

*Maitland and District Historical Society Inc.*

# **Bulletin of Maitland and District Historical Society Inc.**

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**Farmer and Historian Robert Worboys**

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*The Aims of the Society are to  
Discover, Record, Preserve, Advise on and Teach the History of Maitland and the  
District*

## *Maitland and District Historical Society Inc.*

**Cover:** The cover photograph has been supplied by Mr. Worboys.

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**Lecture meetings** are held on the first Tuesday of each month from 5:30-7.00pm as a forum for lectures, talks and presentations.

**Business meetings** are held on the third Tuesday of even months from 5:30-7.00pm.

**Committee meetings** are held on the third Tuesday of odd months from 5:30-7.00pm.  
Members are invited to attend all monthly meetings.

Meetings are held at the Society's rooms, 3 Cathedral Street Maitland.

Membership fees : \$20 (single) and \$30 (double / family)

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**Editor's Note:**

In this edition we are privileged to present the first of two articles by Mr. Robert Worboys on farming and farmers on the Bolwarra Flats. Robert has adapted this article from a talk which he had previously presented at a gathering of the Maitland and District Historical Society. The second article will be included in the August Bulletin. Together they document valuable aspects of our agricultural history.

On a more sombre note, Bruce Trappel passed away on 15 April. Bruce had been in poor health for some time, but that does not mitigate the sadness of his death. We offer our condolences to Ruth and Beverley and the extended family.

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*The following has been edited from a longer article in the Maitland Mercury from 27 May 1876, and was discovered during research for an upcoming book. The queen whose birthday was being celebrated somewhat raucously this month 143 years ago was, of course, Victoria.*

*Lochinvar*

*The Queen's Birthday was kept as a general holiday in Lochinvar; indeed no holiday throughout the year is so generally kept as the Queen's Birthday with us; so much for the loyalty of her Majesty's subjects in this part of her dominion.*

*The usual public picnic was got up by Miss Greedy and others, and was a great success. This annual picnic is got up by public subscription for the children and young people of the district, and has always proved a great success. We think all the children of the village were there (and let me add there are not a few children in Lochinvar), and a goodly number of parents and friends were there too and all were made welcome and a most enjoyable day was spent by all.*

*Perhaps the chief attraction through the day was the cricket match – Married v Single – which resulted in rather an easy victory for the Single; but the Married took their defeat like men...*

*A grand Ball took place in the evening in Mrs. Greedy's large workshop, which was largely attended and dancing was kept up till near daylight in the morning. An unusual lot of fireworks was discharged. At almost every house a continuous din was kept up, pleasing the youngsters amazingly. A royal salute of twenty-one guns closed the scene.*

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## **Farming and the Farmers on the Bolwarra Flats, Part 1**

### **(The Content and Methods of the Local Agricultural Economy)**

**By Robert Worboys**

The expression “The Bolwarra Flats” for many years has referred generally to the farmland covered by the original land grants of the estates of Bulwarrah and Lorn, as I suspect many people were unaware that there were two separate estates and of the location of the boundaries of the individual land grants. Yes the spelling of Bulwarrah is correct as it appeared on the original land grant plans, which is the reason why the original pronunciation was with a U. The aboriginal population called the area BULLA WARRA. Unfortunately for those people who don’t know any different they say it with an O because that’s the way it is now written. The activities and types of cropping on the Bolwarra Flats from the days of early settlement were of a mixed nature and very similar to other localities such as Phoenix Park, Dunmore, Woodville, Wallalong, Louth Park, Oakhampton and Horseshoe Bend to name a few. The basis of my information has come from various documents, notes kept by the family and information handed down from one generation to another within the family, and from information I heard and witnessed as I stood as a child and young adult beside my parents when they talked with so many wise and much older local identities and farmers of the area. To me, as a youngster, these people at the time seemed to be quite ancient, but as I learnt later they talked a lot of sense and were quite wise and smart as they, as successful farmers, needed to be. As the Worboys family established themselves within the boundaries of Bolwarra Estate it goes without saying that this article will focus on activities in that area. The initial farming activities of the area were predominately the production of lucerne, vegetable crops and dairying.

### **Some History**

- 30<sup>th</sup> June 1823 Bulwarrah Estate Land Grant of 2030 acres to John Brown.
- 30<sup>th</sup> June 1823 900 acres granted to Thomas McDougall which he named Lorn.

To quote from an article written by the late Harry Boyle AO, “The beautiful farming land at Bolwarra is only a shadow of its former glory when it was regarded as the food bowl of Sydney.” The sentiments expressed by Mr Boyle some 35 years ago in that one sentence are unfortunately even more relevant today. In the mid 1800’s when Maitland was the second largest settlement outside Sydney, “Bolwarra supported a large population of tenant farmers many of whom later became owners of farms in the area.”

The 8<sup>th</sup> of November 1876 saw big changes within Bolwarra Estate when the first sale was held at Fulfords Family Hotel in Maitland. The 48 lots offered were bought by 23 buyers for an average price of £42 per acre. At that sale my grandfather, George Worboys, purchased 26 acres. It is interesting to note that his name didn’t appear on the original deeds. They were

recorded in the name of Mr Charles Bowden who was a prolific buyer on the day. The likely reason for this was that Mr Bowden financed the purchase as his daughter, Lorenza, was betrothed to marry George Worboys. On the 4<sup>th</sup> September 1885 the residual sale of Bolwarra Estate took place where the 76 lots offered were sold to 17 buyers with one buyer purchasing 22 lots. George Worboys bought a further 12 acres for £96 an acre.

