat sheep breed which is solid white. Developed in Ohio.

Braford —American, *Bos Indicus* cattle breed developed in Florida which is a Hereford and Brahman hybrid.

Brangus —American, *Bos Indicus* cattle breed which is an Angus and Brahman hybrid.

Chianina —Continental cattle breed from Italy known for extreme frame. Original animals were solid white.

Dorset —Meat sheep breed which is solid white and will often produce more than one lamb crop per year.

Hampshire —Terminal hog breed which is black with a white belt around the shoulders, known for meat yield.



Chester White —White hog breed with medium sized, droopy ears, best meat quality white breed.

Katahdin—Hair sheep breed that is solid white. Developed in Maine.

Spotted —Terminal hog breed with large black spots. Primary current use- show pig genetics.

Yorkshire —Maternal white hog breed of hogs with erect ears.

Shropshire—Meat sheep breed appearing similar to Hampshires, with a more moderate frame and more significant wool cap.

Gelbvieh —Continental cattle breed from Germany known for maternal performance. Original animals were red.

Hereford —English cattle breed with a red body and white face and underline.

Southdown —Meat sheep breed that is mousey-colored and smaller framed, but produces a well-muscled carcass.

Maine-Anjou —Continental cattle breed from France, currently used extensively in show cattle genetics. Original animals were red and white spotted.

Salers—Most recent continental cattle breed imported from France. Original animals were dark red.

Red —Red colored American, *Bos Indicus* cattle breed that is an Angus and Brahman hybrid.

Cotswald —Long wool sheep breed with more moderate mature size.

Simmental —Continental cattle breed from Switzerland known for milk production and growth. Original animals were red and white.

Columbia—Wool sheep breed developed by USDA which is a Lincoln and Rambouillet hybrid.



Santa Gertrudis—American, *Bos Indicus* cattle breed that is a Shorthorn and Brahman hybrid. Developed in at the King Ranch in Texas.

Suffolk—Meat sheep breed with largest number of U.S. registrations. Has black hair on their face & legs.

Rambouillet —Wool sheep breed which is extensively utilized in western U.S. range sheep production.

Red Angus —English, polled cattle breed, which are red in color.

Poland China —Terminal black hog breed with six white points and droopy ears. Primary current use show pig genetics.

Hampshire —Very popular sheep breed with wool on their black face and legs.

Merino —Wool sheep breed with highest quality fleece.

Limousin —Continental breed from France known for meat yield. Original animals were red.

Duroc —Terminal breed of red hogs with droopy ears. Known for rapid growth.

Lincoln —Long wool sheep breed which has large mature size.

Simbrah — American, *Bos Indicus* cattle breed that is a Simmental and Brahman hybrid.



