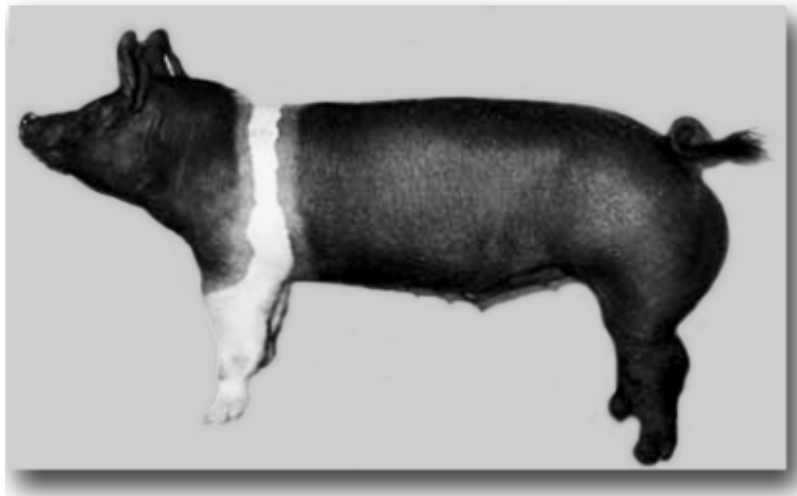


# Colorado 4-H Raising and Showing Market Swine Member Manual MA3114

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Club \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Age as of December 31st \_\_\_\_\_

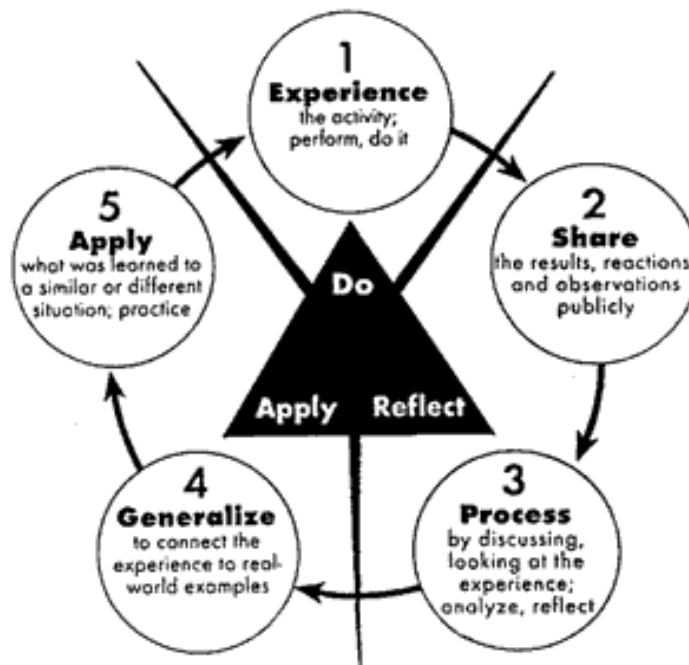
County \_\_\_\_\_

## A youth manual for market swine projects in Colorado

Developed by

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The 4-H program has adopted a process that allows youth to first learn by doing before being told or shown how and then process the experience. The experiential learning model developed by Pfeiffer and Jones (1985) and modified by 4-H includes five specific steps:



1. Participant(s) **experience** the activity - perform or do it.
2. Participant(s) **share** the experience by describing what happened.
3. Participant(s) **process** the experience to determine what was most important and identify common themes.
4. Participant(s) **generalize** from the experience and relate it to their daily lives.
5. Participant(s) **apply** what they learned to a new situation.

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## Table of Contents

### Section I – Starting a Market Swine Project

Introduction.....	4
The Decision.....	4
Setting Project Goals.....	5
Developing a Time and Money Budget.....	5
Designing a Marketing Plan.....	6
Facilities.....	7
Record Keeping.....	9

### Section II – Raising Market Swine

Breeds of Pigs.....	10
Conformation.....	14
Muscling, PSS, and Finish.....	15
Structure.....	16
Nutrition .....	16
Health.....	20

### Section III – Fitting and Showing Market Swine

Fitting and Showing.....	23
Ear Notching.....	24
Training. ....	24
Showmanship.....	25
Fair and Show Day.....	26
Junior Livestock Auction.....	28
The Final Product.....	28

Appendix 1 - Sample Budget

Appendix 2 - Animal Health Note Card

Appendix 3 - Cuts of Pork

Appendix 4 - National Animal ID and Meat Quality Assurance

Appendix 5 – PQA Plus 10 Good Production Practices

## ***Section 1 – Starting a Market Swine Project***

### **Introduction**

The Colorado Market Swine project is a great way for members to become involved in raising and showing swine, although Colorado does not have a significant pork production system. Some of the advantages to raising market swine are:

- Small Initial Investment
- Quick turnover of several months, compared with a year or more in other projects
- Minimal space requirements
- Low cost for housing and equipment
- Large potential to expand

*Should you raise market swine?*

Raising a market pig is a full-time responsibility. You will need to care for your pig twice a day everyday during all types of weather. Your pig will require feed and fresh water at all times and careful feeding to assure it is the correct weight to be shown at the fair. It will also need regular exercise, training, grooming, and companionship.

### **The Decision**

Once you and your family have decided to begin a market swine project and are committed to the responsibility of owning an animal, there are several more steps that need to be completed in order to prepare yourselves. Make sure you answer the following questions with help of other club members or your 4-H leader to assure that you are well prepared for your market swine project.

1. What kind of goals do I have for this project?
2. How much time and money do I want to invest?
3. How do I plan to market my pigs?
4. What are my facilities suitable for? Do they need improvement?
5. What kind of pigs do I want to raise? i.e. type, breeding or market animals.
6. How many animals can I feed at one time?
7. Do I have the resources available to provide proper health care?
8. Am I comfortable with selecting animals to purchase?
9. What classes are available at my local fair?
10. How can I transport my pigs?

A great way to gather information is to attend and observe a pig show. During this time, you can see first hand some of the work and commitment that is part of this project. In addition, this is a great chance for you to meet and talk to exhibitors and producers. Most of these people are happy to share their thoughts and suggestions. It is important to develop good relationships with the other producers in your industry in order to form a strong network of people to learn from and share ideas with.

## Setting Project Goals

As in life, setting goals is invaluable to your market swine project. The goals that you set will determine the direction that your project takes. Evaluate why you are choosing this project. If you are not interested in a long-term commitment, a sensible goal could be to compete only at the county fair with your market animals. No matter what goals you decide upon, commit yourself to developing a detailed plan to accomplish your goals. It is helpful to include your goals as part of your record book. An accurate, up to date, record book aids in measuring your project's success. Remember that short-term goals, such as learning to groom a pig properly, should help you to reach your long-term goals such as showing at the fair.

Long Term Goals:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Short Term Goals:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## Developing a Time and Money Budget

The market swine show industry is very popular. A market swine project includes purchasing a young pig after it has been weaned from its mother, usually at around 3 weeks old. The project member then has the responsibility of feeding and caring for that animal until it is ready to be shown and marketed. An important advantage to this part of the project is that a 4-H member can purchase a young pig, feed it out and sell it in a matter of a few months. This shorter time period and lower investment makes this project appealing to new members.

