

Registered at G.P.O. Adelaide for transmission by post as a periodical

# pig production

## in South Australia

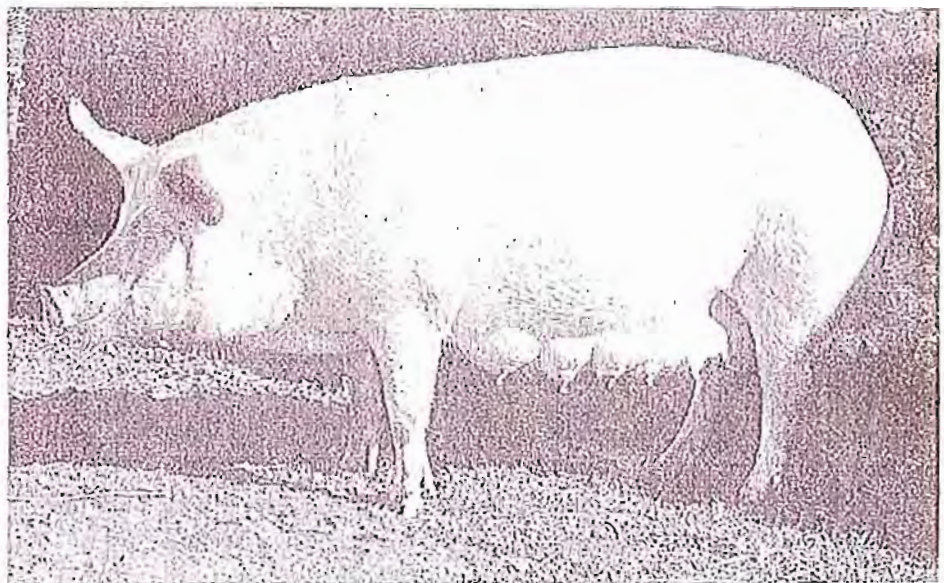
By P.A. Heap, Livestock Adviser (Pigs), Kadina.

Pigs were introduced to Australia by the earliest settlers and over the years many different breeds were introduced both from Europe and America.

Some of the breeds introduced did not persist, and the present pure breeds found in South Australia are Large White, Landrace, Berkshire, Tamworth, Wessex Saddleback and Large Black. With the exception of the Landrace which evolved in Denmark, all the above breeds evolved in England.

### Large White

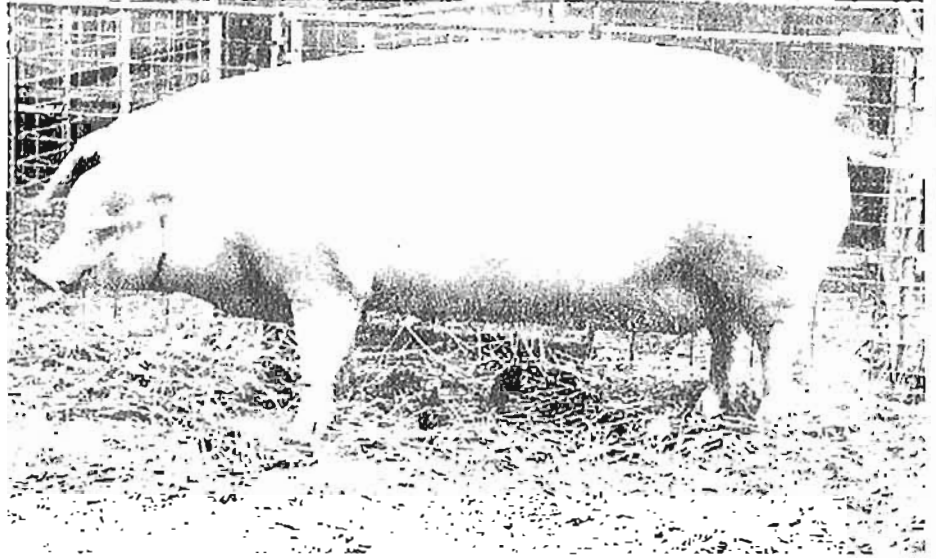
This white skinned pig is the most common breed found on South Australian farms. It is often used for cross breeding especially with the Berkshire and Landrace.



