# UNIVERSITY OF KENTUCKY

## COLLEGE OF AGRICULTURE

### Extension Division

THOMAS P. COOPER, Dean and Director

CIRCULAR NO. 99


# Swine Breeding Project
# Junior Agricultural Clubs

MY PIG


Compiled

By

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## OBJECT

The object of this project is to help teach the farm boy and girl the proper feeding, care and management in raising a good type of pig for breeding.

## REQUIREMENTS OF THE 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 about 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 contest.
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 club 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 | 40 points |
| Largest daily gain | 25 points |
| Smallest cost of gain | 25 points |
| Best record and essay "How I Raised My Pig" | 10 points |
| | 100 |

# CIRCULAR NO. 99

## Swine Breeding Project
## Junior Agricultural Clubs

### SELECTING THE PIG

Each member should select his own pig. Not merely a pure-bred animal of one of the standard breeds but a pig of good type should be chosen. 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.

Not only should the pig have all the characteristics of the breed it represents but it should be strong in individual points. A vigorous, healthy animal with a strong arch of back, of good length, straight legs, strong pasterns and smooth thruout is the kind desired by successful breeders. Altho a pedigree is important no club member should select a poor individual because it has a fancy pedigree.

### 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. It is recommended also that the pig be vaccinated against hog cholera at this time. No feed should be given for twelve hours previous to the vaccination. After the vaccination light feeding is advisable. Immediately after the quarantine the club member should weigh the pig and start feeding for the project.

### 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, or a large box. 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 by poles. Perhaps a large box may be obtained more easily than any of the above mentioned shelters. Care must be exercised, however, that the box meets the requiremnts 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, and of suitable size.

## FEEDS

The following is a brief discussion of some of the more important 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 soybean meal that are higher in these nutrients should be added to the ration.

*Wheat Middlings*—A by-product of the flour mill. They contain more protein and ash than corn and when fed in addition to a ration of corn and a supplement higher in protein, such as tankage, milk or a 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.

*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

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

is required. One-third to one-half pound per pig daily is usually considered sufficient. One part of tankage to nine 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 or 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. 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 from 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 Forage*—The cost of production is decreased if the pig has access to abundant pasture or a good forage crop. This helps to 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 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, bluegrass and sweet clover.

## FEEDING THE PIG

The aim in this project is to produce breeding hogs rather than market hogs or fat hogs. Protein builds bone and muscle; therefore, it should constitute a sufficient portion of the ration. Corn is a fat producing feed and must be supplemented with a protein feed such as skim-milk or tankage to make a balanced ration. The club member may select one of the following mixtures to feed his pig in connection with green forage pastures such as clover, rye, rape or bluegrass.*

*Other mixtures may be obtained by applying to the county agent or to the College of Agriculture, University of Kentucky, Lexington, Ky.

Watching the Pig Grow

| | Parts by Weight | Parts by Measure |
|---|---|---|
| 1. Shelled corn | 9 | 9 |
| Tankage | 1 | 1 |
| 2. Shelled corn | 6 | 6 |
| Middlings | 3 | 6 |
| Tankage | 1 | 1 |
| 3. Shelled corn | 8 | 8 |
| Ground soybeans | 1 | 1 |
| 4. Corn meal | 5 | 5 |
| Middlings | 1 | 2 |
| Ground oats | 3 | 7 |
| Tankage | 1 | 1 |

One hundred pounds of the mixture should be made at a time. This amount will feed the pig for 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 mixtures may be made by measure, using the figures in the "Parts by Measure" column. For example, mixture No. 1 might be made by weighing out nine times as much corn as tankage; or, if no scales are available, mixture No. 1 might be made by measuring out 9 measures of corn and 1 measure of tankage. Any convenient measure may 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 mixture:

| Mixture | Approximate Weight of one quart |
|---|---|
| No. 1 | 1.68 lbs. |
| No. 2 | 1.26 lbs. |
| No. 3 | 1.70 lbs. |
| No. 4 | 1.09 lbs. |
| Weight of skim milk ration | |
| Shelled corn | 1.7 lbs. |
| Skim-milk | 2:15 lbs. |

The amount of grain to be fed a pig which is to be develop into a brood sow is 3 to 3½ per cent of its body weight. This is a general rule and should be varied according to the condition of the pig.

A pig weighing 50 to 100 pounds should receive 2½ to 3½ pounds of grain each day when on pasture. As it grows the ration should be increased until a pig weighing 200 pounds receives 4 to 5 pounds of grain each day. Feeding is an art which is develop by a close study of the pig being fed.

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. The mixture need not be bought but may be mixed at home. The following is a practical and economical mixture:

| | |
|---|---|
| Charcoal, wood ashes, 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 restricts 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 it does not thrive well. There will be a tendency to rub the root of the tail against posts and trees and worms may be passed in the dung. The following treatment is good for ridding the pig of worms.

