

Large, Commercial Flocks Lead Poultry Modernization



● Large commercial poultry flocks are assuming the dominant role in Australia's poultry industry. Although many private homes and the great majority of farms still keep some fowl, the small flocks constitute a decreasing proportion of the total poultry population.

An awareness of the need for change has led to a modernization of the industry through improved poultry strains, better feeding, management, record keeping, housing, mechanization of routine operations, and more efficient handling of poultry products.

The poultry industry in Australia employs about 100,000 people. Egg production in fiscal 1959/60 yielded an estimated £A43,000,000 (\$96,320,000) and poultry meats yielded a £A14,600,000 (\$32,500,000). Total: £A57,600,000 (\$128,820,000). To the total must be added the value of capital equipment manufactured in Australia for poultrymen.

Although the Australian poultry industry produces eggs and poultry meats of high quality, transport problems make it difficult to compete in many overseas markets. In fact, low egg prices caused the collapse of the European market for Australian poultrymen last fall. Low prices have plagued the domestic market in recent months, too. Some poultrymen have been forced out of business. But with the growth of Australia's population, observers believe the commercial industry is expanding on a solid basis to meet growing domestic demand. A large surplus, however, still exists for export. Some sources have been pressing for poultry trade with Communist China to bolster export sales.

The importance of poultry for meat has increased in recent years. Uncertainties in traditional export markets

for eggs and an assured local market for poultry meat have induced growers to devote at least part of their energies to specialized production of broilers. The expansion of the broiler industry has led to substantial im-

Despite declining exports, Australia's poultrymen are improving efficiency and applying modern techniques to meet growing domestic demand for eggs and meat.

provements in the organization of slaughtering and marketing. Regional poultry processors have replaced the pre-war practice of killing on the farm or at centralized markets. Health and pure food regulations have established strict sanitation standards of poultry slaughter.

Domestic Growth Promising

Domestic consumers provide the major outlet for Australian broilers. About 16,000,000 broilers are consumed a year, in addition to the hens culled after the season's egg production. There is also a small market for turkeys and ducks. Consumption of poultry meat in Australia (4.54 kilograms or 10 pounds per capita per year), while still low in comparison with other meats, is increasing steadily with the growing population, development of improved meat strains, and improved production, processing, and marketing methods.

Broiler Exports Drop Sharply

The export market for poultry meat has presented problems similar to

those found in the export egg market. In the last ten years, the market has contracted considerably. The value of poultry meat exports declined from £A3,000,000 (\$6,720,000) in 1951/52 to £A261,000 (\$585,000) in 1959/60.

Prior to the early 1950's, Australia enjoyed a strong market for poultry meat in the United Kingdom. But sales declined from £A2,500,000 (\$5,600,000) in 1951/52 to only £A6,751 (\$14,900) in 1958/59. Reason: Broiler production increased in the United Kingdom after wartime restrictions on poultry feed were lifted. The price of broilers in the U. K. has been reduced to 10-shillings sterling (\$1.40) for a 1.23 kilogram to 1.36 kilogram bird, making competition from Australian import virtually impossible.

Although poultry meat production in Australia has suffered from the elimination of the U.K. market, the recent expansion of local demand has encouraged Australian broiler producers. Further growth seems assured by the steady increase in Australia's population and increased efficiency in the industry.

Recent Trends

● *Egg Production:* Due to variations in cost/price margins, minimum size for an economic egg producing unit varies from time to time and from state to state. Generally, an economic one-man unit will require 2,000 layers. Ten years ago, 1,000 layers were considered an average one-man unit. It has become necessary for each unit of labor to handle more birds. Improvements in husbandry and the availability of labor-saving devices have enabled Australian poultrymen to meet that necessity.

A recent study in the Sydney area of New South Wales reveals that a

good living can be obtained from a one-man unit of 2,000 layers with an average annual production of 180 eggs or more per bird.

The average Australian poultry farm requires an additional full-time employee when it reaches 3,000 to 3,500 birds. A unit of 5,000 to 6,000 birds would constitute a three-man farm.