## Landrace

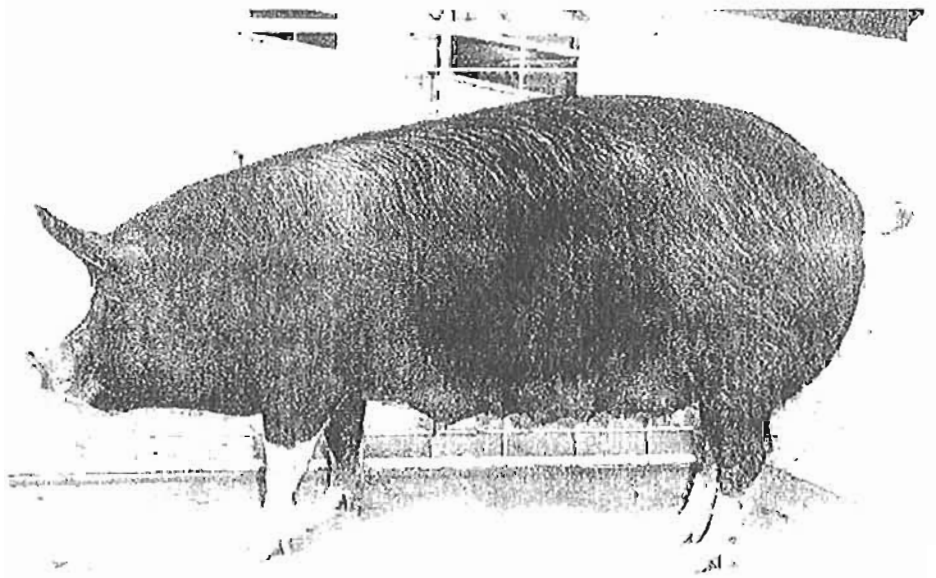
The Landrace is a comparative newcomer to Australia, the first importations arriving from Northern Ireland in 1957. Despite its late arrival the Landrace has been widely accepted and ranks in the top three popular breeds in South Australia.

The Landrace is a white skinned pig.



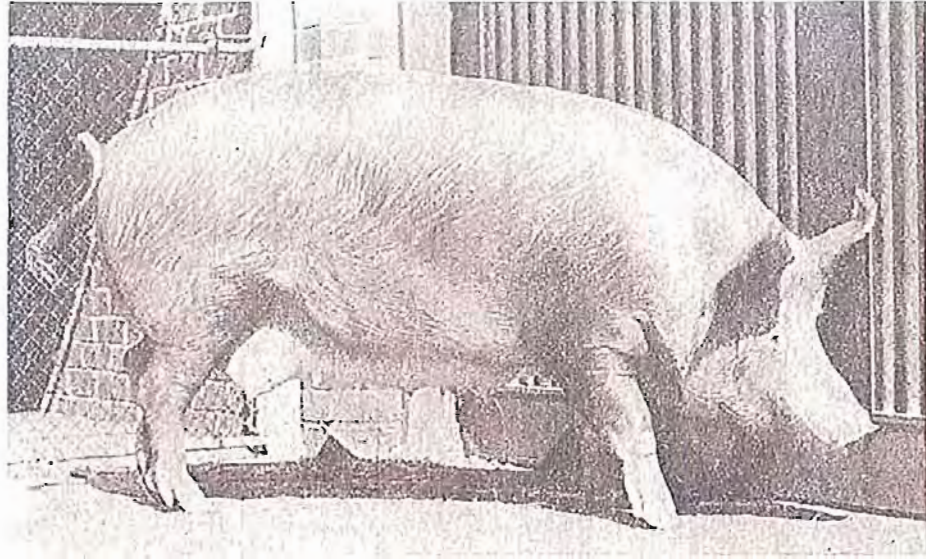
## Berkshire

The Berkshire is a black skinned pig with white on feet, face and tip of tail. It is often crossed with the Large White or Landrace to produce white skinned offspring.



