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HOUSING PIGS

By P. McNAMARA, Pig Husbandry Adviser.

THERE are many designs for pig houses and much will depend on individual circumstances which is best in any particular case.

A good shed provides comfort for the pigs in summer and winter, freedom from draughts and damp being of particular importance. Pens must be made from materials which are hard-wearing and easy to clean, and the whole building must be easy to work.

A great advantage of the intensive house over paddock management is the ease with which large numbers of pigs can be handled and fed; however, greater attention must be paid to the pig’s nutrition and control of infectious diseases. In the paddock system care must be taken to avoid the build-up of parasites.

One of the worst jobs in pig-raising is the disposal of manure; many man hours can be spent in this backbreaking work. The good shed is designed to eliminate as much of this type of work as possible, allowing the pig-raiser the maximum time for management and feeding.

For a smaller herd where there is ample cheap land, a low cost extensive unit might be as profitable as an intensive unit without the expense of elaborate buildings.

HOUSING BREEDING STOCK

On most farms, sows are run in paddocks when not suckling litters, but there is a growing tendency to house sows at all times. The advantages claimed are better control of the breeding programme, less bullying and a saving of feed.

Some of the advantages claimed for housed sows can be achieved in the paddock by using individual sow feeders; with these, bullying is eliminated, each sow is fed according to her needs and handling is made easy. Where there is good grazing the value of this can be taken into account, and the disposal of manure takes care of itself. Often by the time allowance is made for land used, cost of fencing, stalls and shed there is little cost advantage over total housing and the choice becomes a personal one.

In a totally-housed system sows may be tethered or confined in crates.

Tethering is claimed to be the cheaper method as pen divisions are reduced to a minimum and no gates are required, but against this can be set the heavy wear and tear on chains and the chaos caused if sows do escape.

It is reported that sows resist tethering initially, fretting for several hours, and surveys show that there is a high incidence of neck chafing in tethered herds.

Crates are usually about 28 in wide and 7 ft. 6 in. long, made up of tubular steel. Whether sows are tethered or in crates, there is usually a slatted area at the rear of the pen.

FARROWING ACCOMMODATION

The farrowing house is the most important building in the piggery and the planning of the whole enterprise must be based on its throughput. The profitability of the piggery depends largely on the number of pigs each sow produces in a year—and the lives of many piglets can be saved if good accommodation is provided.

Requirements of a good farrowing pen:

The main requirements of a farrowing pen are:

(1) Safe, warm areas for the piglets. These areas must be dry and free from draughts.
(2) Restricted area for the sow. This will reduce danger from crushing.

(3) Good ventilation. Sows can become very distressed in hot weather.

(4) The pen must be easy to clean and disinfect.

Many plans for piggeries incorporate the farrowing and finishing pens under the one roof, but an entirely separate farrowing house gives a better chance for disease control and allows the house to be completely emptied and rested from time to time. Attention can also be given to farrowing sows without disturbance to the rest of the pigs.

**Design for farrowing pen**

There are numerous designs for farrowing pens. Nearly all give satisfactory results if management is good, and it is mainly a matter of personal preference which is used.

The number of pens to build will depend upon how long each sow is to stay in the pen and the herd farrowing pattern.

In the past sows were usually brought into the pen a week before farrowing and suckled a litter for eight weeks; a week was allowed for cleaning, making 10 weeks in all, or a throughput of five litters a pen each year.

The tendency today is to use the farrowing pen for only about a week to 10 days
after farrowing, completing the cycle in four weeks and allowing 12 farrowings each year. In this case a much smaller pen is used, incorporating a crate, whereas in the former, although a crate may be used, a large pen is required. The zig-zag crate, requiring a pen only 6 ft. x 6 ft., has recently become popular due to its economy of space and the convenience it affords for handling both sow and litter.

Sows remain in crates for feeding, not being let out as was often the case in the past, so a large passage or yard is no longer needed and building costs are reduced.

The creep area

The creep area is the safety zone for the piglets and is designed to attract them whenever they are not suckling. In the first few hours of life it is probably light as much as heat that attracts the piglets, so a light source as well as heating should be incorporated.

