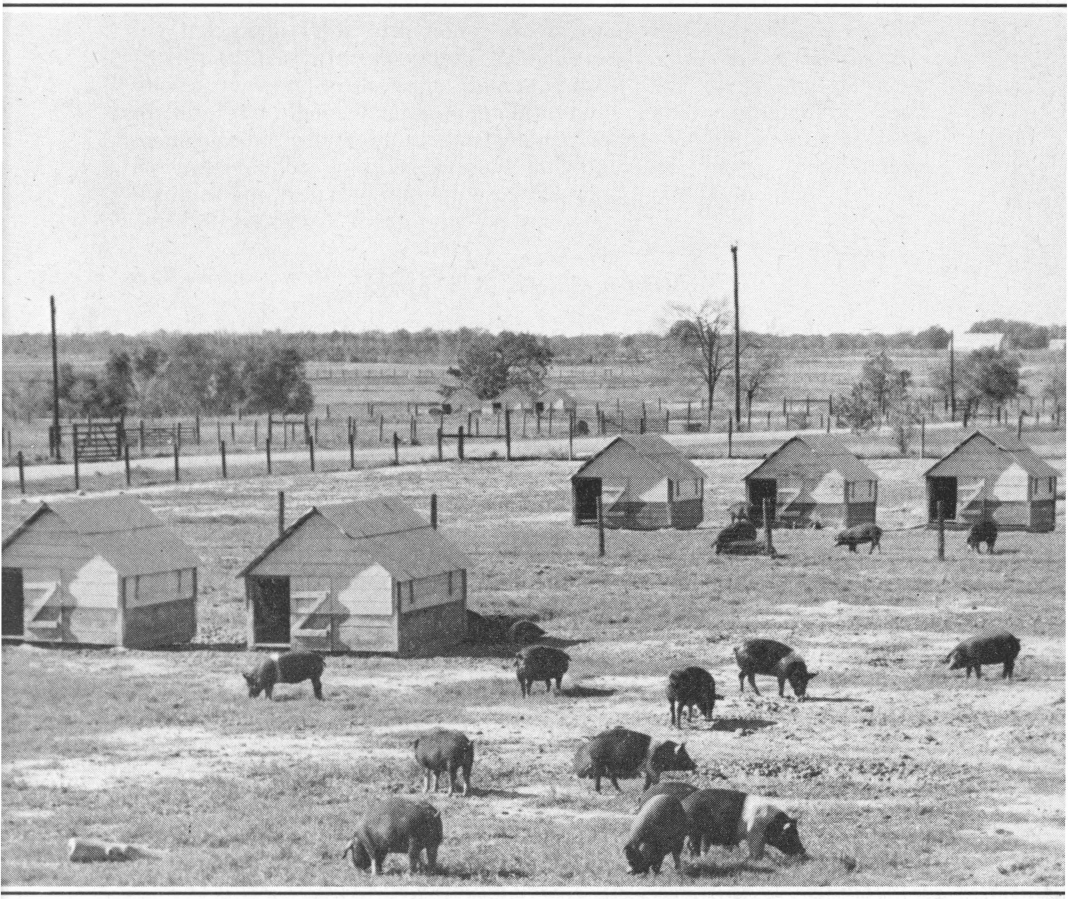
B-8

Hog Lot Equipment



TEXAS AGRICULTURAL EXTENSION SERVICE
G. G. Gibson, Director, College Station, Texas

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Hog Lot Equipment

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Texas A. & M. College System