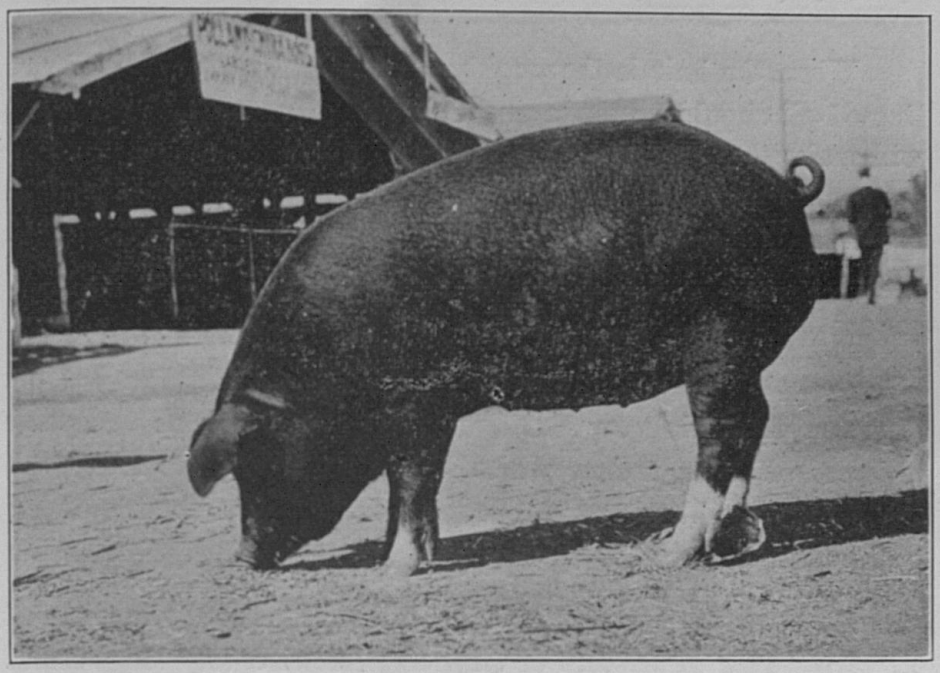
Provide no feed or water for 24 hours. Then give the following preparation to the pig in a thin slop.

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

This is a 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 and serious 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 the 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 when needed 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, since by the other method considerable material would be wasted. Crude oil, undiluted, may be applied by the same method.



The Finished Product

## PREPARING THE 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.

Pigs in the breeding classes are not exhibited in high condition but merely show a smooth finish. A little brushing each day and some extra feed, starting ten days before the contest, will usually be sufficient. The common error is getting the pig in too high condition, causing it to appear weak in pasterns and often a bit chunky instead of long and growthy.

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 rapidly. 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 of 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 or 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 clean straw.

## SUGGESTIONS FOR CONTINUING CLUB WORK

After the project is closed several things may be done with the pig. Every member of this project has a good start for a herd of hogs. If a gilt has been raised, an excellent opportunity to breed her and start in the sow and litter project awaits the club member. If it is impossible to enter the sow and litter project, the pig may be sold locally to some individual or put into a sale held by the county agent or into a private sale.

### BOAR-PIG CLUB

Club members may form themselves into a "Boar-Pig Club," the requirements being that the boys and girls in this club must each own and raise a boar pig. Then at the close of the project the competition will be between the members having boar pigs.

### GILT-PIG CLUB

This club shall be formed in the same way as the "Boar Pig Club," the difference being that all the members raise gilt pigs instead of boar pigs.

