Care and Feeding of Swine

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Chester White Barrows

Grand champion pen over all breeds at the 1927 International Livestock Show. Exhibited by University of Minnesota.
HINTS FOR HOG PRODUCERS

Good breeding is no more than half the essentials of raising hogs profitably. Proper care and feeding are fully 50 per cent of the total requirements.

Corn alone is a high-priced feed. Protein and minerals must be added to make an economical ration.

Ground barley is nearly as good a feed as corn. In some sections it takes the place of corn.

Skimmilk and buttermilk are high-class hog feeds. One hundred pounds is worth about half the value of a bushel of corn.

Alfalfa hay is just as good for brood sows as for cows.

Bluegrass early in the season is a good hog pasture. In the d y summer months it is mostly a gymnasium.

Rape, red clover, and alfalfa are the best forages for swine.

Hogging-off corn is not merely a lazy way of harvesting grain; it is a profitable plan of feeding.

Market the pig crop when the other fellow does not.

Nearly all pigs are infested with worms. This is the most common cause of runts. Treatment for worms will reduce the percentage of runty pigs.
CARE AND FEEDING OF SWINE

The many conditions favorable to the production of hogs in Minnesota have caused a steady increase in their numbers. According to the census figures of 1900 there were 1,440,806 hogs on farms in the state. In 1910 there were 1,520,257, and in 1920 there were 2,380,862. A continued increase is shown by the estimate of the state crop and livestock reporting service of 3,342,000 hogs for January 1, 1930.

![Poland China Sow with Ten Husky Pigs](image)

Fig. 1. Poland China Sow with Ten Husky Pigs
Large litters are the most profitable.

Few sections of any state can market corn in the form of pork more profitably than southwestern Minnesota. Even tho the northwestern part of the state does not produce a surplus of corn, varieties are grown that mature and yield well. The increased use of barley as a feed for hogs has stimulated pork production, and the steady growth of the dairy industry is providing large quantities of skimmilk and buttermilk, which are highly valuable protein supplements.

Good markets help in getting the greatest returns from Minnesota hogs. South St. Paul is one of the leading markets in the United States in the sale of both finished hogs and feeder and stocker pigs for shipment to feed lots. There are other good markets within and adjoining the state. The health and thriftiness of Minnesota hogs make them favorites with buyers.

SELECTING BREEDING STOCK

The selection of breeding stock is an important factor in profitable hog raising. When selecting a brood sow, choose one long in body with an arched back and strong legs and pasterns. Long-bodied sows usually produce larger litters than short thick sows. Breeders like to get a
sow that was farrowed in a large litter rather than one from a small litter, as she is more likely to produce a large number of pigs. Many thousands of dollars yearly are lost to hog producers by the crippled hogs coming to any large market. Much of this loss can be prevented by selecting breeding stock with strong feet and pasterns. A sow with a neat head and neck will be a good mother and will care for her pigs well. One with a coarse, staggy head is rarely found among those that have demonstrated their value by raising large litters of thrifty pigs. The teats should be numerous and prominent. Inverted or blind teats are cause enough for the rejection of a sow, as the number of pigs she can raise is limited by the teats producing milk.

A fine coat of hair, a skin free from wrinkles, neat ears, and clean bone are factors indicating high quality in a hog. The butcher classes of pigs that sell at the top of the market are made up of light weight barrows and gilts outstanding in quality. Coarse, wrinkled, soft-fleshed, and flabby-jowled hogs sell at a big discount.

A large, vigorous sow will usually transmit these characteristics to her pigs. Growthy pigs that gain rapidly are the most profitable kind to raise; hence a thrifty, active sow, large for her age, is a good choice when selecting a brood sow.

As the boar stamps his characteristics on many more pigs than the sow, great care should be given to his selection. Usually a purebred sire will be more profitable than a grade. Behind the purebred are generations of careful selection and feeding; consequently he is more likely than the grade sire to contribute good qualities to his pigs. Size, vigor, quality, and the points of body conformation desired in the brood sow are important in the boar. He should be growthy and large framed; have good depth of chest to give strong constitution, and a deep middle. The good feeding hogs make the most profit.