After deciding the amount of time and money that you are able to invest, it is helpful to develop a budget in order to measure your success and provide a guideline for your project. A sample budget is provided in Appendix 1 of this manual.

## **Designing a Marketing Plan**

It is important to remember that a 4-H swine project is similar to running a business. Like any good business, a project member must know where the products will be sold. The process of getting products to the point where it can be sold or used is called marketing. The place where that occurs is referred to as a market.

The type of market you target depends on the type of project you decide to pursue. There are several different marketing plans that can be used. It is important that individual project members design the marketing plan that will be the most effective for that specific operation.

Each project member has the choice to participate in developed markets or create a “niche market”. Several existing markets are defined below. While making a marketing plan it may be helpful to use these options as general targets. However, it is still necessary to define the specific targeted market. This is done by defining the desired customer, creating a demand calendar, and determining the optimal product.

- **Show Prospect Markets** – selling pigs to your fellow 4-H and FFA members
  - **Advantages:**
    1. Prices are normally fairly stable.
    2. Pigs shown in the different shows provide publicity for the producer.
    3. Pigs are sold at young age, so income is more immediate.
  - **Disadvantages:**
    1. This is only an outlet for those pigs that are high enough quality to be competitive in the show ring.
    2. The show ring is subject to trends and cycles. It is necessary to keep up with these in order to keep pigs in demand.
    3. You must keep several sows available to raise prospect pigs. This increases feed and breeding expenses.
- **Youth Livestock Sales** – This is a market for pigs that are exhibited in youth shows.
  - **Advantages:**
    1. The market is established.
    2. The seller usually gains a premium over market value.
  - **Disadvantages:**
    1. Buyers can be limited and therefore may not be willing to pay premiums.
    2. The seller will have to find buyers.
    3. There is no guarantee that your animal will be accepted into a Junior Livestock Sale (have to “make the sale”)

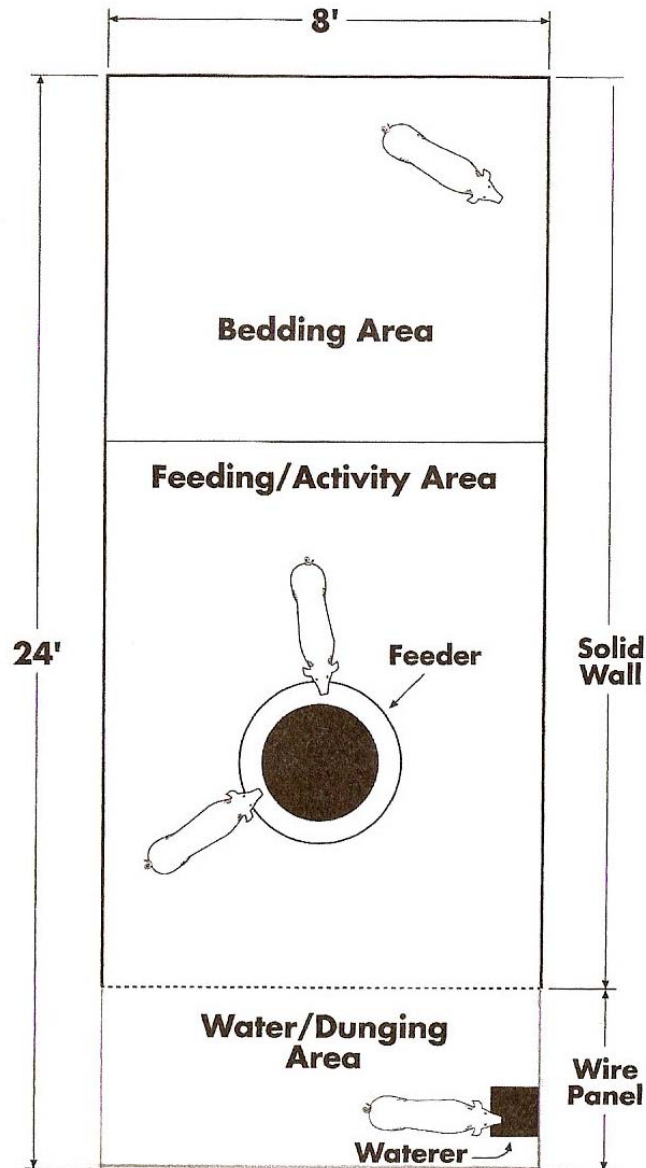
## Facilities

For optimal growth and performance, your pig needs adequate space. Proper facilities are relatively inexpensive and simple to set up. A good sized pen will be 6 feet by 12 feet. If possible, pens should be set up in a rectangular shape because pigs will “toilet train” there better than in square pens. A small 3-sided building with a sloped roof will make a good shelter for your pigs. Pigs need a shaded area, as pigs do not have sweat glands. The following is a list of other considerations for your project:

- The sleeping area needs to be cool in the summer and warm in the winter, it should also be dry and draft free.
- Bedding area should not be too large; otherwise pigs will use it as the manure area.
- Pigs need to have access to shade in the summer.
- Keep waterers clean and filled with fresh water.
- The ideal temperature for a growing pig is 60-75 degrees. Bedding can be used if the temperature falls below ideal. Water and ventilation can be used when the temperature is above ideal.

A diagram taken from the Ohio State University Swine Resource Handbook is shown on page 8.

## Example of Facility for 2-3 Market Pigs



Source: Ohio State University Swine Resource Handbook



## **Record Keeping**

The best way to measure progress in your project is with record keeping. As discussed earlier, all livestock projects should be similar to a business. The ultimate goal for each of the livestock projects is to produce some sort of product. The product may be milk, fiber, or meat. The best way to make sure that the business is producing the highest quality products with the lowest costs is through record keeping.

Records will help you to keep track of expenses and income and assist you in measuring the genetic and physical progress of each animal. Individuals tend to keep records using their own methods. Whichever method works best for you; make sure to include all useful information.

Record keeping can be made easier with a computer. It may be helpful to look for existing computer programs or develop your own spreadsheet. The following checklist has the type of information that you need to establish and maintain for each project.

Check with you local Extension office for the latest record book. It is important to complete the correct record book in order to finish your project.

### ***Record Keeping Information Checklist:***

- Expenses
- Income
- Animal Inventory
- Feeding Records (i.e. amount and type needed)
- Animal Health Records
- Breeding Records
- Birthing Records
- Weaning Weights
- Weight Gain
- Goals

## **Section II – Raising Market Swine**

### **Breeds of Pigs**

There are many different breeds of pigs to choose from for your market swine project. The most popular breeds of pigs for 4-H projects are:

#### **Berkshire**

Berkshires originated in Berkshire County in England. The body is black with white feet, tail and a little white on the face. They have excellent meat quality. Their ears are short and erect.



#### **Chester White**

Chester Whites are an American breed, originating in Chester County, Pennsylvania. The breed developed when breeders crossed White English pigs with local pigs. They are all white and usually large. They are known to be good mothers. Their ears are medium sized and droop down over their eyes.



