

Mini 4-H



Livestock

Divisions I & II

Dear Parents,

We welcome you and your child to the Mini 4-H program. Mini 4-H is designed for boys and girls, who are in either first or second grade during this calendar year.

Your job as a Mini 4-H parent is to guide your child in any way that you can, we suggest assisting your child in completing the projects, but not completing the projects for them. It is your child's project and will be an important teaching and learning experience for him. So guide your child, but let him do as much of it by himself as he can.

Your child will need to exhibit something in each of the project areas which he has signed up for. Please see that your child gets the exhibit to the fair during the scheduled time. Your child will receive a ribbon for completing the project. You need to pick up the project after the 4-H Fair or make arrangements for someone else to get the project if you can not.

If you have any questions, you may call the Extension Office at 736-3724. We hope you and your child will enjoy the Mini 4-H program and we will be looking forward to seeing you at the Johnson County 4-H and Agricultural Fair.

Johnson County 4-H Council

Mini 4-H Program Rules

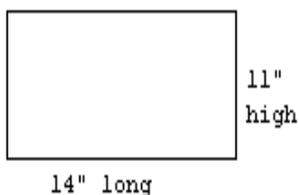
The Mini 4-H program is designed to supplement and introduce both first and second graders to the Johnson County 4-H program.

RULES

1. Mini 4-H is open to any boy or girl who is enrolled in either the first or second grade on January 1st of the current 4-H year.
2. Any first grader may enroll in one (1) or two (2) projects.
Any second grader may enroll in one (1) to four (4) projects.
3. Mini 4-H participants do not enroll in a 4-H club, but do the project at home.
4. Mini 4-H projects include: Arts & Crafts, Bugs, Clothing, Collections, Flowers, Foods, Forestry, Horse & Pony, Livestock, Models, Small Animals, and Wildlife.
5. Enrollment of Mini 4-H is done in April by distributing enrollment information to all first and second grade classes in each Johnson County elementary school.
6. **ALL POSTER EXHIBITS MUST:**

- A. Have a solid, stiff backing, which is 11" high by 14" wide (half standard poster size). This can be 1/4" plywood, HEAVY cardboard, foam board, or masonite.

Exception: Wildlife poster is 11" x 22" .



- B. Be positioned **HORIZONTALLY**.
- C. Have a total exhibit board no larger than 11" high by 14" wide. (Wildlife- 11" x 22")
- D. Be completely **COVERED BY A CLEAR PLASTIC** material.

Mini 4-H Livestock

In this project you will learn about large animals. You do not need to have an animal to be in this project. You will be introduced to five different types of large animals and will be given a little information about each. To find out more information about specific animals, you may want to get a book from the library or visit a farm which raises that type of animal.

WHAT TO EXHIBIT: DIVISION I

1. Read the Mini 4-H livestock book.
2. Do two of the activities from the Activity Page found on page 8.
3. Make an 11" x 14" poster with a stiff backing on a topic listed below.

WHAT TO EXHIBIT: DIVISION II

1. Read the Mini 4-H livestock book.
2. Do five of the activities from the Activity Page found on page 8.
3. Make an 11" x 14" poster with a stiff backing on a topic listed below different than what was exhibited in Division I.
 - a. A picture that you have drawn of one of the animals in this book.
 - b. A story you have written about one of the animals in this book.
 - c. A collection of cut out pictures of one or more types of animals listed in this book.
 - d. Pictures of you taking care of your animal.
 - e. A combination of the above items.

OR You can do the project listed on the next page.

DIVISION I: A scrapbook on a topic listed below.

DIVISION II: A scrapbook on a topic listed below different than what was exhibited in Division I.

- a. A picture or pictures of one of the types of animals and a story about that animal.
 - b. Pictures and a story of you taking care of your animals.
 - c. A collection of pictures of different types of animal(s) found in this book with information listed on each picture.
 - d. A story and pictures related to one or more of the activities you did to complete this project.
 - e. A combination of any of the above items or information and pictures about care, feeding, selection, and equipment of the animal.
4. Attach a name tag to your exhibit. You can use the name tag printed at the bottom of this page.
 5. Attach a completed record sheet to the back of your project. Record sheet can be found in the back of this book.

NAME _____
GRADE (as of Jan. 1) _____
PROJECT _____
DIVISION _____
SCHOOL ATTENDING _____

Mini 4-H Helper's Page

Welcome to the Mini 4-H program! Mini 4-H is designed for youth to explore a variety of project activity areas and to interact with caring adults and other children.

Children receive this project activity manual when enrolling in Mini 4-H. This manual and the manuals on various other topics will provide fun age appropriate learning activities throughout their year(s) in Mini 4-H.

As a Mini 4-H adult helper your job will be to guide and encourage each child through the activities. A wide range of activities are provided to allow you to choose the ones most appropriate for the children you are working with. It is highly suggested that you do not complete the activities for them. Instead help them, guide them, work with them, and let them do all that they possibly can. 4-H believes in allowing children to learn by doing. The Mini 4-H project activities are hands-on learning opportunities designed to provide a meaningful educational experience for youth.

Additionally, the Mini 4-H program is set up to allow children to display a project activity that is based upon information within this manual. Some children may choose to exhibit their project at the 4-H fair. The 4-H fair is an exciting week that allows community youth to showcase their enthusiasm for learning. Children may choose to display a project activity they did by themselves or one they did with a group.

Mini 4-H is fun! Children will certainly enjoy it. You can have fun too, by guiding and helping as children participate in the program. Encourage and praise the children as they have fun learning and sharing with you. If you have any questions regarding Mini 4-H or other 4-H programs, please feel free to contact your local Extension office.

