

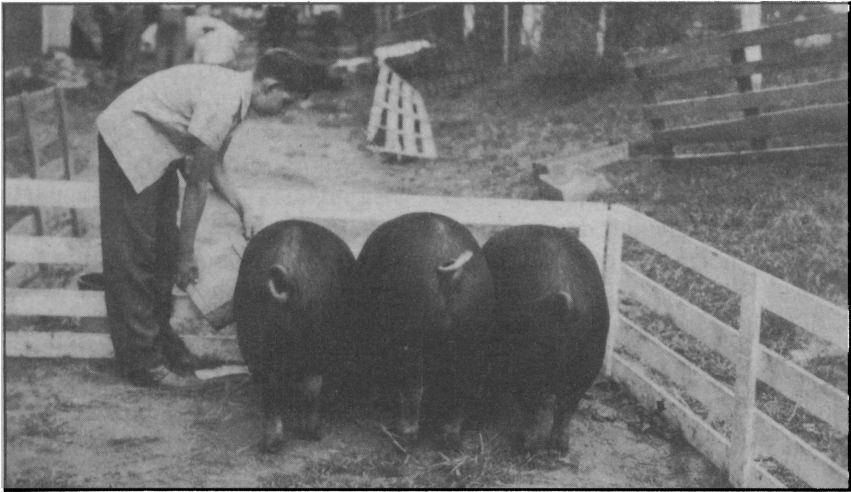
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UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE

4-H Club Circular 81 COLUMBIA, MISSOURI AUGUST, 1946

THE MARKET PIG

4-H Club Project



The Market Pig Project is a splendid one for boys who want to work with hogs but are unable to carry a Sow and Litter Project. It is strictly a job of feeding and care. It follows the same pattern as Baby Beef but requires a much shorter feeding period.

To make a success of this enterprise you will want to give special attention to the following:

Select good barrows
Full feed all the way
Keep accurate feed records

Keep animals healthy
Fit for show
Judge fat hogs

Select Good Barrows

Select barrows that are of good quality, smooth, strong in the back, deep in the ham and short and straight in the pastern. Some of the common defects that should be avoided are weak backs, open shoulders, lack of depth and fullness of ham, and weak pasterns.

Prepared by Robt. S. Clough, State 4-H Club Agent, in collaboration with L. A. Weaver, Professor of Animal Husbandry.

Full Feed All The Way

You want your barrows to gain fast. You want them to put on gain as cheaply as possible. At the start, feed only about 3 per cent of the live weight each day. Three 50-pound pigs would get 4.5 pounds of grain each day. Three 60-pound pigs would get about 5.5 pounds.

Gradually increase the amount of grain until you are feeding all that the pigs will clean up in an hour after feeding.

You will probably want to hand feed all the way, or at least till the last 30 days. Then you may find it convenient and desirable to give free choice of feed in a self-feeder.

Add a good supplement to the grain. Tankage, soybean meal, linseed oil meal, cotton seed oil meal, fish meal, alfalfa meal and milk are all good supplements to feed with corn.

The amount to feed is very important. Too little would mean slow development. Too much would be expensive. Always regulate the amount of supplement by the amount of grain fed. Any of the following rations will be satisfactory if fed on good pasture.

Supplement A—T a n k a g e.—

Feed 8 pounds of tankage with each bushel of corn from weaning to 75 pounds in weight. From 75 to 125 pounds weight, feed 6 pounds with each bushel of corn. When the pigs weigh 150 pounds, feed 5 pounds of tankage with a

bushel of corn. After the pigs weigh 200 pounds, 4 pounds of tankage to a bushel of corn should suffice.

In general, three-fourths of a quart of tankage will weigh a pound.

Supplement B—Tankage and soybean oil meal.—(Half and half by weight.) Feed 8 pounds of this supplement to a bushel of corn up to 100 pounds of weight; 7 pounds per bushel from 100 to 150 pounds of weight; and 6 pounds to the bushel after the pigs weigh 150 pounds.

Supplement C—Shorts 2 parts, tankage 1 part, soybean meal 1 part.—Feed 10 pounds of this mixture to a bushel of corn from weaning to 100 pounds in weight; 8 pounds to the bushel from 100 to 150 pounds; and 7 pounds after pigs reach 150 pounds in weight.