## **Duroc**

Duroc is also an American breed. They are the result of crossing New York and New Jersey red pigs. The Duroc name came from a famous stallion that was kept on the farm of a Duroc breeder. Durocs are solid red; the shade can range from light to dark. They also have droopy ears and grow quick and efficiently.



## **Hampshire**

Hampshires originated in Hampshire County in England. They have a black body with a white belt around the body. The requirement for the belt width is no more than two thirds of the body length. The forelegs are white; the hind legs can be white as long as the white does not go past the hock. They are recognized for their heavy muscling. Boars make great sires. Their ears are all black and erect.



## **Poland China**

This breed originated in Butler and Warren counties in Ohio. They are usually all black with six white points. The six points are all four legs, the tail, and nose. They are lean and heavy muscled. Their ears are black and droopy.



## **Spot**

This breed was originally called the Spotted Poland China. It looks similar to a Poland China, but has more white on its body. They have droopy ears, are known to gain weight well, and for being an aggressive breeder.



## **Yorkshire**

Yorkshires originated in England with two different breeds, Large and Middle Whites. The Yorkshires that are used in the United States are usually from the Large Whites Breed. They are all white with long bodies and erect ears. The hairs on these pigs are white however they can have some black pigment on the skin. This pigmentation is discouraged. The sows produce large litters and are know as a mothering breed.



## **Landrace**

Landrace are one of the newer breeds of pigs. They are descendants of Danish Landrace pigs. The American Landrace is all white with a long body. They resemble the Chester White with a longer body and snout. Their ears are droopy similar to the Chester White. They are also known for being good mothers.



Source for breed images: [IowaPork.org](http://IowaPork.org)

While no one breed of swine is superior to others for 4-H market pigs, crossbreeds have some advantages over purebreds. This is because of heterosis, which combines certain characteristics, and contributes to making a superior animal. Crossbreeds are very popular at market shows due to combining the advantages of two or more breeds.

There are additional breeds of pigs, which may be exhibited as market swine.

### ***Selecting a Feeder Pig***

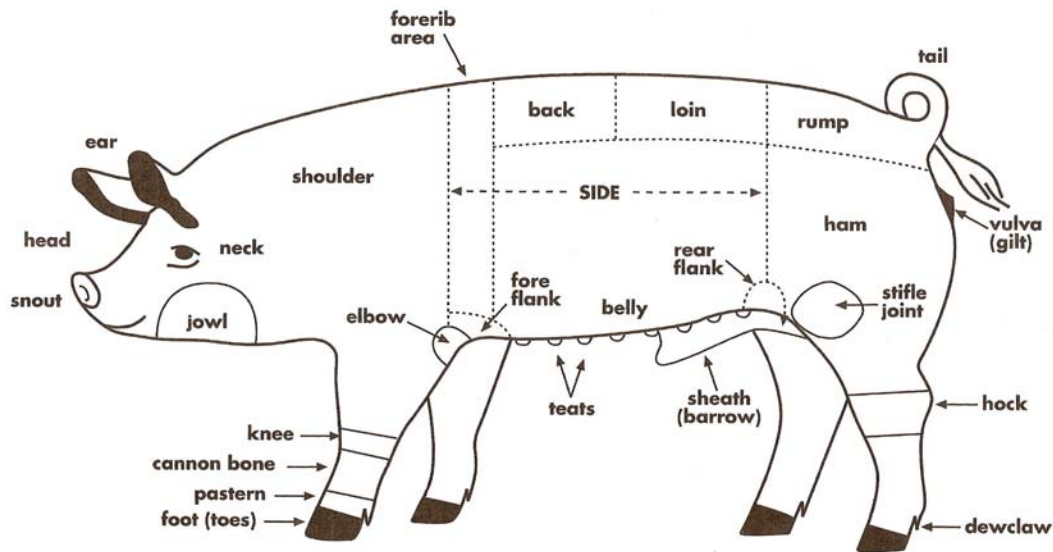
When selecting a feeder pig be sure to keep the breeder in mind. You want to buy from a reliable source. Choose a healthy pig that has the potential to grow efficiently. Remember consumers like to eat lean pork with out the waste of fat and bone. You will want to look for pigs that are big for their age with good leg structure. They should also have muscular backs and large hams even when they are young. Starting with a high quality animal will increase the potential for a high quality carcass.

### **Conformation**

Conformation is the overall appearance of the pig. Factors that contribute to the pig's conformation are skeletal structure and body conformation. These traits contribute to the pig's growth. Good muscle development in the ham is essential.

The ideal pig combines muscle, leanness, growth, volume and structural soundness. There are several essential parts to good conformation:

- 1) Deep bodied
- 2) Long sided
- 3) Large framed
- 4) Long smooth muscling
- 5) Stands wide
- 6) Natural thickness over the top
- 7) Thick and plump ham
- 8) Level top
- 9) High tail setting



Source: Ohio State University Swine Resource Manual

### **Muscling**

Muscling on a pig is best evaluated in the ham and loin area. In this area the muscle structure should be long and smooth. This allows the pig to have an adequate amount of muscling while still being able to move freely. The hind legs should have some distance between them to show the muscling in the ham.

### **Porcine Stress Syndrome**

Pigs with extremely thick muscling can be carriers of Porcine Stress Syndrome (PSS), contributing to the susceptibility of stress. When pigs with PSS are put in stressful situations they can go into shock, which can lead to death. If the pig survives the carcass will have pale, soft, and watery meat.

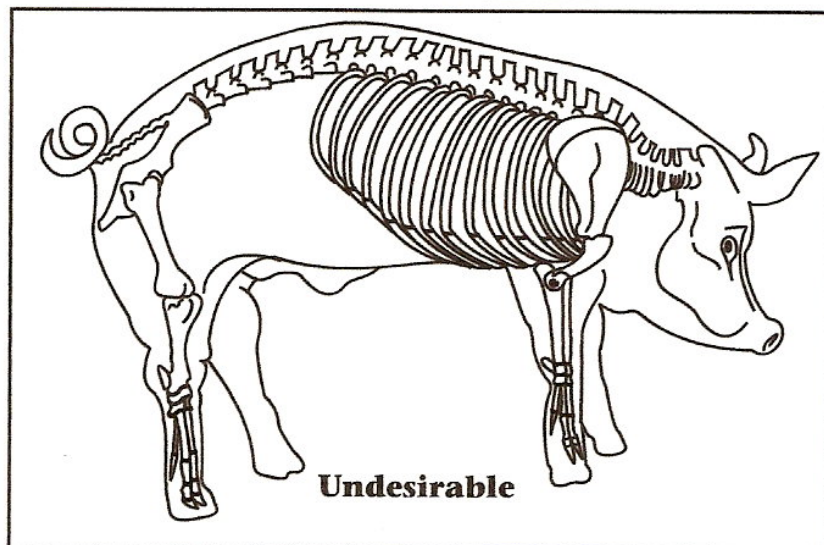
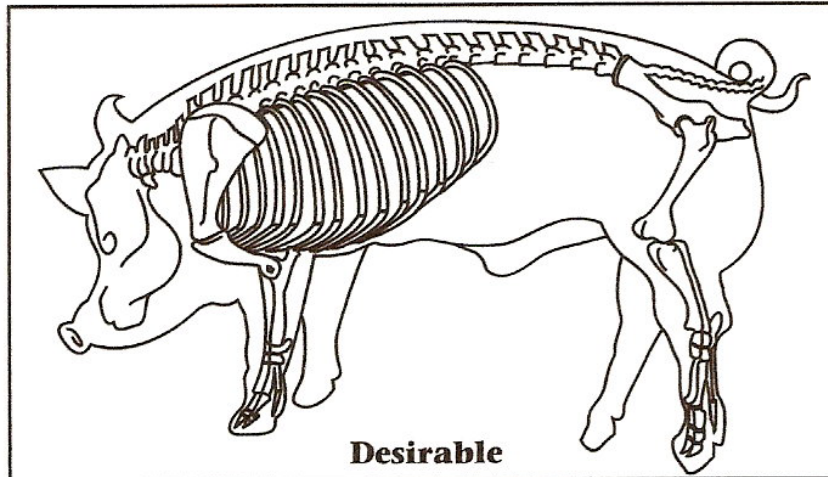
### **Finish**