Mini 4-H'ers Page

Mini 4-H'ers have lots of fun! There are many activities for you to explore. You can try new things, which you can share with your family and friends.

Here are some things to know about 4-H:

The 4-H Symbol: The symbol is a four-leaf clover with an "H" in each leaf. Clover is a plant that grows in fields, yards, and along roadsides. Most clovers only have three leaves. Sometimes, if you look closely you may get lucky and find a clover with four leaves. A four leaf clover is used as the symbol for 4-H to let everyone know 4-H is a special kind of group.



The 4-H Colors: The 4-H colors are green and white. The four leaf clover is green and the "H" in the leaf is white.

A group motto is a saying that tells people what is important to the group.

The 4-H Motto: "To make the best better." When something is better than all of the others it is the best. Think about a time when you did your best. Maybe you threw a ball farther than you have ever thrown it before. Now think about some ways you could do better. You may be able to throw farther by practicing for a while or by watching someone who can throw farther than you, to see how they throw so far. Even if you throw the ball farther than you have ever thrown it before there are still ways that you can do better the next time. 4-H encourages you to always try to do better, even if you are doing the best you have ever done.

The 4-H Pledge

A pledge is a promise you make to yourself and to the people around you. The 4-H pledge is in bold print below. Under each line of the pledge there are words telling what the pledge means.



I pledge my head **to clearer thinking.**

I promise to use my head to make good choices.



my heart **to greater loyalty.**

to use my heart to be a good friend.



my hands **to larger service, and**

to use my hands to do helpful things for others.



my health **to better living.**

to take care of my body and to show others how to live in a healthy way.



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

to help my group, my community, my country, and my world be happy and safe for everyone.

Activities Page

Below is a list of activities you may choose from to complete your livestock project. Division I members are to complete two activities and Division II members are to complete five activities. List the activities you did on your record sheet.

ACTIVITY:

DATE COMPLETED:

1. Give one talk or demonstration to a group about the animal you are studying.

2. Name the parts of a livestock animal you are studying.

3. Read one or more books about one or more types of animal you are studying.

4. Attend a livestock show.

5. Visit with a farmer raising livestock.

6. Visit with a veterinarian.

7. Help care for one or two animals.

8. Visit a feed store.

9. Introduce a friend to livestock.

Beef Cattle

Beef cattle are raised for meat. They eat grass, hay, alfalfa, cracked corn, silage (the complete corn plant chopped into small chunks) protein supplement, and lick on salt and mineral blocks.

Beef cattle help America maintain a proper balance of our land and crops. Eighty-three percent of our land is unsuitable for producing crops for human consumption, but nearly one half of that land grows grass which feeds cattle.

Cattle, unlike man and most other animals, are ruminants, meaning they have four stomachs. Therefore, they can convert fibrous plants such as cornstalks into highly nutritious food- BEEF- for human use.

Grass and forages account for 3/4 of all feed consumed by beef cattle. Corn and other feed grains are used only during the last few months before marketing in order to help produce a high quality, flavorful beef product. Today's consumer does not want fat on the meat. Cattle are marketed when they weigh 1000-1200 pounds.

Without cattle, millions of America's acres would not be used to produce food. The United States is second in the world in the production of cattle. Indiana's 4th largest, farming commodity is cattle. Counties leading in the cattle production are: Elkhart, Kosciusko, Lagrange, Dubois, Washington, Wabash, Daviess, Lawrence, Harrison, and Jackson.

The most common types of beef cattle we have in Indiana are: Black Angus, Hereford, Red Poll, Shorthorn, Charolais, and Simmental Cattle.

It is very important the cattle are taken care of properly by the farmer. If the animal does not get the nutrition it needs it could become sick and will not produce good, high quality products for you to use. Like all animals cattle need special food specifically for them and fresh water every single day.

Types of Beef Cattle

BLACK ANGUS:

Black Angus cattle are a breed of hornless black cattle which originated in Scotland and were brought to the United States in 1873. They are rapidly becoming one of the most popular beef cattle in the country.

HEREFORD:

Hereford Cattle are a medium to large, deep bodied animal with white faces and white markings. They came to the United States in 1817, and have remained a popular breed of cattle since that time.

RED POLL:

This breed of cattle was developed as a dual purpose breed, both for milk production and for beef. They are a breed of hornless cattle. They are medium bodied and are light red to dark red in color. This breed was brought to the United States in 1873. Although they can be used for both meat and milk they are primarily used for meat in the United States.

SHORTHORN:

This breed of cattle was once known as Durham cattle. This breed is medium sized with short rectangular bodies. Their colors vary from red to white to any combination of the two. They were first introduced to the United States in 1783. Genetically hornless shorthorns are about 60% of the beef Shorthorns registered in the United States.