Three 50-pound pigs should get three-fourths of a pound of this supplement a day or one-fourth pound per pig.

Supplement D—Corn 1 part and skimmed milk 3 parts by weight.—A gallon of milk weighs 8½ pounds. Three 50-pound pigs should get about 6 pounds of corn and 2 gallons of milk daily in two feedings, after they are on full feed.

Pasture—Good pasture is needed in feeding market hogs. Good pasture will reduce the amount of concentrate necessary to produce 100 pounds of gain from 25 to 50 per cent, depending upon the particular pasture used

and the management practices followed. This will, of course, cheapen the ration. Alfalfa, red clover, oats and rape, and fall seeded grains make excellent pasture for pigs.

While blue grass pasture makes acceptable hog pasture in the spring and in early fall, other pasture should be provided in the summer.

Bright leafy alfalfa hay will take the place of pasture in winter feeding. It should be fed in a rack. If good alfalfa hay is not available, alfalfa leaf meal may be used to supply green feed in dry-lot feeding. Add alfalfa leaf meal to any of the dry supplements, A, B, or C, at the rate of 1 pound of leaf meal to 3 pounds of supplement and increase the amount fed to a bushel of corn by 20 per cent.

Mineral Feed.—Keep in the dry before the barrows at all times a mineral mixture containing equal parts of finely ground limestone, bone meal and salt.

Keep Accurate Feed Records

Records are of little value unless they are accurate. Get a feed record sheet from your county agent and tack it up inside the barn or crib. On this sheet it will be easy to keep an accurate feed record.

Get a box or barrel and put your name on it. Measure some of your home-grown grain—a bushel of shelled corn for instance. Put it in your box. Now into the same box put a bag containing, let

us say, 100 pounds of the supplement that you will feed. Mark down on the barn record sheet the amount of each kind of feed you put in your box.

Always feed from this box and do not let anybody else feed from it. When you run out of one kind of grain, measure or weigh out some more and record it on your barn sheet. When you are ready to make your report at the close of the project, total each column. Then subtract the amount of feed left. Transfer these figures to the proper place in your 4-H Record Book. This will give you an excellent feed record.

Keep Them Healthy

Vaccination.—Of all hog diseases, cholera is the most deadly. The practice of vaccinating all pigs before they are weaned is a good one. However, boys who carry this project will be governed in this matter by the practice on the home farm. Buy pigs that have been vaccinated, if possible. If pigs which have not been vaccinated are brought on the home farm, follow the practice of the farm. If the herd on the farm is kept immune, then vaccinate. If the herd is not immunized, none of the pigs should be vaccinated unless all the hogs on the farm are vaccinated at the same time, because vaccinated pigs might spread hog cholera for a period of three weeks after being vaccinated with hog cholera virus. Be sure pigs have been vaccinated 21 or more days before they are



Fig. 2.—A good shade for growing pigs.

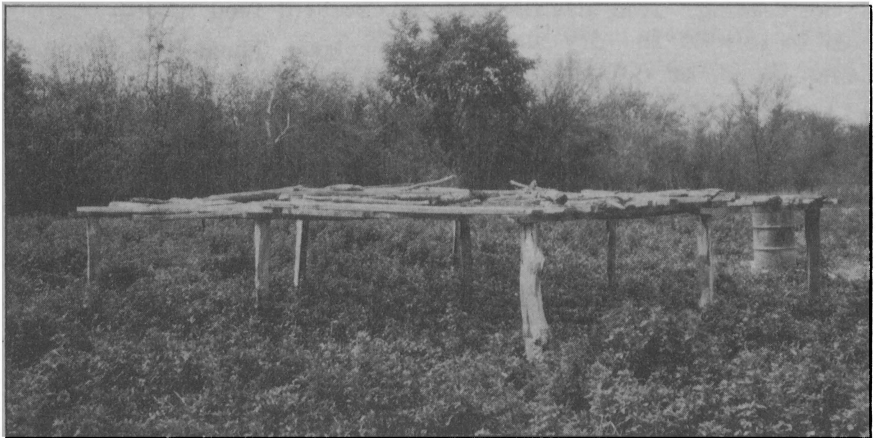


Fig. 3.—Framework for shade shown in Figure 2.

moved to a farm where the herd is not vaccinated.