FULL OF CHARACTER

Breed Crossword Puzzle

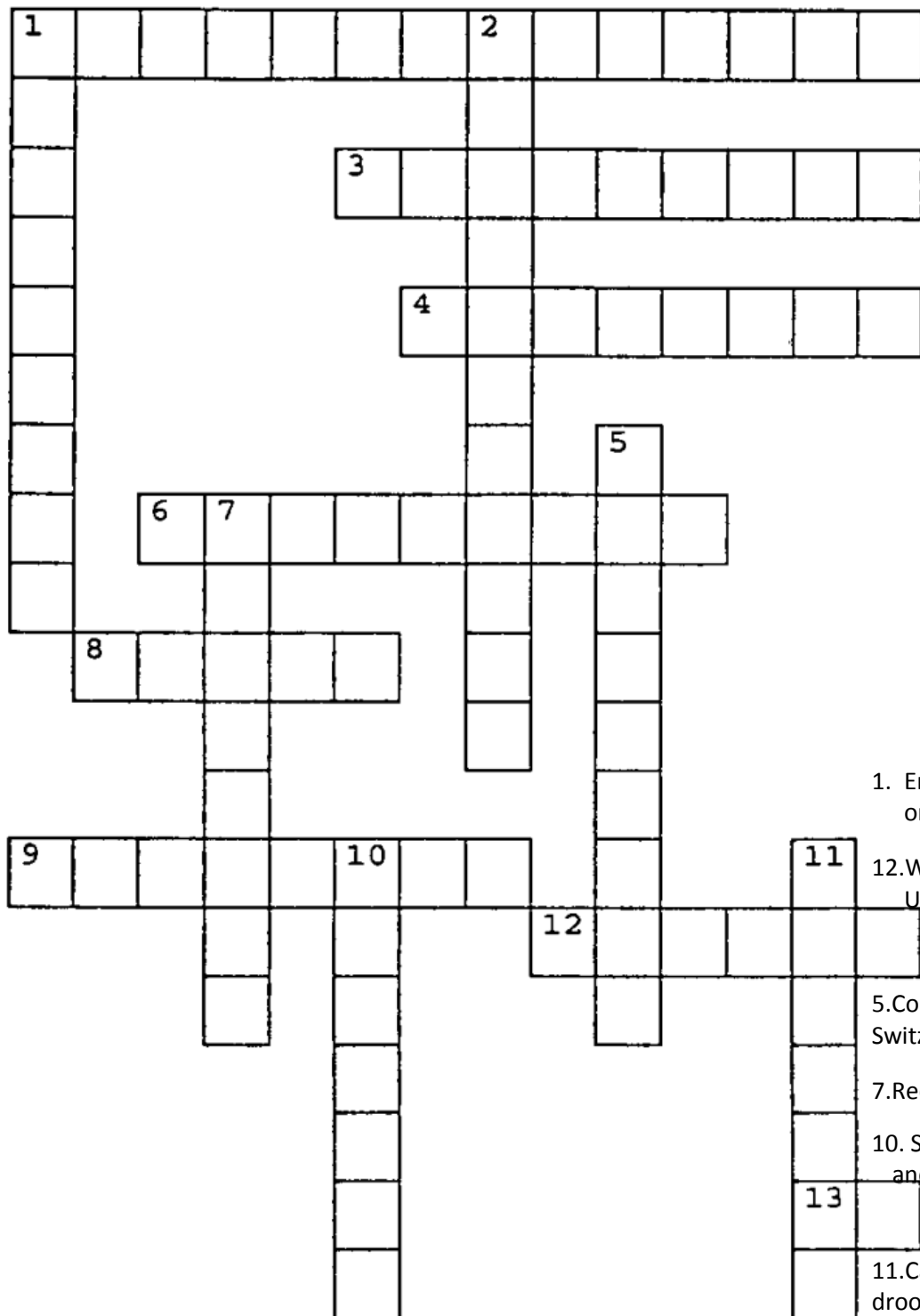
CLUES:

ACROSS

1. Beef cattle breed developed in at the King Ranch in Texas, from Shorthorn and Brahman.
3. Black hog with white belt.
4. Maternal hog breed with large, erect ears and white bodies.
6. Cream colored cattle breed from France.
8. Red hog with droopy ears.
9. Terminal cattle breed from France known for meat yield.
12. White hog breed with very large, floppy ears.
13. Black, polled cattle breed with most U.S. registrations.

