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GROWTH OF THE BROILER INDUSTRY IN W.A.

By D. F. HESSELS, (M.D.A.) Broiler Officer

THE production of poultry meat in W.A. before 1956 was only a side-line for egg producers or small, mixed farmers. Most of the meat available was made up of culled hens, first cross cockerels and some heavy breed birds.

The production of poultry meat as a specialised business can be traced back to about 1957 when large numbers of first cross cockerels were grown for meat instead of being drowned at birth. Research carried out in 1956 at the Poultry Research Station, Wembley, proved that the cockerels could be profitably grown.

For about three years these first cross cockerels, which result from the mating of White Leghorn roosters and Australorp hens, were exclusively used for meat production. It was soon obvious that first cross cockerels were not ideal for meat production as the supply was only seasonal and they did not grow and convert feed to meat very well.

The introduction of Broilers

The Concise Oxford Dictionary defines the verb “to broil” as meaning to cook over a fire or grid iron. This was the general method of cooking young roasting fowl as a seasonal delicacy in New England, U.S.A., at the turn of the century. “Broiler” was used to designate any type of bird that could be cooked in this manner.

Broilers in Australia have been bred mainly from New Hampshires, Indian Game, Light Sussex, White Leghorns and White Cornish.

Most broilers (98 per cent.) in W.A. are produced from parent stock which have been imported under franchise from the Eastern States of Australia as day-old chickens.

Both the male and female chickens are raised for meat in broiler growing.

It is quite common, at present, for broilers grown under commercial conditions to weigh 3 lb. at 10 weeks with a conversion ratio (pounds of feed to produce 1 lb. of liveweight) of 3 to 1.

In a recent trial at the Poultry Research Station 91 broilers (48 cockerels and 43 pullets) averaged 3 lb. 6.2 oz. at 10 weeks with a food conversion of 2.63 to 1. By 12 weeks these birds had reached an average weight of 4 lb. 2.2 oz. with the males averaging 4 lb. 11.28 oz. and the females 3 lb. 11.8 oz. The conversion ratio for the group was 2.84 to 1.

Performances on commercial farms vary considerably, due to differences of housing and management. Reduced performance caused by disease often makes comparison trials unreliable.

Seasonal differences are rather marked and results are generally better in the colder winter months.

The best result obtained so far on a commercial farm was from a batch of birds which performed as follows:

Number of birds in shed—17,000.
Density (sq. ft. per bird)—0.71 sq. ft.
Average age at marketing—9 weeks 3 days.
Average weight—3.29 lb.
Conversion ratio—2.68 to 1.
Mortality—4.1 per cent.

This result, to my knowledge, has not been equalled under commercial conditions in W.A.

Rapid Development of the Broiler Industry

The rapid development of the broiler industry was made possible largely by the breeding of these special meat-type birds.

Since 1959 the swing from first cross cockerels to broilers has continued, until today nearly all the larger commercial growers use broilers exclusively.

The chickens can be hatched all the year round as both males and females are economically suitable for meat production. This has enabled broiler growers to grow chickens continuously instead of being limited to growing first cross cockerels for only part of the year and having sheds unoccupied for several months.

First cross cockerels have two further disadvantages: They give a 6 per cent. lower recovery than broilers, and they do not meet the retail requirement for a uniform quality bird. These considerations have compelled processors to pay a lower price per pound liveweight for first cross birds, so helping to bring about the decline in growing first cross cockerels.

At present there are about 30 commercial broiler growers with an annual output of birds ranging from 20,000 to about 500,000 broilers annually. There are also numerous, sideline units of a few thousand birds. Many of these units only operate during certain months of the year when first cross cockerels are cheap and readily available. After the initial boom there has been a decline in the number of smaller ventures as the industry has become established with specialised, large-scale growers operating all the year round.

Sections in the Broiler Industry

The broiler industry is made up of four major allied industries.

THE HATCHERIES.—All hatcheries which produce large numbers of day-old broiler (meat-type) chicks, produce them under franchise from Eastern States companies. Four types of these are available in W.A. The parent birds are imported into W.A. as day-olds, reared locally and their progeny are sold to broiler growers or reared for meat by the hatchery.

THE BROILER GROWER.—Growers either buy their chicks and feed, and sell the birds to processors on the open market or, in the case of integrated growers, are supplied with the chicks and feed and are paid a certain price per pound of meat produced.

FEED MANUFACTURERS.—Three feed manufacturers supply nearly all the broiler feed in W.A.

PROCESSORS.—Four major plants process about 95 per cent. of the broilers grown.

There are two industry associations. One is an association confined to broiler growers (Broiler Growers Association) while the Chicken Meat Council comprises three representatives each from the four major allied industries.

Feed Requirements

The number of chickens sold is a good guide for feed manufacturers and processors, for it is an indication of the number of birds which will be marketed and of tonnage of feed required. About five tons of feed are required to grow 1,000 birds to 3.25 lb. live-weight. Feed requirements exceed the 5 tons per 1,000 birds if the broilers are kept until they weigh more than 3.25 lb. This was the reason for an increase in feed sold from June to October 1964.

The breeding of special meat birds in Australia is only in its infancy and the genetic improvement of broilers can be expected to make rapid early gains. One of the limiting factors is the total prohibition on import of any poultry into Australia from overseas except New Zealand. This regulation is necessary to prevent the introduction of diseases, particularly Newcastle disease, which does not occur in Australia. While some countries have been able to use superior American parent stock the Australian broiler industry has had to rely on the genetic pool present in this country.
The use of first cross cockerels will decrease further still, as the broilers' performance improves. The difference in cost of £1-£5 per 100 for first cross cockerels and £7 15s. for broilers is largely responsible for the growing of some first cross cockerels when these are available.

Meat birds on commercial farms are purchased at day-old in batches of up to 20,000 chickens and placed into large, deep-litter, intensive houses. The normal procedure is to brood and rear each batch in the one shed.

Previously each bird was allowed 1 square foot to marketing age, but most farmers are now working on 0.8 sq. ft. while some growers grow the birds at 0.66 square foot per bird and sell a third of the birds at nine to 10 weeks, keeping the rest at 1 square foot per bird until marketing time, which varies from 10 to 14 weeks of age according to the demand.

**Development and Future of the Broiler Industry in W.A.**

The broiler industry in W.A. produced 3,200,000 birds in 1964. This is not a great number compared to the Eastern States or some overseas countries but it is a tremendous achievement if one takes into consideration that no broilers were grown in W.A. before 1956.

The per capita consumption (lb. per head of dressed poultry per year) in W.A. of total poultry meat (including culled hens) is now (1964) 13 lb. (9 lb. of broiler meat, 3 1/2 lb. of culled hens and 1/2 lb. of miscellaneous). It is difficult to predict how much higher this consumption figure will rise. Prices of poultry meat have decreased steadily over the past few years and it can be safely assumed that they will further decrease as the industry becomes more efficient. It is likely that prices of red meat will increase in the near future and this will favourably affect the consumption of poultry meat. America has the highest per capita poultry consumption (32 lb. in 1964) in the world. It is doubtful whether this figure will be attained in Australia because the difference in price of poultry and red meat is unlikely to be as great here as it is in the U.S.A.

Promotion and advertising also have a distinct bearing on consumption.

The broiler industry will become increasingly integrated in W.A. and this also has a tendency to reduce cost of production.

The future of the W.A. broiler industry will be one of increasing need for efficiency as live-weight prices fall. But there will always be a market for the efficient and competent grower.
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