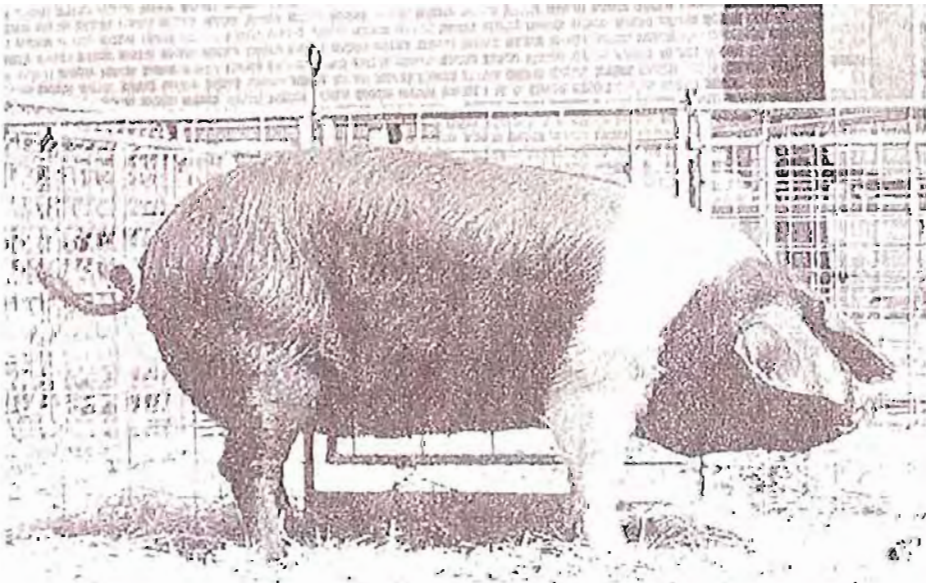
## Tamworth

Reddish brown, the Tamworth is sometimes used in cross breeding where hardy outdoor pigs are required. It is kept in much smaller numbers than the three more popular breeds.



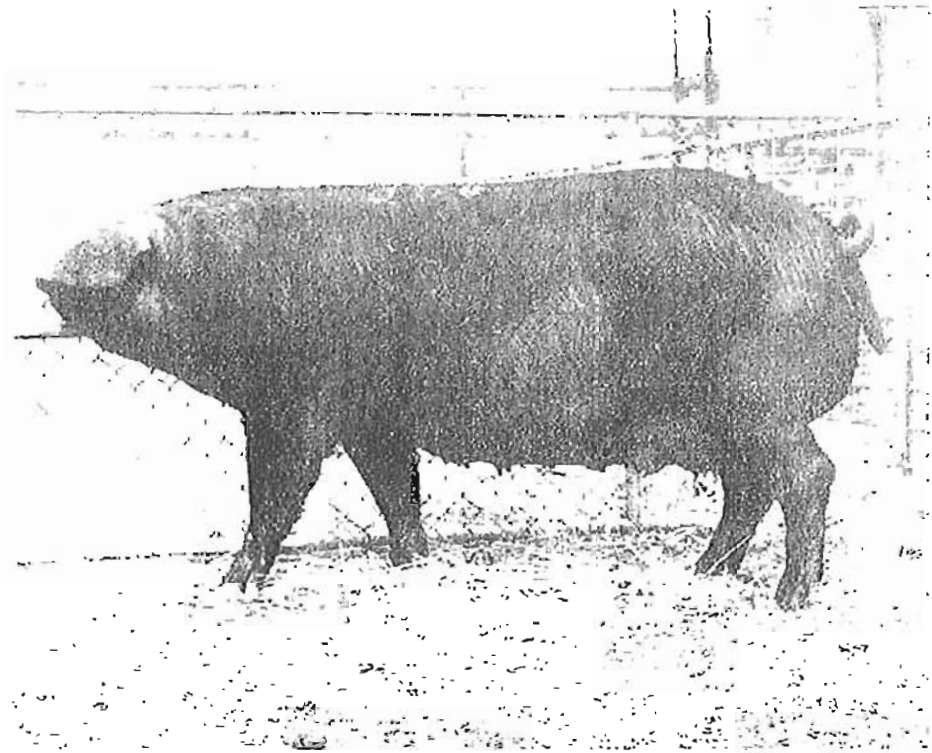
## Wessex Saddleback

The Wessex Saddleback is black with a white band across the shoulders and down the front legs. It was introduced to Australia in 1931, and despite initial widespread popularity, it is now seldom seen on South Australian farms.



## Large Black

In comparison with other breeds, few Large Blacks are kept on South Australian farms.



## Distribution of pigs

Pig keeping is practised throughout the agricultural areas of South Australia, with the heaviest concentrations of pigs in the cereal growing areas.

The following figures are taken from information released by the Commonwealth Bureau of Census and Statistics. All figures were taken at March 31, 1970.