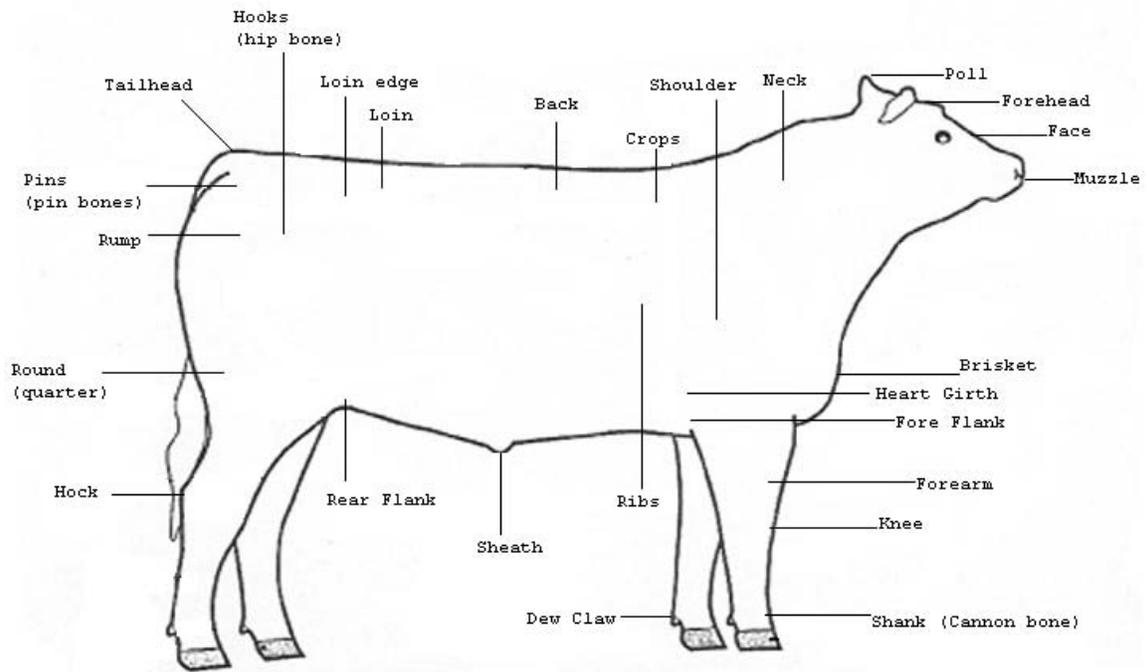
CHAROLAIS:

This breed of beef animal has a muscular appearance and a creamy to wheat-colored coat. They were first brought to the United States in 1936.

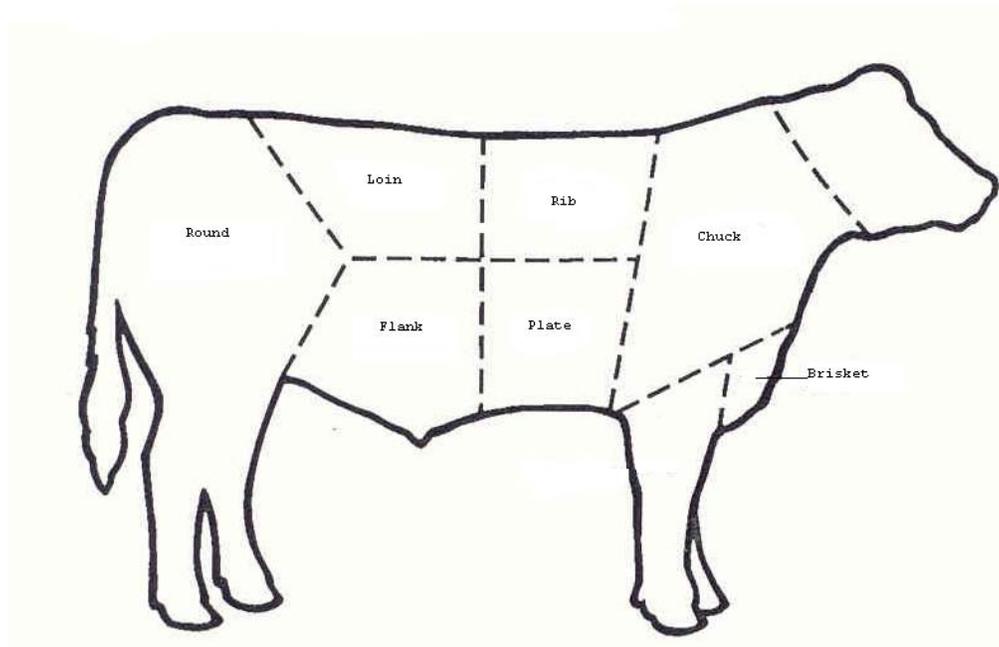
SIMMENTAL CATTLE:

This is a large, dual purpose animal. They usually are a red color with or without a white head. They first came to the United States in 1886.

Parts of the Live Beef Animal



Cuts of Beef

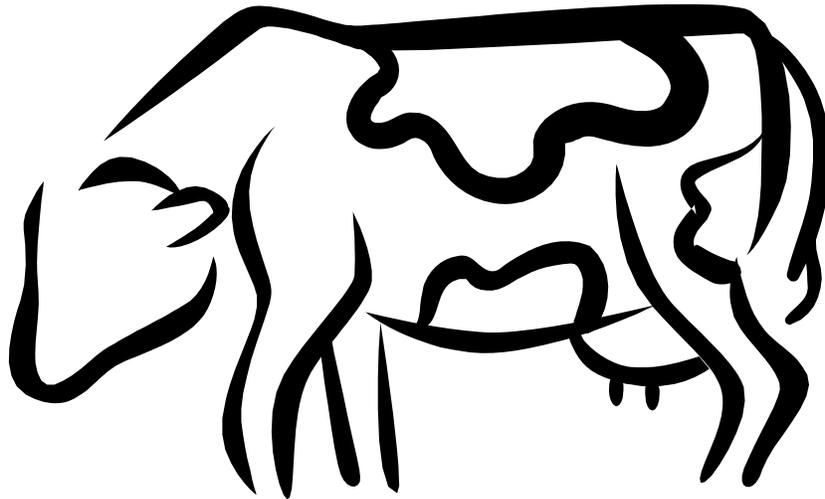


Dairy Cattle

Many farms have cows which are used to provide milk. These cows are called Dairy Cows. There are five main breeds of dairy cow. These five breeds are: the Holstein, Brown Swiss, Ayrshire, Guernsey, and the Jersey.

