COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF OKLAHOMA

ERNEST E. SCHOLL, Director

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4-H PIG CLUB MANUAL

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4-H PIG CLUB MANUAL

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INTRODUCTION

The profitable production of a fat pig for the market, or the development of a purebred gilt into the right kind of a breeding animal is an art which can be learned only through the actual experience of feeding and caring for the animal. For the boy who is interested in learning more about the art of swine husbandry there is no better way to gain this knowledge and experience than to take an active part in a pig club. These clubs are organized for the purpose of teaching the fundamentals in handling swine, such as the proper selection of breeding animals, improved methods of feeding and management, the keeping of feed and production records, and the art of exhibiting.

It is hoped that every pig club member in Oklahoma will study this manual carefully and preserve it for future reference because it will be referred to from time to time by the county agent and through the columns of the Extension News. It has been written for the purpose of pointing out some of the underlying principles of pork production which should aid club members in producing hogs more efficiently and economically.

RULES OF THE OKLAHOMA 4-H PIG CLUB

1. Any boy or girl in the State who is 10 years of age, and who has not reached the age of 21 at the time the exhibit is made and who will agree to abide by the rules of the Oklahoma 4-H Club is eligible to membership.
2. Enrollment should be made out on the official enrollment blank and sent to the county agent not later than January 1 of the year in which the contest is to be held. Where there is no county agent employed in the county, the official enrollment blank should be sent directly to the 4-H Club Department at Stillwater.
3. Pig Club members who join the fattening phase will be expected to feed out and exhibit one or more fat barrows or fat gilts.
   Club members who join the breeding phase will be expected to secure a bred sow or gilt and keep a record of her and her litter from the time she comes into the possession of the club member until the close of the club year.
4. Pigs must be owned, fed and cared for by the club member.
5. All pig club members should be members of some crop club.
6. Pigs entered in the fattening phase must be weighed at the beginning and at the close of the fattening period.
7. Each club member will be expected to show his pigs at the county and state fairs and at the Oklahoma 4-H Club and F. F. A. Livestock Show at Oklahoma City in the spring.
8. Each club member will be expected to keep an accurate record of the cost and amount of feed fed and submit his record book to the county agent at the close of the contest.

PHASES OF PIG CLUB WORK

There are two phases of pig club work which may be selected by club members and carried out as 4-H demonstrations:

1. **Fattening Phase** which involves the growing and fattening of one or more pigs for the market.

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*On leave of absence.

2. **Breeding Phase** which involves the production of one or more purebred litters of pigs; starting with a bred sow or gilt.

THE FATTENING PHASE

(Production and Marketing Demonstration)

The fattening phase of the Oklahoma 4-H pig club involves the growing and fattening of one or more pigs for the market. The pigs used in the fattening phase may be purebred, grade, or cross-bred. Barrows or gilts may be used. The pig must be weighed at the time it is placed on feed and the feed record started. It must also be weighed at the time of the show or at the close of the feeding period. If the pig is not exhibited, it must be weighed at home or at market and a complete record of all feed and expenses sent to the county agent as soon as the contest closes. Pigs that are included in this demonstration must be owned, fed and cared for by the club member at least 90 days before they are exhibited at any fair or show. The object of the demonstration is to give 4-H Club members experience and training in feeding and fattening market classes of hogs. Pig club members should ordinarily begin with the fattening phase of 4-H Club work during their first year. Pigs that are to be exhibited should be placed on full feed 90 to 100 days before the show. A pig showing in a fat class must be well finished in order to win his class. It is almost impossible for a pig to win if he is underfinished in a fat class where there is strong competition and for this reason every pig club member should see to it that his pig is fat and well finished by the time he is to be exhibited and sold. The fattening or marketing phase should give the club member some valuable information and experience that will aid him greatly in carrying on a demonstration in the breeding phase of pig club work later.

EXHIBITION IN THE FATTENING PHASE

The pig club classification at the state fairs includes a breeding classication and a fat classification. Under the present plan fat barrows or fat gilts may be shown at the state fair during the fall and at the spring 4-H Club Show held at Oklahoma City.

THE BREEDING PHASE

(Sow and Litter Demonstration)

This phase of pig club work involves the production of one or more litters of pigs; starting with a bred sow or gilt. Only purebred sows or gilts are to be used in this demonstration.