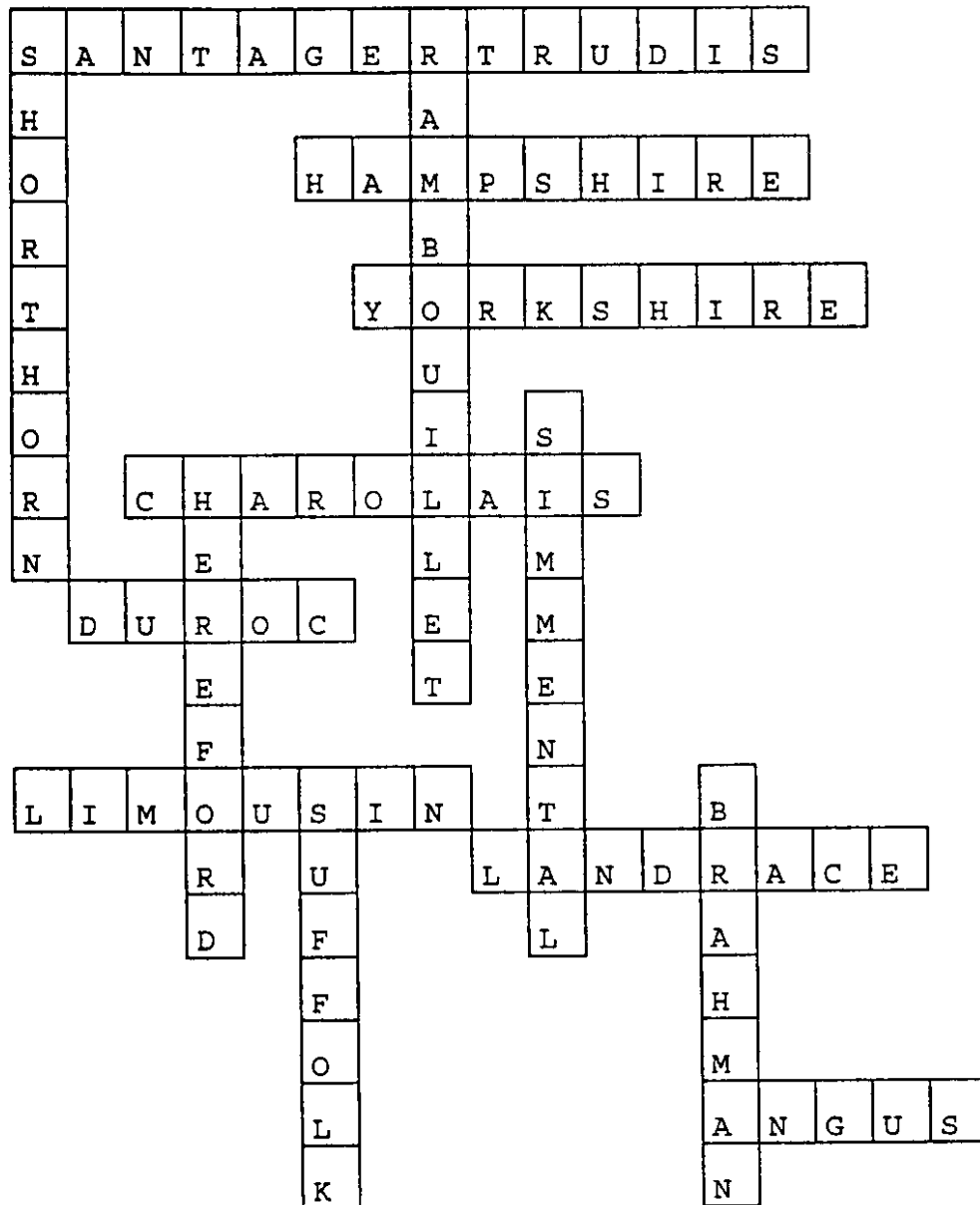
DOWN

1. English breed which can be red, white or roan.
12. Wool breed used extensively in U.S. production.
5. Continental cattle breed from Switzerland.
7. Red cattle with white face markings.
10. Sheep with hair on its back legs and face.
11. Cattle breed with large hump and drooping ears.