Trace amounts of finish or fat are good in market swine. The best places to determine the amount of finish on a pig are along the back (back fat), the loin, the flank, and the jowl.

## Structure

To have a high quality animal, it must be structurally sound. A sound pig will be flat along the top with a level rump and a high set tail. The shoulders should be angular to allow for flexibility.

As with most animals, soundness of the feet and legs are very important. The legs should have a slight slope to them, providing cushioning when the animal walks.



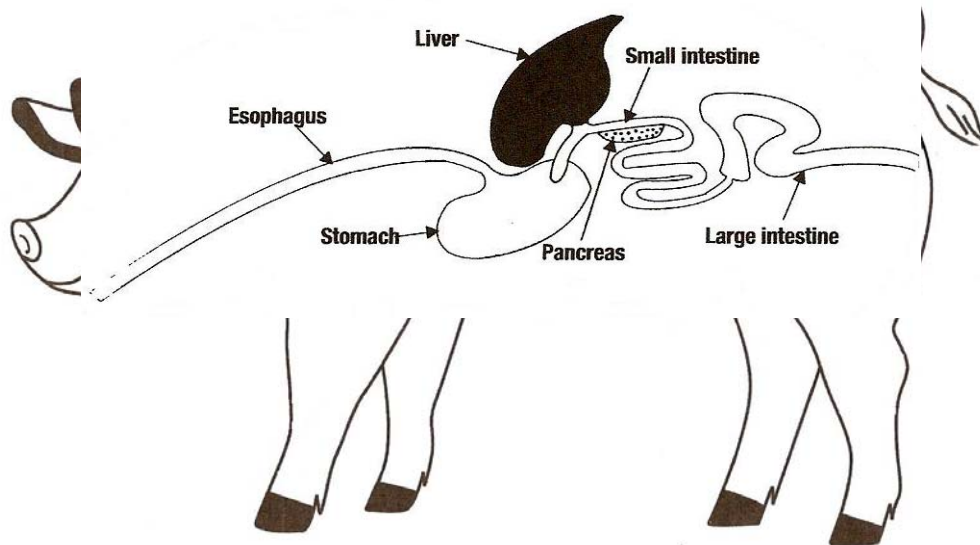
Source: Texas Cooperative Extension Swine Project Guide



## Nutrition: The Cornerstone of your Market Swine Project

### *The Digestive System*

Pigs have a digestive system that is very similar to ours. They have a single stomach and are called monogastrics. Pigs, like humans, begin digesting food in their mouth, their teeth breaking it down so it is easier for the stomach to digest. Once in the stomach, digestive enzymes break the food down so that it can be absorbed and enter the blood stream. The remaining food then travels through the small intestine where it is further broken down and more nutrients are absorbed. The feed that remains is then passed through the large intestine and excreted through the rectum.



### **Nutrients**

There are five nutrients that are essential to your pig's well being

1) **Water** - Nearly two thirds of the body is water. This is true for humans as well as animals. Water assists the body in digesting food and carries nutrients throughout the body. It also helps get rid of wastes and aids in temperature regulation. It bears to be repeated that fresh, clean, and unfrozen water must be available to your pig at all times!

2) **Protein** - Proteins are like building blocks. They are the foundation on which the rest of the body is built. They are used to build muscle, blood, organs, and the skin. An animal can also use protein as an energy source. Meals like soybean or fishmeal are high in protein. Simple grains like corn and barley tend to be lower in protein.

3) **Carbohydrates** - Carbohydrates are the main energy source of the body. The energy produced by carbohydrates makes chemical reactions that help turn the feed the pig eats into muscle, or meat. The body stores some of the energy from carbohydrates as fat. Sugars and starches are carbohydrates. Corn is a feedstuff that is high in carbohydrates.

4) **Fats** - Fats are a great energy source. Fats supply more than twice as much energy than an equal amount of carbohydrates can. Fats are helpful in keeping weight on slow gaining animals or during very cold weather. In most cases though, only small amounts of fat are needed in the diet.

5) **Vitamins and Minerals** – Vitamins help the animal use other nutrients. Minerals help make bones and teeth strong. Salt, calcium, phosphorus, magnesium, Vitamin E, and biotin are all examples of important vitamins and minerals in the diet. Pigs are the most likely to suffer from mineral deficiency. This is because they are fed rations with high concentrates and low roughages. Concentrates are low in minerals so minerals must be provided by a supplement.

### ***What to Feed Your Pig***

Pigs should be fed mostly concentrates, because they are monogastric animals. Concentrates are feeds like corn and oats. They are made up of sugars and starches that are easily digested by pigs. Roughages like alfalfa and grass hay are used very little in pigs rations. Roughages are fibrous and a pig's digestive system cannot easily digest them.

In most towns and cities, you can find a feed store that sells a ration formulated specifically for growing market swine. Generally, this is called a "grower" ration. Later in the feeding period, you will feed your pig a "finishing" ration. These feeds are formulated to meet your pig's needs. Premixed rations contain ingredients such as corn, soybean meal, sources of calcium and phosphorus, and a vitamin/trace mineral pre mix.

You can also formulate your own feed using different ingredients, but keep in mind that the companies who formulated the commercial feed rations spent many years learning how to do so. Formulating a ration can be very complicated, and the easiest and most surefire way to feed your pig is by using a commercially produced ration and following the directions on the label.

## ***Feeding***

Feeding your pig to the correct market weight is the cornerstone of your market swine project. If your pig does not make weight to show at the fair, then your hard work and time will not matter.

Unlike other animals, pigs should be self-fed. Self-feeding allows the pigs to eat as much as they need. This helps the pig to grow as quickly as possible.

You should start your pigs on a good growing ration, referred to by many feed manufacturers as a grower feed. The grower ration should be at least **16% protein**. If your pig was eating a starter ration before you received it, continue feeding the same brand, slowly mixing in more grower ration. Mix the ration to be ½ starter ration and one ½ grower ration. Gradually increase the amount of grower ration a little everyday while decreasing the starter ration. This will make the feed change easier on the pig's digestive system.

## ***How to Make Weight for the Fair***

Making weight will determine if you are eligible to show your pig. There are two methods for determining the projected growth of your pig. Your pig should weigh between 225-285 pounds at fair time.

