B-81

HOG LOT EQUIPMENT for Texas Farms

TEXAS AGRICULTURAL EXTENSION SERVICE

G. G. Gibson, Director, College Station, Texas

In The Pictures

On the Cover: M. G. Perkins, former county agricultural agent of Burleson county, and J. C. Godby, Burleson county 4-H Club boy, watch J. C.'s hogs in the concrete hog wallow.

On Page 9: Dr. J. E. Bauer of Refugio at his hog watering trough.

HOG LOT EQUIPMENT for Texas Farms

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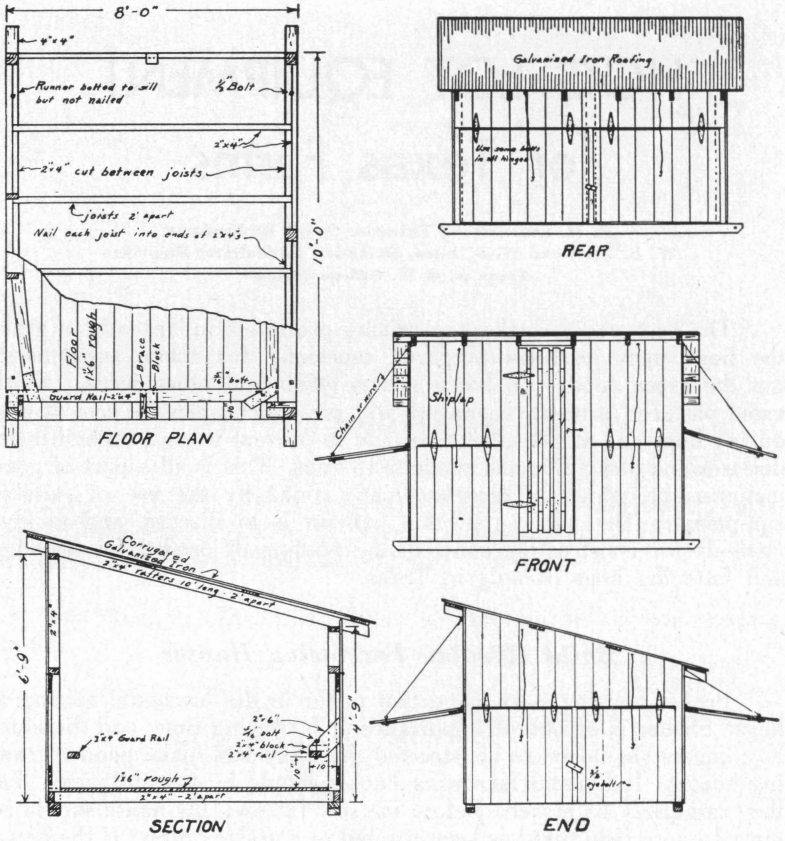
Texas A. & M. College System

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.

Build 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 eight feet by eight feet 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.



Shed Roof Type Portable Farrowing House—Blueprint No. 162

Pig Guard Rails

Pig guard rails may be provided on all four sides of the farrowing pen. The lower outer edge of these guard rails should be about 10 inches above the floor and 10 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 as shown on page 5 give good results. If corner guard rails are used the guard rails on all sides of the pen may be omitted. Pigs can easily be trained to stay under the guard rail if a bed made out of straw is put under the guard rail. New born pigs should be placed under the guard rail as soon as they are through

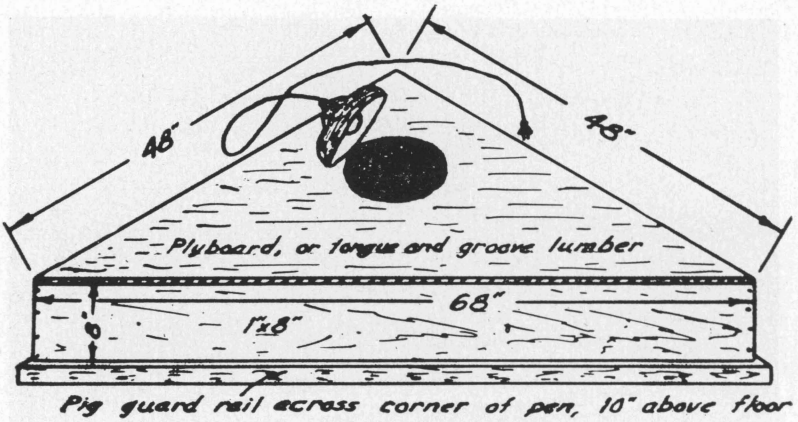
Corner Guard Rails

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 new born 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.