**FEEDING AND CARE OF BROOD SOWS**

A large percentage of the pigs marketed each year are produced by sows approximately one year old at the time the pigs are farrowed. Such sows are immature and are growing and developing their own bodies while they are raising pigs. They need more feed in proportion to their weight than older brood sows, and feed richer in body building materials. Skimmilk or buttermilk, tankage, linseed meal, and other protein feeds are more needed in the rations for pregnant gilts than for older sows.

A few satisfactory rations for wintering bred gilts are listed. These are based upon the daily amount of feed for one sow of an average weight of 200 pounds.

1. Shelled corn 2 pounds, oats 2 pounds, alfalfa hay 1 pound.
2. Ground barley 2 pounds, ground oats 2 pounds, alfalfa hay unlimited.
3. Shelled corn 3½ pounds, tankage or meat meal ¼ pound, alfalfa hay 1 pound or skimmilk¹ 3 pounds.
4. Ground barley 4 pounds, skimmilk¹ 3 pounds.
5. Shelled corn 3 pounds, skimmilk¹ 7 pounds.

Fig. 2. The Right Type of Brood Sow
Grand Champion Duroc Jersey sow shown by the University of Minnesota at the State Fair.

Other combinations of feed may be equally satisfactory. It is best to make the ration of home-grown feeds if possible, hence grain and either skimmilk or buttermilk, or grain and alfalfa hay are preferred. Leafy red clover hay is a good substitute for alfalfa, but alsike and sweet clover are not very satisfactory for hogs. It never pays to feed pregnant sows without a good supply of protein in the ration. When rations are lacking in this muscle- and other tissue-making food, smaller and weaker litters of pigs are farrowed than when the feed is balanced. A little money spent to put the necessary protein in brood sow rations will bring big returns. The biggest demand for protein comes during the last six weeks of pregnancy, and special care should be taken to supply this material.

The best way to determine how much feed a pregnant gilt should have per day is by the gain made and the amount of fat she appears to be putting on. A long-bodied growthy gilt can average about one

¹ Buttermilk is equivalent to skimmilk.
pound of gain daily during the winter without getting too fat. A reasonable amount of fat is an advantage, because it can be used for milk production after the sow farrows. A fat brood sow is lazy, likely to farrow weak pigs, and is more likely to kill pigs than one in moderate flesh.

Yearling sows and older ones have made most of their own body growth and consequently need less protein than bred gilts. Grain and good alfalfa or clover hay is a satisfactory ration during the winter. The most logical way of feeding is to give all the hay the sows will eat, regulating the amount of grain by the condition of the sows. Hay can be fed from a rack, but when the ground is frozen it is just as satisfactory to feed it on the ground. There will be some waste, as the sows will not eat the stems, therefore the greenest, most leafy hay is the best. The amount of grain needed daily by yearling or mature sows will average from one to one and a half pounds for each 100 pounds of weight of the sows. Unless such sows are in more than moderate flesh at the beginning of winter they ought to gain from one-half to three-fourths of a pound each per day. As with the gilt, the pregnant sow should be in strong, vigorous condition without carrying a great deal of fat.

Exercise is fully as large a factor in the production of strong, healthy pigs as is good feed. Brood sows usually will not take enough exercise voluntarily, but can be induced to do so, if the winter is an open one, by giving them the run of a cornfield after the grain has been picked. By feeding grain at a distance of 40 or 50 rods from their sleeping quarters, the sows will be made to exercise. Weak pigs are more often due to lack of exercise on the part of the sow than to any other factor.