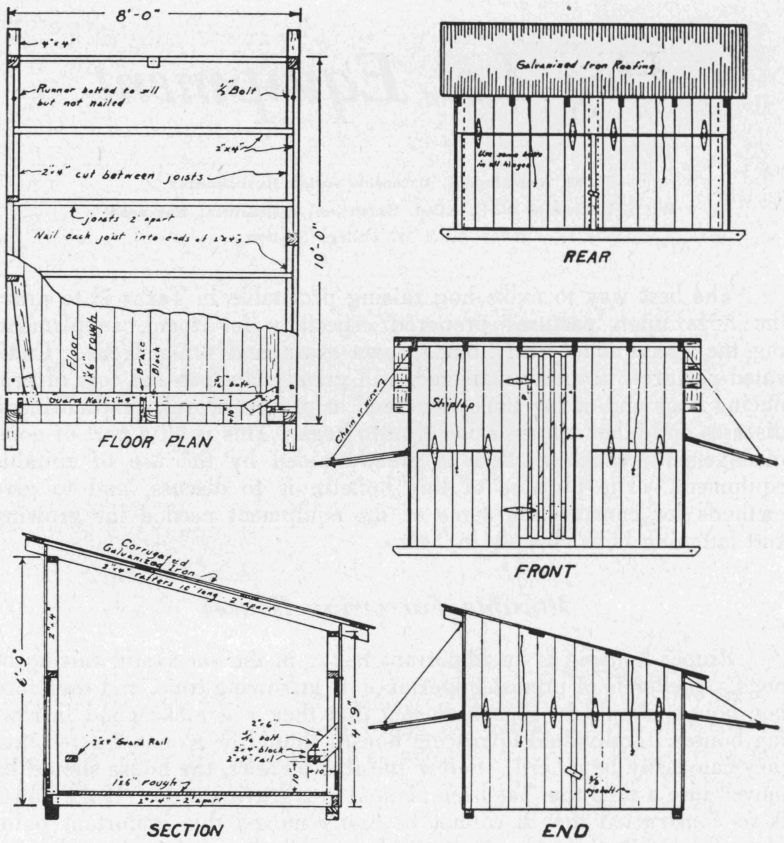
The best way to make hog raising profitable in Texas is to graze the hogs upon pastures prepared especially for them, supplementing the green food with home grown grain and other feeds. Cultivated pastures, properly managed, will greatly cheapen the cost of producing hogs and at the same time tend to prevent worms, unthriftiness, diseases and other ailments common to hogs. This is all a part of good management, which in turn is greatly aided by the use of suitable equipment. The purpose of this bulletin is to discuss, and to give methods for constructing some of the equipment needed for growing and fattening hogs cheaply in Texas.

Movable Farrowing Houses

Proper housing is an important factor in the successful raising of hogs. Shelter is of utmost importance at farrowing time, and therefore hog houses should be so constructed that they will make good farrowing houses. Individual farrowing houses should be so constructed that they can easily be moved. Before the sow farrows, the house should be moved into a field that has been planted to a grazing crop. If the house is so constructed that it cannot be easily moved this important point of successful hog production will frequently be neglected, and as a result the pigs will be farrowed on unsanitary ground and will soon become wormy. Farrowing houses should be large enough to permit the sow to approach the bed in a natural way so that she will not mash the pigs. A farrowing house should be not less than 8′ × 8′ in size.

The farrowing house plan shown on page 4 has given satisfactory results in Texas. Note that this house is so constructed that all sides can be raised to provide good ventilation in warm weather. A large number of openings, of course, increases the cost of the house. This house can be cheapened by closing one or both ends. If only one end is closed it is best to close the west end, because in summer the west doors should be closed each afternoon to prevent the sun from shining in. Therefore, the openings on the west end are not of as much value as the others.

Recently a movable hog house with a ventilated roof was developed. A picture of this house can be seen on page 8. This house has doors on both ends which lend themselves to the installation of a farrowing crate if desired. For further details order Blueprint No. 418. A blue-



Shed Roof Type Portable Farrowing House—Blueprint No. 162

print of a portable "A" type house may be obtained from the Agricultural Information Office by ordering Blueprint No. 198.

Large Central Farrowing Houses

Blueprint plans for large central farrowing houses are available and can be obtained from county agricultural agents or by writing to the Agricultural Information Office, College Station, Texas. Ask for blueprints Nos. 174, and 276.

Pig Guard Rails

Pig guard rails should be provided on all four sides of the farrowing pen. The lower outer edge of these guard rails should be about 10 or 11 inches above the floor and 10 or 11 inches from the wall. When placed in this position the guard rail provides enough room for the pigs to go under it, even though some bedding has accumulated.

Corner Guard Rails

Corner guard rails as shown on page 5 give good results. Pigs can easily be trained to stay under the guard rail if a bed made out of straw is put under the guard rail. Newborn pigs should be placed under the guard rail as soon as they are through nursing. If the caretaker carefully guides them under the rail a few times they soon learn that the rail is their protection.