The club member who wishes to take up the breeding phase of pig club work should secure a bred sow or gilt which will farrow a spring litter of pigs. During the first year, a record must be kept of all feed and expenses from the time the sow or gilt comes into the possession of the club member until September 15, or until the time of the county fair.

The second year, or each succeeding year, a record must be kept from September 15 to September 15.

EXHIBITION IN THE BREEDING PHASE

Under the present plan of pig club work, contests and exhibition in the breeding phase will include the Oklahoma State Fair as well as community and county contests in which a breeding classification has been provided. Breeding animals will not be shown in the 4-H Pig Club classes at the Fat Stock Show held at Oklahoma City during the spring.

SELECTING THE BREED

As a rule a pig club member will make the greatest progress in his work if he selects a sow or gilt which represents the breed he likes best. There is no best breed of hogs under all conditions and more depends upon the selection of the individual than upon the breed. Where there is no strong breed preference and other things are equal, it would seem advisable to select a breed that is already most commonly found on farms in the community. By doing this, it is easier to secure good breeding stock nearby. It also makes it easier to exchange breeding stock and to own valuable sires in partnership.

SELECTION OF THE SOW OR GILT

If the club member wishes to start his pig club work in the breeding phase he should do so by securing a bred sow or gilt that will farrow a spring litter. She should be a purebred of the right type and individuality. She should be long, high, deep-sided, and moderately wide. She should also have straight feet and legs, and heavy bone. Quality and smoothness should not be overlooked because they are both very essential. A large number of well developed teats are important. A sow of the proper type and conformation makes a better mother than one having a nervous temperament.

Prolificacy is one of the essential factors in pork production. The initial cost per head of a litter of pigs is determined by the number of pigs farrowed and reared. Experiments show that the tendency to produce large or small litters is transmitted from parent to offspring. Since this is the case it is always advisable to select stock from large litters. When sows are selected from litters of 8 to 10, they are more likely to produce large litters than if they come from litters of 5 or 6. It is equally important that the boar come from a large litter, since he transmits his inherited characteristics as strongly to the offspring as does the female.

FEEDING THE BROOD SOW BEFORE FARROWING

The secret of success in producing large litters of strong pigs is largely a matter of proper care and feeding of the sow during the period when she is carrying her unborn litter. During the period the sow needs a great deal of protein and mineral. The common fault of rations fed to brood sows is that they are made up too largely of corn with too small an amount of protein feeds such as milk and tankage; and not enough bulky feeds, such as bran or alfalfa hay. Corn alone is not a satisfactory ration for a brood sow, since it contains only 10 per cent protein. To get the best results, the ration of the brood sow should contain from 15 to 20 per cent protein. Tankage, meat meal, and milk furnish considerable mineral. Alfalfa hay is also a valuable source of mineral for the brood sow and is excellent to balance the ration.

CARE OF THE SOW AND LITTER AT FARROWING TIME

The sow should be placed in a pen by herself a few days before farrowing time. This will give her an opportunity to become accustomed to her new quarters and will save the trouble of having to move her later. The sow will farrow approximately 112 to 114 days from the time she is bred. The pen should be dry and well ventilated but free from drafts. It should be equipped with guard rails to prevent the sow from crushing the pigs against the sides of the pen. The guard rails may be made by fastening the edges of a 2-inch by 8-inch plank against the sides of the pen 8 to 10 inches above the floor. The sow should be given exercise each day before farrowing. The pen should be clean and roomy. At farrowing time the

pen should contain only a small amount of fresh, dry bedding. If too much bedding is used there is great danger of the sow lying on her pigs.

If the pigs are strong and the sow is quiet it is best to leave the pigs with the sow. If not, place the pigs in a bedded box and place burlap sacks over the box. In extremely cold weather place heated bricks or a jug of hot water in the bottom of the box to keep the pigs warm. See that the pigs nurse as soon as possible after they are farrowed.

For at least two or three days before farrowing, most of the grain should be left out of the ration and a laxative ration composed largely of millrun, bran, and ground oats should be substituted. The sow should not be fed for at least 24 hours after she farrows but should receive all the water she wants, The first feed should consist of a handful or two of dry oats or bran. This amount may be increased gradually at each feeding until the sow is on full feed again. This will take from a week to 10 days and the bran and oats should be gradually replaced by corn or other grain, wheat shorts, and tankage. The loss of many pigs is due to over-feeding the sow during the first week. If the sow is fed too much it will cause an increased flow of milk and the young pigs may develop scours as a result. If any signs of scouring appears, cut down on the amount of feed immediately. Lime water fed to the sow, or a small lump of copperas the size of the end of your finger, dissolved in water and placed in her feed twice daily should stop the scours.