There is a new vaccine on the market that gives fairly good immunity for a period of 6 to 9 months after hogs are vaccinated. This vaccine is known as the "tissue vaccine" or "methylene blue vaccine." It is safe to use on 4-H Club pigs where the hogs on the

farm have not been vaccinated against cholera. The dose is the same for any weight hog—5 cc. The objection to the vaccine is that immunity is not established for 2 to 3 weeks after the hogs are vaccinated, and that it gives immunity only for a period of 6 to 9 months. The advantages are that virus is not introduced on the

farm and all hogs on the farm will not have to be vaccinated. There is no danger of starting an outbreak of hog cholera by the use of this vaccine.

Shade.—If there is no natural shade in the pasture you should provide some shade for your pigs. One may be made with posts for supports and straw for cover that will serve the purpose very well.

Shelter.—Shelter is equally important for winter feeding. A dry shed open to the south and well bedded is all the shelter fattening hogs need. Do not allow hogs to sleep in a draft or on wet bedding.

Castration.—If you buy boar pigs they should be castrated as soon as possible. (Castration and vaccination should be at least three weeks apart.) You can do

the castrating. Your leader will show you how. Be sure your knife is sharp, then make it sterile. Use a good disinfectant, such as lysol, according to directions on the container.

Roundworms.—If you study the chart below you will see that the life history of the roundworm starts when the hog takes worm eggs into its digestive system through the mouth. It is assumed you are going to put your pigs on clean ground where there are no worm eggs. However, you cannot be sure there are no worms or worm eggs inside your barrows when you buy them. It is a good idea to give them a worming before they are put on the pasture that is to be their home for the summer.

For a number of years hog pro-

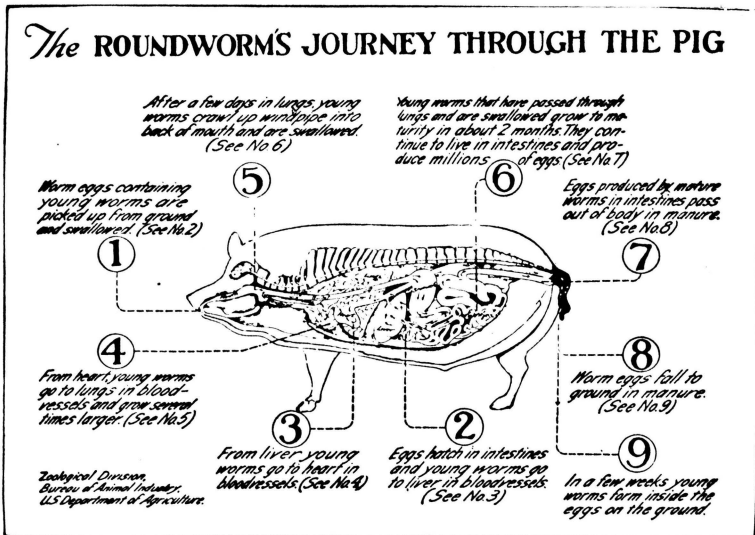


Fig. 4.—The roundworm's journey through the pig. (Diagram by courtesy U. S. Department of Agriculture.)

ducers have used American worm seed oil and castor oil for eliminating worms and have found it reasonably satisfactory. More recently, the use of sodium fluoride has been introduced and is meeting with success. Follow directions carefully. An overdose may be harmful to the pigs.

In treating with American worm seed oil and castor oil, all feed should be kept away from the pigs for 24 hours before the medicine is given. During this period, water should be given but no slop. Mix 1 part of American worm seed oil and 8 parts castor oil and give a 50-pound pig $\frac{1}{2}$ ounce; a 100-pound pig 1 ounce. One tablespoonful is $\frac{1}{2}$ ounce. The best way to administer the medicine is with a metal dose syringe.

When the medicine is being given to a pig by means of a syringe, hold the animal up by the fore legs. Inject the medicine well back on the animal's tongue. Hold the pig's mouth shut with left hand and insert nozzle of syringe at side of the mouth.