The dairy cow usually has one baby each year. The baby is called a calf. It takes nine months from the time the cow is bred to the time the calf is born. The cow becomes a member of the milk herd when she is about two years old. A dairy cow gives about four gallons of milk a day. The amount of milk varies with the breed, its age, and the type of feed it has to eat. From her milk, we get many foods; the milk we drink, cheese, butter, yogurt, cottage cheese, and buttermilk.

Before milking machines were invented in 1894, farmers could only milk about six cows per hour. Today farmers use machines that allow around 100 cows to be milked per hour. Many farms also have computers which can monitor how much milk a particular cow is producing.



Types of Dairy Cows

HOLSTEIN:

This breed is very large bodied with sharply defined black and white spotted markings. A large number of Holsteins were introduced in the late 19th century in the United States where they are now the dominant dairy cattle.

BROWN SWISS:

This breed is large and slow maturing, with a body color ranging from gray or light brown to dark brown. They were introduced in the United States in 1869, where they are now used primarily for dairy purposes.

AYRSHIRE:

This breed is medium sized and are a white color mixed with red or brown markings. They were introduced to the United States in 1837, where they were a dual purpose breed. Their popularity has declined in some countries but the breed remains popular in the United States.

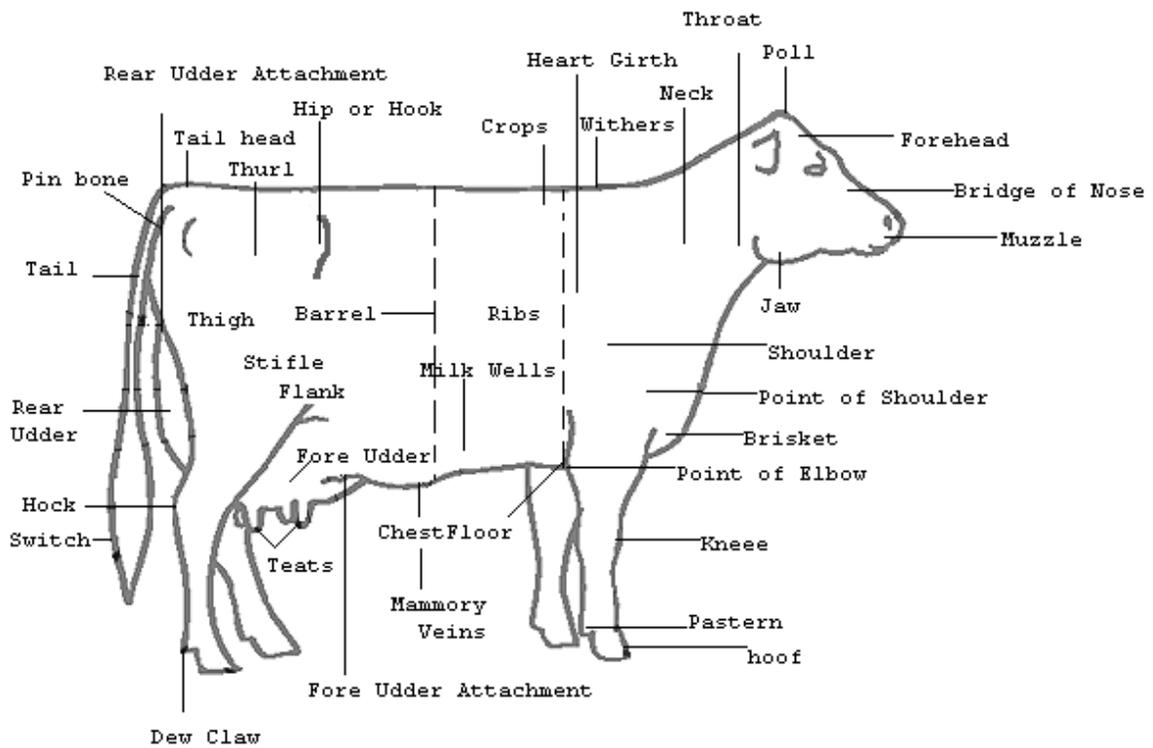
GUERNSEY:

This breed is medium sized and are fawn colored with white markings. They were first introduced to the United States in 1830. Their milk tends to have a golden color and is rich in Vitamin A.

JERSEY:

This breed is the smallest of all the dairy breeds. They are usually a shade of fawn or cream, although darker shades are common. They were first introduced to the United States in 1850, and soon became one of the most popular breeds. The high butterfat content of their milk is useful in the production of cheese. This has led to the increase of the number of Jersey cattle in the recent years.

Parts of a Dairy Cow



Dairy Goat

Milk goats are popular with many people who like to have fresh milk but do not have any room for a cow. A dairy goat, called a doe, can produce at least two quarts of milk a day. With goat milk, the same products can be made as with cow's milk. Goats do not require a lot of room, but they do like to have things to climb on, such as tree trunks, wood piles, or just a pile of dirt.

Doe goats usually have two babies, called kids, but can have from one to four at one time. They only have their young once a year and the kids are usually born in the spring. It takes five months from the time a doe is bred to the time the kids are born. Young kids are usually taken from their mother shortly after they are born so that the milk from the doe can be used for people instead of the kids.