Electric Brooder in Corner of Pen
Blueprint No. 278

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.

New born pigs need artificial heat most during the first three days. In very severe weather the artificial heat can be supplied for ten days to two weeks.

The pigs should be placed in the nest made of clean straw under the brooder as they are farrowed. Pigs soon learn to go under the brooder voluntarily. Placing them under the brooder a few times will be sufficient.

For further details ask for 4H-69. This publication can be obtained from county agricultural agents or by writing the Extension Service, College Station, Texas.

"A" Type House is Inexpensive

The "A" type house is the most inexpensive house to build. It is a warm house for winter use but is not as cool in summer as the shed roof house shown heretofore. Because the "A" type house tends to be hot in summer, it is especially important that it be well ventilated. The

ventilating doors in the sides must be so constructed and fitted that they can be opened for ventilation in hot weather and can be closed so they will not leak for winter use.

A blueprint of a portable "A" type house may be secured from the Extension Service by ordering Blueprint No. 198.

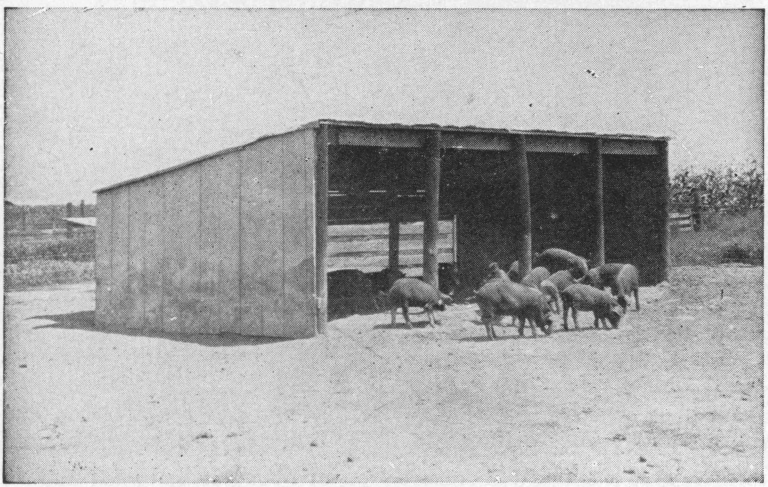
Large Central Farrowing Houses

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

It Pays to Have 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 close tightly enough to give ample protection in winter. Shade trees will serve the purpose of a shed in summer, but they will not do for winter protection.

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. The fattening hog shed illustrated here will also give good results. Note that both ends of this shed are closed and that the back or north side is made of doors hinged at the top. These can be raised in summer. The roof is made of sheet iron. A shed thus



Shed for Stocker or Fattening Hogs

constructed gives ample protection to stocker and feeder hogs and is very cool in summer. The shed, however, is not movable and therefore is not suitable as a farrowing house. This type of shed can be improved if built with a concrete floor.

For summer use only, a shade may be made with a brush or straw covering, as shown in the picture below.

Roofs

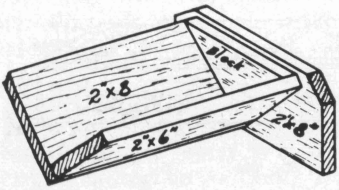
The roof of any type of hog house is important. Corrugated iron is very popular because it lasts well and if properly laid does not leak. For wet or cold weather the roof and walls for a windbreak are important features, but when a house is to be used in hot weather, it is important that plenty of ventilation 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 five feet above the floor.

Brush Shade

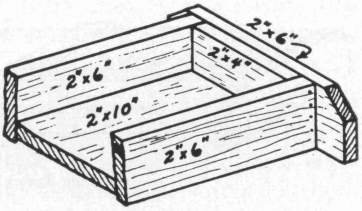
Troughs Are Important

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, 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