If you do not have a dose syringe a tablespoon may be used. The pig is handled in the same way as when a syringe is used except that the mouth should be held partially open.

Place the spoon with the medicine well back on the tongue. Turn the spoon over and wipe it clean of the medicine on the back part of the tongue. Withhold feed for 4 hours after treatment.

Keep the barrows in temporary quarters for three days after treatment. Wait a week after the worm treatment before administering hog cholera serum and virus.

The standard formula for treating with sodium fluoride is to use 1 pound of sodium fluoride to 100 pounds of feed. In terms of feed for one day for one pig this would mean 5 drams of sodium fluoride to 2 pounds of feed. Ask your druggist to weigh out 5 drams of sodium fluoride for each pig being fed. Mix it with a day's grain feed.

Lice.—Examine your barrow frequently for lice. Look carefully on the neck, behind the ears, over the shoulder and under both fore and hind flanks.

Use crankcase oil from your automobile to kill lice. See that all parts of the body are entirely covered with this oil.

An easy way to treat hogs for lice is to confine them to very close quarters and bed the space with clean straw. Then cover the animal or animals with crankcase oil from a garden sprinkling can. The oil that gets into the straw will be rubbed off on those parts that have not been covered directly by the oil from the sprinkler.

Mange.—To treat hogs for mange use 1 gallon of ordinary liquid lime-sulphur and 12-15 gallons of lukewarm water. Use a tub, barrel, or oil drum for the solution. Hold the animal in the solution for two minutes by the

watch. Keep it entirely submerged except the head. Repeat the treatment in 12 days.

Mange is caused by a small mite that burrows into the skin causing it to thicken and become rough and scaly.

Clean Equipment.—You will want to keep all feeding utensils and equipment clean. The design of the pig trough below is a good one. The length of the trough will depend on the number of pigs fed.

Control Flies.—Those who feed milk will have a lot of flies around the feeding quarters. Flies may be controlled by spraying with a DDT solution. Do not put DDT spray inside the trough. Turn the trough over and spray the bottom and ends.

Use 1 pound of 50 per cent wettable DDT powder to 5 quarts of water. Spray the bottom of the trough, fences, shrubbery and building close by where the flies are accustomed to roosting. **Do not use DDT of this strength on animals.** If you want to spray animals with DDT, take 1 quart of the solution that you prepare for

spraying building and troughs and put it in 2½ gallons of water (1 quart of solution to 2½ gallons of water). This is the standard animal spray. Take care that it is not allowed to settle; that is, stir the mixture well just before using.

Handle With Care.—Many times meat carcasses are bruised so severely that portions of the meat have to be discarded as useless. This is due to the fact that clubs and sharp instruments are sometimes used in driving and loading hogs at market time. A flapper is the most humane thing to use in driving hogs. One can be made easily by tacking or riveting a strip of light belting, old binder canvas, or other heavy ducking material to a wooden handle of some sort. The flapper part is usually about 4 inches wide and 16 to 20 inches long. The handle is usually the size of a corn knife handle or slightly longer.

Fit Him For Show

Fitting for show really starts the day you get your pig. Its

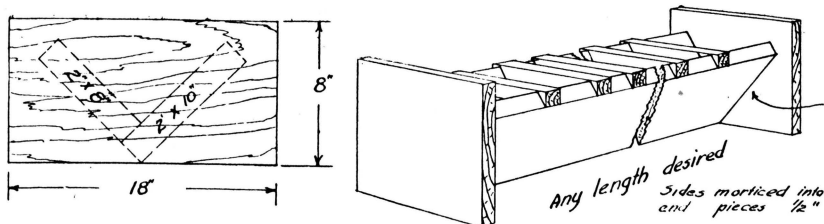


Fig. 5.—Diagram for a good pig trough.

health and condition will have much to do with its appearance at show time.

Trimming the Toes.—Work on the pig's feet should be started at least a month before the show. Trimming the toes will help the pig stand well on its pasterns. Stand the pig on a level floor to observe what trimming is needed. Use a sharp knife to trim back the toes and sides of the feet until the weight is carried evenly on the base of the foot when the leg is squarely under the corner of the body. Use a rasp on the edge of the hoof to shape the toe and leave the edge smooth.