FULL OF CHARACTER CROSSWORD

Answer Key



BREED IDENTIFICATION CARDS

ANGUS	BRAHMAN	BEEFMASTER
BRAFORD	BRANGUS	BERKSHIRE
CHAROLAIS	CHIANINA	CHESTER WHITE
COTSWALD	COLUMBIA	DORPER
DORSET	DUROC	GELBVIEH
HEREFORD	HAMPSHIRE	HAMPSHIRE
KATAHDIN	LIMOUSIN	LINCOLN
LANDRACE	MAINE-ANJOU	MERINO
MONTADALE	OXFORD	POLAND CHINA



RAMBOUILLET	RED ANGUS	RED BRANGUS
SALERS	SANTA GERTRUDIS	SHORTHORN
SIMMENTAL	SOUTHDOWN	SPOTTED
SUFFOLK	YORKSHIRE	SHROPSHIRE
	SIMBRAH	

BREED CHARACTERISTIC CARDS

American cattle breed that is $\frac{1}{2}$ Brahman, $\frac{1}{4}$ Hereford & $\frac{1}{4}$ Shorthorn.	American cattle breed that is a Hereford and Brahman hybrid.
Black cattle breed that is an Angus and Brahman hybrid.	White cattle breed known as the world's largest breed of cattle.
Terminal hog breed which is black with a white belt around the shoulders, known for meat yield.	Meat sheep breed which is solid white and will often produce more than one lamb crop per year.
Red colored American cattle breed that is an Angus and Brahman hybrid.	Hair sheep breed known for meat yield that is solid white or white with a black head.
Hair sheep breed that is solid white.	Wool sheep breed developed by USDA which is a Lincoln and Rambouillet hybrid.
Long wool sheep breed which has large mature size.	Meat sheep breed which is a Cotswold and Hampshire hybrid.
Meat sheep breed that is mousey-colored and smaller framed,	Long wool sheep breed with more moderate mature size.
Meat sheep breed which is solid white. Developed in Ohio.	Sheep breed appearing similar to Hampshires, with a more moderate frame and more significant wool cap.



BREED CHARACTERISTIC CARDS

White hog breed with medium sized, droopy ears.	American breed that is a Simmental and Brahman hybrid.
White hog breed with erect ears.	American cattle breed that is a Shorthorn and Brahman hybrid.
Continental cattle breed from Switzerland known for milk production and growth.	Wool sheep breed which is extensively utilized in western U.S. range sheep production.
Sheep breed with and no wool on their black face & legs.	Black hog breed with six white points and droopy ears. Primary current use-show pig genetics.
English, polled cattle breed, which are red in color.	Large framed meat sheep breed with wool on their black face & legs.
Red cattle breed with a white face	Continental breed from France known for meat yield.
Wool sheep breed with highest quality fleece.	Continental cattle breed from Germany known for maternal performance. Original animals were red.
Red hog breed with droopy ears that are known for fast growth rate	Terminal black hog breed with six white points and droopy ears.
Most recent continental cattle breed imported from France. Original animals were dark red.	Continental cattle breed from France, currently used extensively in show cattle genetics.
Black, polled cattle breed.	Cream colored Continental cattle breed.
Black hog breed with six white points, erect ears.	Cattle breed that is usually grey, have a large hump and drooping ears.
English cattle breed that is red, white or roan.	White hog breed with very large, droopy ears.

SWINE BREED ASSOCIATIONS

American Landrace Assn., Inc.

Hampshire Swine Registry

American Yorkshire Club, Inc.

United Duroc Swine Registry

are collectively called

National Swine Registry

P.O Box 2417

West Lafayette, IN 47996-2417

<http://www.nationalswine.com/>

American Berkshire Assn.

P.O Box 2436

West Lafayette, IN 47996 www.americanberkshire.com

Chester White Swine Record Assn.

Poland China Record Assn.

National Spotted Swine Record, Inc.

are collectively called

Certified Pedigreed Swine

Box 9758

Peoria, IL 61612-9758 www.cpsswine.com



CATTLE BREED ASSOCIATIONS

American Angus Association

3201 Frederick Ave.
St. Joseph, MO 64501
www.angus.org

American Brahman Breeders Assn

3003 South Loop West, Suite 520
Houston, TX 77054
www.brahman.org

International Brangus Breeders Assn.

5750 Epsilon Dr.
San Antonio, TX 78249
www.int-brangus.org , www.gobrangus.com

American-International Charolais Assn.

11700 NW Plaza Circle
Kansas City, MO 64153
www.charolaisusa.com

American Chianina Assn.