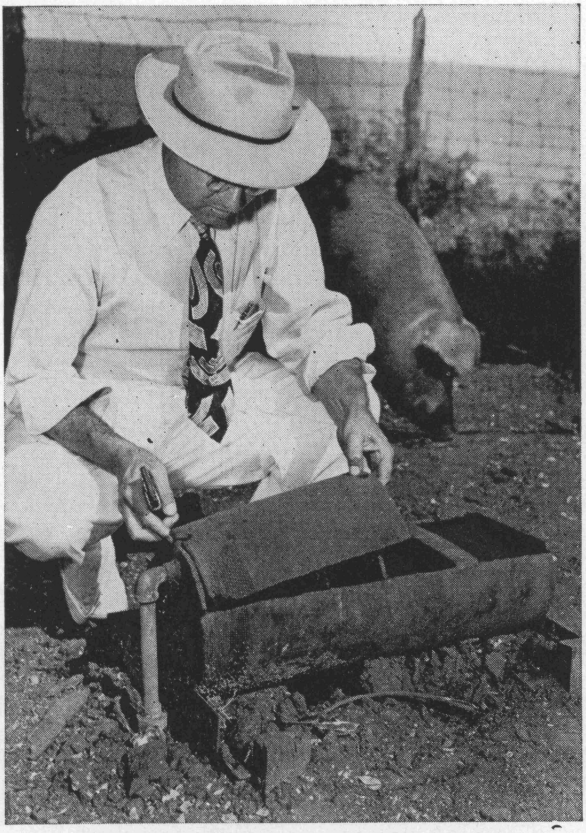


One end of "V" trough



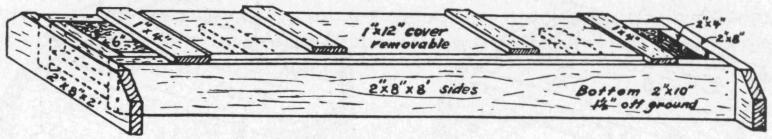
One end of flat bottom trough

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. Numerous automatic water systems are used, but 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. This trough is arranged so that a hog cannot wallow in it and the cover is arranged for easy cleaning of the trough.

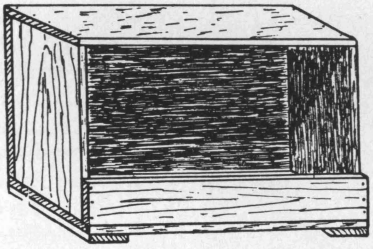


Water Trough—Blueprint No. 160

Many farmers who have a farm water system prefer to use water troughs with automatic float valves. Small inexpensive 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 inches by 8 inches will provide 30 head of hogs with ample water.

