

## **COMMERCIAL VEGETABLE GROWING IN THE ACT**

**By Max Hill**

Although much has been written about the development and history of early Canberra, I was surprised to discover recently that there were no references to the production of fresh vegetables. It seemed like my fifty years had not happened when in fact members of the Hill family remained as commercial vegetable growers through three generations, from Reuben to son Max, and on to grandson Ian, until 1987.

The early planners of the emerging capital city were aware of the need for local production of fresh foods, including vegetables, fruit, dairy products, poultry and meat, and as early as 1924, were actively planning to fill this need, which they perceived as vital to the development of the city. Sites for dairy farms, orchards, vegetable and poultry farms were identified and leased to a hardy and optimistic band of pioneers, who set out to produce perishable goods before there was an adequate market and sufficient population to provide them with a reasonable income.

In 1927, Mr Horn had a deep litter poultry farm where the Lowline Cattle Stud is in Symondston. Herbert Sackett established an apple orchard on the site of Narrabundah College. William Lloyd and Mr Creasy started vegetable farms at Duntroon, Mr Neilson built a dairy on the land now used by Canturf. John Barry took up a dairy lease at Duntroon and a piggery was established on block 2 section 2 Duntroon. Dairy farms were also started by George Gouge at Molonglo, Sofus Fredrickson where the Fyshwick Sewage treatment works are now, Kelly Bros. where the wetlands were created by the filling of the lake, and David Cargill at the Causeway.

The original Duntroon Estate had areas on the Molonglo River where vegetables had been produced right from its first settlement and the early visiting botanist Captain Llotsky had commented favourably on the quality and variety of the garden produce grown there.

When the Royal Military College was established in 1911, vegetables were grown for the college by military personnel, at best a very temporary measure. After war broke out in 1914, the College sought civilian help to take over housekeeping duties and relieve their men for war duties. In 1917, the College brought Reuben Hill from Cranbourne Victoria to manage their vegetable farm. While the harsh climate in Canberra did place restrictions on production and the output is seasonable, it was possible to be harvesting some produce every month. Reuben's appointment was so successful that he was later appointed head gardener. In 1922, by agreement, he terminated his employment with the college and entered into a lease arrangement for the RMC farm. By this act, Reuben became the first commercial vegetable grower in the ACT. Duntroon had now become a customer for the vegetables, as were the groups of workmen housed in tents, who were building the infrastructure of the emerging city, and those who were already settled in the sparse housing. Yes, there was a Chinese market garden at Oaks Estate, but that was seen to be part of Queanbeyan. Reuben quickly set out to enlarge his farming area and leased block 56, Woden which was immediately across the river from the Duntroon farm.

The two floods of 1923 and 1925 were disastrous, and after the total destruction of 1925, which invaded the house to a depth of four feet and washed away tool sheds



and equipment, Reuben handed back the lease of the Duntroon farm and moved to Giles Street, Eastlake, in 1926, where he opened Canberra's first fruit shop in Kennedy Street in the new and still incomplete shopping centre. He continued to grow vegetables on Block 56.

In 1926, two blocks for vegetable growing on the river were advertised by the Administration in an area then known as Duntroon, later Fyshwick, and still later, Pialligo. One was allotted to William Lloyd and the other to Mr Creasy. Mr Creasy had been a tobacco grower from America and his knowledge of growing vegetables in this rather harsh climate was insufficient and by 1929 his farm was a neglected wilderness, and his rent had not been paid for a long time. The Lands Dept decided to resume his block for failure to adhere to the purpose clause and failure to pay his rent. This was one of the very few rural leases to be resumed for such a reason.

This vegetable block was again advertised for lease. The Administration wished to be able to place Reuben Hill's block 56 Woden into a dairy lease (that was taken up by Sofus Fredrickson) and encouraged Reuben to apply for Mr Creasy's old Block 1 Section 2 Duntroon, and to relinquish block 56, Woden. This was accomplished. Reuben moved his family from Eastlake in "Pine Grove" in December 1930 at the height of the depression. A most courageous decision!