Electric Pig Brooders

Electric pig brooders help to save newborn pigs during severely cold weather, and help in training pigs to stay under the corner guard rail. The brooder illustrated on page 6 is planned to fit on corner guard rails. Corner guard rails should not be removed when brooder is installed. The brooder can easily be moved from one hog house to another as needed. The brooder must always be securely fastened in place and a panel should be placed above the brooder front to keep the sow off the top of the brooder.

The brooder consists of a wooden cover made in a triangular shape and a large reflector with a 100-watt electric lamp or a 100-watt infrared lamp shining through a hole in the cover. The size of the lamp may be varied with the weather, but too large a lamp may burn the pigs. A temperature of about 65° F. on the floor is desired. The lamp should be about 20 inches above the floor. The hole in the top

of the brooder should be covered with small mesh wire or hardware cloth to keep the pigs as well as straw from touching the lamp. Care should be taken to see that all electric wires are well insulated and kept dry to prevent a short.

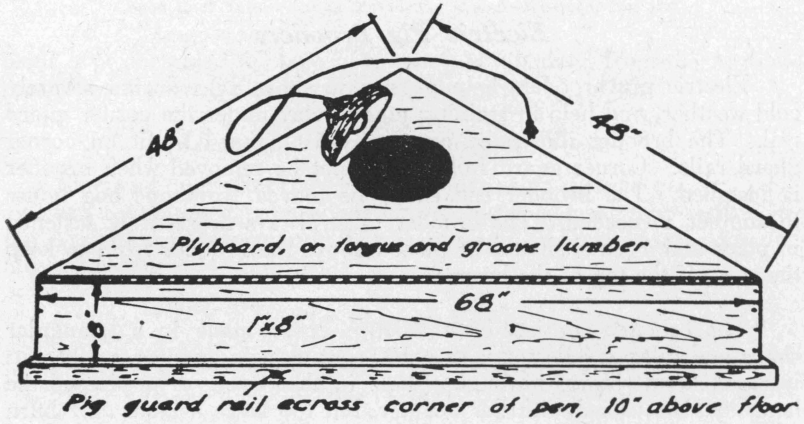
Some producers are successfully using only a heating unit, with a large reflector, suspended from the ceiling and without the wooden cover. The lamp height, of course, must be adjusted as needed and it must also be protected from the sow with a panel or guard rail.

The sow should be placed in the clean and disinfected house where she is to farrow a day or two before farrowing. The brooder should be turned on a short while before the pigs arrive so as to warm the floor and the bedding in the nest for the pigs. At this time one can check on the temperature at the floor and make adjustments.

Newborn pigs need artificial heat most during the first 3 days. In very severe weather the artificial heat can be supplied for 10 days to 2 weeks.

The pigs should be placed in the nest made of clean straw under the brooder after their first nursing. Pigs soon learn to go under the brooder voluntarily. Placing them under the brooder a few times will be sufficient.

For further details on pig brooders ask for L-282. This publication can be obtained from county agricultural agents or by writing the Agricultural Information Office, College Station, Texas.



Electric Brooder in Corner of Pen

Blueprint No. 278

Farrowing Crates, Stalls and Center Protective Island

Even with guard rails around the farrowing pen and a corner guard rail also, many producers experience some pig losses from accidents. Most of these losses occur near the center of the farrowing pen. Such losses are more common during warm weather rather than cold. To eliminate accidental deaths to pigs, many breeders have resorted to the use of farrowing crates or stalls. Blueprint No. 402, Farrowing Crate, is available from county agricultural agents or by writing the Agricultural Information Office, College Station, Texas.

Farrowing crates or stalls are quite confining to sows. They also require considerable labor in keeping the house clean as the sow cannot go outside the house at will. To eliminate this labor problem, the center protective island was developed. This arrangement permits the sow to enter and leave the house at will. She can walk the circle around the island but she cannot turn around. The pigs find protection on both sides of the sow at all times. The island can be removed when not needed. By the use of the island combined with guard rails and heat lamps accidental pig losses have been reduced to 2 percent in trials over a 3-year period at the Texas Experiment Station. Best available data indicates that Texas producers on the average lose about 25 percent of their pigs from accidental deaths. This loss can be prevented.