If the hoof is long, cut back with nippers and smooth with a rasp just as a blacksmith does a horse's hoof.

Trim the feet at least twice before showing; for if too much is taken off at once the pig will be made lame. For this reason, the last trimming of the feet should be about ten days before the show. If your pig is gentle, he will allow you to work on his feet while he is lying down. Otherwise a second person will have to hold him while the work is being done.

Polish the hoof with fine sandpaper until the surface is smooth. Polish the hoof of a pig as you would polish the horn of a calf.

Washing.—At least a week before the show, the pig should be thoroughly washed with soap and water and brushed with a stiff brush. This will loosen the scurf which another washing may re-

move. After the last washing, bed the pig down on clean straw.

White hogs are washed clean and dusted with talcum powder.

Oiling.—It is a common practice to use some oil on the hair of all except white hogs before they enter the show ring. A good oil to use is made from 1 pint of paraffin oil and 4 ounces of alcohol. Cottonseed oil and alcohol may be used in the same proportions. Oil should be put on sparingly with a soft brush or cloth. The oil softens the skin and adds luster to the coat. Only enough oil should be used to brighten up the hair. Use the brush freely. Rubbing the hog with a woolen cloth just before entering the show ring will add to the shine the oil has given the coat of hair.

Trimming Hair.—It is a good plan to clip the hair on the ears and tail, except the hair that makes the brush at the tip.

Showing the Pig.—When the time comes for you to show your pig, be ready to show. Be prompt about getting in the ring but always keep the pig under perfect control. Do not try to get the pig too close to the judge. Keep in front of him and 8 or 10 feet away. Keep your pig out of the corners and away from the other pigs as much as possible. Keep the head of the pig down and the back held well up. Keep in good humor. The judge admires a good sport and dislikes a poor one. Keep right on showing as long as you are in the ring.

Be A Good Judge

You will not become a good judge all at once. It takes time, lots of practice and lots of experience to become a good judge of hogs. You will need to know the 22 parts of a hog. The diagram below will help you know these points.

Score Card.—A score card carries a lot of information in very little space. You will want to get acquainted with the lard hog score card. You will first want to get in mind the values given to the five main divisions of the score card. General appearance, 26 points; head and neck, 8 points; forequarter, 10 points; body, 33 points; hindquarter, 23 points. You will note there are certain parts of the animal that are scored 6, 7, and 8 points. The ham, for instance, is the most

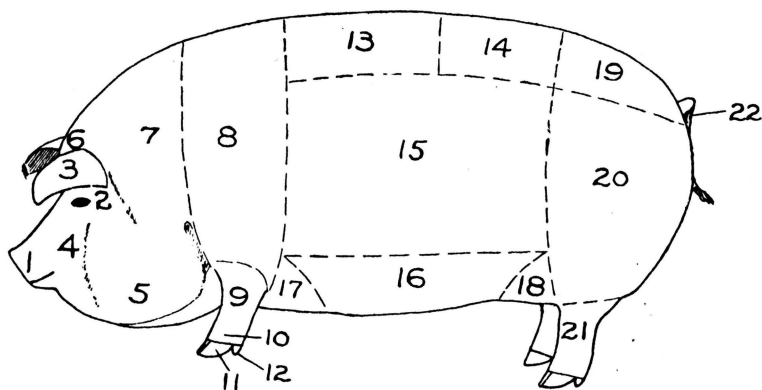
important single item on the score card and a good ham is deep and wide. It is thickly, evenly and firmly fleshed.

If you are interested in judging, you will continue from time to time to refer to the score card. Get from it the descriptive terms that define the desirable qualities of the different parts of the animal.

Judging By Comparison

Classes of four animals are usually used for judging. Hogs are marked with crayon on the back. You decide how you would place this class as if you were the judge in a show ring.

First get a good look at all the pigs from a distance of 20 or 30 feet. Your judgment of the relative merits of the animals as you see them from this distance is



Points of the Hog.