1. Using Age- pigs usually require around 186 days to weigh 250 pounds, which is a good weight for fair. Begin by counting backwards from the weigh-in date. Lets say your fair is at the end of July; you will need to purchase a pig born in late January to mid-February to make weight.
2. Using Size-The Average Daily Gain (ADG) for most market age pigs is 1.48 pounds per day. Using this method you must figure how many days until the show. If your show is in late July your pig will need to weigh about 50 pounds in mid-March. If your pig was purchased in April it should weigh about 70-100 pounds.

It is a good idea to select a pig that is a little heavier rather than lighter for its age. This is because it is easier to manage heavy pigs than it is to expect above average daily gains on light pigs.

Just because you do these calculations on paper does not make them work for your pig. It may be impossible for your pig to eat enough of the ration it needs to meet daily gain goals. Other factors such as extreme heat, illness, and stress can affect your pig's daily gain. It is important to weigh your pig often!

Pigs will need to consume 4-5 pounds of feed to gain one pound. You will need to feed your pig for about a week to figure out how much it is gaining on the ration you are feeding. You should weigh your pigs once a week so you can determine their ADG. Once your pig has reached 180 pounds you must determine if it will make the fair's

weight requirements. If your pig's ADG indicates it will be over or under weight, it is best to know in advance so that you can make the needed changes. You may need to limit your pigs feed intake or add supplements to the ration to increase weight gain.

### ***How to Calculate Average Daily Gain (ADG)***

Average daily gain is the amount of weight gained each day.

$$\text{ADG} = \frac{\text{Present Weight} - \text{Previous Weight}}{\text{Number of Days Between Weighing}}$$

### **The Health of Your Pig**

Temperature:	101 degrees
Heart Rate:	60 to 80 beats per minute, faster for piglets
Respiration Rate:	30 to 40 breaths per minute, faster for piglets

For maximum health and growth, your pig will also need vaccinations, worming and possibly hoof trimming.

When you purchase your pig, ask the producer what each animal has been vaccinated for. If the pig was not vaccinated, make an appointment with your veterinarian to get the appropriate vaccinations for your pig or you can give them yourself if you have someone knowledgeable to show you the proper procedures.

Your pig will also need to be wormed, and treated for external parasites a couple of times during the feeding period. External parasites can cause a significant loss in income. If you notice that your pig is frequently rubbing against buildings, gates, or feeders, they probably have an external parasite. Hog louse can be identified by its dark body, which can be seen on the flank and abdomen of the pig. Lice suck blood through the skin causing itching. Lice will cause a decrease in feed intake on grower pigs because they spend their time scratching and not eating.

If your pig has a mite infestation you will notice raised skin with brown scabs near the neck and ears. The activity of the mites causes an increase in the skin temperature causing itching.

### ***Developing a Veterinarian/Client/Patient Relationship (VCPR)***

It is important to establish a good VCPR. Your veterinarian needs to be familiar with your facilities and what animals you own. This will allow them to better assist you when you need their medical assistance. There are two types of drugs available to you. The first is OTC (over the counter) and second is Rx (prescription), which can only be distributed by a licensed veterinarian. Once you have established a good VCPR, your vet may recommend using a drug in a way that is different from it's labeling. This is called Extra-label use. The only time Extra-label drug use is acceptable is when your veterinarian prescribes.

## ***Disease Descriptions:***

**Anemia** is a deficiency of iron in pigs. It often occurs when pigs are raised in confinement; pigs raised outside will get enough iron from contact with dirt. Symptoms are pale skin and gums, and loss of hair. Iron supplement should be provided for anemic pigs.

**Atrophic rhinitis** is a disease that causes complications in the snout. When severe it will cause the snout to become twisted or stubbed. When a bacterium causes the disease it slows the growth of the turbinate bones in the nose. Common symptoms are sneezing, sniffing, and coughing. It can be prevented by vaccination.

**Mycoplasma Pneumonia** is a chronic respiratory disease. It's most often seen in pigs after 3 months of age. Affected pigs have a dry non-productive cough. They continue normal consumption, but do not gain weight. Vaccinations and antibiotics can be used to treat pigs.

**Porcine Respiratory and Reproductive Syndrome (PRRS)** is caused by a virus. It causes premature farrowing in sows and respiratory problems in growing pigs. PRRS-infected pigs can have additional diseases that do not respond to treatment. It is brought into the herd by incoming infected animals. The best prevention method is to only purchase PRRS-negative pigs from PRRS negative herds.

**Pseudorabies (Aujeszky's Disease)** is caused by a virus and affects the nervous and respiratory systems. It is spread through direct contact between pigs at main entry points such as the nose and mouth. Pigs who recover can become carriers and infect other pigs and domestic animals, causing a "mad itch". Most states have zero occurrence, so when a herd is infected it must be quarantined.

**Swine Influenza (Flu)** is caused by a virus that causes a short but severe outbreak of respiratory problems. The outbreak often occurs after pigs have been sold or transported. Symptoms include heavy breathing and unwillingness to move. The flu has a fast onset with a spike in temperature. Vaccination to prevent outbreaks is the best known treatment.

**Transmissible Gastroenteritis (TGE)** is a very contagious viral disease. It causes a high death rate in young pigs because vomiting and diarrhea cause dehydration. Older pigs usually experience diarrhea and loss of appetite. The disease usually occurs in the winter. Vaccines and antibiotics are not effective. Prevention is key.

## ***Proper Administration Techniques***

It is very important to administer injections according to its label. The following are proper locations for injections.

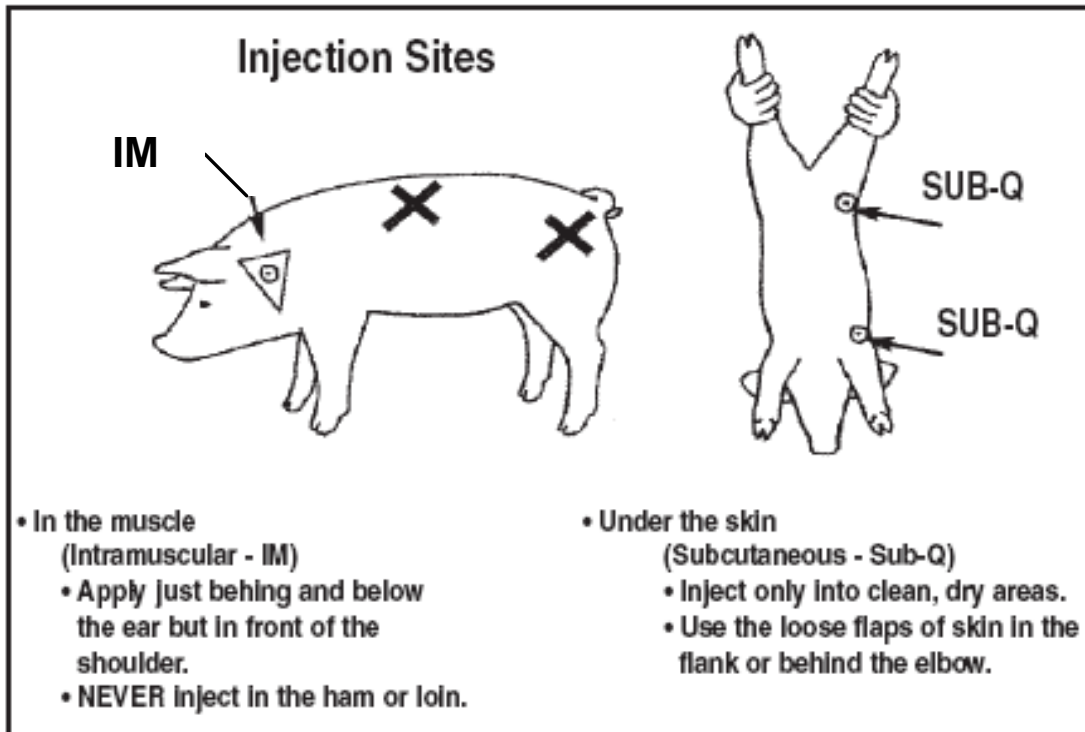
**Subcutaneous (SQ)**- injecting under the skin. The injection should be given behind the elbow or in the flank area.