● *Broiler Growing:* The broiler industry in Australia is progressing rapidly with the development of special types of meat chicken, with feed conversion ratios high enough to allow the economic use of both sexes for meat production.

The best Australian broiler strains provide birds averaging 1.36 kilograms (3 pounds) at 12 weeks of age, with a feed conversion ratio of about 3:1. Australian broiler strains are still in the early stages of development, but it is estimated that scientific breeding can improve weight at 12 weeks by about 0.25 pounds per annum over the next few years.

At present, cockerels are used between March and October, and meat-type chickens during the remainder of the year. Cross-bred cockerels yield an average feed conversion ratio of about 3-1/2:1. However, the much lower initial cost of the chickens compensates for the poorer feed conversion ratio. With the continued improvement of feed conversion ratios in broiler strains, that advantage will soon disappear. Broiler growing is essentially an industry of mass production methods, requiring high managerial skill and an efficient combination of capital and labor.

One man can care for 40,000 to 60,000 broilers a year in a modern Australian broiler enterprise. As the industry develops, it is expected that an efficient producer will need to raise a minimum of 10,000 broilers per brood.

Basic requirements for successful broiler production are: Mechanization of as many routine operations as possible; constant availability of a standard optimum formulated ration; immediate availability of large numbers of uniform meat-type chicks throughout the year; and processors capable of handling a large number of broilers within one to two days. Achieving the requirements will involve either integration or a high degree of cooperation between the different sections of the industry. In the present transitional stage of Austral-

Commercial Egg Production in Australia

By States in Million Dozens

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Total
1955/56	51.6	25.0	7.8	11.8	7.7	0.9	104.9
1956/57	52.3	24.9	8.8	11.4	8.6	0.9	106.9
1957/58	49.2	26.0	8.0	11.2	8.6	Unavailable	102.8*
1958/59	45.2	23.4	8.7	9.7	7.6	"	94.6*
1959/60	53.5	26.5	10.0	10.0	7.5	"	107.5*

* excluding Tasmania. Source: Australian News and Information Bureau.

ian poultry farming, it is not yet clear which direction the country's poultrymen will follow.

Poultry Raised Near Cities

Statistics of total poultry numbers are not available, but distribution of the industry in the Australian States is as follows:

- *New South Wales:* The poultry industry is centered close to the Sydney metropolitan area and in parts of the coastal strip between Sydney and Newcastle. Poultry farms are also developing adjacent to large country towns.
- *Victoria:* Poultry production is concentrated in areas adjacent to the

Melbourne metropolitan area, with a much smaller, but significant, concentration near Bendigo.

● *Queensland:* The industry in Queensland tends to be more scattered, with significant concentrations in the Brisbane area, around some of the major coastal towns, on the Darling Downs in the southwest, and the Atherton Tablelands in the far north.

● *South Australia and Western Australia:* In both states, poultry farming tends to be concentrated near the capital cities.

● *Tasmania:* The main centers of poultry production are in the areas adjacent to the principal cities of Hobart and Launceston.



Floor, Range, or Cage? There's Little Difference

Does growing replacement pullets on the floor, range, or in colony cages result in better laying house performance for one of the systems?

W. D. Shupe and J. H. Quisenberry, Texas A & M College System, U.S.A., found that there were no significant differences in average body weights, egg production, egg weight, feed efficiency, or mortality that could be attributed to the different rearing systems practiced between 14 and 22 weeks of age.

Pullets housed in floor pens had lower body weights and laid smaller eggs than those housed in colony and individual cages. There was no im-

portant difference in body weight, however, between that of the colony and individually caged birds. (Poultry Science, Vol. 40, No. 5)

Why Light Improves Chicken Performance

Research at Reading University, England, has shown that light affects chickens by stimulating the bird's anterior pituitary gland so the bird's system becomes concerned with sexual activity rather than growth and development. Light first affects ovarian development and maturity in hens and then the process of egg laying.

Reading University research workers have developed a mathematical re-