Center Protective Island
Blueprint No. 423

Pig Separator
Blueprint No. 430

Pig Separator

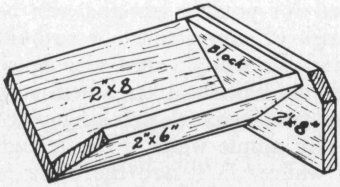
When pigs are 2 weeks old they become quite active. At that time they are usually turned out to pasture with their mothers.

To avoid the necessity of many small individual pastures, several sows with their pigs are turned out in a common pasture and small movable houses are used for shelter. Grouping sows and pigs in this way has its disadvantages. Pigs soon learn to rob each other of their milk, resulting in some large pigs and numerous runts. There is always the danger of accidents causing crippled or dead pigs. Since the pigs come into personal contact with a number of sows, they are likely to become infested with parasites and diseases.

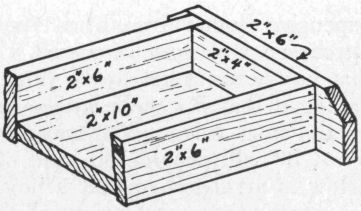
To solve these problems the pig separator was developed. This device permits the sow and her pigs to be associated together in the house, but as they leave the house they are automatically separated. By setting up a series of individual houses along a temporary fence through the pasture, each equipped with a pig separator, one can run a large number of sows in one pasture and their pigs in an adjoining pasture.

Troughs

A few suggestions on the construction of feed troughs may be helpful. Both the flat bottomed and the "V" shaped troughs have their place. The "V" trough is usually preferred as a milk or slop trough,



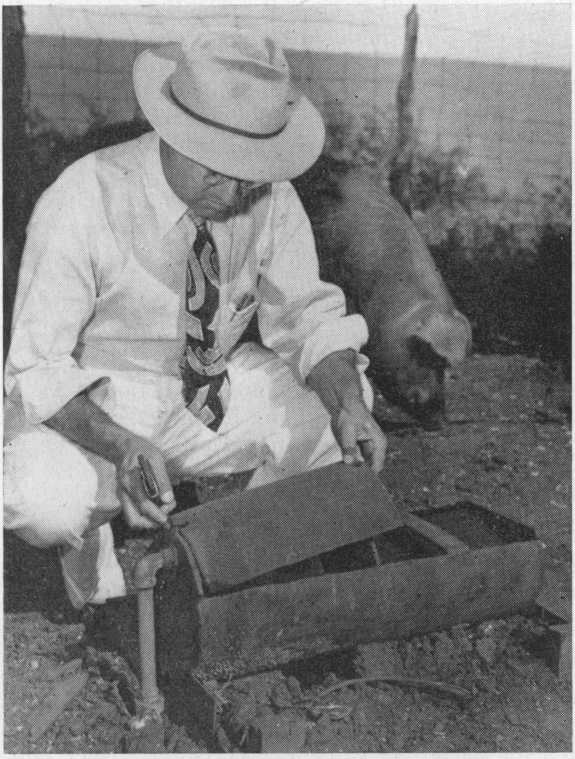
One end of "V" trough



One end of flat bottom trough

because hogs can lick it cleaner. The flat bottomed trough has a much larger capacity and therefore is much preferred as a water trough.

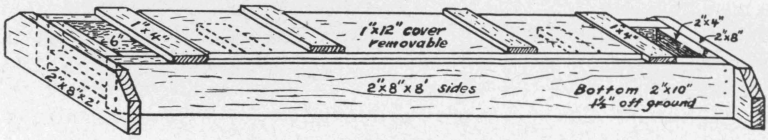
The sketch shows the construction of both flat bottomed and "V" shaped troughs that have proved satisfactory. Wider or narrower pieces of lumber may be used in the same manner for other sizes of troughs. Note the double ends. Ends built like this do not knock off easily. They also make the trough leak proof. It is best to use separate troughs for water and for feed.