**Intramuscular (IM)**- injected into the muscle. The injection should be given in the neck; behind and below the ears. NEVER inject into the ham or loin.

**Intravenous (IV)**- injecting into the vein. This type of injection should only be administered with the guidance of a veterinarian, because if done improperly it can injure the animal.

**Intranasal (IN)**- administered into the nasal passage. This is not an injection. The intranasal spray allows for quick absorption.

**Intraperitoneal (IP)**- injected into the abdominal cavity. It is injected directly into the stomach. This type of injection should only be administered with the guidance of a veterinarian, because if done improperly it can injure the animal.



Source: Texas Cooperative Extension Swine Project Guide

What to put in your first aid kit:

- 1) Thermometer (digital is best)
- 2) Syringes in several sizes
- 3) Needles
- 4) Gauze and wrapping material
- 5) Antiseptic solution and ointment
- 6) Electrolytes
- 7) Gloves
- 8) Safety scissors
- 9) Iodine
- 10) Probiotic paste or powder
- 11) Phone numbers for veterinarian and Extension Agent.

## ***Section 3-Fitting and Showing Your Pig***

### **Fitting and Showing Your Pig**

Fitting and grooming your pig cannot all be done right before the show. It is a process that should begin the day you purchase your pig so that it gets use to you and the process. Here are a few pointers to help you get started:

- Brush your pig daily. Brush hair back and down. Create a part along the center of the pigs back so there appears to be a line along the spine.
- About two weeks prior to the show rub your pig with baby oil. This will help soften and smooth the skin.
- One week prior to the show, wash your pig with a mild soap. Make sure to rinse all the soap off so that it does not irritate the skin. Be very careful not to get water into your pig's ears.
- You may wish to clip your pig. If so you will need an adult to help you. You can clip the hair inside and outside of the ears and all the hair on the tail, leaving the last 2 inches. You may also clip hair around the eyes, nose, and mouth. To trim the underline, begin just above the teat line and work down. Clipping hair on the face and underline is acceptable.

Another part of your swine project is exercise. You are showing your pig as a market animal, which means for meat production. Meat is muscle, and exercise is necessary to produce muscle. One way to provide your pig with exercise without your help, is to put the waterer at one end of the pen and the feed trough at the other, so they must travel back and forth.

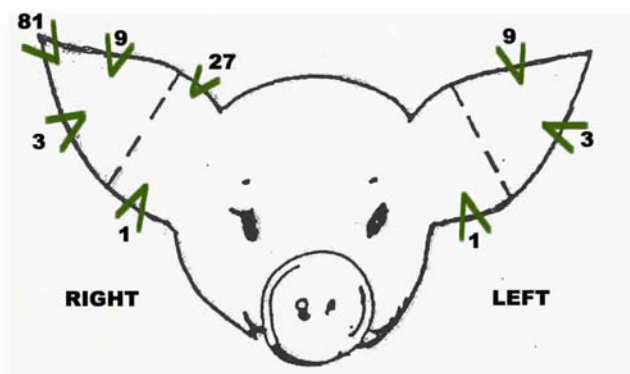
Exercise your pig twice a day beginning at least a month before the show. 30 minutes each time will help your pig learn to respond to your commands, build it's stamina, tone it's muscles, and shed excess fat. Exercising your pig daily will also allow you to identify any soundness problems early, know your pig's strengths and weaknesses from each side and decrease your pig's stress at the show.

There is no foolproof plan for an exercise program. It is important to develop a program that fits your situation. The main requirement for an exercise program is safety. Therefore, whatever setup you choose to use, make sure that the exercise area is free of harmful sharp edges and wires that might bruise or cause damage to your pig.

## Ear Notching

Part of good record keeping is tracking individual animals growth and care. Ear notching is the most common and universal type of pig identification. The notches are permanent and grow as the pig grows. Pigs are ear notched soon after birth to ensure immediate identification. Each number is unique to the individual pig. The notches in the pig's right ear represent the litter number; in the pigs left ear is the pig's number within each litter.

Each ear is divided into quadrants. Each quadrant represents a number that makes identification simple. There should not be more than two notches in each quadrant.

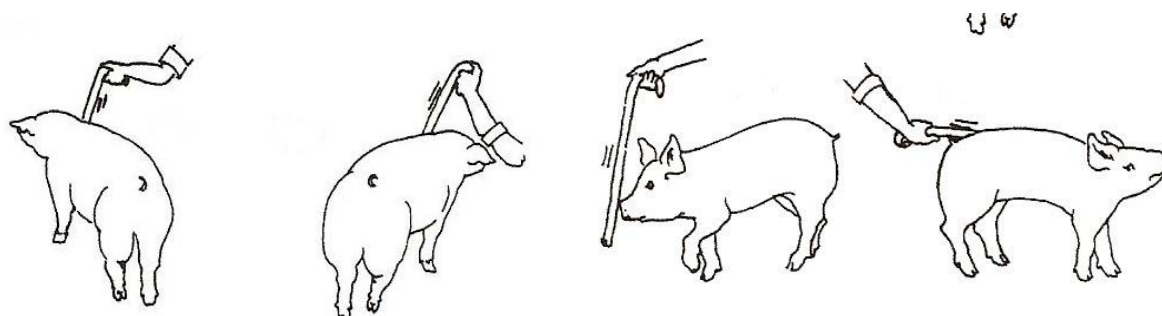


Source: Colorado Youth Meat Quality Assurance

When reading ear notches the first number is the litter number, the second is the pig number.

## Training the Pig for Show

Start training your pig as soon as you get it home. Begin by training it to respond to a cane or whip so that you can show your pig to the judge. You want your pig tame enough you can touch it without stress. If you have access to a show ring that is indoors practice a few times there so your pig is accustomed to being indoors.





## Showmanship

*TURN LEFT*

*TURN RIGHT*

*STOP*

*GO FORWARD*

After you have trained, fit and groomed your pig, and collected the proper paperwork, it is time to go to the show! Most market shows include market classes that are separated by weight. They also include showmanship classes, which are separated by the age of exhibitors showing the animals.