Mineral mixtures probably are needed by hogs of all ages and especially by sows carrying pigs. The feeds commonly fed to hogs have too little mineral matter to build the framework of an animal that grows as rapidly as a hog. A good mixture that is easily put up and supplies the needed bone-building elements is 20 per cent common salt, 40 per cent feeding bonemeal, 40 per cent air-slaked lime or ground limestone. To each 100 pounds of this mixture should be added 0.03 pound potassium iodide, unless iodine is fed in some other way. Minnesota is in the semi-goitrous area and some iodine should be supplied to protect pigs against goiter. The amount of mineral mixture needed is probably about one pound for each 100 pounds of other feeds given. Another way to estimate the quantity is one pound of mineral mixture per month for each hog. Mixtures may be self-fed or mixed with
ground feed, according to the preference of the person doing the feeding. More care in keeping hogs free from lice is necessary in winter than at other seasons. All stock that is to be kept through the winter should be gone over thoroughly late in the fall with crude oil. If there are not too many hogs, they may be put into a small pen and the oil applied with a stiff brush. The crease between the shoulders and jowl is the favorite location of the parasites. Oil drained from auto and tractor crank cases is a substitute for crude oil, but will not last so long and it may be necessary to apply it several times. All brood sows and gilts should be examined occasionally during the winter to make sure they are free from lice.

**Preparation for Farrowing**

To know for certain when a sow is due to farrow her litter, it is necessary to have the breeding date. Many pigs are lost every season because no breeding dates are kept and the pigs are farrowed unexpectedly in an unfavorable place. Only by having a separate pen for each sow are good results obtained. Pigs are usually carried 114 days. The sow ought to have several days to get accustomed to the farrowing pen before her litter is born, else she is likely to be restless and kill some of the pigs in the first few days. A fender placed about 10 inches above the floor and 8 inches away from the side walls saves many pigs from being crushed by heavy sows.

In feeding brood sows just before they farrow, one of the principal points is to keep the bowels open and avoid a feverish condition. Very little grain should be fed. A slop made of water and a mixture of half shorts and half bran is the best feed. By keeping the sow a little hungry rather than giving her all she wants, trouble at farrowing time may be avoided.

The disposition a sow shows at this time depends largely upon the methods of feeding and handling employed by the caretaker. A quiet, competent feeder is rarely chased out of the pen by the sow he cares for. Some sows are naturally cross, but rough handling aggravates rather than helps the condition.

In most cases no aid is needed when the sow is about to deliver her pigs. A skillful herdsman is careful not to disturb the sow or let other hogs create a disturbance near the farrowing pen. If after several hours the sow seems unable to farrow her pigs, an experienced man, veterinarian or layman, should be on hand to remedy the trouble.
In weather cold enough to chill the new-born pigs, it is a good practice to take each pig as farrowed and, after wiping it with an old sack, place it in a barrel or box with some warm bricks or a jug of hot water. When all the litter have been born, they should be helped to nurse, seeing that each pig gets some milk. A little milk in the pigs' stomachs does wonders to put life and energy into them. Except in very cold weather or if the sow is restless and gets on her feet often, the pigs should be left with her. Small pigs nurse frequently, so unless they stay in the pen with her they must be put with the sow about every three hours both day and night.

The sow will get along best if she is not fed for the first twenty-four hours. A drink of water is all that is needed. Her first feed can well be bran and shorts, which she was getting before she farrowed. "Spare the feed and save the pigs" is a good rule for the first two weeks.

**Care of Sow and Small Pigs**

Pigs will not be able to take all the milk a good brood sow will produce until they are two or three weeks old. Up to this time careful feeding of the sow and a determination not to overfeed are necessary. Grain should be given sparingly and then it ought to be as much oats as corn. **Pigs must have exercise to prevent them getting fat.** By the time they are a week old they should be playing around the pen, and at that time a broad alley in the farrowing house pays dividends. The pigs should be put in the alley once or twice each day. If they do not run around they can be driven with a sack, or cloth of any kind. Pigs often can be made to exercise by giving them newspapers or old rubbers to play with. Once the pigs get in the habit of frequenting the playground, a small door in the pen just large enough to let them go out and in saves the time of the feeder. An objection to this device is that some pigs become robbers, sucking sows that are not their mothers. When the weather is good, the sows and pigs should be outdoors for a while each day. The short rays of sunlight are necessary for health and growth.