### 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.

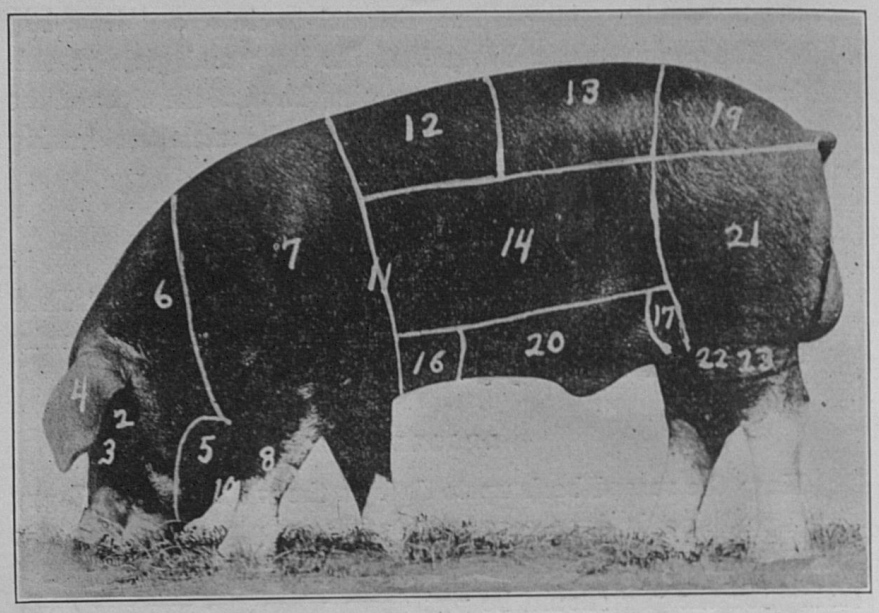
### STORY OF THE PROJECT

Subject: "How I Raised My Pig."

Instructions: The story must be the work of the club member. Pen and ink must be used. Neatness, 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.
6. Things of special interest learned during the project.

*References.*—Farmers' Bulletins No. 411—Feeding Hogs in the South; No. 438—Hog Houses; No. 566—Boys' Pig Clubs; No. 822—Live Stock Classification at County Fairs; No. 814—Swine Management.




POINTS OF THE HOG

| | | | |
|---|---|---|---|
| 1. Snout | 8. Fore leg | 15. Tail | 22. Stifle |
| 4. Ear | 9. Hind leg | 16. Fore flank | 23. Hock |
| 2. Eye | 10. Breast | 17. Hind flank | 24. Pasterns |
| 3. Face | 11. Chest line | 18. Hip | 25. Dewclaw |
| 5. Jowl | 12. Back | 19. Rump | 26. Foot |
| 6. Neck | 13. Loin | 20. Belly | |
| 7. Shoulder | 14. Side | 21. Ham | |

## 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.

## Student's Score Card

Swine (Lard Type) — Breeding

| STANDARD OF EXCELLENCE | SCORE | | | | |
|---|---|---|---|---|---|
| | Perfect | Student's | | Corrected | |
| | | No. 1 | No. 2 | No. 1 | No. 2 |
| **A. General Appearance—40 Points.** | | | | | |
| Weight—6 months, 200 lbs.; one year, 400 lbs.; 2 years, 700 lbs. | 6 | | | | |
| Form, deep, broad, long, low set, symmetrical, compact, standing squarely on legs | 7 | | | | |
| Quality, hair fine; bone straight not coarse, skin smooth, even covering of flesh, free from lumps and wrinkles, features refined, but not delicate | 6 | | | | |
| Condition, thrifty, well fleshed, but not excessively fat | 4 | | | | |
| Constitution, chest capacious; brisket advanced and low; flanks full and well let down | 8 | | | | |
| Disposition, quiet, gentle | 1 | | | | |
| Breed Type, having all characteristics of breed | 5 | | | | |
| Coat, fine, straight, bright, smooth, evenly distributed, lying close to body, no swirls | 3 | | | | |
| **B. Head and Neck—11 Points.** | | | | | |
| Eyes, full, mild, bright, not obscured by wrinkles | 2 | | | | |
| Face, short, broad between eyes, dished according to breed cheeks smooth | 2 | | | | |
| Ears, fine texture, medium size, neatly but firmly attached, carriage according to breed | 2 | | | | |
| Jowls, smooth, firm, medium size | 2 | | | | |
| Neck, short, deep, thick, narrow at nape, thickening toward and joining smoothly to shoulder | 3 | | | | |
| **C. Forequarters—10 Points.** | | | | | |
| Shoulders, broad, deep, full but not heavy, on a line with sides | 5 | | | | |
| Legs, straight, short; strong, tapering, set well apart, bones smooth, joints clean, pasterns upright, feet medium size, not sprawling, squarely placed | 5 | | | | |
| **D. Body—20 Points.** | | | | | |
| Back and loin, broad, strong, long, even width, thickly and evenly fleshed | 9 | | | | |
| Sides, deep, long, full, free from wrinkles; ribs, long and well sprung | 7 | | | | |
| Belly, straight, even, not flabby, proportionate in width | 2 | | | | |
| Flank, full and even with body, not cut up | 2 | | | | |
| **E. Hindquarters—19 Points.** | | | | | |
| Rump, long, wide, evenly fleshed, rounding from loin to root of tail, neat, high tail setting | 3 | | | | |
| Hams, plump, full, deep, broad, no roughness, not cut up, well fleshed to hock | 10 | | | | |
| Legs, straight, short, strong, tapering, set well apart, bones smooth, joints clean, pasterns upright, feet medium size, not sprawling, squarely placed | 5 | | | | |
| Tail, medium size and length, smooth and tapering | 1 | | | | |
| Total | 100 | | | | |

Animal ..... Date .....

Student .....