Table 1: Numbers and classes of pigs in South Australia 1965-1969 (X1000)

Classification	1965	1966	1967	1968	1969
Boars	3.8	4.0	3.9	4.1	4.6
Breeding sows	27.9	29.3	28.6	32.3	38.6
All other	169.2	190.2	189.9	205.9	244.8
Total	195.9	223.6	222.3	242.3	288.0

# Numbers of pigs in South Australia - 1969

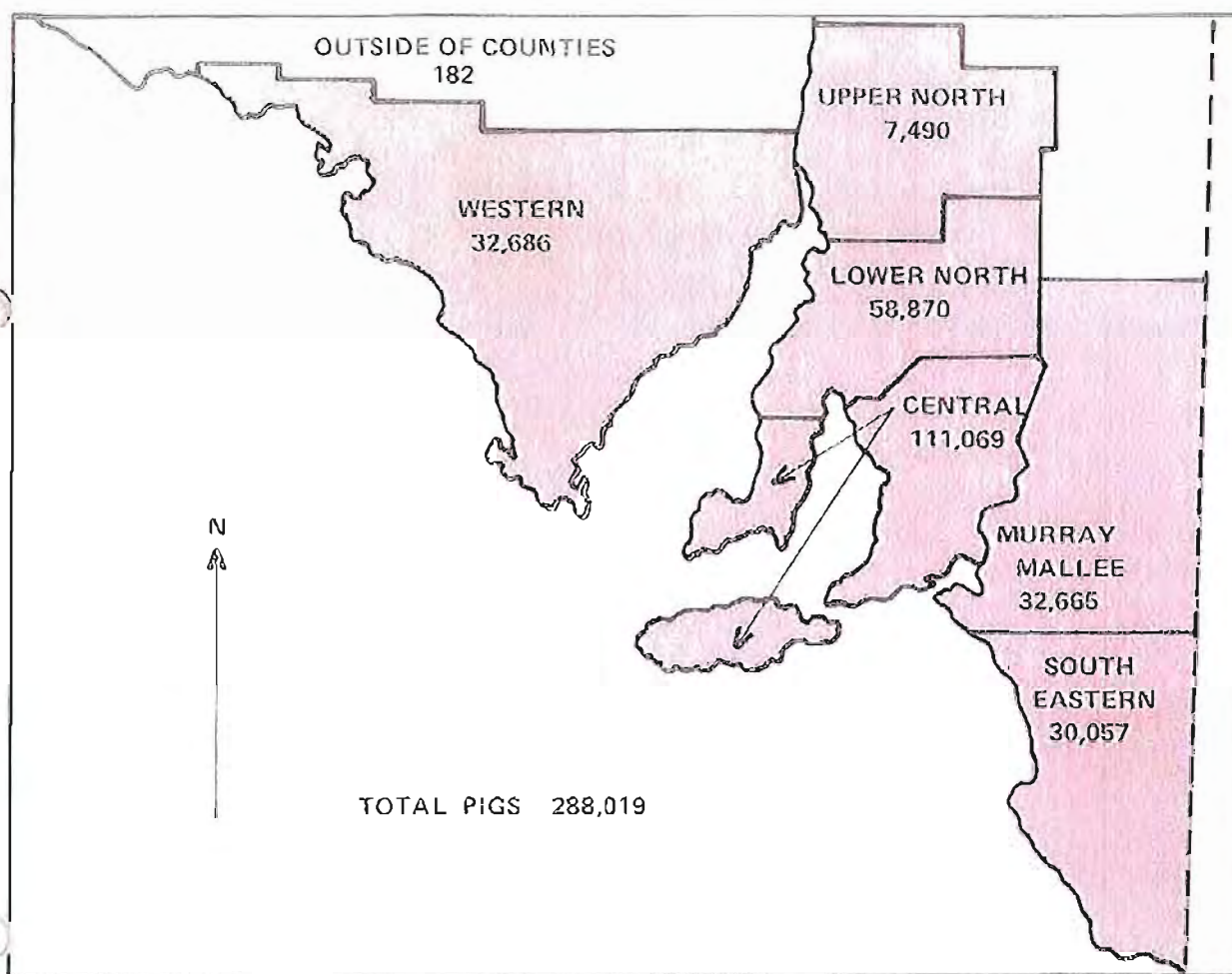


Table 2: Australian pig numbers - (X1000)

As at March 31	N.S.W. (inc. A.C.T.)	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust. Total
1959	349	253	400	98	116	69	3	1289
1961	455	318	448	144	176	71	3	1615
1963	392	298	402	145	131	70	2	1440
1965	449	378	406	196	137	92	2	1060
1967	514	351	468	222	161	86	3	1805
1969	690	422	535	288	220	95	2	2253

Table 3: Annual consumption of pig meats in Australia — lb. per head of population to end of June.