CARE OF PIGS UNTIL WEANING TIME

When the pigs are about three weeks old they will begin to eat a little feed with their mother. A creep should be built for them at this time so that they may eat without being disturbed by the sow. A thin slop of sweet skim milk, one part shorts and one part ground corn makes a good ration. Feed very little at first and gradually increase the amount.

A mixture of eight parts ground corn, four parts wheat shorts, and one part tankage, fed dry in self-feeder, will give good results.

Pigs should be weaned when they are from 8 to 12 weeks of age. Where two litters of pigs are raised each year, the pigs should be weaned when they are eight weeks old. The amount of feed the sow is receiving should be reduced materially a day or two before the pigs are weaned. The sow should be taken away from the pigs and the pigs allowed to remain where they have been accustomed to eating and sleeping. Less difficutly will be experienced in weaning the pigs if this is done. The pigs should be kept on the self-feeder and pasture after weaning and fed liberally enough that they will be kept growing every day.

CARE OF PIGS AFTER WEANING

The pigs will require liberal feeding for some 30 to 60 days after weaning regardless of whether they are to be fattened for the market, kept for breeding purposes, or fitted for exhibition.

Since animals kept for breeding purposes and those fattened for the market have quite different feed requirements, they should be separated and fed a ration suited to their needs.

THE VALUE OF PASTURE

Experiment stations and successful hog raisers in all parts of the United States are agreed that pasture crops will reduce the amount of grain required to produce 100 pounds of pork and will at the same time increase the rate of gain.

At the Kansas station 50-pound pigs on alfalfa pasture and corn gained three times as much per day as pigs fed corn alone in a dry lot. Even when fed a well balanced corn ration the pigs on alfalfa pasture gained 44 per cent more per day than pigs fed the same ration in a dry lot. Professor Carl P. Thompson of the Oklahoma station has the following to say regarding the value of pasture for hogs:

"Pasture increases the rate of grain on hogs from 30 to 100 per cent and saves from 15 to 50 per cent of the grain required to produce a given gain. An acre of good pasture will produce from 200 to 275 pounds of pork where properly supplemented with grain, and will save from 500 to 1200 pounds of feed in the fattening of hogs."

Few facts in swine feeding have been so clearly proved, both in scientific experience and in the common experience of successful farmers, as the high value of pasture for all classes of swine. Its value should not be overlooked in pig club work. Alfalfa cannot be excelled where it can be grown successfully for summer and early fall pasture. Wheat, rye, and winter barley are fine for fall, winter and early spring pasture. Sudan grass, cow peas, dwarf essex rape and cane are satisfactory for summer pasture. By all means, pig club members should provide pasture crops that will give the maximum amount of pasture during the entire year.

FEEDING VALUE OF VARIOUS FEEDS

Corn is the basis of most swine rations and is high in fat forming nutrients but low in protein and mineral matter which serve as muscle and bone building constituents. For this reason, corn will give best results when balanced with milk, tankage, wheat shorts, or some feed that is high in protein.

Wheat and corn have about the same feeding value, with wheat having a slight advantage, but due to the usual high price of wheat it is usually a more expensive feed than corn. Kafir is from 90 to 92 per cent as efficient, pound for pound, as corn. Milo mazie and feterita have from two to four per cent less feeding value than kafir. Barley has a feeding value very close to that of kafir. Darso is slightly less valuable than maize and the kafirs. These alues are based on whole corn as compared with ground small grains.

Skim milk and buttermilk are the best protein supplements; both being rich in protein and mineral. Tankage and meat meal are the most valuable commercial protein supplements on the market and are very high in protein and mineral.

Wheat shorts is valuable in a swine ration but is low in mineral content, particularly calcium, and for this reason should be fed with milk, tankage or some mineral feed.

PREPARATION OF FEEDS

Experiments show that it is more profitable to feed corn either in the ear or shelled. Hogs can grind their corn more cheaply than the owner, because they have been well equipped by nature to do their own grinding. However, all of the small grains should be ground because it increases their feeding value from 10 to 25 per cent.