Fat pigs are susceptible to thumps—indicated by difficulty in breathing. There is a spasmodic motion of the flanks and the pigs are dumpy. Prevention of this condition is necessary, as treatment is not very effective. At the first symptoms, the feed of the sow should be reduced and a generous handful of Glauber's salts given in the slop once a day. By driving the pigs so that they are compelled to take exercise each morning and afternoon, they will be benefited and the trouble may be confined to one or two pigs in the litter, but preventing the over-fat condition is the only sure solution of the problem.
SCOURS

Pigs are subject to scours in early spring. Damp, rainy, cold weather and damp pens are predisposing causes. Over-feeding the sow is a sure way to bring on scours in the pigs. Clean dry pens and a scant ration for the sow tend to prevent scours. Sunshine in the pens warms the floor and dries it. At the first sign of scours, cut the sow's feed in half and give her a handful of Glauber's salts. If the pen is dry and the sow is fed carefully, the pigs will probably stop scouring. If they do not recover in twenty-four hours, give each pig a teaspoonful of castor oil or mineral oil.

WORMS

One of the greatest handicaps to pig raising is the round worm, or Ascaris. Small pigs get the eggs of these worms from the udder of the sow or from the floor of the pen or the dirt of the lot. These eggs hatch in the digestive tract and migrate in the blood stream as parasites of microscopic size, frequently locating in the lungs. Much of the trouble from thumps is probably due to these parasites. Coughing, so frequently noticed in young pigs, is often caused by the worms in the lungs. As the pigs grow the worms develop and are coughed up to the throat and are likely to be swallowed. If this happens the developing worms locate in the small intestine and cause great loss of flesh and of growth. The part of the small intestine nearest the stomach is their most common location. Losses from worms are great enough to make it advisable for the pig raiser to spend considerable time and effort in avoiding them.

Brood sows are usually infested with round worms, and lots and pastures regularly used by hogs are badly seeded with them. The worms do little damage to swine over six months old, but are a serious pest in young pigs. A system worked out in McLean County, Illinois, has given remarkably good results in keeping pigs free from worms. The procedure is thoroughly to clean the farrowing pens, walls, and alleys to which the pigs have access. Ordinarily disinfectants will not kill worm eggs; lye and boiling water are necessary. Before the sow is put in the farrowing pen her udder is washed with soap and warm water. The pen has been well scrubbed with lye and boiling water and clean bedding provided. The pigs and the sow are not allowed to go into the lots surrounding the farrowing house, as they are sure sources of worm infestation. When the pigs are about two weeks old, or as soon after as possible, the sow and her pigs are hauled to a fresh pasture that was not grazed by hogs the preceding year. There is little trouble from worms if pigs are handled in this way.
Hog lots adjoining a permanent house usually can not be cleaned and disininfected thoroly enough to keep them reasonably free from the eggs of worms.

In many cases pigs need to be treated for worms soon after weaning. Often two treatments ten days apart are necessary. A wormy pig coughs when he is disturbed. The hair is harsh and wiry. If the infestation is severe, the middle usually has a pot-bellied appearance. The most common vermifuge now in use is wormseed oil. About thirty drops, or two cubic centimeters, is given with half an ounce of mineral oil to a pig weighing between 30 and 50 pounds. The best method of administering the oil is to give it as a drench but it can be given with the feed if not more than 8 or 10 pigs are treated at a time and plenty of trough room is allowed. The pig should be kept off feed from eighteen to twenty-four hours before treatment and from eight to twelve hours after. A slop feed with a dose of Epsom salts or Glauber's salts should then be given. The pigs should be confined to a house or feeding floor so that the manure can be cleaned up and the place scrubbed clean to avoid reinfesting the premises. Not all the worms will be dislodged but enough should be expelled to allow the pig to grow normally.

