OBJECT OF THE PROJECT.

The object of this project is to interest the boys and girls of the country in the production of a more profitable type of market hogs. A knowledge of feeding and care will be obtained which will prove valuable to them in the future production of pork.

REQUIRMENTS OF PROJECT.

1. Only members of Junior Agricultural Clubs are eligible for this project.

2. The latest date for enrollment is June 1.

3. Each member shall raise at least one pig from weaning age to six or seven months old. Pigs should have been farrowed after March 1.

4. Each member shall act independently in the feeding, care and management of the pig and do all the work necessary during the project. Help may be used for hauling and weighing.

5. Each member shall keep a record of all expenses incurred in connection with the project as indicated in the record book. These records shall be used in judging the project.

6. At the close of the project the pigs of all members shall be assembled at one place for exhibition and judging. If impossible to hold a show the judge shall visit each member, score his project and determine the winner.

7. The club member shall close his project, complete the record book, and send it to the county agent or club leader.

8. The judges for the contest shall be selected by the county agent or club leader.

9. Basis of award:

Best pig exhibit	30 points
Largest daily gain	20 points
Smallest cost of gain	30 points
Best record and story: "How I Raised My Pig"	20 points

CIRCULAR NO. 103

Swine Fattening Project Junior Agricultural Clubs

SELECTING THE PIG.

Each member should select his own pig. A weanling pig farrowed on or after March 1 is preferred for this project. The pig may be obtained from the home herd, at a sale, from a neighbor, or by applying to the county agent or club department. Either the Hampshire, Duroc Jersey, Poland China, Berkshire, or other breed may be used because there is no best breed. A purebred or grade pig of good form and quality should be chosen.

Conformation is important in the production of hogs for pork as well as for breeding. Many hogs are raised that are not as profitable as they might be because of faulty conformation. A good type of pig for this project has a deep, long, low set body, with broad, well-arched back and straight legs set squarely under the body. A purebred is best, but a high grade will give very satisfactory results. Barrows are preferred for this project. A study of the pictures of the prize-winning hogs will help in fixing the correct type in the mind of the club member.

STARTING THE PROJECT.

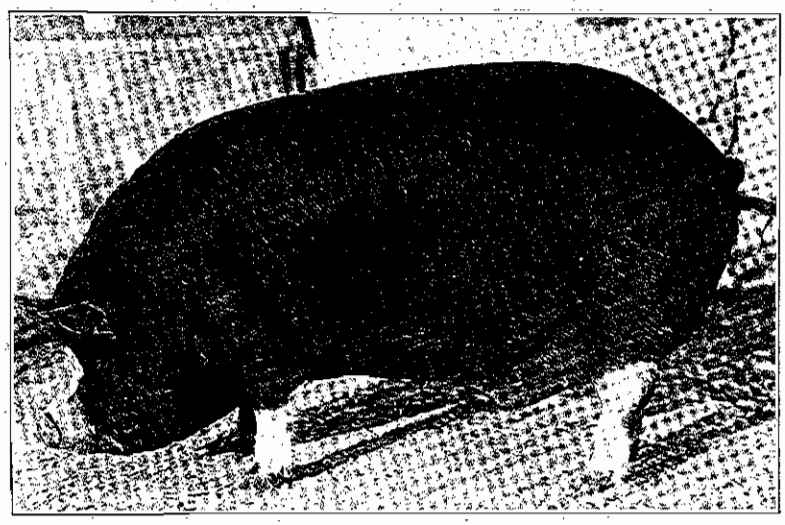
The pig that is brought from another farm should be quarantined for three weeks. During this time he should be given a thoro scrubbing in some good disinfectant such as a two per cent solution of creolin. The pig should be weighed and his weight recorded in the record book before feeding him for the project. The club leader or county agent should be present when the pig is weighed.

SHELTER FOR THE PIG.

Several kinds of shelter can be constructed by the club member. A few of the more practical are the A-type house, the box-type house, a straw shade of a large box of convenient size.

The A-type and box-type houses are probably the most satisfactory. The club member can easily build them with the aid of some simple plans.*

If neither kind of house is available a very practical shade and shelter may be built by using some old boards or straw supported on poles. Perhaps a large box of convenient size may be obtained more easily than any of the above mentioned shelters. Care must be exercised, however, that the box meets the requirements of a good hog house. A good hog house must be (1) dry, (2) warm in winter, (3) cool in summer, (4) well lighted, (5) free from dust, (6) well ventilated, (7) cheap in construction.



A GOOD LARD TYPE HOG.

*Write for Circular No. 102, Division of Publications, United States Department of Agriculture, Washington, D. C.

FEEDS.