Doe goats do not have an offensive odor, but buck goats do. Bucks should be kept away from does that are being milked because the milk will pick up an off-flavor from the buck.

There are seven common breeds of dairy goat and they are: French Alpine, American La Mancha, Nubian, Saanen, Toggenburg, Kinder, and Pygmy.



Dairy Goat Breeds

SAANEN:

This breed originated in Switzerland (Saanen Valley). They are totally white and can be found with or without horns. The white color is dominant over any other color, and they are mostly short haired.

TOGGENBURG:

This breed is brown with white facial, ear, and leg stripes. They are straight nosed and can be found with or without horns, and are mostly shorthaired. They have been bred pure for over 300 hundred years. That is longer than any other domestic breeds of livestock.

ALPINE:

This breed is usually found with faded shades of white into black, with white facial stripes on black. They can be found with or without horns, are shorthaired, and as tall and strong as a Saanen. They are second in milk production to the Saanen and Toggenburg.

LA MANCHA:

This is a new young breed developed in California. They are known for excellent adaptability and good winter production. They have straight noses, short hair, and can be found with or without horns. They have no external ear due to a dominant gene. They are more the size of Toggenburg, and their milk fat content is higher than that of the Swiss breeds.

NUBIAN:

This breed has heavy arched "Roman" noses, long drooping, pendulous ears, spiral horns, and are shorthaired. They are leggy and as tall as Saanen, but produce less milk, but have higher milk fat levels. They "talk" a lot, and are in numbers the most popular breed in the United States and Canada. They have a tendency for triplets and quadruplets. They are horned or hornless and have many colors that can be "appaloosa-like" spotted.

PYGMY:

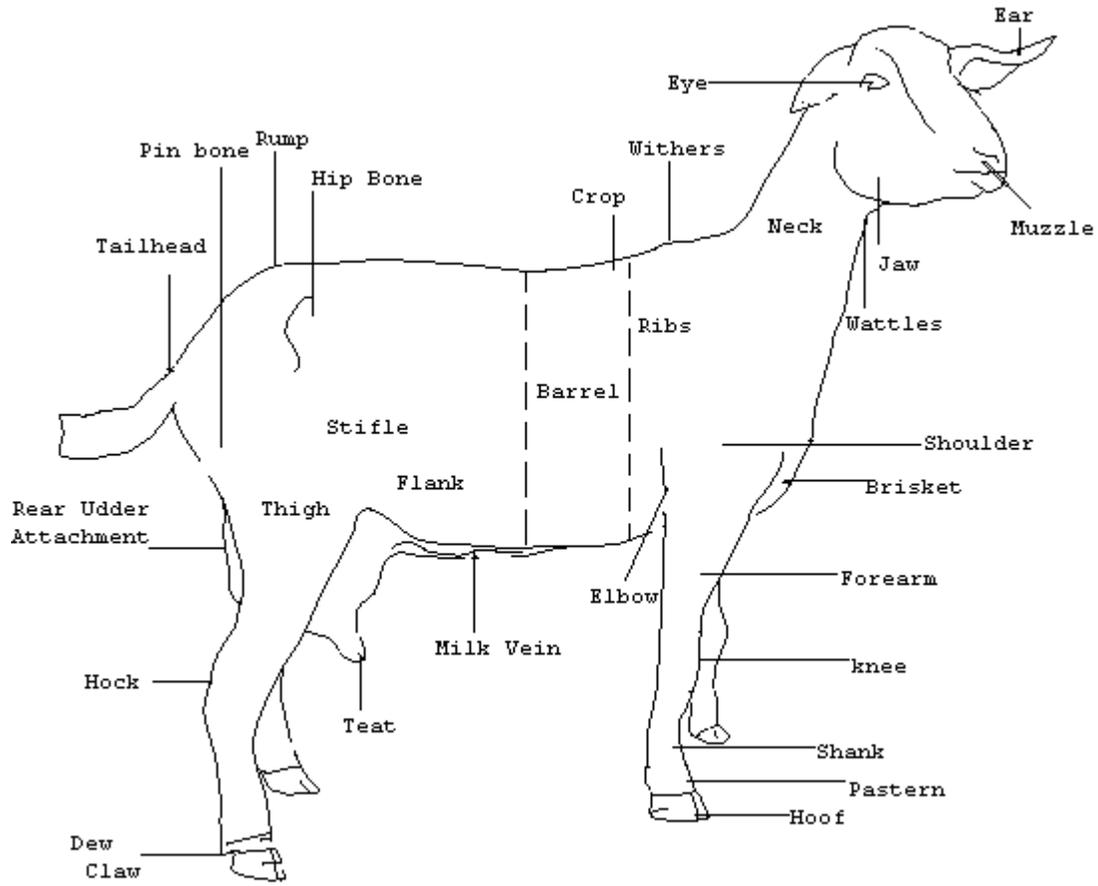
These are small, compact animals. Their legs, neck, and head are relatively short in relation to body length. Their body circumference in relation to height and weight is proportionally greater than that of other goats.

Pygmy goats are hardy, alert, and playful. They have even temperaments and love company, either human or goat. Their coat of straight, medium length hair varies in density with seasons and climate. Females may be beardless while adult males should display abundant hair growth with a full, long, and flowing beard and a large mane that drapes cape-like across the shoulders.

All colors are acceptable, but the most common is a grizzled, salt and pepper pattern of any color. Common colors are blue, agouti (speckled), black agouti, caramel, and white agouti.