The McLean County sanitation plan of raising pigs is a big help in preventing diseases of the filth-borne type. A common term for this sort of infection is "necro." The intestines and sometimes the stomach show ulcerated spots caused by pus-producing germs. This is a difficult condition to treat and prevention is the only satisfactory method. Intestinal antiseptics are used, but the loss in growth of the pigs is considerable. A related disease is sore mouth, or bull nose, in which ulcers develop about the mouth. Until pigs are two months old the gums should be examined frequently for the appearance of these sores. If there is only a surface infection, dipping the head of the pig in a solution of potassium permanganate is an effective treatment. If the ulcers become deep seated, with a cheesy center, the spots should be swabbed with iodine or a similar agent. Pens must be thoroly cleaned and disinfected to check diseases of the necrotic type in addition to treating the infected pigs.

FEEDING THE SOW AND HER FAMILY

Thrifty active pigs a month old have passed many of their hardest trials. Having pasture for them and their mother simplifies the feeding; they get the exercise they need. The pigs have a never-satisfied appetite and the sow begins to show the effects of her hard labor in supplying them milk. By this time the pigs want to eat and should be
fed by themselves, in a creep away from the sow. A fairly thick slop made of shorts and skimmilk or buttermilk starts them off well; while shelled corn is the grain they like best. At this time some begin self-feeding both the sow and her litter, and there is good argument for this practice. Gains are cheaper in young pigs than in older ones and it pays to start them well. There is some danger from scours, especially in cold rainy weather, and care is necessary, as before. Getting the pigs used to feed so they do not depend entirely upon the sow causes rapid gains and makes weaning a simple process, accomplished without loss of much flesh.

The sow needs generous feeding. A good brood sow does not use the feed to put fat on her back but to put nutrients into the milk, and takes some of the fat off her body to satisfy the appetites of the pigs. A rich slop made of shorts and a little (10 per cent) linseed meal or tankage, mixed with water, if skimmilk is not available, helps in producing milk. Corn is better than any other grain at this time, if a good rich slop is fed, as it is not bulky and furnishes, in the most concentrated form, many of the nutrients a sow needs. She should be fed twice or even three times a day but never any more than she will eat at once unless the self-feeding plan is followed.

CASTRATING

The most favorable time to castrate male pigs is before they are weaned. They shrink less at this time, as they have the milk of the sow to depend upon and the operation is accomplished with less shock and loss of blood. Warm, sunny weather is desirable, and quarters free from dust and mudholes will help a great deal to prevent infection and complications following castration.

WEANING PIGS

Sometimes weaning results in quite a setback. To avoid this loss of flesh and keep the pigs gaining steadily is proof of good management. First of all, the pigs must be eating heartily so that they will not have to learn in a few days to get accustomed to feeds other than milk. Pigs are usually weaned when from eight to ten weeks old. Five days or a week before the litter is to be weaned the feed given the sow should be reduced. Slop feed stimulates milk production and so does pasture. By gradually cutting off the grain and reducing the slop, the sow will begin to dry up before the pigs are taken away. At this time a creep in which the pigs can be fed away from the sow is most needed. It is best to take the sow away from the pigs and leave the youngsters in the pasture lot and buildings to which they are ac-
customed. Then they will not worry or run around the fences squealing as they are sure to do if put in a strange place. Oats is the best feed for sows at this time. It is bulky, keeps the bowels open, and is less heating than corn. There is danger that a part of the udder of the sow may be damaged by the accumulation of milk, but this is not probable if a week is taken to prepare the sow for the weaning process. It may be a good plan to let the pigs nurse out the udder once or twice, but the pigs will get along better if this can be avoided.

Sometimes a litter is weaned on the installment plan. The big thrifty pigs are taken away and the smaller ones are left until the milk gradually dries up. This is hardly as good a plan as weaning all the pigs at once and can not be followed if the sow is to be rebred for another litter within the year.

At weaning time the pigs need the same kind of feeds to which they have been accustomed. The amount of feed and the protein must be increased to take the place of the milk they have had. Generous feeding, especially the first week or two, gets the pigs started right.