- | | | | |
|----------|--------------|----------------|----------------|
| 1. Snout | 7. Neck | 13. Back | 18. Hind flank |
| 2. Eye | 8. Shoulder | 14. Lion | 19. Rump |
| 3. Ear | 9. Fore leg | 15. Side | 20. Ham |
| 4. Cheek | 10. Pastern | 16. Belly | 21. Hind leg |
| 5. Jowl | 11. Toes | 17. Fore flank | 22. Tail |
| 6. Poll | 12. Dew claw | | |

Fig. 6.—Points to observe in judging a fat barrow.

SCORE CARD FOR LARD HOGS -- FAT BARROW

SCALE OF POINTS	Possible	Member's Score			
	Score				
Age—estimated . . . yrs., actual yrs.					
GENERAL APPEARANCE—26 Points.					
Weight—estimated lbs., actual lbs. score according to age	6				
Form arched back, straight underline; deep, broad, medium length, symmetrical, compact, standing squarely on legs	8				
Quality, bone of firm texture, fine skin, silky hair, clearly defined features and joints; mellow touch	6				
Condition, thick, even, covering of firm flesh, espe- cially in regions of valuable cuts; indicating finish; light in offal	6				
HEAD AND NECK—8 Points,					
Snout, short, not coarse	1				
Face, short, broad, cheeks full	1				
Eyes, large, full, clear, bright, wide apart, not ob- scured by wrinkles	1				
Forehead, broad	1				
Ears, well carried, fine, medium size	1				
Jowl, full, firm, broad, neat	1				
Neck, thick, medium length, somewhat arched, neat- ly joined to shoulders	2				
FOREQUARTERS—10 Points.					
Shoulders, broad, deep, full, compact, covered with firm flesh	6				
Breadth, wide, deep, breast bone advanced	2				
Legs, straight, strong, wide apart, pasterns short and strong, feet strong	2				
BODY—33 Points.					
Chest, deep, broad, girth large, foreflank full	4				
Back, broad, slightly arched, medium length, thick- ly, evenly and firmly fleshed	8				
Sides, deep, medium length, closely ribbed, thickly, evenly and firmly fleshed	8				
Loin, broad, strong, medium length, thickly, evenly and firmly fleshed	8				
Belly, straight, proportionate width, firmly fleshed	3				
Flanks, full, low	2				
HINDQUARTERS—23 Points.					
Hips, smoothly covered, proportionate width	3				
Rump, long, rounding slightly from loin to root of tail, width well carried back, thickly, evenly and firmly fleshed	8				
Hams, deep, wide, thickly, evenly and firmly fleshed	10				
Legs, straight, strong; pasterns short and strong, feet strong	2				
Total	100				

Disqualifications

Animal Date

Club Member Standing

likely to be reliable. You will, however, take a closer view from the side and down over the back before you make your final placing.

Let us suppose that you decide the Number 2 pig is the best barrow in the lot. You then select one from the remaining three that most closely resembles the Number 2 pig. You select Number 1 for your second place. After you look over the remaining two, you pick Number 4 for third place. This leaves Number 3 for the bottom place. You then write on your card "2-1-4-3".

Do not talk with anyone when

you are placing a class. Rely entirely on your own judgment.

Giving Reasons.—Written or oral reasons follow the same pattern. Here is a sample set of reasons:

"I placed this class of fat barrows 2-1-4-3. I placed Number 2 over Number 1 because of his superior type, quality and finish. He has a shorter neck, a deeper body, and carries more width from end to end. He has a deeper, wider, plumper ham, and his neck blends more smoothly into his shoulders. He is freer from wrinkles along the side than Number 1, and shows considerably