The female is considered mature at 24 months and the male at 30 months. At that time, females and males should have a minimum height of 16 inches.

Parts of a Dairy Goat



Swine

Many farmers have special buildings for farrowing, or the birth of baby pigs. These are called farrowing houses. The farrowing houses allow the female pigs, or sows, and her litter to stay comfortable. If the female has never had babies she is called a gilt. Male pigs are called boars and castrated males are called barrows. The sow gives birth in a long narrow stall called a farrowing crate. This prevents the sow from accidentally laying on her babies, or piglets, but does allow the sow free movement. The farmers must carefully watch the sow and piglets to prevent illness. The piglets are given shots to help them stay healthy. The sow can give birth to two or three litters of pigs each year, and each litter will average about 8 piglets.

Piglets have very sharp teeth which are often clipped to prevent injury to the other pigs and to the sow's udder. Their tails are clipped off also to keep the pigs from fighting and chewing on each other's tails. When pigs are two months old, they are weaned from their mother. The baby pig rapidly gains weight on a diet of corn and supplement. Plenty of fresh drinking water must be available at all times.

Hog feed is usually cracked corn and supplement. When pigs are about six months old they are ready for market and weigh about 200-220 pounds. However, most packing plants prefer hogs which weigh 230 pounds. There are specially made feeders which the hogs get fed in. Hog feeders have hinged flaps around the bottom which the pigs can lift with their snout or nose when they eat their food. The doors or flaps keep the feed dry and prevent the pigs from walking in their food.

There are many different breeds of hogs. The most common breeds in Indiana are: Hampshire, Yorkshire, Duroc, Spots, Chester Whites, and Poland China.



Swine Breeds

HAMPSHIRE:

The Hampshire is well-known and is easily recognized. It is a black hog with a white belt around the shoulders and the front legs. It is known for producing a long lean carcass, they are good mothers and gain weight rapidly.

DUROC:

The Duroc is noted for its excellent rate of weight gain per pound of feed eaten. Duroc sows mature early, have large litters, and are good mothers. The Duroc is considered a good meat-type hog.

CHESTER WHITE:

The Chester White breed is noted for its mothering ability, large litters, and having a carcass with large hams. Chester Whites need more shade than other hogs because their white skin burns easily.

SPOT (SPOTTED POLAND CHINA)

The Spot breed was developed for, and has achieved an excellent rate of gain and carcasses with heavy hams. Feeder pig producers prefer Spots because of their hardiness.

YORKSHIRE:

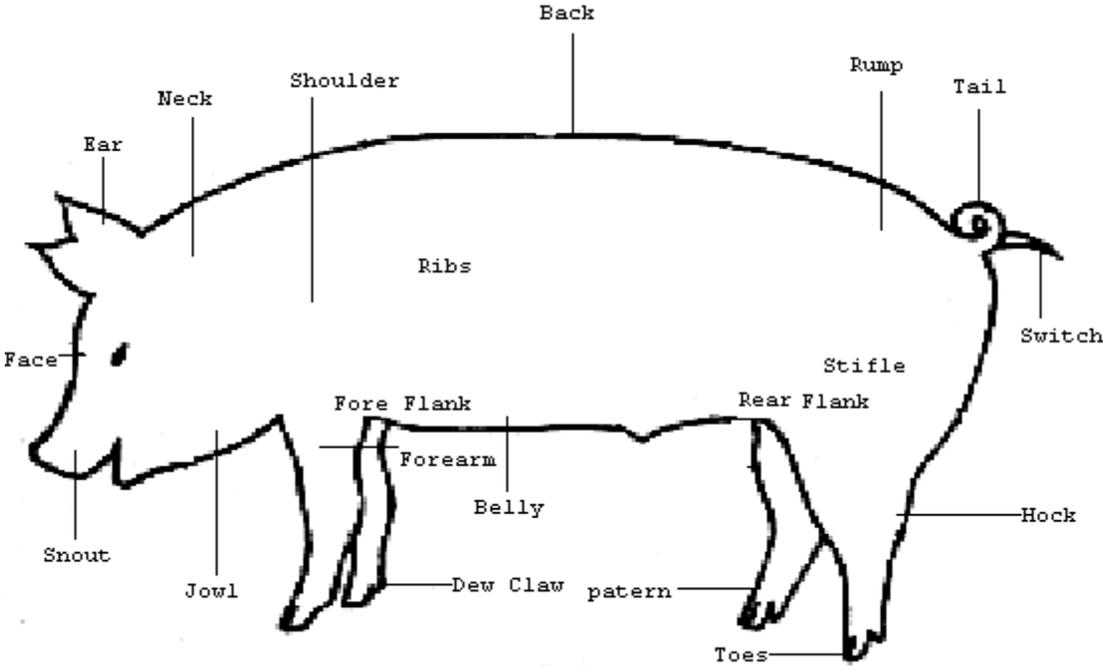
The Yorkshire hog has a good rate of weight gain per pound of feed, and its carcass yields a high percentage of meat. The Yorkshire is sometimes called the mother breed because the sows have large litters and are an especially good mothers.