Corn—Corn is an excellent feed for hogs and should make up the major portion of the ration, but corn alone, without a protein supplement, is not a good ration for a growing pig. Corn is low in protein and ash; therefore, other feeds such as tankage, middlings or soybeans that are higher in these nutrients should be added to the ration.

Wheat Middlings—A by-product of the flour mill containing more protein and ash than corn and when fed in addition to a ration of corn and a supplement high in protein, such as tankage, milk, or good pasture, will increase the daily food consumption 10 to 15 per cent, which results in greater gains.

Oats—When fed as a part of the ration, oats add the necessary bulk and because of the variety afforded will cause greater total food consumption. Oats can be substituted for middlings in a ration. Oats are higher in protein and ash than corn, but not high enough to permit leaving the protein supplement out of the ration. Oats should be ground and fed in a slop.

Tankage—This meat by-product of the packing house is a cheap protein substitute for milk as a supplement to corn. So high is the protein content of tankage that only a small amount is required. One-third to one-half pound per pig daily is usually considered sufficient. One part tankage to ten of corn is the usual proportion.

Milk—This feed is perhaps the best protein supplement for corn. Five pounds of skim milk has the feeding equivalent of one pound of grain. Three pounds of skim milk should be fed with every pound of grain.

Garbage and Kitchen Waste—These two by-products when properly fed are economical hog feeds. Spoiled garbage should not be fed. When the garbage is obtained from a town or city, club members should inspect it closely for pieces of glass or anything unfit for food. Ordinarily 5 pounds of garbage per pig daily as a supplement to a grain ration is recommended. The trough in which it is fed should be cleaned each day to prevent a sour condition.

Water—Usually pigs suffer more from the lack of water than the lack of feed. Plenty of fresh, clean water should be kept in easy reach of the pig if the best results are to be obtained.

Pasture and Foliage—The cost of production is decreased if the pig has access to abundant pasture or a good forage crop. This helps keep the digestive tract in good condition and makes the pig more highly resistant to disease. If kept in a dry lot, weeds, clover or grass should be cut and given to the pig. A movable pen for the pig is more convenient. Several kinds of pasture and forage are available, such as young rye (not over 12 inches high), clover, rape, alfalfa, blue grass and sweet clover.

FEEDING THE PIG.

The aim of this project is to produce market hogs, not breeding hogs. Corn is a fat-producing feed and should make up the major part of the ration. Some protein supplement, such as tankage, skim-milk or soybeans, however, is essential to balance the ration and produce the most rapid gains.

Below are given several mixtures suitable for feeding the pig from the start of the project till it weighs about 125 pounds. These mixtures are for feeding a pig that has access to a green forage pasture.

Mixture	Parts by Weight	Parts by Measure
No. 1—		
Shelled corn	8	8
Ground oats	2	5
Tankage	1	1
No. 2—		
Shelled corn	10	10
Tankage	1	1
No. 3—		
Shelled corn	8	8
Soybeans	1	1

One hundred pounds of the mixture should be made at a time. This amount will feed the pig about a month.

Another very good ration is:

Shelled corn 1 part, skim milk 2 to 4 parts.

The corn may be fed separately from the milk or they may be put into a trough together. The two should not be mixed and allowed to stand before feeding.

It is preferable to make the mixture by weight, using the figures in the "Parts by Weight" column, but if scales are not available the mixture may be made by measure, using the figures in the "Parts by Measure" column. For example, Mixture No. 2 might be made by weighing out ten times as much corn as tankage, or by measuring out 10 measures of corn and 1 measure of tankage. Any convenient measure can be used.

After the feed has been mixed, the amount to give the pig each day should be weighed or measured out, giving half of it in the morning and half in the evening. The following table shows the weight of one quart heaping full of each of the above mixtures:

Mixture	Approximate Weight Of One Quart
No. 1	1.5 pounds
No. 2	1.7 pounds
No. 3	1.7 pounds
Weights of the skim milk ration:	
Shelled corn	1.7 pounds
Skim milk	2.15 pounds

The amount of grain to feed a pig which is to be sold on the market is 3½ to 4 per cent of its body weight. This is a general rule and should be varied according to the condition of the pig. For example, a pig weighing 100 pounds should receive 3½ to 4 pounds of grain each day when on pasture. As it grows the ration should be increased until a pig weighing 200 pounds should receive about 8 pounds of grain each day. Feeding is an art which is develop by close study of the pig being fed.

The rations mentioned above are for a growing pig. They contain more protein and ash than is suitable for fattening the pig after he has reached the weight of about 125 pounds. Below are given rations suitable for feeding the pig from about 125 pounds to the end of the project.

No. 1—

Mixture	Parts by Weight	Parts by Measure
Shelled corn	15	15
Tankage	1	1

No. 2—

Shelled corn	12	12
Wheat middlings	6	13
Tankage	1	1

No. 3—

Shelled corn
Oats — Fed in self feeder.
Tankage

Another very good ration is:
Shelled corn 1 to 2 parts, skim milk 1 part.