If infra-red lamps are used this is automatic, but there is a trend towards the use of other heaters which, although initially more expensive, should give a longer life. Under-floor heating has also been used but is fairly expensive to install and run.

The main consideration must be the exclusion of draughts; the sides of the creep should be solid and there should be a lid on the top.

If such a creep as this is provided with shavings or other bedding piglets will make themselves comfortable and keep warm even if heat is not provided.

Follow-on pens

Where farrowing pens are used for 10 days only it is necessary to have a follow-on pen into which the sow and litter can be moved.

This can either be a separate pen with a creep, or a pen into which two or three sows and litters are grouped. An extension of this latter method is to have crates in a large common area, allowing the litters to mix but keeping sows separate. The advantage of this batching up is that by weaning time one has a group of between 15-24 piglets to go into the finishing pens.

FINISHING PENS

The method of feeding and manure disposal will influence the design of the house.

Feeding

TROUGHS will be required if skim milk or swill is fed, and this immediately limits the number of pigs a pen will hold, as
controlled by the trough length. The open fronted cottage sty has many advantages when this type of diet is fed as it allows the escape of unpleasant odours.

SELF-FEEDERS allow greater concentration of pigs and are particularly suitable for young, fast-growing pigs. Depreciation on hoppers can be high and waste of feed considerable unless the feeders are carefully adjusted.

FLOOR-FEEDING reduces the capital cost per pen and is particularly suited to pellet feeding. Meal can be floor fed, but dust can be a problem. Floor feeding allows a high concentration of pigs in the pen, with the advantage that intake can be restricted.

Manure disposal

Races can either be solid-floor or slatted; if they are slatted there is normally no dividing wall between the sleeping area and the race.

If solid races are used it is usually possible to shut all pigs back into the sleeping area, while the race is cleaned. The area per pig allowed in a slatted-floor pen is less than with a solid-floor race, but the additional cost of slatted floors and trenches will equalise this saving in the final costing.

Slatted floors

Fully slatted and partially slatted pens have both been used successfully, but partially slatted pens are most popular.

Slats cut the task of cleaning out to almost nil, provided the pens are stocked to the correct density. Under-stocked pens are quickly fouled. For baconers an allowance of 6 square feet per bacon pig of floor area, slats and sleeping floor combined, has given excellent results. Up to pork weight 3 square feet per pig is sufficient.

Slats may be made from wood or concrete, the size varying from 2 to 3 inches on the top, and the average space between is $\frac{3}{4}$ in. Wooden slats have generally been used in Western Australia, but several piggeries are now using reinforced concrete slats. Heavy gauge galvanised steel mesh has recently been introduced and is claimed to be very satisfactory.

The slatted area should be on the same level as the sleeping floor, and the drinker should be above the slats. This encourages the pigs to dung and urinate on the slatted area and allows waste water to escape.

The trench beneath the slats provides storage for from two to four weeks, depending on size; the average pig produces about one gallon of dung and urine per day. Before use, about 6 in. of water is placed in the trench. The outlet must be kept sealed to prevent draughts blowing up from the slats into the pens.

Pen shape is important; surveys show that deep, narrow pens keep cleaner than wide shallow ones. If these narrow pens are to be fully stocked there will be too many pigs for a feeding trough to be used, so they are usually floor fed.

Pen divisions

Solid partitions have the advantage of preventing draughts in the cooler times of the year. They also prevent the fouling of a pen by the pigs on either side. On the other hand, mesh divisions are probably better in hot summer conditions.

If mesh is used it should be set in a low wall at least 6 in high; this holds it rigidly at the base and prevents fouling of one pen from another. It also prevents food from rolling underneath it into the next pen.

In farrowing pens, solid walls are recommended.

The outer shell

The maximum economy of construction will be obtained if standard-design buildings are used. The materials will vary according to districts; in some cases poured concrete will replace blocks in the walls, or aluminium will replace asbestos on the roof.

Insulation of the roof is important for temperature control, especially in summer.

Good ventilation is essential if pigs are to be kept healthy and clean, and every effort must be made to provide a movement of air through the piggery.

It is recommended that, once the "floor plan" size of pens and design, are decided, professional advice be taken to suggest how temperature and ventilation control can be achieved.

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