POLAND CHINA:

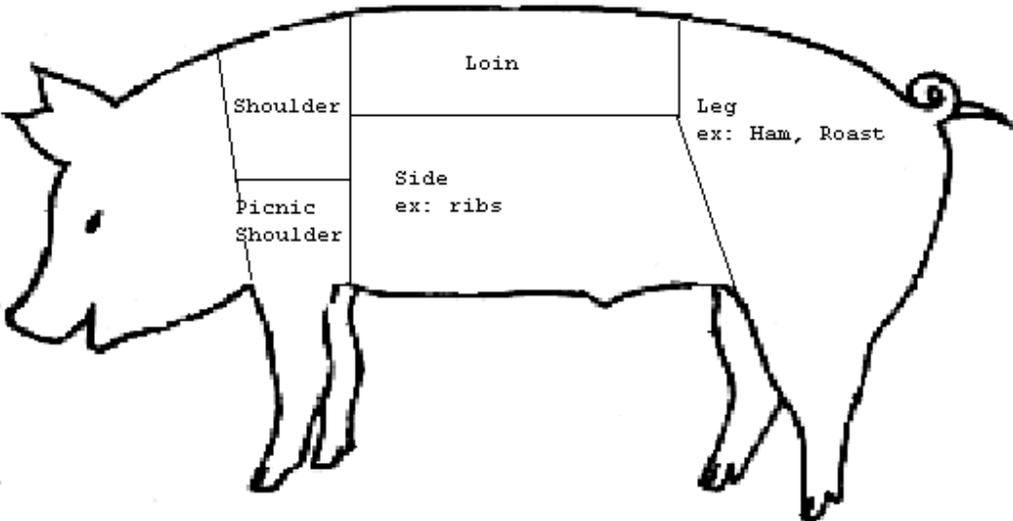
The Poland China hog is black except for its face, feet and tip of its tail, all of which are white. The breed, which was developed in Ohio and has no Polish ancestry, is favored for its heavy ham carcass and for reaching market weight rapidly.

It should be noted that many farmers breed cross bred hogs in order to achieve special qualities. Crossbred hogs may grow faster, have more pigs per litter, and may be more hardy.

Parts of a Live Hog



Cuts of Meat from a Hog



Sheep

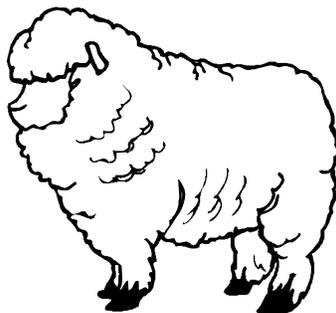
Sheep are among the most important animals that man has tamed because they provide both food and clothing. Sheep are raised in all parts of the world, but Australia is the largest producer. In the United States, Texas and Wyoming are the leading states, with about 4 and 1 million sheep raised respectively. In Indiana only about 75,000 head are raised.

Sheep vary greatly in size with ewes weighing from 100-200 pounds and the ram weighing up to 300 pounds. Sheep have hooves which are divided into two toes. Their ankles are slim with muscular upper legs for moving quickly and easily.

Sheep can bite off grass much closer to the ground than cattle. When they finish grazing an area, very little plant life is left. This is one reason the sheep and cattle farmers in early United States history did not get along.

Sheep can live about 13 years. They begin breeding at two years of age and have their young in the spring. They usually have two lambs. The gestation period is five months.

There are 15 to 20 different kinds of sheep. Some are better for their quality and quantity of wool than others. The Merino sheep are prized for their wool. However most of the sheep raised in Indiana are Dorset, Cheviot, Southdown, Shropshire, Suffolk, or Hampshire. All of these are dual purpose animals for their meat and medium grade wool.



BREEDS OF SHEEP

DORSET:

This is a medium-sized breed developed in England; the only major breed in which both rams and ewes are horned. It has been introduced into many areas of the United States, although it has failed to gain widespread popularity here.

CHEVIOT:

This is a medium-sized breed with rams weighing about twice as much the females. It is a white face sheep that is still common in the United Kingdom.

SOUTHDOWN:

It is a small sheep, the most thick set of all breeds, and it is valued for the meatiness of the lamb carcasses. The wool is of medium length and fine grade; it varies in color from grey to brown on the face and feet. It was first imported to the United States in 1803 and has found acceptance in farm flock areas.

SHROPSHIRE:

The Shropshire is of medium size, has a dark face, is prolific, fast growing, and produces a good grade of mutton and wool. Because of its adaptability, this breed has spread widely over the world.

SUFFOLK:

This breed is a relatively large breed, developed in England, and well-known for its high quality meat. Considered to be a recent introduction to the United States, the breed has many desirable qualities and is becoming widely accepted here. Suffolks have bare heads with no horns, black faces, and bare black legs.

HAMPSHIRE:

Hampshires are large in size, hornless, have black faces and legs, and are characterized by rapid growth. Recognized as one of the most popular meat breeds, they are raised all over the world on farms and ranches, and are one of the leading breeds in the United States, particularly in Kentucky and California.

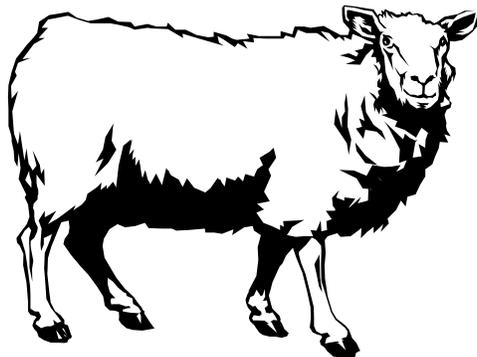
Wool

People wear wool clothing to keep warm in winter and cool in the summer. Wool absorbs moisture without feeling wet to the skin. Most wool we wear comes from domestic sheep. The Merino sheep produces as much as 28 pounds of wool, but most fleeces (the wool sheared at one time) average 10 pounds. This should all come off in one piece. The wool is sheared in the spring.

