THE BIRTH OF THE FORMULA FEED INDUSTRY IN AUSTRALIA 1954-1962

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In 1954 the Poultry industry in Australia lagged well behind the rest of the world in both its breeding and feeding strategies. The Department of Agriculture in New South Wales (NSW) saw no reason to introduce formula feeds. Their then "expert" said that poultry farmers should feed their flocks wet mash in the morning and grain (wheat) in the afternoon with access to clover to graze. There were no cages for layers, no broilers and/or broiler sheds.

The laying hens were mainly White Leghorns with some New Hampshires and Australorps. The male chick of the laying breed was the sole bird available for the so-called "Roast Chicken on Sundays". Hormone implants were just starting to be used to produce the capon. Feed conversion was poor, egg laying percentage was poor and the average Australian ate 1 kg of chicken meat a year. At that time the consumption in the USA was 18 kg per person per year.

The ingredients for the diets of poultry came from the flour millers and from the abattoirs, i.e. bran, pollard and meat meal. Traditionally these were handled by produce merchants in hessian or jute sacks. Bulk feeds were totally unknown. The poultry farms were small, situated on the outskirts of the state capital cities with the possible exceptions of Tamworth in NSW and Bendigo in Victoria.

Being from a flour milling and grain family my first brush with possible improvements was when I worked for experience in Cheadle Heath near Manchester in England with the firm of Henry Simon Ltd, an engineering firm specialising in the design of manufacturing machinery for flour mills and just emerging machinery for provender mills as feed mls were then called in the UK. The other countries that had not dissimilar engineering firms were Switzerland, Germany and the USA.

So it was with youthful expectations that a pilot plant was put together in the flour mill of John Darling and Son at Rhodes in Sydney, and in November 1954 I remember packing the first bag of Dairy Meal. This was rapidly followed by Layer All-Mash, a complete feed formulated in accordance with the growing science of nutrition that was developing apace overseas.

The dairymen wanted the product but the poultry industry was sceptical. However, like most things in life it only needed two or three people to try and embrace the concept and practice for formula feeds to catch on, in particular when in those days it was difficult to get the ingredients from the manufacturers. A few farmers were starting to build cage plants and the cage manufacturers like Multiplo Ltd were active in such promotions. Naturally, the owners of these plants were quick to realise that feed millers could formulate, mix and deliver more cheaply than they could do themselves.

So in 1955 and 1956 egg and dairy producers began to improve their productivity and profits. We imported a pelleting machine from the California Press Company and so a range of pelleted feeds and crumbles for chicks was launched.

About this time one or two growers were building broiler sheds, based on United States design and technology. One of the first was Tom Lewis who had returned to Australia after working in the Australian Embassy in Washington.

"Lakehead", Burrawang, NSW 2577.
He bought a property on the Nepean River at Castlereagh near Penrith and became the first real broiler grower in Australia to utilise deep litter. He later became a politician and the Premier of NSW.

We now had the capacity, the equipment and the nutritional technology to service the poultry, dairy, pig and cattle industries. Minor users were rabbit growers, sheep and horse owners and zoos. Yet in the poultry industry something was lacking - the bird! The old White Leghorn was just not good enough.

So the poultry breeders got to work. Jack Ingham went to the US in 1956 as the leader of the breeders, with names such as Cooper, Druce, Donnelly, Locket and Hazlett all breeding and improving their stock. For the first time in Australia the broiler had arrived as a distinctive breed. Parent and grandparent specialised farms appeared. The feed conversion factor has come down from 4.5:1 to 1.8:1. Consumption per head has now reached more than 27 kg per person and the price of chicken in the marketplace has beaten inflation by a mile and is now the most economic form of animal protein for human consumption. In those days, it was only the occasional rare treat for families to have a roast chicken for Sunday lunch - now available to all as whole chicken or pieces.

In 1955 and 1956 Professor Bouffleur of the Royal Agricultural College in Cirencester, England visited Australia. His speciality and his message was the feeding of concentrates to dairy cattle to lift milk yields and to increase profits. There developed, particularly on the south coast of NSW as far as Milton, the southernmost limit of the milk zone, an amazing increase in the feeding of dairy meal and dairy cubes formulated to Professor Bouffleur's specifications. This, of course, has continued ever since, now spreading throughout Australia. Interestingly, as formula feeds were developed, the breeders of dairy cattle saw the advantages that the Friesian and Holstein breeds of cattle brought to the production of whole milk. The Jersey and Guernsey breeds, in particular, could not compete for the growing milk market resulting from the expansion of the cities. In NSW they remained for some considerable time in the north around Lismore and Casino and in the south around Bega and Kameruka supplying the need for cream and cheese products.

A similar pattern was developing in the other states. Many producers with Ayrshire and Illawarra Shorthorns gradually changed to Friesians until today it is rare to see any cattle other than Friesian/Holstein in the dairy country of Australia.

It was not until the advent of formula feeds and, particularly, pellets and cubes that the pig industry emerged from the days when the poorest of farmers ran a few pigs fed on swill and waste from bakeries, vegetable scraps and spoilt grain.

Gradually pig farms became larger, and feeds were designed for various ages of pigs. Bulk deliveries made the task of feeding easier and more efficient so that today it is rare to find a farmer running a few pigs in third rate circumstances. The large pig operations are now very large, scrupulously hygienic and the quality of meat enhanced by the improvement of feeds.

We must also acknowledge that until the ability to secure pelleted or cubed feeds was achieved the cattle feed lot did not develop. The last twenty years has given birth to the production of beef quite separately to the continuing and traditional production of grass-fed cattle.

The American and, latterly, Japanese and Korean demand for marbled and tender meat has created a new revolution in the supply side. Very large feed lots now operate in Australia. Most are foreign owned and vertically integrated, with traditional breeders in part changing to newer breeds more suited to the feed lot environment. So many new breeds are appearing. The Shorthorn breed once predominant in the North of Australia is a diminishing breed as is the Hereford in the South. The two breeds that have increased in importance are the Angus
and the Murray Grey with the black Angus particularly so. This has been encouraged by the Japanese paying a premium for this meat.

From 1954 to 1962 the formula feed industry grew apace with other mills being started, and mills such as Darlings in NSW, Kimptons and Minifies in Melbourne, and N.B. Love Millmaster in Sydney being predominant.

Acquisition and integration began with millers acquiring wholly or in part breeders and poultry processors. Breeders became larger by acquisition and merger. Large corporations became involved, such as Amatil and George Weston and Allied Mills. The latter are now part of the Goodman Fielder Wattie group. Amatil have now withdrawn from the poultry industry. Steggles in Newcastle became part of the Goodman Fielder Wattie group as had John Darling and Son earlier.

The University of Sydney helped by establishing the Department of Animal Husbandry under Professor Terry Robinson. He obtained financial support from the Australian Dairy Board, the Australian Meat Board and Wool research sources to purchase two farms at Camden to be developed as a major teaching and research centre.

In 1959 both the Poultry Husbandry Research Foundation and the Dairy Husbandry Research Foundation were formally established by the University and in 1962 the World Poultry Science Association held its World Congress in Sydney. This recognition of the industry in Australia acted as a further spur to an industry that modernised itself in line with the best standards in the world.

I like to think that the animal feed manufacturers played a small part in throwing the first stone into the pool that truly allowed all animal and avian industries to play a real part in Australia's growth.