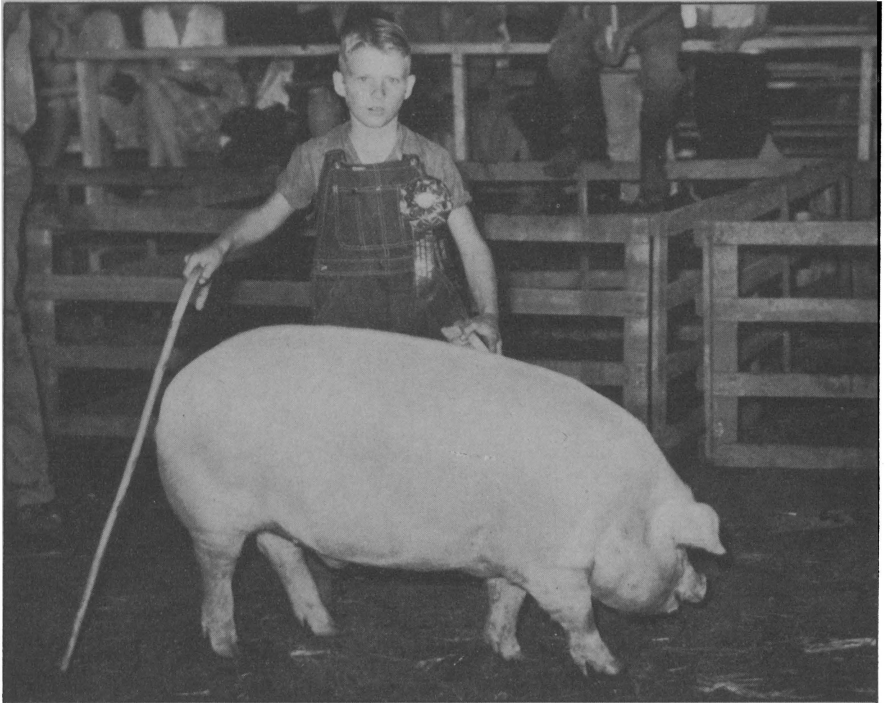


Fig. 7.—Grand champion barrow 1945 St. Joseph 4-H Baby Beef and Pig Show.

more finish throughout. Although I placed Number 2 at the top, I would criticize him slightly for being somewhat lacking in spring of rib.

"I placed Number 1 over Number 4. I think they are a close pair. I will admit that Number 4 has more length of side and a more level rump than Number 1. However, I placed Number 1 over Number 4 because Number 1 follows the type of my top barrow more closely than does Number 4. He is lower set, has heavier hams, carries more width down his top and is neater in the middle. Because of his trimness and neatness he should have a higher

dressing percentage than Number 4.

"I placed Number 4 over Number 3 rather easily, because he is superior in most respects. He is deeper and broader throughout and shows more quality. For he is neater in the ear, freer from wrinkles along the sides, has cleaner joints and shows more condition. His hams are much plumper than are those of Number 3.

"I easily placed Number 3 at the bottom. He is tall, has a shallow body, lacks plumpness in his hams, and has a long neck.

"These are my reasons for placing this class 2-1-4-3."

THE MARKET PIG 4-H Record

To Be Used With 4-H Circular 81

Name _____ Age _____

Address _____ County _____

Date Project Started _____

Name of 4-H Club _____

Project Leader _____

Club Activities

Club meetings attended during year. _____.

Project meetings attended. _____.

Number of demonstrations given at club or project meetings _____,
county meetings _____, district or state meetings _____.

Number of times judging work was done in local club _____,
county _____, district _____, state _____,
interstate _____.

Number of exhibits made in community _____, county _____,
district _____, state _____, interstate _____.

Work done on supplementary activities: _____

Work done on community service activities: _____

Project Requirements

Market Pig - Own and feed one or more, preferably three or five, pigs from weanlings to finished market hogs of 225 pound weight and over.

Goal

My goal is to get an average daily gain of _____ pounds on my barrows.

Practices to be Followed

A check mark (✓) in the left hand column shows that I plan to carry out the practice checked. A check in the blank to the right shows that I carried out the practice.

Selection

I Expect To

I Did

- | | | |
|-------|--|-------|
| _____ | 1. Select _____ barrows for my market pig project. | _____ |
| _____ | 2. Buy barrows weighing about _____ pounds. | _____ |
| _____ | 3. Use purebred barrows of _____ breed. | _____ |
| | or | |
| _____ | Use crossbred barrows with a _____ cross. | _____ |
| | (breeds) | |
| | or | |
| _____ | Use grade barrows. | _____ |
| _____ | 4. Select smooth barrows of good quality. | _____ |