Water Trough Made Out of Oil Field Pipe
(Note partition between float valve and drinking place)

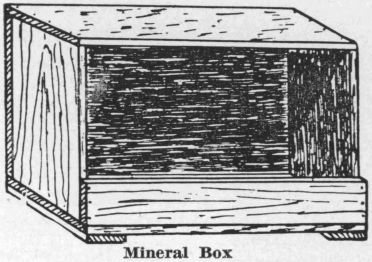
One of the main features in providing a water supply for hogs is to get a sufficient quantity available so that they may get water whenever they want it. As a dependable and cheap arrangement the trough shown has proved very satisfactory. Enough trough capacity should be provided so that one filling per day will assure an abundant supply for the hogs. Many farmers who have a farm water system prefer to use water troughs with automatic float valves. Small in-

expensive float valves, of a type designed for poultry troughs, can be purchased and work very well. The trough of course must be so built that hogs cannot get to the float valve and the trough must also be so arranged that it can be easily cleaned as mud in the trough will stop up the float valve. The trough need not be large. A drinking place 6″ × 8″ will provide 30 head of hogs with ample water. The trough below is arranged so that a hog cannot wallow in it and the cover is arranged for easy cleaning of the trough.



Mineral Boxes

The mineral box should be so designed that the contents will not be wasted. The box as shown here would provide considerable protection from rain. Of course it would be still better to locate the mineral box under a roof so as to give the mineral additional protection from rain and wind. It should be anchored to the building or fence to prevent hogs from upsetting it.



Mineral Box

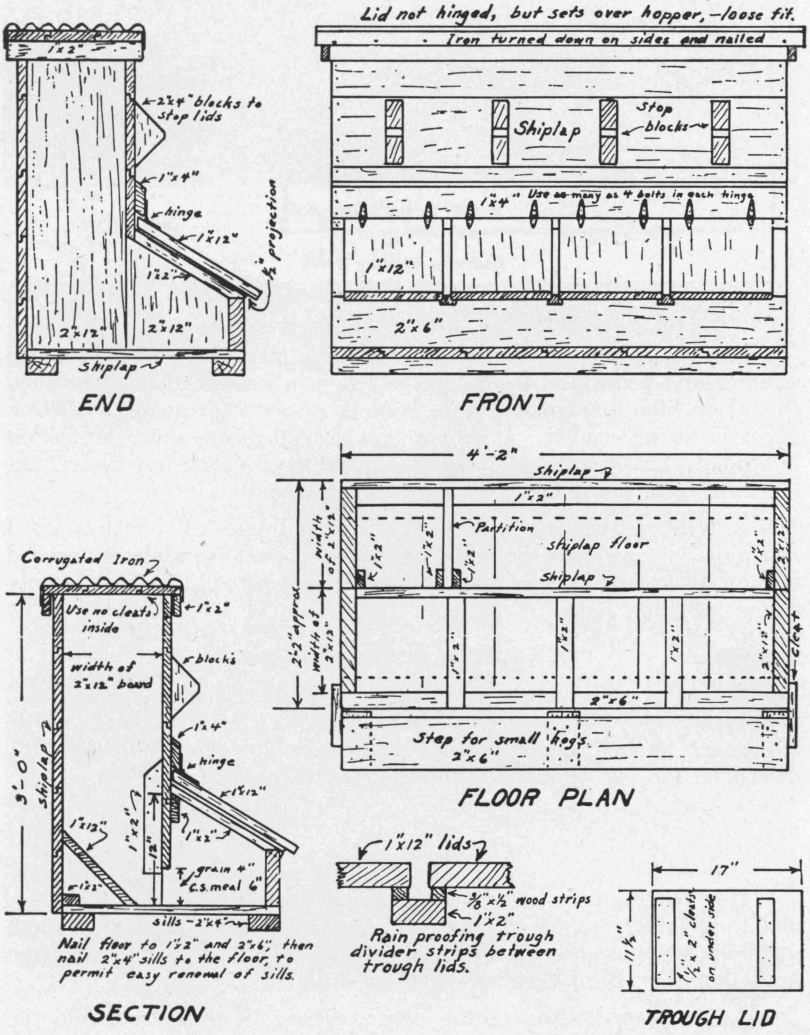
Self Feeders

Self feeders have been found satisfactory and economical for feeding hogs in large numbers. When hogs have access to different kinds of feeds necessary to produce pork they usually balance their rations satisfactorily. The feeds should be placed in separate feeders or in separate compartments of the same feeder.