Source — Commonwealth Statistician (1968-69 figures subject to revision).

	1964-65	1965-66	1966-67	1967-68	1968-69
Pork — bone-in weight	11.8	13.3	13.4	14.6	16.3
Bacon + ham — cured weight	7.5	7.6	8.1	7.7	7.8

Table 4: Exports of pig meats from Australia (tons)

Source — Commonwealth Statistician

	1964-65	1965-66	1966-67	1967-68	1968-69
Pork	365	475	920	553	1187
Bacon + ham	134	184	226	219	186

## Changes in pig keeping

During recent years there have been great changes in the housing, feeding, and general management of pigs.

Probably the greatest change is the trend towards intensive housing. Increasing numbers of pig keepers are building permanent intensive sheds in which pigs are confined at high densities.

## Housing

Pigs in South Australia are kept under a variety of conditions from free range semi-intensive and intensive rearing.

### ▣ Free range

Under this system, pigs are allowed to graze on large areas of land. During winter and spring the grazing is a useful supplement to the pigs' rations.

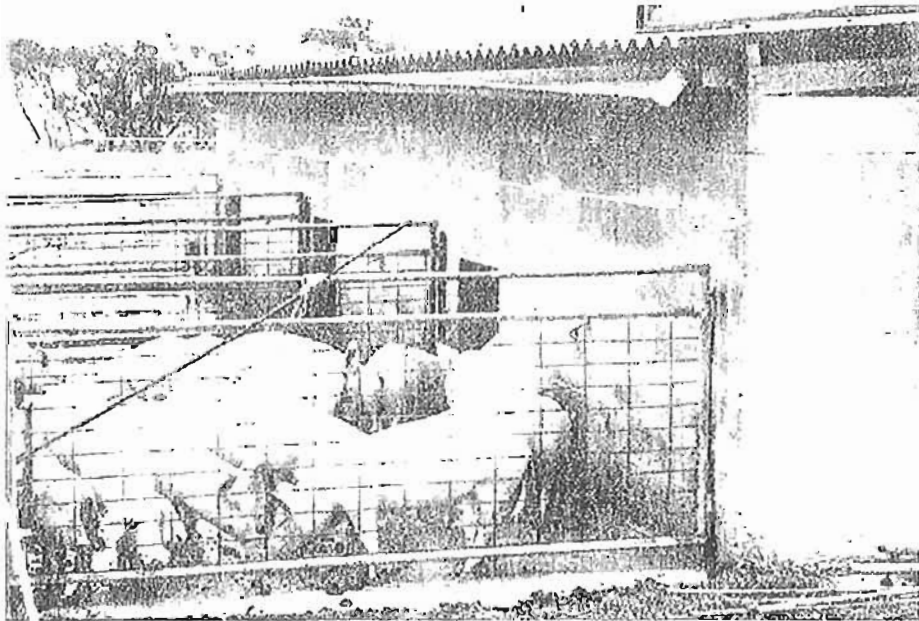
### ▣ Confinement to pig runs

This system is common in South Australia. Pigs are confined to earthen runs with pig sheds or other forms of shelter. The chief drawbacks are that the runs become contaminated with worm eggs, the minerals become depleted, and some of the more poorly drained areas become quagmires during the winter.