Showmanship is the true test of a show person's knowledge of his or her project. Good showmanship can either make or break an animal in a competition. The purpose of showmanship is not to showcase the exhibitor; it is to help showcase the animal to its best ability. A good showman can evaluate his/her animal to determine its weaknesses. Once the weaknesses and strengths of the pig are determined, the showman can decide the best way to deal with each.

In order to present your animal during its class at the show, you must know some basic guidelines.

1. It is important to dress appropriately. A neat, unwrinkled shirt, usually with a collar and pants are acceptable with clean and shined leather shoes.
2. Keep a small brush in your pocket so that if your pig gets shavings on it you can easily brush it off.
3. Calmly drive your pig into the show ring when there is no commotion at the gate.
4. Once in the show ring head to the back side of the ring to keep your pig away from the entry gate. Also avoid groups of pigs and corners.
5. Always keep an eye on the judge. This is **very** important in order to keep track of what is going on in the ring. The judge will be moving around to get a better view of the animals. The showman must know where the judge is at all times in order to be in the correct position.
6. Your posture should be slightly bent over, keeping the cane or whip close to your animal.
7. Make sure your animal is always between the showman and the judge. This ensures that the judge always has the best view of the animal. Your animal should be kept about 10-15 feet in front of the judge.
8. Stay close to your pig so the judge knows which one is yours.

9. Drive your pig by lightly tapping the neck and shoulder area with the cane or whip. Never tap the rump, back, or tail area, because you could bruise this valuable carcass area.
10. Keep your movement slow and controlled. Your animal can sense your tension and stress. Therefore, if you are upset the animal will react in the same manner. This causes a lot of frustration that can be avoided by remaining calm.
  - a. Be prepared to answer some questions about your project or pig from the judges. Questions might include daily gain, feed intake, or general parts of your animal.
11. Most importantly, SMILE AND HAVE FUN!

## **Fair and Show Day**

Make sure you arrive at fair as early as you are allowed to give your pig time to settle in. Once you get there, water your pig and let it rest for about 6 hours before you feed it. Use wood shavings or straw as bedding. If it is hot outside use a fan and spray your pig with water often. If there is a draft use a tarp to control shelter your pig.

Feeding your pig at the show will be a little different than at home. On show day, feed your pig at least two hours before show time and give it half the amount you usually feed it. Also, give only half of the water that is usually provided. This will keep your pig from having too much fill and keep it alert and attentive. Your pig can eat and drink the regular amounts of food and water after the show.

Wash your pig the day before or the morning of the show. This will give you extra time to get yourself ready. Keep a spray bottle on hand and heavily mist your pig to give it an even appearance. At the show do not use baby powder or oil on your pig. The powder will make a mess on you and other exhibitors and the oil will hold in heat.

You must also make sure you have yourself prepared. Wear clean, neat clothes and boots or other sturdy shoes. Carry a small brush in your back pocket. Be courteous to everyone in the show ring and always keep your pig between you and the judge. Use your brush if you need to remove shavings from your pig. You should be prepared to answer questions about your pig's weight, birth date, number of teats on each side (for gilts), and how it is fed and managed. For advanced exhibitors the judge may ask questions about anatomy and the ear notching system.

***Fair Checklist:***

- Bedding for the pen, if it is not provided.
- Fair Book
- Extension Cords
- Whip or cane
- 2 sets of show clothing, in case you get one dirty
- Fan
- Feed trough
- Water Bucket
- Sprayer
- Pig board
- Grain
- Brush
- Hose and spray nozzle for washing
- Mild soap
- Pitchfork and broom
- Record Book
- Chairs
- Small clippers
- Small brush to use in show ring
- Wire, zip ties and duct tape (all three can serve many practical uses!)
- Health certificate and other necessary paperwork

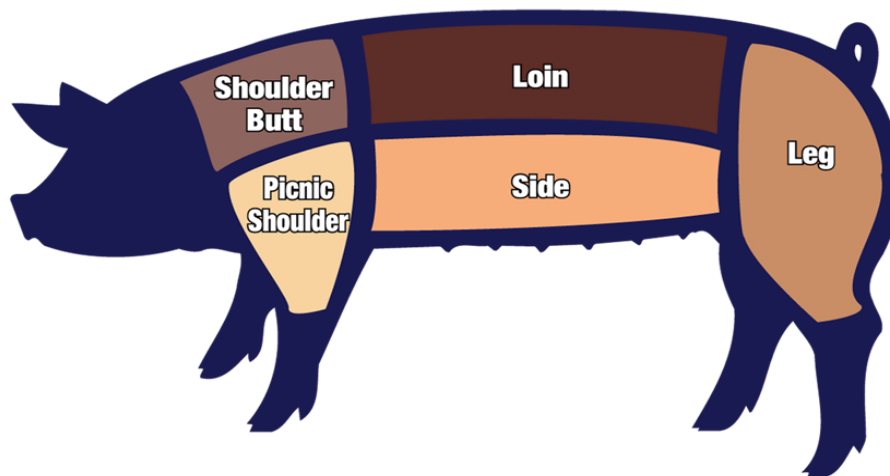
***Remember to:***

- Keep your pens clean
- Keep your pigs clean
- Feed and water your pig regularly
- Make sure your pig isn't too hot. Looks for signs of heat stress like heavy breathing and panting
- Keep your area neat and tidy
- Give yourself plenty of time to prepare yourself and your pig for the show

## The Junior Livestock Auction

A limited number of market pigs will be selected to participate in the Junior Livestock Auction. In most counties, at least Champion and Reserve Champion Market Swine are selected to sell in the auction. If your pig is chosen for the auction, make sure you present it the same as you did for the show, and that you are well dressed. Be sure to become familiar with the rules and procedures of the sale, such as preliminary requirements, sale order, etc. If your pig is purchased, be sure to write the buyer a thank-you letter in appreciation for their support.

## The Final Product



Source: National Pork Board

The above illustration shows the wholesale cuts of pork. A breakdown of the retail cuts is shown in Appendix 3. Since there are two sides to the pig, two of each cut will result when the animal is processed. Pigs provide a wide range of products. Not only are they a high quality source of animal protein, their by-products play a vital role in improving human life. Did you know that heart valves from pigs could be implanted into a human heart? Insulin from pigs can also be used to treat diabetes. The pig skin, no longer used to make footballs, is now used to treat burn victims, because their skin is very similar to our skin. "We use everything but the oink" is a common phrase used to describe the wide variety of uses for pigs and pig by products.

Enjoy your market pig project, and start preparing for next year! Good luck!