The following table shows the weight of one quart of each of the above mixtures:

Mixture	Approximate Weight One Quart
No. 1	1.7 pounds
No. 2	1.25 pounds

Weight of skim milk ration:

Mixture	Approximate Weight One Quart
Shelled corn	1.7 pounds
Skim milk	2.15 pounds

Other rations may be used but only after consulting the local club leader or county agent.

In addition to the rations the pig should have access at all times to a mineral mixture. This acts as a conditioner and seems to be conducive to a healthier pig. This mixture need not be bought since it can be mixed at home. The following is a practical and economical mixture:

Charcoal or slack coal	5 parts
Ground limestone or air slaked lime	1 part
Ground rock phosphate	1 part
Salt	1 part

COMMON PARASITES.

Worms—It is common for a pig to be infested with intestinal worms and this greatly retards the rate of gain. A pig kept in a dirty pen or yard, improperly fed, drinking dirty water from filthy troughs, and lying in wallows very quickly becomes infested. The coat of the pig becomes rough and there will be a tendency to rub the root of the tail against posts or trees, and worms may be passed in the dung. The following treatment is good for ridding the pig of worms:

Provide no feed or water for 24 hours. Then give the following preparation to the pig in a thin slop.

Bicarbonate of soda	2 drams
Santonin	5 grains
Areca nut	1 dram
Calomel	3 grains

This is the dose for a 100-pound pig; the size of the dose must be varied according to the weight of the pig to be treated. The dose should be repeated ten days later.

Lice—Another common harmful parasite infesting pigs is the hog louse. This louse lives on the body of the pig and lays its eggs or "nits" on the hair. It sucks the blood from the animal and causes great irritation of the skin, thus lowering the vitality of the pig. This irritation causes the pig to rub against trees and posts in an attempt to kill the lice. Advantage should be taken of this habit in the following manner. Soak a burlap sack in crude petroleum or some other cheap,

heavy oil, then wrap it around a post and tie it in place. The pigs will rub against this, getting the oil on them, which will kill the lice. More oil must be poured between the sack and post occasionally to maintain the supply. If there is only one pig, however, it will be cheaper to apply one of the coal-tar dips, diluted with 30 parts of water, with a brush, because by the other method considerable would be wasted. Crude oil undiluted may be applied by the same method.

PREPARING A PIG FOR EXHIBIT.

The club member should be notified by the county agent or club leader when the project is to close. A very good way is to close the project with a club show where each member should exhibit his club pig in the best possible condition.

Give the pig a good bath with warm rain water and soap. All dirt and loose skin should be removed by using a rather stiff brush. A little creolin or lysol, about three tablespoonfuls to a gallon of water, added to the wash water will result in any raw or broken places on the skin healing readily. After washing, care should be taken that all soap is washed out of the hair by rinsing with clear water. Then dry the animal with a clean cloth or towel.

When the hair is thoroughly dry a light application of raw linseed oil should be made and rubbed well into the skin. This will make the skin more healthy, soft and pliable, and the hair soft and glossy. After oiling the pig must be brushed with a rather stiff horse brush to make the hair lie down well. This should be done several times every day. Too much brushing cannot be done.

Do not use crude oil for lice on the pig at this time because it makes the hair very dark. This is especially objectionable to breeds having red or white hair. If the pig is lousy use one of the coal-tar dips in proportion of one measure dip to thirty of water.

The long hair around the edges of the ears should be trimmed off with a pair of scissors or clippers; likewise, any long, coarse hair on the tail except that making up the brush at

the end, should be removed in the same way. It is probable that the pig's toes are too long or broken and irregular; if so, they should be trimmed with a good, sharp knife. After the pig has been groomed it should be kept in a dry place well bedded with straw.

MARKETING THE PIG

Where possible club members should join together and ship in carload lots. A higher price will be obtained, and consequently more profit to each member. Selling to a local butcher or shipper is usually practist. Consult the local leader or county agent before selling the pig, since they may be able to secure a higher market.

TON OF PORK CLUB.

A "Ton of Pork Club" may be organized with a membership of ten. It will be the aim of these ten members to produce jointly 2000 pounds of pork during the season. Each club pig should weigh at least 200 pounds at the close of the feeding period. Prizes should be awarded to those producing the best results within this club. One or more of these clubs may be organized within a county and competition may be created between these clubs. Hogs should be marketed jointly.

RECORDS.

Keep the record book up to date as the work is done. Every time something is done connected with the pig enter it in the record book. The number of hours required for feeding and caring for the pig should be put down when the work is done. Do not try to remember items of expense. Let the record book do the remembering.