Feeding

- | | | |
|-------|---|-------|
| _____ | 1. Use _____ for my grain feed. | _____ |
| | (corn, wheat or other) | |
| _____ | 2. Use supplement _____ with my grain to | _____ |
| | A,B,C, or D | |
| | balance the ration. | |
| _____ | 3. Feed _____ pounds of grain to one part of | _____ |
| | supplement up to the time my pigs weigh 100 | |
| | pounds. | |
| _____ | 4. Reduce my proportion of supplement after the | _____ |
| | pigs pass 100 pounds in weight so that at the | |
| | finish the ration will be _____ pounds of | |
| | corn to one pound of supplement. | |
| _____ | 5. Keep a good mineral before my pigs at all | _____ |
| | times. | |
| _____ | 6. Keep my pigs on a pasture of _____ | _____ |
| | (bluegrass, clover | |
| | or other) | |
| _____ | 7. Provide plenty of good water. | _____ |

Feed Record

- | | | |
|-------|---|-------|
| _____ | 1. Set aside a barrel or box for my barrow's feed and | _____ |
| | write on it "This feed reserved for 4-H barrow". | |
| _____ | 2. Weigh or measure out a bushel or more of | _____ |
| | grain feed and put it in my special box. | |
| _____ | 3. Weigh out 25 or 50 pounds of tankage and put | _____ |
| | in my feed box. | |

or

Mix 25 or 50 pounds of supplement and put it in box.

- _____ 4. Tack up a feed record sheet in a dry, convenient place and set down amount and value of feed put in box. _____
- _____ 5. Replenish feed supply when any part of it is exhausted taking care to record it each time. _____
- _____ 6. Total each column when the project is finished and subtract from totals any feed remaining in box. _____
- _____ 7. Transfer record to the financial summary in this book. _____
- _____ 8. Have record ready for my leader when he asks for it. _____

Health

- _____ 1. Keep my pigs on clean ground. _____
- _____ 2. Keep my pigs away from old hog lots at all times. _____
- _____ 3. Worm my pigs before I put them out on the pasture where they are to be fed. _____
- _____ 4. Buy vaccinated pigs. _____

or

Vaccinate my pigs soon after I get them home (but not until they have been wormed).

- _____ 5. Keep my pigs free of lice. _____
- _____ 6. Keep my pigs free of mange. _____
- _____ 7. Keep the feeding quarters free of flies. _____
- _____ 8. Provide some shade. _____

Fitting for Show

- _____ 1. Wash thoroughly with soap and water. _____
- _____ 2. Trim feet at least ten days before barrow is to be shown. _____
- _____ 3. Wash barrow one week before he is to be shown. _____
- _____ 4. Oil pig before he is shown. _____
- _____ 5. Trim hair around head, ears and tail. _____

Judging

- _____ 1. Learn to know the parts of a live hog and of a dressed hog carcass. _____
- _____ 2. Learn to know good type, femininity, breed character and the like. _____
- _____ 3. Learn to judge by comparison. _____
- _____ 4. Learn to give reasons on a class of hogs. _____

Demonstrating

- _____ 1. Practice demonstrating some of the things I have learned to do in my project such as; making a hog trough, hurdle or flapper, mixing feed, fitting for show, treating for lice and the like.
- _____ 2. Respond to requests to demonstrate at project meetings, club meetings, achievement day and the like.

Completing

- _____ 1. Total feed columns on my barn sheet and deduct for unfed portion that was charged to the project.
- _____ 2. Total value column on barn sheet.
- _____ 3. Divide the pounds of grain fed by the total pounds of gain in weight of the pigs to determine the grain required for a pound of gain.
- _____ 4. Determine in the same way the supplement required for a pound of gain.
- _____ 5. Divide the total cost of feed by the gain in weight to get the cost of a pound gain.
- _____ 6. Transfer these figures to the financial summary blanks below.
- _____ 7. Check in right hand column all things done.
- _____ 8. Complete record on front page of this record.
- _____ 9. Remove record from Circular and give it to my leader.

Financial Summary

Value of pigs at close of project. _____
Cost of barrows. _____
Total pounds of grain fed. _____ Value _____
Total pounds of supplement fed. _____ Value _____
Total value of mineral fed. _____
Other cash expense. _____

Total _____
Profit or Loss _____

Amount of grain fed to produce a hundred pounds of gain. _____
Amount of supplement fed to produce a hundred pounds of gain. _____
Cost of 180 pounds of gain. _____

_____ Date

_____ (Signature)