## Appendix 1 – Sample Budget

*Adapted from Colorado 4-H Market Lamb Manual*

<b><u>Fixed Expenses:</u></b>	
Facilities (New or Improved)	\$
Shelter	\$
Fencing	\$
Panels	\$
Equipment	\$
Feeders	\$
Water Tanks	\$
Miscellaneous	\$
<b>Total Fixed:</b>	<b>\$</b>
<b><u>Annual Expenses:</u></b>	
Animals	\$
Veterinary Allowance	\$
Feed	\$
Hay	\$
Grain	\$
Pasture	\$
Show Equipment	\$
<b>Total Annual:</b>	<b>\$</b>
<b><u>Estimated Income:</u></b>	
Number animals sold	<b>No. Head:</b>
Price	<b>\$/unit</b>
Income from animals	\$
Other income	\$
<b>Total Income:</b>	<b>\$</b>

## Appendix 2 – Animal Health Note Card

Adapted from Colorado 4-H Market Lamb Manual


<b>Animal Id.#</b>	<b>Pen Location:</b>	<b>Date:</b>
<b>Temperature:</b>	<b>Coloring:</b>	
<b>Heart Rate:</b>	<b>Sounds:</b>	
<b>Respiration Rate:</b>	<b>Body Fluids:</b>	
<b>Other Abnormalities:</b>		

# Appendix 3- Cuts of Pork

Wholesale/Retail and Food-service Cuts

## Pork Basics





**Shoulder Butt**

**Upper row (l-r):**  
Bone-in Blade Roast, Boneless Blade Roast  
**Lower row (l-r):**  
Ground Pork (The Other Burger™), Sausage, Blade Steak


**Cooking Methods**  
Blade Roast/Boston butt – roast, indirect heat on grill, braise, slow cooker  
Blade Steak – braise, broil, grill  
Ground Pork – broil, grill, roast (bake)



**Picnic Shoulder**

**Upper row (l-r):**  
Smoked Picnic, Arm Picnic Roast  
**Lower row:**  
Smoked Hocks

**Cooking Methods**  
Smoked Picnic Roast – roast, braise  
Arm Picnic Roast – roast, braise, slow cooker  
Smoked Hocks – braise, stew



**Side**

**Top:**  
Spareribs  
**Bottom:**  
Stab Bacon, Sliced Bacon

**Cooking Methods**  
Spareribs – roast, indirect heat on grill, braise slow cooker  
Bacon – broil, roast (bake), microwave



**Leg**

**Upper row (l-r):**  
Bone-in Fresh Ham, Smoked Ham  
**Lower row (l-r):**  
Leg Cutlets, Fresh Boneless Ham Roast

**Cooking Methods**  
Fresh Leg of Pork – roast, indirect heat on grill, slow cooker  
Smoked Ham – roast, indirect heat on grill  
Ham Steak – broil, roast

**Loin**



**Chops**

**Upper row (l-r):**  
Sirloin Chop, Rib Chop, Loin Chop  
**Lower row (l-r):**  
Boneless Rib End Chop, Chef's Prime Filet™, Boneless Center Loin Chop, America's Cut™, Butterfly Chop

**Cooking Methods**  
Cutlets (1/4 to 3/8 inch) – sauté  
Thin (1/2 to 3/4 inch) – sauté  
Thick (7/8 to 1 1/2 inch thick) – grill, broil, roast



**Roasts**

**Upper row (l-r):**  
Center Rib Roast (Rock of Pork), Bone-in Sirloin Roast  
**Middle:**  
Boneless Center Loin Roast  
**Lower row (l-r):**  
Boneless Rib End Roast, Chef's Prime™ – Boneless Sirloin Roast

**Cooking Methods**  
roast, indirect heat on grill, slow cooker



**Tenderloin & Canadian-Style Bacon**

**Left:** Tenderloin **Right:** Canadian-style Bacon

**Cooking Methods**  
Tenderloin – roast, grill, pan broil  
Canadian-style bacon – roast, broil, sauté




**Ribs**

**Left:** Country-style Ribs **Right:** Back Ribs

**Cooking Methods**  
roast, indirect heat on grill, braise, slow cooker

**Roasts**  
No-fuss family dinner or holiday favorite



**THE MANY SHAPES OF PORK**


### Cut Loose!

When shopping for pork, consider cutting traditional roasts into a variety of different shapes.


**Chops**  
Dinner, backyard barbecue or gourmet entree




**Cubes**  
Great for kabobs, stew and chili  
grill, stew, braise, broil



**Strips**  
Super stir fry, fajitas and salads  
grill, sauté, stir fry



**Cutlets**  
Delicious breakfast chops and quick sandwiches  
3/8 to 1/2 inch thick – sauté, grill



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#03342 02/2007

## Appendix 4-National Animal ID and Meat Quality Assurance

## ***National Animal ID***

NAIS (National Animal ID System) is being developed through the integration of three components—premises identification, animal identification, and animal tracking. The long-term goal of the NAIS is to provide animal health officials with the capability to identify all livestock and premises that have had direct contact with a disease of concern within 48 hours after discovery. Please be sure that you meet all state and county requirements for National Animal ID. You may be required to have a premise ID and have your animals tagged with NAIS tags in order to ID your animals for the county fair. As of publishing, a premises identification number is required to show at the Colorado State Fair. However; you will need to check your individual county requirements.

Premise ID, Animal ID tags, and additional information can be obtained from:  
<http://animalid.aphis.usda.gov/nais/index.shtml>

## **Meat Quality Assurance Program**

When raising a market animal for Colorado 4-H, you are required to complete a Meat Quality Assurance program. It makes no difference how old you are, or what species of animal you are showing, you are required to attend these programs! Usually each county offers several programs during the 4-H season that are geared towards juniors or seniors. They are usually just a few hours in the evening or a Saturday morning. If you cannot attend in your county, you may attend in another county.

The purpose of the Meat Quality Assurance programs is to ensure the consumer that all livestock produced are healthy, wholesome, source verified and meet the food safety standards established by government regulations. In addition, best management practices are recommended to improve the health of livestock and to add value to the end product.

While raising your pig you will also be required to complete Pork Quality Assurance program. This program educates pork producers using the 10 Good Production Practices. These are practices that focus on safe, healthy, and humane pork production.

For more information on the Youth PQA Program please visit:  
<http://www.pork.org/Producers/YouthPQAPlus/default.aspx>



## Appendix 5-PQA Plus 10 Good Production Practices



**PQA PLUS**  
Our Responsibility, Our Promise.

### 10 GOOD PRODUCTION PRACTICES

1



**GPP #1** Establish and implement an efficient and effective herd health management plan.

**GPP #6** Properly store, label, and account for all drug products and medicated feeds.



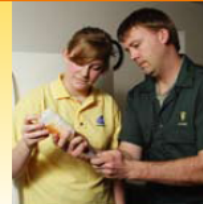
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2



**GPP #2** Use a veterinarian/client/patient relationship (VCPR) as the basis for medication decision-making.

**GPP #7** Educate all animal caretakers on proper administration techniques, needle-use procedures, observance of withdrawal times, and methods to avoid marketing adulterated products for human food.



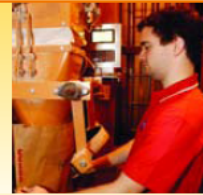
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3



**GPP #3** Use antibiotics responsibly.

**GPP #8** Follow appropriate on-farm feed processing and commercial feed processor procedures.



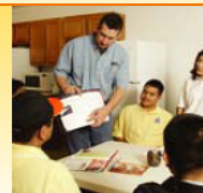
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**GPP #4** Identify and track all treated animals.

**GPP #9** Develop, implement, and document an animal caretaker training program.



9

5



**GPP #5** Maintain medication and treatment records.

**GPP #10** Provide proper swine care to improve swine well-being.



10

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