**PASTURE AND FORAGE CROPS**

The most efficient plan for raising pigs always includes green feeds. Growing pigs need pasture in order to be thrifty, and green feeds reduce the cost of gains. Experiments at several stations have established the fact that a fair average return from good pasture or forage crops is 250 pounds of pork per acre. When on green feed pigs grow faster than when raised in a dry lot or on poor pasture. Early marketing of spring pigs means higher prices than later, as December and January are usually the two months of lowest prices. Being more healthy, pigs having green feed are less subject to diseases and parasites. In spring, bluegrass is a fine feed, but in summer it contributes practically nothing to the growth of the pigs. For summer, rape is a splendid forage crop, or mixtures of Canada field peas, rape, oats, and possibly clover. Both peas and rape are well adapted to Minnesota conditions and are fine supplements to a permanent pasture. From 20 to 30 growing pigs can be carried per acre, if a full ration of grain is fed, so the space necessary to grow these crops is limited. A good pasture and forage plan for one using bluegrass is as follows:

- May 1 to July 1, bluegrass.
- July 1 to September 1, rape or a mixture of oats, Canada field peas, and rape.
- September 1 to November 1, corn to be hogged off, with rape or soybeans.
Bluegrass is not a good hog pasture during the latter part of June, but if rape alone is used to supplement the bluegrass pasture it will furnish feed by the first of June. The oats and peas of a mixture will not be ready for pasturing before July 1.

**Alfalfa outranks all other feeds as a pasture for hogs.** More pork per acre and more hay are obtained from alfalfa than from red clover, and both these crops give a larger total return per acre than rape. Each is high in protein and thus reduces the amount of this high-priced material to be supplied. Alfalfa will not stand grazing any better than will red clover—this is one of the weak points of both crops. The hog producer in a region where alfalfa is a success should use it for pasture and the hay for winter feed.

It is not possible to pasture alfalfa close enough to keep it down without killing the plants. Either one or two crops of hay are cut. A good way when alfalfa is pastured by hogs is to have the field divided into two parts. The pigs go into one part of the field in the spring when the crop is 6 or 8 inches high. They are left there until the hay is cut from the other section and new growth is well started. Then the pigs are put on the fresh feed and the hay crop is cut from the field they were grazing. By this method the stand of alfalfa is preserved for several years and the pigs have fresh, succulent feed without reducing the hay crop as much as if the alfalfa is left in one field.

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Dwarf Essex rape is a high-class hog forage, ranking below alfalfa and red clover only. Because it is a biennial it does not go to seed the first year and thus it continues to produce fresh, green feed all season unless the rainfall is limited. It grows rapidly, being ready for pasturing within six weeks of the date of seeding.
and can be sown as early in the spring as the ground can be worked. As it winterkills, it must be sown each season, but the cost of seed is low and a good crop is nearly always secured. Even tho the leaves are eaten off the stalk, the plant will quickly throw out new leaves if the pigs are taken out and there is a good supply of moisture. This crop should be grown much more extensively in Minnesota.

Sweet clover is not so desirable a forage for hogs as the other plants mentioned. It is not very palatable and soon gets too tough and woody. It can be used and will give fair returns in pork, but some of the better-relished forage crops are more satisfactory.

LIMITED FEEDING VS. FULL FEEDING OF SWINE

To be thrifty and keep in the best growing condition, pigs need a fairly liberal ration of grain during the summer. The pig has a small stomach and can not thrive on bulky feeds only. A 2 per cent ration—2 pounds of feed daily for each 100 pounds of pigs fed—is about the least grain it is economical to feed. On less than this, the pigs fail to thrive and may become runty.

Full-fed pigs do not make the most efficient use of pasture. They get most of the feed they want without making an effort to graze. Pigs that are full-fed by hand twice a day will graze more than self-fed pigs, as they become hungry between meals. When pigs are self-fed, more pasture is eaten if the feeder is placed at the end of the field farthest from the sleeping quarters, but more time is needed to keep it filled and in working order. Daily attention is necessary to keep the hopper from getting clogged or feed from being wasted. When pigs are full-fed during the summer the gains are costly, as corn is higher in price than at any other season. The cheapest gains are made by giving enough grain to keep the pigs growing, not too thin, and thus getting the most value from the pasture or forage crop.