Box is an Aid to Mineral Feeding

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

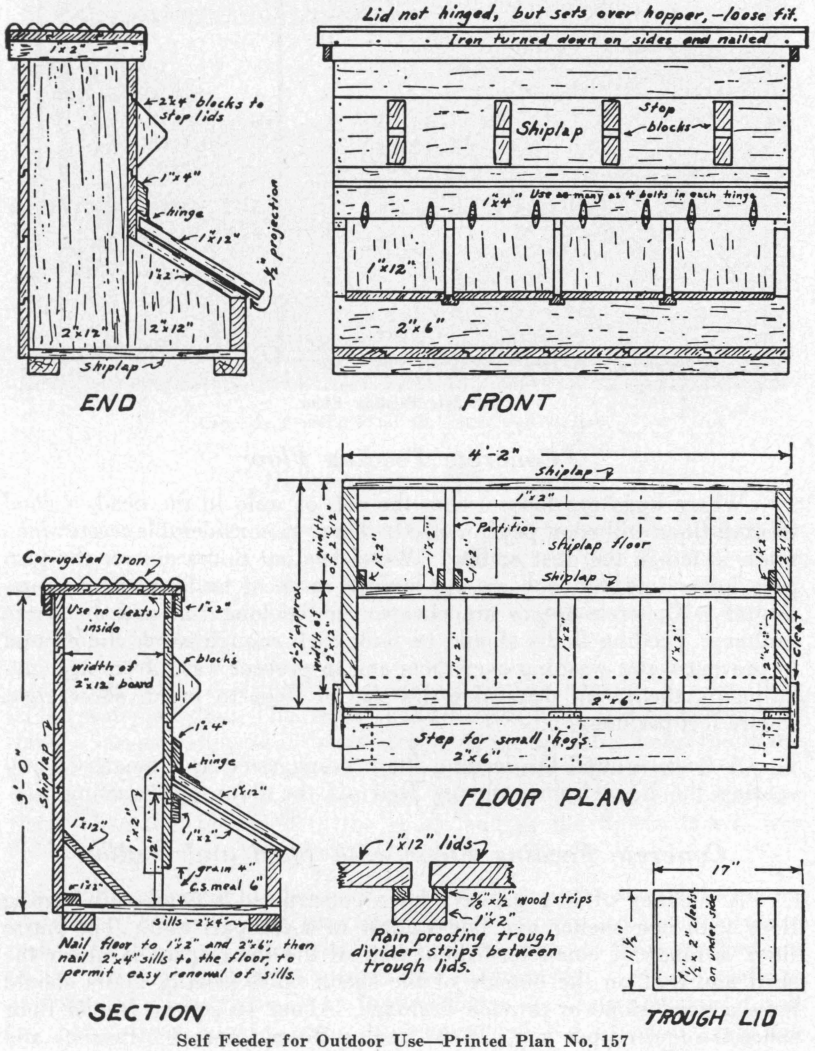
Self Feeders are Popular

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.*

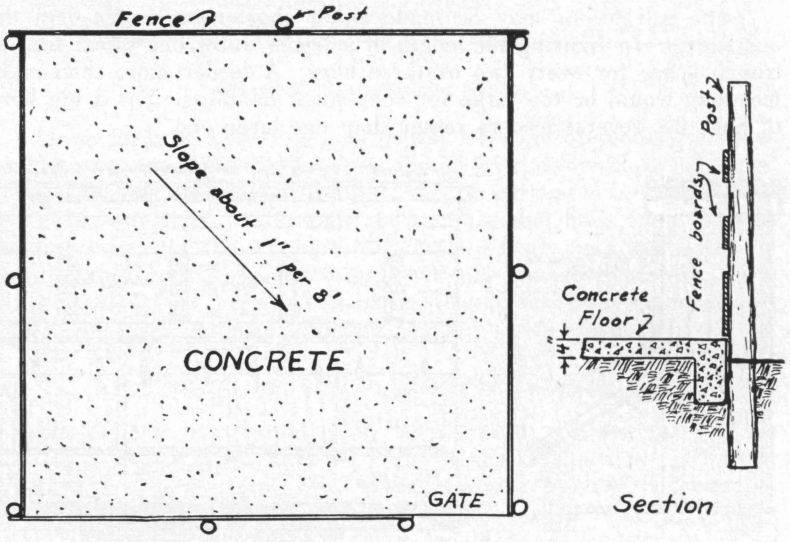
Hinges fastened with nails or screws will not stay in place very long when they get the rough treatment that hogs will give them on these feeders.

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



Self Feeder for Outdoor Use—Printed Plan No. 157

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.



Concrete Feeding Floor

Concrete Feeding Floor

Where hogs are fed corn on the cob or milo in the head, a good feeding floor will soon pay for itself. There is considerable waste when grain is fed in the dust or mud. Wood feeding floors answer the purpose for a time but soon rot out, permit waste of feed and become unsanitary. Concrete floors are cheaper in the long run and are more sanitary. Feeding floors should be built high enough above the ground to prevent water washing over them and to prevent waste from accumulating on them. To determine the size of floor to build, allow eight square feet per hog.

A fence around the feeding floor is suggested as a means of preventing the hogs from carrying feed off the floor and wasting it.

Concrete Feeding Floor with Shed and Wallow

A number of hog growers have constructed a combined feeding floor with hog shelter and hog wallow in a compact unit. The entire floor is made of concrete. About half of the floor space is under the shed and half on the outside of the shed. Such feeding floors should have a good slope to provide drainage. About 16 square feet of floor space is required per hog. These feeding floors improve efficiency and

save labor, not only on farms of heavy soil where mud becomes a serious problem but also on farms of sandy soil where a large number of hogs are fed. Concrete floors provide the best means of improving sanitation in hog lots.