The Lloyd family of commercial vegetable growers were also to remain for three generations. William "Bill" Lloyd had four sons, all of whom grew up and worked on the farm before moving on. The youngest Son David remained on the vegetable lease, and he later passed it on to his daughter and son-in-law, Ron Coles. The area they farmed had been enhanced by the annexation of the adjacent block 2, section 2, originally established in 1936 as a piggery. The pig farm had closed within 2 years of establishment owing to an outbreak of swine fever. An area that has had swine fever remains contaminated and this outbreak was the catalyst for a decision to permanently exclude pig farming from the whole of the ACT.

I was recently distressed to read in the gardening section of the Canberra Times a statement that in the early days of Canberra fresh vegetables were hard to find. Nothing could be further from the truth! Both the above farms were established when the population was very small, and both were able to overproduce, making it necessary for them to market outside Canberra or waste the product. Both farms

marketed some of their produce in Queanbeyan, and both farms marketed excess production at the Sydney Markets, and this continued until the end of the sixties.

The ride through the Depression years of 1929 to 1934 was very rough, and though vegetables were grown it was difficult to sell them. People just did not have the money to buy, so they went without or grew their own. People were at times simply in desperate need and some came to steal vegetables from the farms just to eat. My father took a very benevolent approach to this and made little effort to stop the practice, for he realised that anyone who walked across the flats from say, the Causeway, and crossed the river just to scratch out some potatoes or carrots was probably hungry. Of course, it was a different matter when a group of boys came in search of watermelons and destroyed many in search of the ripe ones!

The huge impact of the Depression is difficult for people today to comprehend. Reuben Hill survived, but it took ten years of struggle to recover. Some understanding of just how tough things were may be helped if I quote his taxable income during this period. In 1928 – 9 he had an excellent income of £432 , 1929 – 30 it dropped to £114, 1930 -31 £6, 1931 – 32 £3 and in 1932 – 33 almost a total wipe-out of £1. The next two years saw recovery at £99 and then £243.

This period saw a massive increase in that icon of Australia's bush, the swagman. Almost every week, one such unfortunate would knock on Dad's door and beg for work. "Just give me ten bob a week and me keep, Boss, I'll sleep in the shed!" Alas, ten bob a week was too much.

During the '30s, Reuben Hill was to market his produce in diverse ways, by sales to shopkeepers, sales to the Government, hotels and boarding houses, sales to workmen's camps (or messes) and deliveries to private homes, with the surplus being sent to the Sydney Markets. Retail sales were a small but viable part of the business. It was a time when all tradesmen delivered to your door, bakers, butchers, grocers, milkmen, laundry, fruit and vegetables. Every Friday, Reuben, and for a while, Max, would load the covered truck and leave early for a full day delivering on an established "run" to households.

My memories of this part of work are not at all pleasant, for it was still a time in which some Canberra people treated "tradesmen" with disdain and they could be, and were, quite rude and as a shy 16-year old I was quite vulnerable. Of course there was compensation for there were welcoming smiles from some quite delightful ladies.



*Reuben Hill and Ruwert*

Part of this was the firmly held belief by many public servants of that time that tradesmen were all overcharging them and so adding outrageously to their cost of living! So vocal did the public service become that the Government agreed to set up a "Cost of Living" enquiry. This was conducted by Sir William Clements in 1932.

Reuben Hill was required to appear and give evidence. Among other things, he was asked to explain how it could possibly cost as much as sixpence to grow and sell a lettuce! Today, with hindsight, it seems almost inconceivable that intelligent senior public servants in the midst of a Depression, when their own wages were being cut, could seriously think that they were being ripped off by suppliers of food and services, all of whom were desperately trying to just survive.