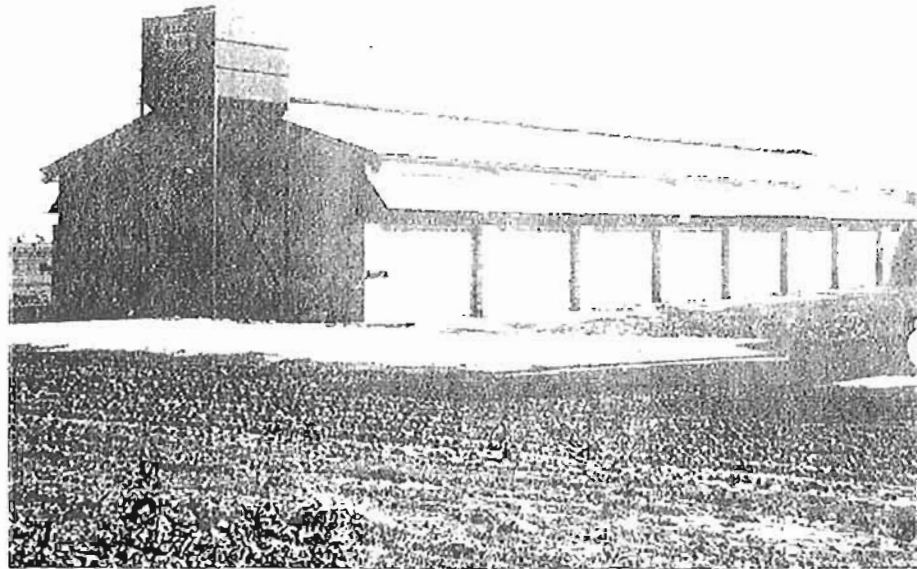
The main advantages to the pig keeper are the small outlay of capital required and the small amount of time spent on cleaning.



Simple shade shelters such as this help to keep pigs cool during hot weather.



Sideline pig farmers often incorporate outside yards with their pig sheds.



"Intensive" pig sheds similar to the one shown above are becoming prevalent on South Australian farms.

#### ▣ Semi-intensive systems

Many pig keepers have compromised by building pig sheds with outside concrete yards. Pigs kept in these units have the choice of two environments, an inside shelter, and an outside yard. Daily cleaning is advisable, but is left for longer periods when labour is required for other farm operations.

#### ▣ Intensive

Intensive sheds have become more popular recently. They vary widely in design as different owners incorporate their own labour saving schemes. But they all have the basic aims of obtaining faster growth and utilizing feed more efficiently. Most of the sheds have concrete areas for eating and sleeping, with part of the floor slatted. The body wastes fall through the slatted floor into a sludge pit below. Pit contents are disposed of by spreading on to the land as fertilizer, or by storage in ponds to allow bacterial break-down.

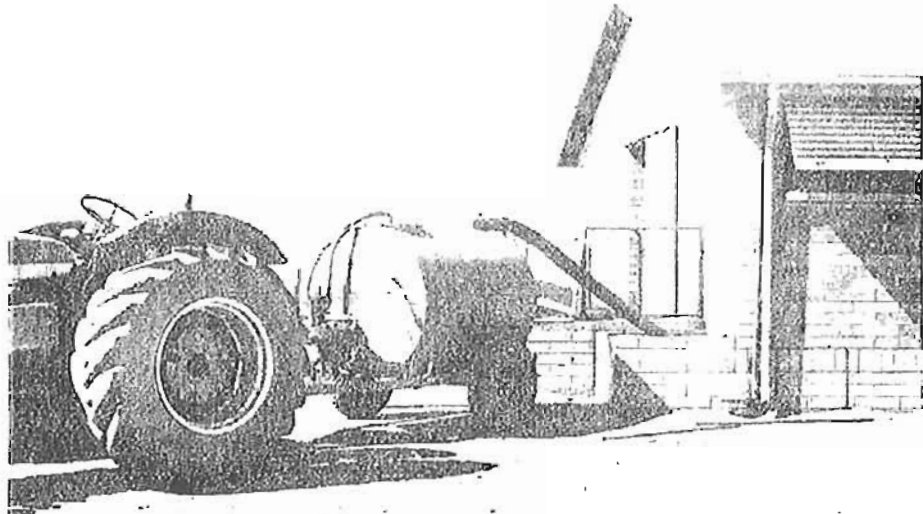
Automatic waterers are provided, and in some sheds automatic feeders have been installed. The capital outlay on buildings and equipment is much higher than the other systems, and a high standard of management is required.

In association with intensive housing a few minimal disease piggeries have been established. The stock for these piggeries are derived from piglets which are surgically removed from the sow and reared in a practically disease free environment.





Large ponds relying on bacterial action are often used to dispose of piggery effluent.



A tractor powered vacuum tank is commonly used to remove sludge from the pig shed.



This pig keeper makes use of the sludge from his piggery by applying it as fertilizer for his cereal crops. On some piggeries, the sludge is applied to the land via special sprinkler systems.

By keeping pigs under the minimal disease system, many of the common infectious diseases and parasites can be eliminated. To maintain a disease free herd requires constant care and vigilance by the pig keeper.