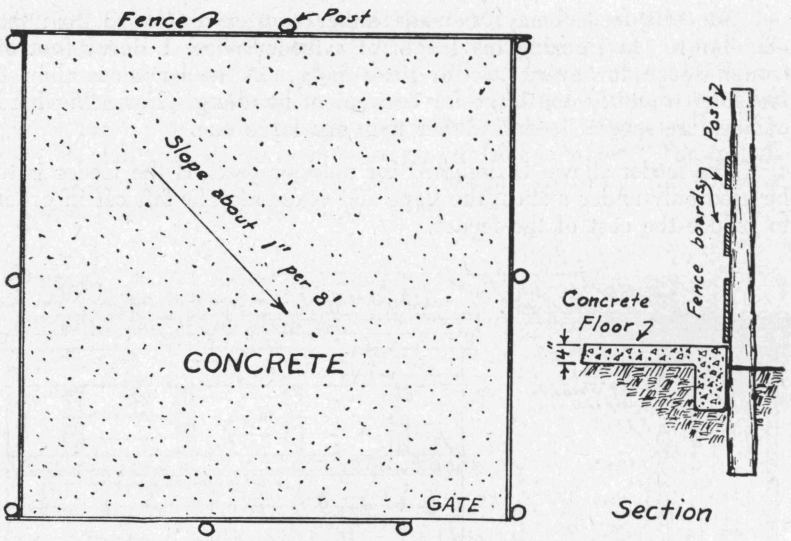
A good serviceable type of self feeder may be readily constructed by any farmer. Note that the drawing shows a flap to cover the trough that the pig eats from. This prevents rain from blowing into the feed and also keeps chickens from scratching out the feed. A pig will soon learn to lift this flap with his nose and eat; then when he withdraws his head the flap drops down and covers the feed. It is important that the flaps be selected from a board that will not split easily. More than that, they will have to be reinforced with strips of thin lumber running crossways. *The hinges on the flaps must be fastened with small bolts.* Hinges fastened with nails or screws will not stay in place very long when they get the rough treatment that hogs will give them on these feeders.

The self feeder may be made either shorter or longer than the one shown. In figuring the length of a feeder allow 1 linear foot of trough space for every two or three hogs. A feeder more than 8 feet long would be too large for convenient handling. For a big herd of hogs use several feeders rather than one large one.

The feeder shown is designed for outdoor use. If the feeder is to be used only under a shed, the flaps and cover may be left off in order to reduce the cost of the feeder.



Self Feeder for Outdoor Use—Printed Plan No. 157



Concrete Feeding Floor

Sheds for Fattening Hogs

It pays to provide fattening hogs with plenty of shade in warm weather and protection from cold and rain in bad weather. The shed should be high enough and open enough to permit a good circulation of air in warm weather. It should also be built so as to give protection in winter. Shade trees will serve the purpose of a shed in summer, but they will soon die if many hogs are concentrated under them.

A well constructed, movable farrowing house will make a good fattening hog shed and should be used for this purpose when not needed for sows with small pigs. Such a house, however, will take care of only a few fattening hogs.

Concrete Feeding Floor

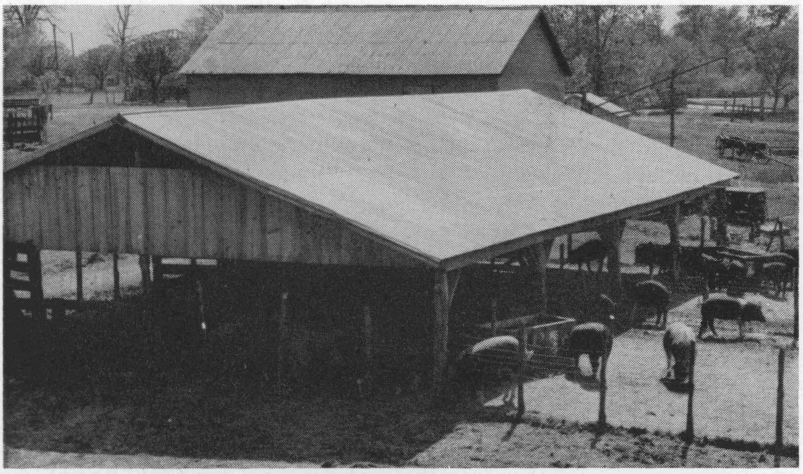
A good feeding floor will soon pay for itself. There is considerable waste when grain is fed in the dust or mud. Feeding floors should be built high enough above the ground to provide good drainage. To determine the size of floor to build, allow 10 square feet per hog.

A fence around the feeding floor is suggested.