Cooking grain lowers its feeding value as a hog feed. Moistening ground grain improves its palatability and is a good practice. Soaking small grains, such as kafir, wheat, barley, etc., lessens their avlue. Hogs will make more rapid gains on soaked small grain but it requires from 5 to 10 per cent more grain to produce 100 pounds of gain. Soaking corn adds to its palatability but does not affect its feeding value. Wheat shorts is best fed in the form of a thick slop due to the fact that it is rather "gummy" and is more palatable in this form than when fed dry.

SUGGESTIVE SWINE RATIONS

The following rations are suggestive and may be modified to include feeds that are available on the farm. Where corn, kafir, and barley are suggested, milo maize, darso, or feterita may be substituted.

RATIONS FOR SWINE

Growing and Fattening Market Pigs	Parts by Wt.	When Fed on Pasture	Parts by Wt.	When Fed in Dry Lot
Suckling pigs		(1)		
5-40 pounds	60	Corn, kafir or barley	50	Corn, kafir, barley
(Fed in creep)	30	Wheat middlings or shorts	35	Wheat middlings or shorts
	10	Tankage (60% Protein)	15	Tankage (60%)
		(2)		
	85	Corn, kafir, barley	80	Corn, kafir, barley
	15	Tankage	20	Tankage
		(3)		
	65	Corn, kafir, barley	50	Corn, kafir, barley
	35	Wheat middlings or shorts	50	Wheat middlings or shorts
		(4) SELF-FED		SELF-FED
		Ground corn, kafir, barley		Same as for pigs on pasture
		Wheat middlings or shorts		
		Tankage		
Weaning pigs		(1)		
90-75 pounds	75	Corn, kafir, milo, etc.	65	Corn, kafir, milo, etc.
	15	Shorts or wheat middlings	25	Shorts or wheat middlings
	10	Tankage	10	Tankage
		(2)	80-90	Corn, kafir, barley
	85-95	Corn, kafir, barley	20-10	Tankage
	15- 5	Tankage		
		(3)		
	35	Corn, kafir, barley	25	Corn, kafir, barley
	65	Skimmilk or buttermilk	75	Skimmilk or buttermilk
		(4) SELF-FED		SELF-FED
		Corn, kafir, barley		Same as for pigs on pasture
		Shorts or middlings		
		Tankage		
		(5)		
		Corn, kafir, barley		Same as for pigs on pasture
		Tankage		
Shoats		(1)		
75-150 pounds	10	Corn, kafir, barley	8	Corn, kafir, barley
	1	Tankage	1	Tankage
		(2)		
	15	Corn, kafir, barley	13	Corn, kafir, barley
	5	Shorts or middlings	5	Shorts or middlings
	1	Tankage	1	Tankage
		(3)		
	50	Corn, kafir, barley	25	Corn, kafir, barley
	50	Skimmilk or buttermilk	75	Skimmilk or buttermilk
		(4) SELF-FED		SELF-FED
		Corn, kafir, barley		Same as for pigs on pasture
		Tankage		
		(5)		
		Corn, kafir, barley		
		Shorts or middlings		Same as for pigs on pasture
		Tankage		

RATIONS FOR SWINE (continued)

Growing and Fattening Market Pigs	Parts by Wt.	When Fed on Pasture	Parts by Wt.	When Fed in Dry Lot
Hogs 150-250 pounds		(1)		
	15	Corn, kafir, barley	10	Corn, kafir, barley
	1	Tankage	1	Tankage
		(2)		
	20	Corn, kafir, barley	18	Corn, kafir, barley
	6	Wheat shorts	6	Wheat shorts
	1	tankage	1	Tankage
		(3)		
	3	Corn, kafir, barley	2	Corn, kafir, barley
	1	Wheat shorts (The above rations may be self-fed)	1	Wheat shorts
		(4)		
	2	Corn, kafir	1	Corn, kafir, barley
	1	Skimmilk or buttermilk	2	Skimmilk or buttermilk
Growing Breeding Stock 10-75 pounds		Same as for market pigs		Same as for market pigs
Growing Breeding Stock 75-200 pounds		(1)		
	6	Corn, kafir, barley	5	Corn, kafir, barley
	5	Shorts	5	Shorts
		(2)		
	9	Corn, kafir, barley	8	Corn, kafir, barley
	1	Tankage	1	Tankage
		(3)		
	13	Corn, kafir, barley	12	Corn, kafir, barley
	5	Wheat shorts	5	Wheat shorts
	1	Tankage	1	Tankage
Mature Brood Sows		(1)		
	3	Corn, kafir, barley	6	Corn, kafir, barley
	2	Wheat shorts	5	Wheat shorts
		(2)		
	10	Corn, kafir	9	Corn, kafir, barley
	1	Tankage	1	Tankage
		(3)		
	14	Corn, kafir, barley	13	Corn, kafir, barley
	5	Wheat shorts	5	Wheat shorts
	1	Tankage	1	Tankage

