

The Egg Industry - From the Poultry CRC website

In Australia, the **chicken layer industry**, or egg industry, is an important intensive animal production system. Australians consume about 203 million dozen [eggs](#) per year, or 170 eggs per person per year. The eggs are produced from more than 13 million layer hens, and there are around 420 companies supplying eggs to the Australian market. The value of these eggs as they leave the farm is \$288 million. Approximately 80% of the eggs are produced in cage layer farms, with the balance coming from barn and free-range farms. Backyard egg production is common in Australia and is closely tied in with Australians fondness of poultry.

Eggs and egg products

Chicken eggs and egg products have traditionally been a popular part of diet and still are today. The egg is formed in the reproductive organs of the female chicken. Most commercial strains of hen can lay over 260 eggs per year and some improved breeds can lay over 300 eggs in a year – this is an egg almost every day. It is not necessary for a hen to mate with a rooster before she can produce an egg. Modern types of hen have been bred so that they will lay even if there is no chance of producing a chick. Layer breed chicks are sexed, with the females sold as future layers and the males humanely killed.

Eggs are collected as soon as possible after being laid and are held in cool storage to protect internal quality. Farmers check eggs for quality using a special lighting (candling) system. Cracked or weak-shelled eggs and other abnormal eggs are discarded. A sample of the eggs is checked for internal quality and freshness.

Mechanisation of egg production

The eating value of eggs has long been recognised. An egg contains 12% shell, which is not eaten. The remainder is a mix of protein, energy, minerals and vitamins which, as part of a good mixed diet, and is a highly nutritious food. Eggs contain the substance cholesterol, which has been seen in the past as an undesirable part of our diet. However it is dangerous to generalise as eggs also contain many other beneficial fats and amino acids. People who have a high risk of heart and circulatory disease are warned against a high cholesterol diet, but the use of eggs in a normal diet for most people has more benefits than dangers. Some producers have marketed specialty eggs which are fat modified (omega-3 enriched). This is done by feeding hens on a specially selected diet.

Systems Used to Produce Eggs

The farmer who produces eggs is commonly referred to as an egg producer.

Extensive

There was once a time when every farm and many suburban households had a few chooks scavenging in the yard, getting some household scraps, and sometimes getting a handful of wheat each day. This method of farming is called extensive. The number of these farms decreased as intensive farming methods developed, allowing one person to care for large numbers of birds.

Semi-intensive

Until the 1950s commercial egg producers had a few hundred to a few thousand hens housed in a shed with access to a yard surrounded by a 2 m high wire netting fence to keep foxes away. These were called semi-intensive farms and were often located in country areas close to the source of feed ingredients, especially wheat. Similar semi-intensive farms of a few thousand birds had become popular on the outskirts of major cities by the middle of the 1950s. This location was favoured because it was closer to the city market, where most eggs were sold.

Intensive

Intensive production means large numbers of animals are kept in a small area. With the introduction of layer cages, in the 1960s, farms became more intensive and larger flocks, up to 15 000 birds, became common. In 1979 there were 3200 layer farms in Australia but by 1986 this number had reduced to 1700. A few very large farms, with up to 100 000 birds, developed in the 1970s. Today some farms have up to 500,000 hens in multiple level sheds.

- Where are the farms and hens in Australia today?

The distribution of poultry farms is determined by population (where the people who will buy the eggs are living) and by the location of feed ingredients, mainly cereal grains, for the hens. It is less costly to transport eggs than it is to move the feed for hens.

Free-range, barn and organic egg production

Some people prefer to buy [free-range](#) and barn eggs because they object to hens being kept in cages. While [organic eggs](#) are purchased by people who value the ethos behind organic agriculture. As a result, these methods of egg production are becoming more common. Special rules were developed to identify farms which are truly free-range or barn eggs so that buyers can be sure they are getting the products they are paying a premium for. The organic egg industry also has a comprehensive set of regulations they must abide by to maintain their organic certification.