## Feeding

Years ago a large number of piggeries in South Australia had quantities of separated milk to supplement the grain fed to pigs. This milk supply is now greatly reduced due to the increased demand for whole milk, and the decrease in the number of dairy units producing cream. The most common ration now used is grain plus a protein, mineral and vitamin supplement. Pre-mixed commercial feeds are also widely used.

## Marketing

Pigs are disposed of through various channels. The live auction system both in Adelaide and country areas accounts for a large portion of the sales.

Other forms of marketing are, consignment to bacon factories for sale after slaughter, or sale of live pigs to buyers who visit the piggery.

One carcass auction in Adelaide sells slaughtered pigs on behalf of the producer. The usual carcass weight range for slaughtered pigs is 120 to 160 lb. for baconers, and 60 to 90 lb. for porkers.

Older and heavier pigs are sold under the trade name of choppers.

In addition to pigs for slaughter, there are sales of "breeding" pigs and "store" pigs of various ages. These store pigs are sold to buyers who keep them for sale at a later date.

## Management

Unlike grazing animals, the pig relies on the stockman for most of its needs. The care and attention given can make a big difference to the profit made.

Work is constantly in progress to improve the pig, especially in the fields of food conversion, carcass composition and number of piglets reared.

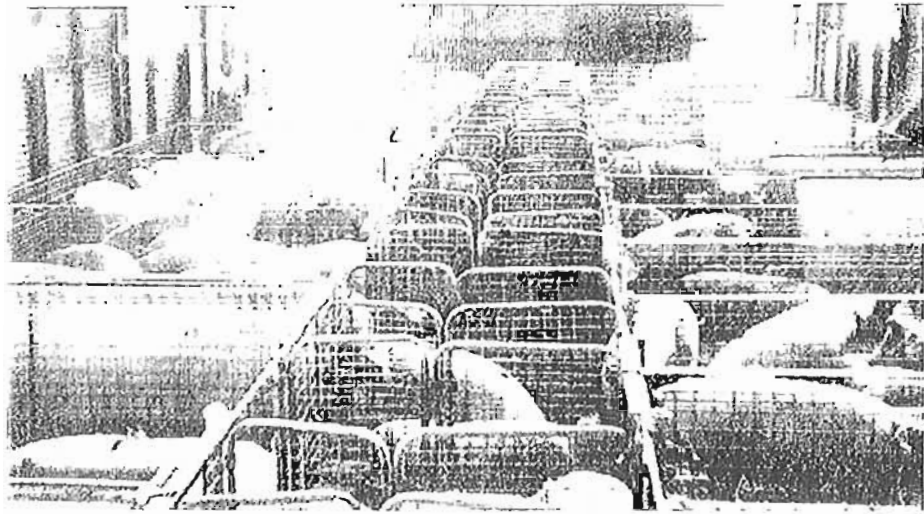
At present, it is reasonable to aim at just over two litters, each of eight pigs, reared and marketed from each sow per year, with a liveweight increase of one pound for every three pounds of feed consumed by the growing pig.

Figure 1 outlines some average times between litters. By weaning the piglets at an earlier age than shown, the total of 170 days can be reduced.

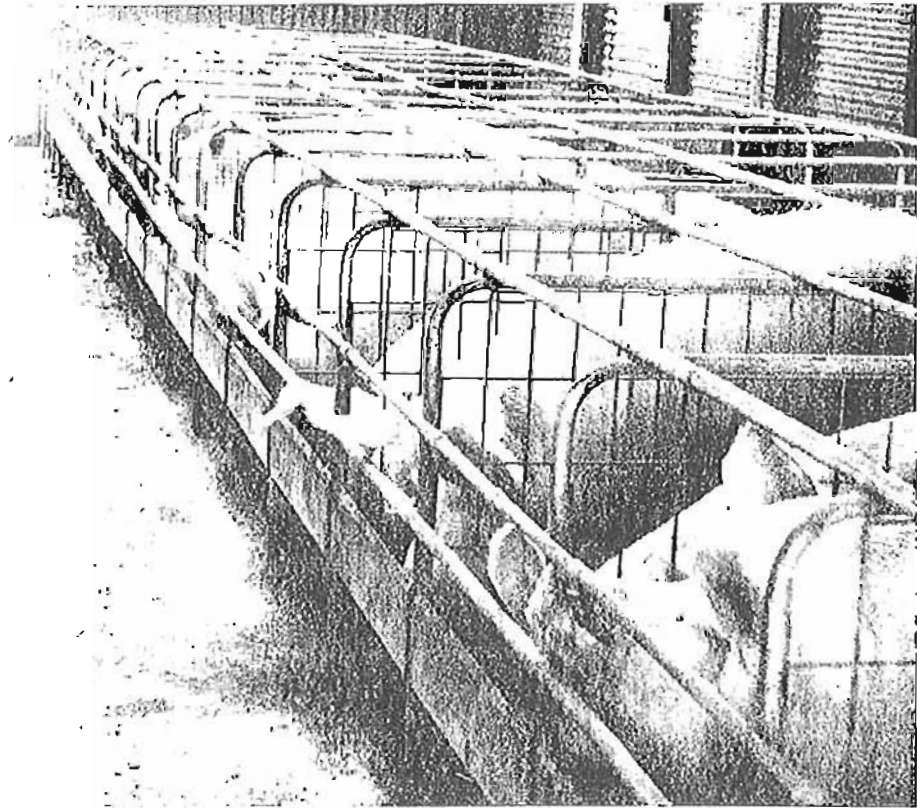
On most properties the breeding stock have access to outside pig yards, but some commercial piggeries are now housing all stock under intensive conditions.