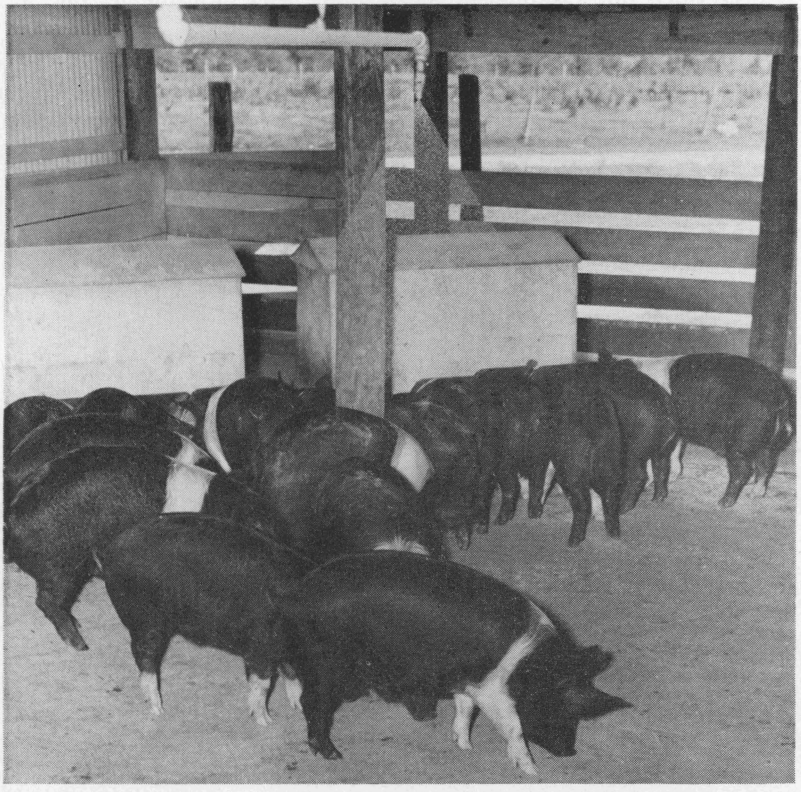
Pig Parlors

Hog feeding units consisting of a concrete feeding floor, a shelter, and a sprinkler system of cooling have proved very popular. These units are so convenient for the producer and so comfortable for the hogs that they have been named "pig parlors."

About three-fourths of the concrete area is under roof and the remaining one-fourth is in the open, forming a sun parlor. Note the



Exterior View of Parlor
Blueprint No. 431
Interior View of Parlor



location of self-feeders and the sprinkler in the interior view. For sprinkler, use a No. 3 cone type spray nozzle connected to the regular water line. A No. 3 nozzle uses 3 gallons of water per hour at 40 pounds pressure. One nozzle located on the windward side of the shed will cool a pig parlor large enough to take care of 50 to 60 hogs. The sprinkler system of cooling is far more economical and practical than the use of a hog wallow.

Pig parlors are usually constructed in units large enough to accommodate a truck load of 50 to 60 hogs. Fourteen square feet of floor space are required per hog. A parlor 20' x 40' will therefore accommodate 50 to 60 hogs. Blueprint No. 431 gives details on constructing a "pig parlor."