During this period, there was also a small vegetable garden on the south side of Scott's Crossing, owned, of course, by the Scotts. Much of this produce was sold on site or to Civic shopkeepers. This farm of about five acres was taken over by Elias Soutsis, who became known to all locals as Leo, in the later stage of the war about, 1944, and continued until the lake was established. Leo continued to market produce directly to the public.

In 1935, Beltana Road was built and the area now known as "Pialligo Nurseries" was subdivided into 5 to 10 acre blocks. These blocks were officially known as "Home Garden Sites". They were not intended to be self-supporting, and applicants were required to provide proof that they were employed before their applications were considered. Many of the new "weekend farmers" sought to find some commercial use for the newly-acquired land and vegetables seemed to be a first choice. However, most had no access to a water supply, other than town water, so their efforts were not successful. Only three of these blocks were able to pump water from the river and some production was successful on these. Bill Guard was determined to have water and set out to build a well single-handedly. After more than two years of work with his only help a hand winch and four gallon drums for spoil, he found water at 12 feet. On this, he installed a pump to water an area of two acres. However working a 5-day week and then tending vegetables was not very rewarding, even with the help of his teenage schoolgirl daughters. In the late 1940s, Harry Southwell successfully grew potatoes on his block, which had access to the river.

The 1939 – 45 war was responsible for an increase in commercial production. Contracts were let to farmers to grow vegetables for the army. I became the District Agent for Defence Foodstuffs and my task was to direct the marketing of vegetables grown under these contracts. Much of this produce was used at RMC Duntroon, the Fairbairn Air Base and HMAS Harman, with some produce sent to an army base in Goulburn. Some vegetables grown in Canberra during that time I sent as far away as New Guinea.

The demand for increased production brought into focus the heavy losses from insect damage in the industry. Up till now, control of pests on brassica had been sought by the use of lead arsenate, nicotine sulphate (known as tobacco dust) and Rotenone, and all these gave poor results. Today we would be appalled by the use of lead arsenate and nicotine, and yet I had been mixing and applying these for nearly 10 years! The CSIRO was instructed to urgently seek some solutions. They entered into a partnership in 1944 with Reuben and Max Hill, whereby R. Hill & Son would grow and provide statistically organised blocks of cabbages as the chosen Brassica, upon which their officers would conduct chemical trials. The officer-in-charge of these experiments was Tom Greaves, who became so well-known to this organisation. Tom and I formed a lasting partnership for he was very dependant on my skills as a grower, and I for his technical knowledge. These trials were to continue for the next six years.

One of the first of the new chemicals to be trialled had been discovered as far back as 1916. It had been sitting on a shelf all those years because there appeared to be no use for it. This became known as DDT. At this stage, its effect on humans had not been established and the first applications in 1944 were laid down by Dr George Helson and Tom Greaves. They dressed in full protective gear, with full helmets, gloves and breathing apparatus. By 1945, they had decided that this was not necessary.

The first experiment consisted of various concentrations of DDT, BHC, Lethane, nicotine at 2.4% and lead arsenate at 20%. The rest, I could say, is history. DDT was spectacular, it gave 100% control. A total of 80,000 cabbage and cauliflower plants were used during these six years. Many could not be marketed because they were used as controls or the particular chemical used was not effective. Reuben Hill accepted this loss and the disruption of farm work as his contribution to progress from which he could look for future benefit.

Of course it is also history that DDT went on to provide some huge benefits worldwide, and it is equally well-known that the time came when DDT was banned worldwide. Banned? I wonder did it need to be. There has never been a death attributed to DDT anywhere in the world.

Not long before his death, Dr Doug Waterhouse and I were discussing these early times and pondering the worldwide ban. He said to me, "Max, you know as well as I do that you can eat a pound of the stuff and it will not do you any harm".

In the mid 1940s the new Canberra Abattoirs was opened. Its planners proposed to dispose of the effluent from the operations by irrigating vegetables on adjacent river flats. Reuben Hill took up a lease of twenty acres and put this area into production. For a few years, a considerable tonnage was produced. However, it was soon established that effluent disposable by flood irrigation and the production of vegetables was quite incompatible on that area, and Reuben informed the operators of this and discontinued the lease.