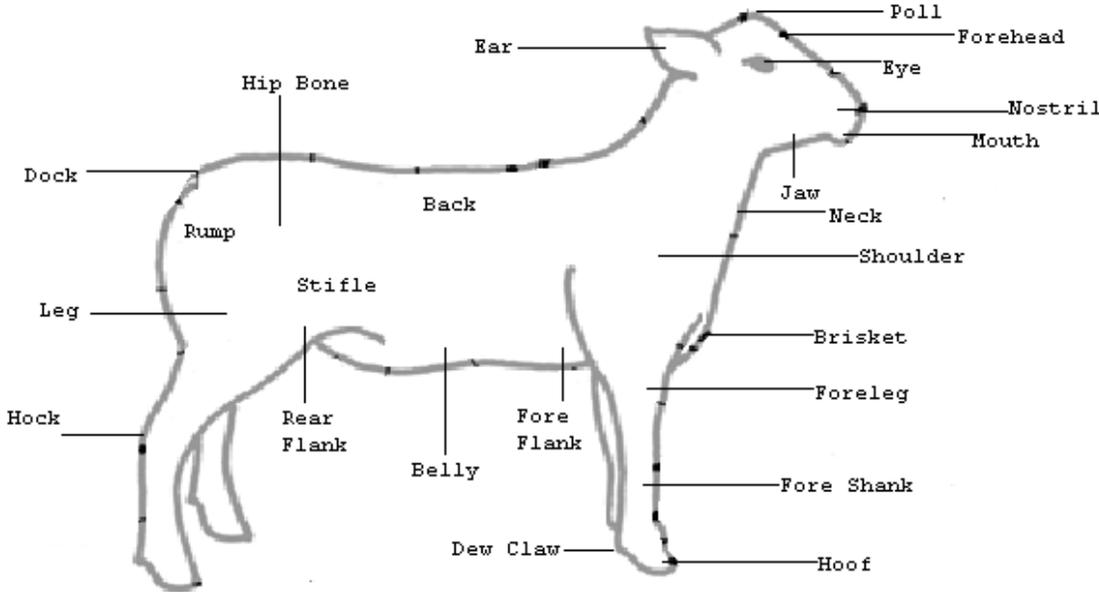
An average man's suit uses three and one half pounds of raw wool (as it comes from the sheep). Lambs wool comes from the first shearing of a young sheep at the age of eight to twelve months. This is a very soft, and desirable wool.

Wool from healthy sheep has a protective film called "yolk". This oily substance contains "lanolin" and "swint" (the dried perspiration of the sheep). Wool is marketed by condition and quality. Condition refers to dirt and grease. Quality refers to the fineness, strength, and length of fibers.

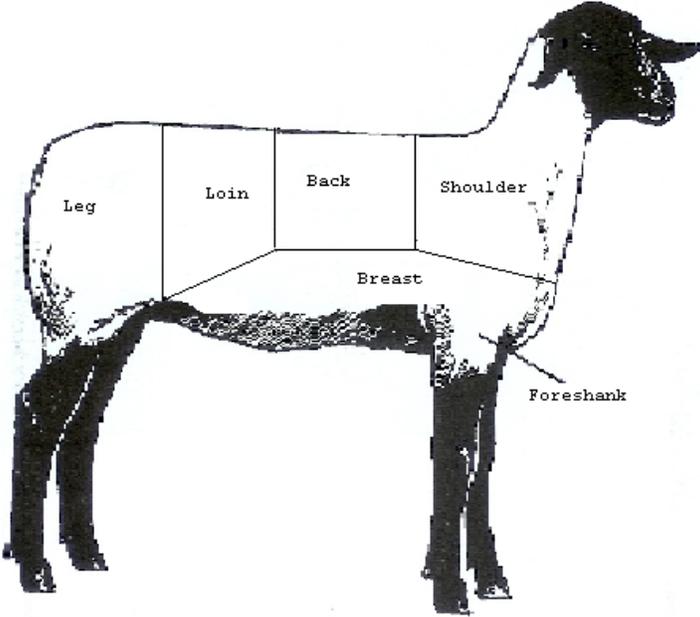
Scouring of wool is necessary to remove dirt and grease. The wool passes through four or five vats of soap and water during this cleansing process. After being cleaned, it is carded by passing through rows of teeth to straighten and blend the fibers into a flat band. The band is then made into yarn and is ready to be made into fabric.



Parts of a Live Lamb



Cuts of Meat from a Lamb



RECORD SHEET

MINI 4-H LIVESTOCK DIVISIONS I & II

Name _____ Age _____

Address _____ Division _____

City _____ Zip Code _____

School Attending _____

Please answer the following questions. Attach this completed record sheet to the back of your poster.

I read all of this book. _____

Activities from the ACTIVITY PAGE I completed are:

1. Activity: _____ Date Completed _____

Describe: _____

2. Activity: _____ Date Completed _____

Describe: _____

3. Activity: _____ Date Completed _____

Describe: _____

4. Activity: _____ Date Completed _____

Describe: _____

5. Activity: _____ Date Completed _____

Describe: _____

What did you like most learning about the Livestock in this book? _____

List the People who helped you with this project: _____

We hope you enjoyed working with your Mini 4-H Large Animals project. Keep up the enthusiasm and when you are in the third grade you can have more fun by joining a 4-H club, and continue with the Livestock project or enroll in other projects.

If you have any questions with your Mini 4-H project you can call or stop in the Extension Office. Our phone number is 736-3724 and we are located in the Wright Building, 80 S. Jackson Street, in Franklin.