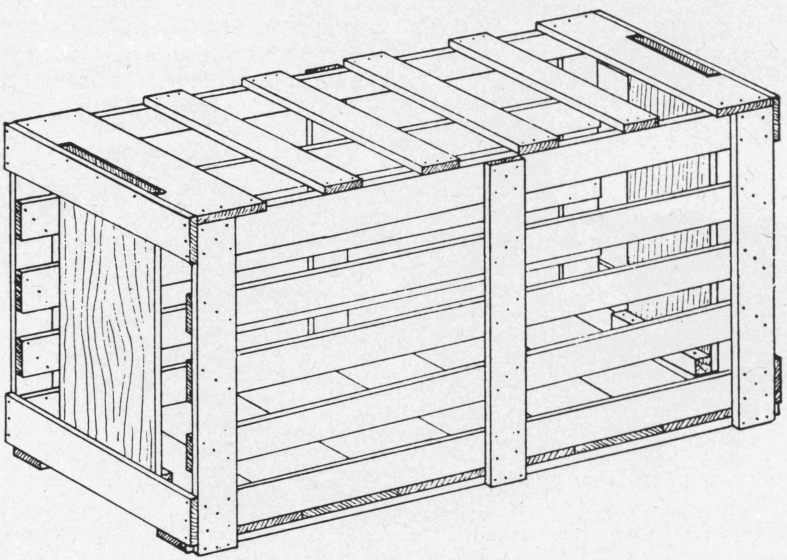
Dipping Vat

Blueprint No. 49

A dipping vat is useful to control mange and other external parasites on farms where large numbers of hogs are kept. Blueprints of hog dipping vats may be obtained from the county agricultural agents or by writing to the Agricultural Information Office, College Station, Texas. Good spray equipment will take the place of a dipping vat.

Shipping Crate Often Handy

Crates for shipping hogs should be constructed with two main objects in view: to make them secure so that no accident can happen in transit, and to get the maximum amount of space for the lumber



Shipping Crate for Hogs
Blueprint No. 404

used and the weight of the crate. A crate should be constructed of strong, light material and have a neat, attractive appearance. It should have a door at each end to permit the hog to walk in and also to walk out. It is difficult to make a hog back out of the crate and sometimes results in injury. The inside of the crate should be smooth, hence all cleats and braces should be on the outside. A 1″ × 6″ instead of a 1″ × 4″ as the first side slat at the bottom, on each side, is preferred by some. The floor should be supported as shown, otherwise some of of the floor planks may be pulled off.

The table below shows the size of crates for different size hogs.

Size of hog weight in pounds	Dimension of crate		
	Length	Height	Width
50	3′-3″	23″	12″
100	3′-6″	24″	14″
150	3′-8″	28″	15″
200	4′-2″	30″	16″
250	4′-6″	33″	17″
300	5′-0″	34″	18″
400	5′-4″	36″	20″
500	5′-8″	37″	21″
600	6′-0″	38″	22″

Loading Chutes

Every farm that keeps as many as two brood sows should have a loading chute. Lifting hogs into a wagon or truck is not only hard work, but often results in injury to the hogs. The hogs are often allowed to drop from the truck or trailer and are injured. This is especially true in regard to breeding animals. The loading chute is just about as valuable for unloading as for loading. The best permanently located loading chutes have a dirt floor. Hogs are not accustomed to wooden floors and therefore usually refuse to go up an incline made of wood. Portable loading chutes are sometimes desired. Plans for a portable hog-loading chute are available and can be obtained from the county agricultural agent or by writing to the Agricultural Information Office, College Station, Texas. Ask for blueprints Nos. 5388, 299 and 375.

Breeding Crate

Very often swine breeders have a good breeding boar that they would like to keep in their herd for several years. Often these boars are of such size that they cannot be mated successfully to young sows. A breeding crate is very necessary in a case of this kind. A blueprint of a breeding crate is available and can be secured from the county agricultural agent, or by writing to the Agricultural Information Office, College Station. Ask for blueprint No. 197.

Hog Ringers

Occasionally it becomes necessary to put rings in hogs' noses to prevent them from rooting. Hogs fed a completely balanced ration will not root their pastures full of holes. Hogs should be fed a balanced ration not only to keep them from rooting and catching chickens, but because balanced rations pay. Even though hogs are fed balanced ration, they will do some rooting at times. This is especially noticeable in hot weather when they dig out large holes in moist dirt. To prevent this, ringing is a good practice. Hog rings and ringers may be obtained from nearly any hardware store.

Hogs are sometimes marked with ear tags put in with an ear punch. Others mark their hogs with "V" shaped notches in the edges of the ears. Punches for these purposes are on the market.

Roofs

The roof of any type of hog house is important. Corrugated iron is very popular because it lasts well and if properly laid does not leak. For wet or cold weather the roof and walls for a windbreak are important features, but when a house is to be used in hot weather, it is important that plenty of ventilation be provided. In order that a house with a sheet iron roof may be kept cool in summer, it is well to place the roof rather high—not less than 5 feet above the floor.

Garbage Cookers

A publication on this subject can be secured from the local county agricultural agent or by writing to the Agricultural Information Office, College Station. Ask for bulletin B-259.

Cooperative Extension Work in Agriculture and Home Economics, The Texas A. and M. College System and United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8, 1914, as amended, and June 30, 1914. 10M—5-56, Reprint