SELF FEEDERS

Fattening hogs can balance their own ration if fed corn and tankage in a self feeder. This method has proved to be a labor saver in feeding market classes of hogs but it is not recommended for brood sows. Results from various experiment stations show that where self feeders are used the hogs, on an average, make more rapid gains and produce 100 pounds of pork on less feed than where the same feeds are fed by hand. Tankage must be used in the self feeder, however, because hogs will not consume enough of any other protein supplement in dry form to balance a corn ration.

Plenty of fresh water must be available where self feeders are used.

MINERAL MIXTURES FOR HOGS

It is necessary in order to get the best results in growing hogs to feed in addition to a well balanced ration a mineral mixture of some kind. Most feeds available for pork production are low in mineral matter, especially calcium. The following mixtures are suggested:

1. Equal parts of bone meal, ground limestone and salt.
2. Two parts bone meal or ground limestone and one part salt.
3. Charcoal ---------- 1 bushel
   Salt ---------- 1 peck
   Ground limestone or bone meal ---------- 5 pounds
   Sulphur ---------- 2 pounds
   Copperas ---------- 1 pound

PARASITES

Lice

The best way to rid hogs of lice is to crowd them into a small pen and sprinkle them thoroughly with crude oil. A second sprinkling should be given at the end of 10 days to rid them of any lice that may have hatched out in the meantime. A small amount of hog dip added to the crude oil will make it more effective. A layer of oil placed on the hog wallow during the summer time is also very effective in getting rid of lice.

Roundworm (Ascaris Lumbricoides)

The most common internal parasite and the one that does the greatest damage to pigs is the intestinal roundworm or ascarid. If these worms become numerous they will cause digestive troubles, retard growth and development, and in other ways interfere with the well being of pigs and more particularly the younger animals that are less than four months of age. As pigs grow older they become more resistant. However, if the infestation is very bad while the pigs are small they will become unthrifty and may eventually die as a result of the infestation.

Sources of Infestation. Pigs may become infested with roundworms as a result of swallowing the eggs of the parasite while rooting in infested hog lots or by taking into the mouth while nursing, eggs which have adhered to the skin of the sow.

Preventive Measures. Fortunately the United States Department of Agriculture has worked out a system of swine sanitation which will not only be found effective in the prevention of roundworms, but will control practically all other parasites and many of the minor swine diseases, such as bull nose, sore mouth, necrotic enteritis, etc. This system of sanitation was developed in McLean county, Illinois, in 1919 and is known as the McLean County System of Swine Sanitation. There are four points that must be carried out completely if the system serves its purpose. They are as follows:

1. Clean and scrub the farrowing pens with boiling water and lye (30 gallons of water to one pound of lye).

2. Wash the sow's sides and udders with soap and warm water before placing her in the clean pen.
3. Within a week or 10 days after farrowing, haul the sow and pigs to a clean pasture that has been plowed and a crop grown on it since last used by hogs.
4. Keep the young pigs on the clean pasture until they are at least four months of age.

Treatment for Roundworms. In some instances, it may not be possible to practice the McLean County System in its entirety or infestation may creep in for some unknown reason. In such case treatment should be given. Perhaps the best time for treatment is when the pigs weigh from 40 to 60 pounds or within a week to 10 days after weaning. As a rule the most effective method of treatment is by administering capsules containing santoin. Following is a proper dose for pigs weighing 40 to 60 pounds:

Santoin	2 grains
Aloin	3 grains
Sodium Bicarbonate	8 grains

Pigs should be kept off feed for at least 24 hours before giving the capsules and 18 hours additional following treatment.

Only the worms that are in the intestines can be reached by medical treatment. Practically all veterinarians and drug stores handle worm expellers for hogs which are put up in capsule form with enough in each capsule to treat one pig.