P.O. Box 159
Blue Springs, MO 64015
www.chicattle.org

United Braford Breeders

P.O. Box 14100
Kansas City, MO 64101
www.brafords.org

Beefmaster Breeders United

6800 Park Ten Blvd.
Suite 290 West
San Antonio, TX 78213
<http://www.beefmasters.org/>

Red Angus Assn. of America

P.O. Box 776
Denton, TX 76201

American Gelbvieh Assn.

311 Livestock Exchange Building
Denver, CO 80216
www.gelbvieh.org

American Hereford Assn.

PO Box 014059
Kansas City, MO 64101
www.hereford.org

North American Limousin Foundation

100 Livestock Exchange Building
4701 Marion Street
Denver, CO 80216
www.nalf.org

American Maine-Anjou Association

204 Marshall Road
PO Box 1100
Platte City MO 64079-1100
<http://www.maine-anjou.org/>

American Salers Association

19590 E. Mainstreet
#202 • Parker, CO 80138
<http://www.salersusa.org/>

American Simmental Association

Simbrah Registry
1 Simmental Way
Bozeman, MT 59715-9733
<http://www.simmental.org/>

American Red Brangus Association

3995 East Hwy. 290
Drippings Springs, TX 78620
<http://www.americanredbrangus.org/>

Santa Gertrudis Breeders International

PO Box 1257
Kingsville, Texas 78364
<http://santagertrudis.com/>

American Shorthorn Association

8288 Hascall Street
Omaha, Nebraska 68124
<http://www.shorthorn.org/>

Beefmaster Breeders United

6800 Park Ten Blvd. Suite 290 West
San Antonio, Texas 78213
<http://www.beefmasters.org/>



SHEEP BREED ASSOCIATIONS

Continental Dorset Club

P.O. Box 506

Hudson, IA 50643

www.dorsets.homestead.com

Columbia Sheep Breeders Assn.

P.O. Box 272

Upper Sandusky, OH 43351

www.columbiasheep.webs.com

American Corriedale Assn., Inc.

PO Box 391

Clay City, IL 62824

www.americancorriedale.com

American Hampshire Sheep Assn.

P.O. Box 345SB

Ashland, MO 65010

www.countrylovin.com/ahsa/index.html

American Rambouillet Breeders Assn.

2709 Sherwood Way

San Angelo, TX 76901

www.rambouilletsheep.org

American Delaine & Merino Assn.

1026 Co. Road 1175, Rt. 3

Ashland, OH 44805

www.admra.org

Montadale Sheep Breeders Assn.

PO Box 603

Plainfield, IN 46168

www.montdales.com

American Southdown Breeder's Assn.

HCR 13, Box 220

Fredonia, TX 76842

www.southdownsheep.org

American Shropshire Registry Assn.

6508 West R Ave.

Schoolcraft, MI 49087

www.shropshires.org

Natl. Lincoln Sheep Breeders Assn.

15603 173rd Ave

Milo, IA 50166

www.lincolnsheep.com

American Oxford Sheep Assn.

8650 Wheatland Road

Burlington, WI 53105

www.americanoxfords.org

American Cotswold Record Assn.

P.O. Box 59

Plympton, MA 02367

www.cotswoldsheep.us.com

United Suffolk Sheep Association

P.O. Box 256

Newton, UT 84327

www.u-s-s-a.org

American Dorper Sheep Breeders Society

PO Box 259

Hallsville, MO 65255-0259

<http://www.dorperamerica.org/>

Katahdin Hair Sheep International Registry

15603 173rd Ave

Milo, IA 50166

<http://www.katahdins.org/>





Name

4-H Club Motto

"To make the best better"

Address

4-H Pledge

I Pledge:

**My head to clearer thinking
My heart to greater loyalty**

My hands to larger service, and

My health to better living

**for my club, my community,
my country, and my world.**

Name of Club/School

Leader/Teacher's Name

4-H Colors

Green and White

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