STORY OF THE PROJECT.

Subject: "How I Raised My Pig."

Instructions: The story must be the work of the club member. Pen and ink must be used. Neatness, spelling, punctuation, and completeness of story are points that will be considered.

The following outline is suggested:

1. Name and location of club.
2. How and where the pig was obtained.
3. Name, breed and age of pig.
4. Weights, cost of production and gains made.
5. Amount and cost of feeds, profits.
6. Things of special interest learned during the project.

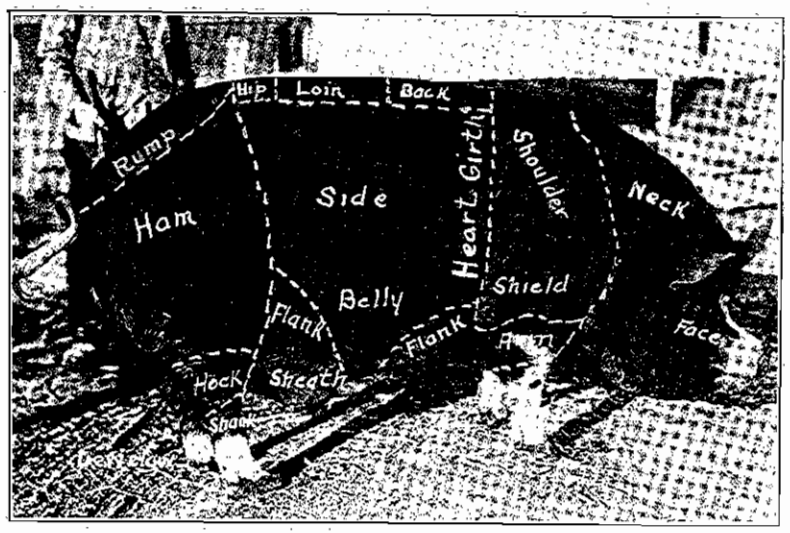
REFERENCES.

Bulletin No. 175, Kentucky Experiment Station. "The Growing and Fattening of Hogs in Dry Lot and on Forage Crops."

Farmers' Bulletins No. 438, "Hog Houses;" No. 566, "Boys' Pig Clubs;" No. 822, "Livestock Classification at County Fairs;" No. 874, "Swine Management."

SCORE-CARD.

The following is the score-card used by the University of Kentucky in judging hogs. All boys and girls expecting to be successful hog breeders or contemplating entering the judging contest should study this score-card.



THE POINTS OF A LARD HOG.

STUDENT'S SCORE CARD NO. 4.

Swine (Lard type) Market

SCALE OF POINTS	Perfect	Score: Student's No. 1	Score: Student's No. 2	Score: Corrected No. 1	Score: Corrected No. 2
A. General Appearance—37 Points.					
Weight, lbs.					
Form, long, deep, broad, low set, symmetrical, compact, standing squarely on legs	7				
Condition, thrifty, well fleshed, fat but firm	12				
Quality, hair fine; bone strong but not coarse, skin smooth, even covering of firm flesh, free from lumps and wrinkles	10				
Style, attractive	1				
Action, spirited, straightforward, regular, free and easy	1				
Constitution, chest capacious; brisket advanced and low; flanks full and well let down	5				
Coat, abundant, fine, straight, bright, smooth, evenly distributed, lying close to body	1				
B. Head and Neck—7 Points.					
Snout, medium length, not coarse	1				
Eyes, full, bright, not obscured by wrinkles	1				
Face, broad between eyes and ears, smooth	1				
Ears, fine texture, medium size, neatly attached	1				
Jowls, smooth, firm, medium size, not pendulous	1				
Neck, short, deep, thick, joining head to shoulders smoothly	2				
C. Forequarters—9 Points.					
Shoulders, deep, full, compact, smooth not too heavy	7				
Legs, straight, strong, tapering, medium length, set well apart, bones smooth, joints clean, pasterns upright, feet medium size, not sprawling, squarely placed	2				
D. Body—27 Points.					
Back and loin, long, broad, strong, even width, thickly and evenly fleshed	15				
Sides, long, deep, full, even width, free from wrinkles and flabbiness; ribs long, carrying fullness well down	10				
Belly, straight, even, not flabby, proportionate in width	2				
E. Hindquarters—20 Points.					
Rump, long, wide, even in width, thickly and evenly fleshed, rounding from loin to root of tail, not too drooping	5				
Hams, broad, especially at upper end, deep, full, well fleshed and plump, not too fat	12				
Legs, straight, strong, tapering, medium length, set well apart; bones smooth; joints clean; pasterns upright; feet medium size, not sprawling, squarely placed	2				
Tail, medium in size and length, smooth, tapering, not set too low	1				
Total	100				

Animal _____ Date _____

Student _____