To give the individual treatment it is necessary to have an instrument for holding the pig's mouth open, a pair of long forceps for depositing the capsule well back on the tongue of the pig, and a syringe with which to squirt a little water over the tongue of the pig to cause it to swallow. The individual treatment is the most satisfactory and really is not a great deal of trouble.

Most farmers prefer, however, to use a treatment that can be administered to the entire herd at one time. For this purpose oil of chenopodium has been found the most satisfactory. Mix one ounce of oil of chenopodium with 16 ounces of caster oil. This is enough for eight pigs. Mix this dose with about one-half ration of thick slop, preferably mixed with milk, and place it in troughs where there is ample room for all pigs to get to the trough at the same time. This should be given after the pigs have been off feed for 12 to 24 hours so that they are very hungry.

PREPARING THE PIG FOR THE SHOW

About 60 days before the show the feet of the pig should be trimmed in order to keep them level so the pig will stand up straight on its feet and pasterns. The trimming should always be done from the under side of the hoof. The feet should be trimmed a second time some two or three weeks before the show, and at this time it is not a good plan to trim them so close that it will cause lameness at the time the pig is brought into the ring. Clipping the hair from the outside and inside of the ears and from the brush of the tail up to the body will greatly improve the appearance of the pig.

A slight dressing of oil should be applied before the pig goes into the ring but care should be taken not to use too much oil for this is as serious a mistake as using none at all. Some light oil such as paraffin or cottonseed oil should be used.

A few days before the pig is to be shown, it should be scrubbed with soap and water to remove all scurf and dirt.

In order to show the pig off to the best advantage in the show ring, it should be trained to stand with all four feet squarely placed under its body and with the back well arched.

A hand hurdle may assist the club members in showing the pig in the ring.

Most swine exhibitors use a cane or neat walking stick in showing their hogs. A cane is more satisfactory than a whip to use in the show ring because a whip is likely to excite the pig beyond the control of its owner.

The club member should be alert and on the job at all times because most judges do not like to award a blue ribbon to the boy who shows no particular interest in his pig.

FEED REPORTS AND RECORDS

Every pig club member should keep an accurate record of his pig club work from the very beginning until the close of the contest. Unless an accurate record is kept the club member cannot tell what his profit or loss has been during the year and besides only accurate records have any value either to the club or to the club department.

The record should include the original weight and cost of the animal, the kinds and amounts of feed used, days on pasture, final weight, daily gain, and every other item of information that might have some value. Since a number of out-of-state trips, scholarships, and special prizes offered are based upon the livestock records and reports, the importance of an accurate and well-kept account of your livestock club work can hardly be over-estimated.

Don't fail to keep an accurate record of your livestock club work and have your complete report ready to turn over to your county agent at the close of the contest for it is one of the surest ways of becoming an outstanding winner in livestock club work.

TEAM DEMONSTRATIONS

Demonstrations are intended to "show" or "explain" how some approved farm practice is done. If carried on by one person such a demonstration is called an "individual" demonstration. When it is put on by two or more members, it is called a "team demonstration." As a rule, most demonstrations may be given at 4-H Club meetings, at community or civic club meetings, at judging schools or demonstrations and at local, county, or state exhibitions. Before the members of a team demonstration attempt to give such a demonstration in public, they should practice giving individual demonstrations. In putting on team demonstrations, one member of the team should be designated as captain of the team.

The following outline will give the club members an idea of the procedure in presenting a team demonstration:

JUDGING BREEDING CLASSES OF SWINE

Captain "A" Talks— Introduces "B" as team mate 1. States object of demonstration and discusses the procedure of judging purebred hogs: (a) Look class over well before starting work. (b) Obtain mental picture of class (c) Keep in mind the following points: 1. Type—general appearance, constitution, smoothness, quality, feet and legs, and fleshing qualities.	"B"—Team Mate Look class over, following out the suggestions of "A."
"A" shows each point as "B" discusses it.	"B" discusses in detail and criticizes each animal in the class. 1. Type— (a) Long body (b) Deep body (c) High arched back (d) Moderately wide of body 2. Constitution— (a) Deep through chest (b) Wide through chest (c) Ribs well sprung (d) High arch of back.
"A" takes up the discussion 3. Smoothness— (a) Smooth of shoulders (b) Smooth blending of neck with shoulders. ((c) Free from "creases" and "wrinkles" along sides (d) Smooth of hams 4. Quality— (a) Head and body free from coarseness. (b) Hair coat smooth and fine. (c) Joints and face clean cut and free from coarseness.	"B" shows each point as "A" discusses it. "B" takes up the discussion.
"A" Explains each point as "B" discusses it.	5. Feet and Legs— (a) Standing squarely on all four feet. (b) Straight feet and legs. (c) Short, strong, straight pasterns. (d) Heavy of bone. 6. Fleshing— (a) A fair amount of uniform, firm flesh. (b) Back, ribs, loin, and sides deeply covered with muscular tissue. (c) In a thrifty breeding condition but not over fat.
"A" shows points of class in summary Asks, "Are there any questions"	"B" summarizes demonstration. Answers questions asked.