There was a great increase in potato-growing in the immediate post-war period. Dairy farmers such as George Gouge, David Cargill, the Kelly Bros., Hilton Clothier, Sandy Stuart and others such as Ernie Beaver, Harry Southwell and Jack Wright all grew potatoes and some grew carrots. The alluvial flats along the river were rich and deep and production of potatoes at times exceeded 15 tons per acre (average yield throughout NSW was 3.5 tons per acre!) Kelly Bros., on an area now known as "the wetlands" succeeded in growing a crop of carrots that produced thirty tons per acre!



*Max Hill  
applying  
DDT -1946*

War-time shortages of food supplies led to potatoes being regarded as an important food source and all State Governments formed Potato Marketing Boards to control their production and distribution and the Department of Agriculture increased their breeding programs. We were asked by the NSW Dept to be involved in “on growing” promising varieties and this brought us in touch with the CSIRO’s Dr John Ball, regarded as Australia’s leading potato expert. We had formed a Potato Growers Association and this association advised its members to always grow from certified seed. We formed a branch of the NSW Certified Seed Association and some of our members sought certification for their crops. I became a Certified Seed Inspector. We were growing a very popular variety named Katahdin and found an unlimited market for this seed. After a few good years, a problem surfaced. Our potatoes in the field were certified disease-free, but when grown elsewhere a disease showed up. This mystified all the experts, so we called upon the expertise of Dr Ball. I accompanied him on a field inspection of a splendid crop of Katahdin. At the conclusion of this, he announced that he had found no disease. One week later, he returned and sought permission to take samples of stalks right across the paddock for laboratory testing.

Yes! You guessed it – more than 50% of the samples tested positive for disease! The official conclusion was that our good irrigated growing conditions masked the disease. The repercussion was enormous. The Dept of Agriculture advised all seed growers that in future certified seed should no longer be grown on irrigated land. I believe that advice still holds.



*One man in a spinach crop*

From the 1950s onwards, the two vegetable farms faced an increasing demand and were to gradually bring their farms into full production. The population had grown to provide a suitable market. Both had acquired great knowledge of the vagaries of the climate and how to adapt varieties to suit the

conditions and both were skilful exponents of their trade. Production steadily increased and with it the quality of the finished product. By the beginning of the 70s, these two highly productive farms were operating at capacity and it was now no longer possible to grow sufficient for the expanding market. Fortunately for the city, this period coincided with the availability of fast road transport, and it was now possible to source fresh produce by road from as far away as Queensland and South Australia, as well as NSW and Victoria. Tomatoes grown in North Queensland were dominating the Canberra market during the winter, and local retailers were trucking quantities of fruit and vegetables from Queensland. Roy Raynor, who had a large fruit shop at Civic, used to drive his semi-trailer to Adelaide each week and return fully-laden.

By the late 1960s there seemed to develop a subtle change in the way these vegetable leases were viewed by the Government. Perhaps they were now regarding the production of vegetables as no longer essential to the city. There was talk of water charges as opposed to our original “water rights on the Molonglo River”, even talk of water restrictions, and in growing vegetables an assured water supply is vital. There was talk that vegetables should not be grown on river banks because of possible fertiliser contamination of the lake, and that never happened. There was talk that the use of pesticides could destroy bird populations, and yet a professor of ornithology from the ANU was a frequent visitor to the Hill farm because of the large and diverse population of birds. Stiff increases in rent were imposed.

These two vegetable farms were highly productive. In the summer, lettuce was a principle crop and during the 60s, 70s and 80s I had an annual output of upwards of 10,000 cases. We would commence harvesting around 20 October, aiming to have an unbroken supply through till early May, a full 6 months of continuous production.