Pigs farrowed in March that have been self-fed will reach marketable weight, 175 to 200 pounds, in October, while hand-fed pigs will not be ready before December if the grain has been limited during summer. October prices average from 60 to 75 cents per hundredweight higher than December prices. The greater return from a 200-pound pig marketed early is from $1.20 to $1.50.

March farrowed pigs, if given a full feed of grain either by hand or in a self-feeder, by the time they are ready for market will have made about three-fourths of their gain on old corn, high in price, and one-fourth on new, cheaper corn. If limited to a half feed of grain during the summer, about one-third of the gain will be made on old corn and two-thirds on new corn.
A smaller amount of feed is used in producing a 200-pound pig if he is well fed, because he is fed a shorter time than if he is kept hungry, and the amount of feed saved will nearly balance the higher price of feeds during the summer. As long as most of the spring pigs are marketed during the winter months and fall prices are appreciably higher than winter prices, self-feeding or full-feeding by hand will be profitable.

**Hogging-Off Corn**

Dent varieties of corn can be grown successfully in most parts of Minnesota. Turning pigs into the field to harvest the crop is one of the most profitable ways of marketing corn. Experiments at University Farm show that it is cheaper to let pigs harvest the corn than it is to pick the grain and feed it to them. As the corn should be well matured, an early variety must be selected, as pigs should clean up the field before snow covers the ground. September and October are the months for hogging-off. Not more than two or three weeks should be spent in cleaning up a piece of corn, so it sometimes pays to divide the field with a temporary fence. An acre of corn yielding 40 bushels of grain will feed 20 pigs approximately 14 days if the pigs average about 125 pounds in weight. More efficient use will be made of the corn if a supplementary crop if planted in the field or near it. This may be rape, soybeans, or pumpkins. These crops in the cornfield may reduce the yield of corn if the supply of moisture is low during the summer, but will lower the amount of feed required to make 100 pounds of pork. Tankage fed to the pigs will save enough grain to more than pay the cost. It is a good plan to self-feed the tankage, as corn is self-fed. Some of the pigs will be ready for market when they come from the corn field, but many will need further feeding in a dry lot.

**Fattening Hogs in a Dry Lot**

Corn is cheaper in the fall and early winter than at any other season. The hog market is on a declining scale. The quicker the pig gets to market the more profit he will show. There is no economy, but on the contrary a decided loss, if the feed is limited. Corn alone will not make the most rapid or the cheapest gains. It has too little protein in proportion to the starch and oil to make the best fattening feed. If skim milk or buttermilk is available at a cheap price, it balances corn nicely. Oats is too bulky and usually too high in price to be fed to fattening hogs. Tankage is the protein supplement that in many cases gives highest returns. Keep as much corn before the hogs as they will clean up and the tankage can very well be self-fed.
WHAT IS THE RIGHT MARKET WEIGHT?

The tendency in the last few years has been to pay top prices for light-weight hogs. Consumers do not want heavy or fat cuts of meat. Consequently the pigs selling at the highest prices weigh from 140 to 190 pounds. It is unwise to produce an article not in keen demand and the hog raiser should comply with the demand by selling his pigs in a finished condition at 200 pounds or a little less. Considering the declining price during the fall months, it sometimes pays, even if plenty of corn is available, to sell pigs at lighter weights than to carry them from two to four weeks more and sell them for considerably less per pound. Sometimes pigs can be marketed at 175 pounds with more profit than at 200 pounds. The 100 pounds of feed needed to make the additional 25 pounds of weight may cost more than the gain is worth.

To be desirable the finished hog should not carry too heavy a load of fat. Lean meat, not fat, is what the consumer desires. A reasonable degree of finish is necessary to make a firm carcass and palatable meat, but it is a poor policy to feed hogs to the finish required a few years ago. Sometimes pigs should be marketed even tho they are still making rapid and economical gains, instead of getting them too heavy and too fat for market demands. All our meat animals are most economically marketed at an early age and in less than a fully finished condition. The hog should be so fed and handled that he makes the speediest journey of them all from birth to the finished product.