The sow is usually brought in to a farrowing shed one to two weeks before her piglets are due.

At the age of three days the piglets are given an iron supplement and their sharp needle teeth may be "clipped" to reduce damage to the sow's teats and to other pigs in the litter.

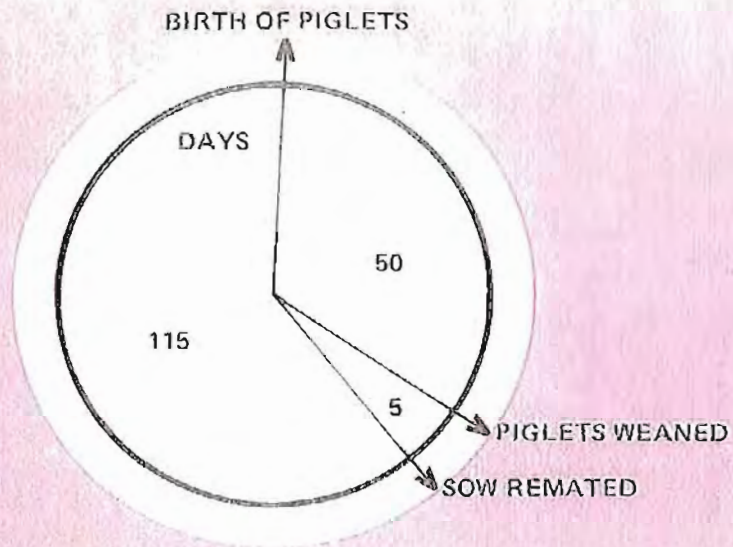


Interior view of a fully intensive pig shed. The slatted floor over the sludge pit runs down the centre of the shed.



Apart from time spent in the farrowing sheds, these sows live in stalls as shown. As yet, few piggeries in South Australia have installed this system.

Figure 1 : The farrowing cycle



Healthy piglets have good appetites. They are left with their mother until they are about six weeks old. Heat is provided by the "infra red" light and in this case the sow is confined to a stall to prevent her lying on the piglets.

Castration of male pigs is carried out at approximately three weeks of age followed by weaning of the litter when they are between five and eight weeks old.

After weaning, the young pigs are placed in a "growing" shed where they are kept until marked.

## The finished product

As well as being a fairly efficient food converter, the pig has little waste when slaughtered. The carcass weight ranges between 70 and 75 per cent of the pig's liveweight.

Pig meat is a high quality food which is marketed in many different forms — fresh pork, pickled pork, bacon and ham. It is also used in the manufacture of a wide variety of smallgoods including various sausages and cooked meat.

The consumption of pig meats has shown a steady rise in recent years as shown in Table 3.

## Exports of pig meat

Compared with other meats, the export of pig meat has been insignificant in recent years. However during the year 1968-69 useful sales of fresh pork made to Japan accounted for most of the increase shown in Table 4. At the time of writing, this market is not operating and its future is uncertain.

## What of the future

Greater knowledge and skills will be required by those in the pig industry to counter the challenge of synthetic meat, price fluctuation and over production.

The pig's potential to produce numerous offspring, and obtain good feed conversion, make it a promising subject for further improvement.

# Cuts of the pork carcass