This would require about 20 successive plantings, with a block of say, one third of an acre planted each week. To suit the climate changes over this period, up to 5 different varieties were used. Harvesting was always early in the day to retain freshness and we



*Max Hill picking and packing lettuces*

planned to finish by 9.30am. With 5 or 6 people cutting and packing, and 2 men carrying and loading the truck, between 100 – 150 cases were harvested in that time. Over the years, the quality of the lettuce production continued to improve. This was mainly due to the skills of the plant breeders producing improved strains, helped by greater management skills.

It is interesting to me to look back and note the vast changes in farm management over my lifetime. When I started work in 1935, all work was manual labour. Spraying was done with a knapsack carried on the back. Fertiliser was spread with a bag on the shoulder, and we used blood & bone! On a windy day, it would blow all over me, not nice! Potatoes were dug with a garden fork and packed in 145 pound bags and one man would load them onto a horse-drawn farm dray for transport. For the first fifteen years of my working life, we used horses for ploughing and cultivation and I walked behind the plough all day. Dramatic changes came with the purchase of our first grey Ferguson tractor with its advanced hydraulic systems in 1950. Within a few short years, we acquired a host of mechanical equipment. At the time that I retired, we had four tractors and four trucks and forklifts and machinery for all purposes. Life was certainly easier, but I wonder how much it improved our productivity?



*Planting seedlings, trusty Fergy at the back*

In 1935, one man could dig, grade and bag by hand 15 bags of potatoes a day. When I used a mechanical potato digger twenty years later, the daily output of graded bags per man never seemed to exceed 12 bags a day!

I have mentioned lettuce, a quick look at tomatoes may be of interest. During my father's time, all tomato plants were self-supported and only picked when colour developed. This meant that some of the crop were in contact with the ground and developed skin blemishes. Housewives were not greatly concerned with this, that was just the way things were!

I inherited this method and continued for several years. However, housewives had moved on. No longer were they prepared to tolerate skin blemishes and I found the losses from rejects too great to sustain. I moved to staking with instant success. This method is great, but is labour intensive. After driving in a stake, each plant needed to be pruned and a number of ties made as the plant grew. I had on my staff a Croatian lady in her sixties, and she assumed this task and would spend around a month every year doing very little else!

Again, we moved on, this time to trellising where wire supports replaced pruning and tying. We moved up to 8,000 plants and this needed more than a kilometre of trellis! This produced a yield of more than 2 tons a week. However, times were changing rapidly, Madam Housewife now wanted her tomato to be an even red with flawless skin and firm enough to drop and roll along the floor. Plant breeders were working overtime to take away all the flavour, the fruit was being picked before there was any colour and then gassed to create an even ripening, and the new hard varieties could now be graded by machine. Although we did build a ripening room and graded and gassed the fruit, our operation was too small to sustain these changes, and we slowly succumbed to progress.

Changing population trends were to bring many changes. My father, I am sure, would not have known what a capsicum was. The time came when we were planting out 5,000 seedlings and selling upwards of 100 cases a week, and as for zucchini, I think he would have been contemptuous of them.

We were not specialists, we were direct marketers growing for an established and predictable market and producing around 20 varieties of vegetables in quantities tailored to meet the needs of our customers.

The Lloyd farm, the larger of the two, would have produced double our output, so at its peak, production in Canberra was quite considerable.



Despite the fancy machinery, vegetable growing is still labour-intensive, and at the time of retirement, the Hill farm had a staff of 8 permanent and around 20 casual staff.

*Migrant women workers on the Hill farm*

After 60 years and 3 generations, the Lloyd family sold out and the farm now produces only lucerne. After 70 years and 3 generations, the Hill family sold out and the farm is now a winery. Canberra had reached the end of an era. There are now no vegetables grown commercially in the ACT. The skills that had been developed over so many years were lost. For two families who had served the developing city for 3 generations, the time had come to move on.



*Cabbage crop nearing maturity just prior to farm sale – January 1987*