Material Needed

Class of four breeding sows or gilts, one poor type; a cane and a hurdle for showing the class.

SUGGESTIVE TEAM DEMONSTRATIONS AND REFERENCES

1. Judging Fat and Breeding Classes of Swine.
   Farmers' Bulletin 1455—Oklahoma Extension Circular 225.
2. Constructing and Using a Self-feeder.
   Oklahoma Extension Circular 225. Farmers' Bulletin 906. F. B. 1504.
   Circular 131—Mo. Experiment Station, Columbia Mo.
3. Building an Individual Hog House with Guard Rails.
   F. B. 438, F. B. 1487.
4. Types of Hog Houses. F. B. 1487.
5. Making a Hog Hurdle.
   4-H Circular 36. Ohio State University, Columbus, Ohio.
6. Feeding the Brood Sow Before Farrowing.
   Extension Circular 225. F. B. 874.
7. Care of Sow and Pigs at Farrowing Time.
   F. B. 1437. Oklahoma Ext. Cir. 225.
8. Ear Marking Purebred Pigs.
   4-H Circular 36. Ohio State University, Columbus, Ohio.
   Oklahoma Extension Circular 225.
9. Rations for Growing Pigs.
   Oklahoma Extension Circular 225. Pig Club Manual.
10. Preparing the Club Pig for the Show.
    F. B. 1455. Oklahoma Extension Circular 225.
11. Mineral Mixtures for Swine.
    Oklahoma Extension Circular 225.
    Treating Hogs for Lice or Mange. F. B. 1085.
13. The McLean System of Swine Sanitation.
    Technical Bulletin No. 44, U. S. D. A. Washington, D. C.
    Leaflet No. 5, Bureau of Animal Industry, Washington, D. C.
14. Treating Pigs for Worms.
    Extension Circular 13, University of Missouri, Columbia, Mo.
    F. B. 1244.
15. Vaccination Against Hog Cholera.
    F. B. 834.
16. Comparing the Value of a Purebred and Scrub Sire.
    Oklahoma Station Bulletin 73.
    Miscellaneous Circular 74—U. S. D. A.
    Iowa State College Bulletin 188.

NOTE: Farmers' Bulletins mentioned above may be had from the Superintendent of Documents, Government Printing Office, Washington, D. C., for a small charge. Oklahoma Extension Circulars may be had free from the Extension Division, A. and M. College, Stillwater, Oklahoma.

OKLAHOMA BULLETINS

1. Extension Service, A. and M. College, Stillwater, Oklahoma.
   Circular 225—Care and Management of Swine.
2. Oklahoma Experiment Station, Mailing Room, Stillwater, Oklahoma.
   Experiment Station Bulletin 198—Oklahoma Feeds and How to Prepare Them.
3. Station Circular 57—Rations for Swine.
4. Experiment Station Bulletin 165—Preparation of Kafir and Wheat for Swine Feeding.

U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.
FARMERS' BULLETINS

438—Hog Houses
578—Feeding Grain Sorghums to Livestock
780—Castration of Young Pigs
834—Hog Cholera
874—Swine Management
1085—Hog Lice and Hog Mange
1179—Feeding Cottonseed Products to Livestock
1186—Pork on the Farm, Curing and Canning
1244—Diseases, Ailments and Abnormal Conditions of Swine
1263—Breeds of Swine
1437—Swine Production
1487—Practical Hog Houses
1455—Fitting, Showing and Judging Hogs
1490—Hog Lot Equipment
1504—Self-feeding vs. Hand-feeding Sows and Litters