Concrete Feeding Floor with Shed and Wallow

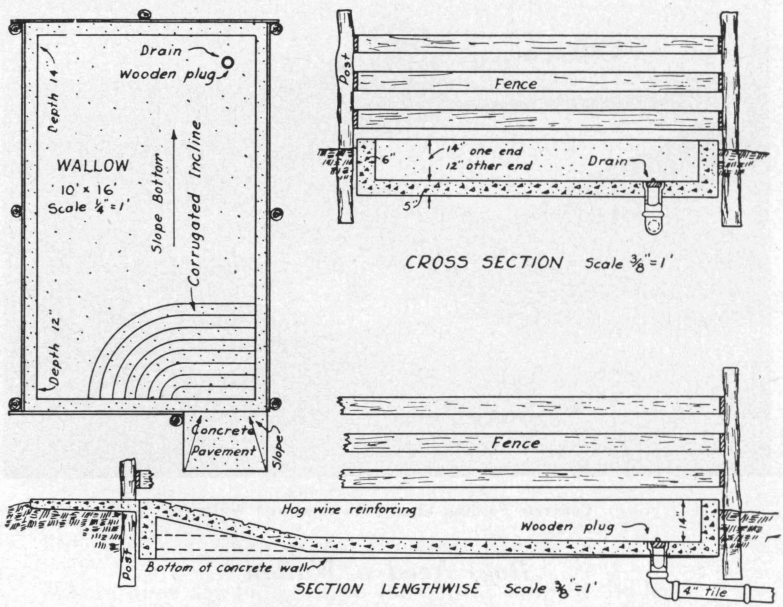
Hogs Need a Wallow

Hog wallows are very necessary in Texas, especially if hogs are to be fattened during the summer. A wallow provides the best means possible for keeping the hogs cool. The wallow should be located near the shade provided for the hogs, but the shade should never be directly over the wallow.

If the shade is directly over the wallow all the hogs will be lying in the water all day. This is not good for the hogs and also would require a larger wallow than is necessary. If on the other hand the shade is several yards away from the wallow only a few hogs will be in the wallow at a time, and they remain in the water just long enough to get wet. Then they go back to the shade and as the breeze blows over the wet hogs they are kept perfectly cool.

Drinking water, self feeders, and feed troughs should be under the shelter or shade and near the wallow. Some producers locate a trough for drinking water in a corner of the wallow. Water spilled out of the drinking trough is spilled into the wallow. If piped water is available, the faucet can be so located that a small stream from it will be continuously running into the trough and the overflow from the

trough goes into the wallow. With this arrangement hogs will go to the fresh water in the trough to drink and use the wallow only to cool off. This arrangement is very good if the distance from the feed to the drinking water is not too great. By all means, one should provide clean drinking water in addition to the water in the wallow.



Concrete Hog Wallow—Blueprint No. 277

A fence around the hog wallow is suggested so that the hogs will not get the ground wet all around the wallow and then root in it. This is a means of economizing on concrete since it is then necessary to protect the wallow against the rooting of the hogs only at the small entrance provided for them.

A good wallow properly located makes a good feeding floor in seasons when the wallow is not needed.

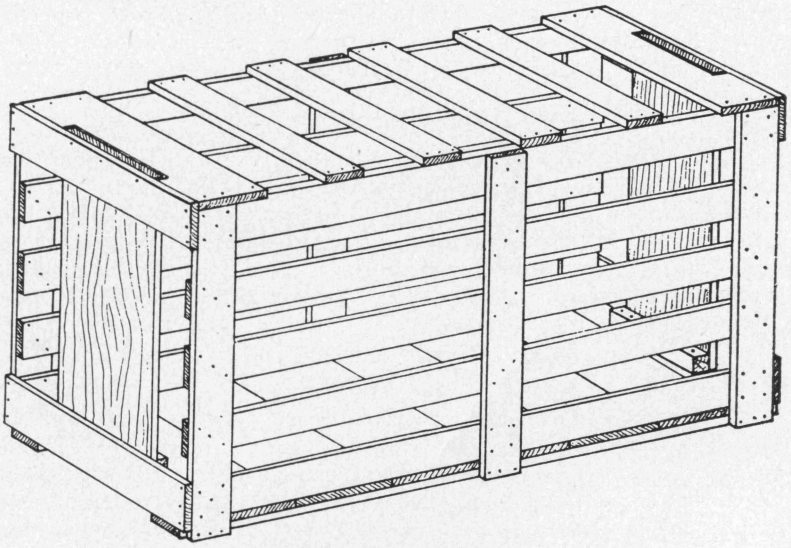
Dipping Vat

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 Extension Service, 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 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″ x 6″ instead of a 1″ x 4 ″as the first side slat at the bottom, on each side, is preferred



Shipping Crate for Hogs
Blueprint No. 404

The table given herewith 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″

by some. The floor should be supported as shown, otherwise some of the floor planks may be pulled off.

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 wagon or truck 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 secured from the county agricultural agent or by writing to the Extension Service, 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 Extension Service, at 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 at 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.

Garbage Cookers

A circular on this subject can be secured from the local county agricultural agent or by writing to the Extension Service, at College Station. Ask for circular C-349.

Cooperative Extension Work in Agriculture and Home Economics, The Texas A. & M. College System and United States Department of Agriculture Cooperating. Distributed in furtherance of the Acts of Congress of May 8, 1914, as amended by Act of June 26, 1953, and June 30, 1914.
10M—1-54, Reprint