When I left school in 1958 I joined my father Walter and brother Bruce in their farming business on the 38 acres on Flat Road, Bolwarra, which had been handed down from grandfather George Worboys. In the following 11 years we added another 22 acres to bring the total holding to 60 acres. Most farmers in Bolwarra needed to expand their holdings to make their businesses more viable. To remain viable, our family like others, bought neighbouring farms when the owners were ready to retire or in a position where they needed to expand or get out.

In 1971 brother Bruce and I bought another farm at King Island, Largs, which before the river changed its course was on the southern side of the river and part of Close Estate. This farm of 93 acres consisted of freehold and Crown land, which, when added to the existing 60 acres, gave the family business a viable area to work and an area similar to other farmers in Bolwarra at the time. The Crown land and river embankments gave us the opportunity to diversify by rearing vealers also. By this stage we were farming a total of 153 acres. Unfortunately as the family members over the following years aged and passed away the farms were disposed of, until in 1993, I was forced to sell the last two remaining lots bought by George Worboys in the 1800s after being in the family for 118 years. After the sale in 1993 the farm had three different owners in the first twelve month period with a number of different owners since then.

The farms on the floodplain of the lower Hunter are quite unique in that they still remain unfenced today. So unique is this that in the early days of the reign of Queen Elizabeth 11, and during a visit to the Hunter, she was given a tour through Bolwarra to see the lack of fencing for herself as it was something unheard of in England. The reasoning behind this unusual practice on Bolwarra Estate, and no doubt other local areas also, was that the land was considered to be too valuable to waste by not being able to work up to the boundary line as the swingle trees used behind the working horse would become entangled with the fence posts. At the two sales of the Estate mentioned, one of the conditions of sale stated before the auction was that any of the lots offered for sale on the flats were never to be fenced. Unfortunately that particular condition of sale was never documented, but was always complied with by the farmers. At the time of upgrading the road network to feed onto the new Pitnacree Bridge it was proposed by the RTA to fence along Flat Road, Bolwarra, until Mr Craig Lee, a long time highly regarded, well respected Stock and Station Agent, Valuer, Auctioneer, and long-time Bolwarra resident based in Maitland, challenged the validity of being able to erect the fences. Mr Lee was employed by the RTA as an independent valuer assisting the landholders at the time of compulsory acquisitions and other matters as he had done for many other similar projects involving the RTA. A number of issues were in dispute and needed to be arbitrated on in the Land and Environment Court on behalf of the landholders of Bolwarra. One such matter that came up was the fencing ban and condition of sale going back to the mid-1800s. Mr Lee put forward the explanation of the conditions of sale fact that the conditions had been adhered to by the

landholders for generations. As would be expected written proof was requested but unfortunately as we know there wasn't any and the argument was over-ruled. A week or so later I was discussing with Mr Lee how things were going with his involvement in the process, when one of the things he mentioned was that it looked like the new road corridor was going to be fenced. At this point I jumped in "boots and all" and said that that couldn't happen as there were to be no fences on Bolwarra. Mr Lee's response was that of surprise and he questioned my knowledge on the matter. He then realised that I would have known of the sale conditions and he would have asked me to attend the Land and Environment Court also, as a "land owner with continued family ownership" and with this added credibility to his reasoning. When the fence was eventually erected it was not of the type in one location approved by PWD to be erected on a flood way. So much for two Government Departments communicating.

### **Machinery**

The cornerstone of the early settler's farming aids was undoubtedly his team of horses matched up to the basic machinery of the day. In the Maitland area the farmers, with a team of good horses and some basic machinery, could grow almost anything. As many of the crops they grew tended to be reasonably deep rooted, the most important implement to any successful farmer was his single-furrowed mouldboard plough. In the deep alluvial soils on the river flats the mouldboard plough was in those times, as it still is to-day, the best implement to start the process of working the ground. Some of the other machinery used by the early farmers included cultivators, bull harrows, diamond harrows, shims and a dray or two. They didn't always have one of every kind of implement as finances did not allow that to happen.



With a team of draft horse along with his ever ready dray and a trusty single furrow mouldboard plough,  
he had the basis of his essential equipment to start as a local farmer

Many of the implements used were especially tailored to the crops grown and the methods used in harvesting particular crops, with many of them being designed and made in the Lower



Hunter. Possibly the best example was the hay press which was made in Morpeth by D Sim and Sons.



D Sim and Sons hay press on display at Tocal



A set of March gears at Tocal Homestead

The power needed to operate the press was supplied by a draft horse with that power directed through a set of gears called March gears. These March gears were designed by Mr March from Maitland and also made in the foundry by D Sim and Sons at Morpeth.



Horseworks in operation at Timbertown at Wauchope



Horseworks at Tocal previously used with a Sim and Son Hay press on Bolwarra

Lucerne was initially cut with a scythe and heaped and turned often, over a couple of days as part of the drying process, using a pitch fork until dry. Later the lucerne was mown using a sickle bar mower and a team of two horses. Lucerne today is mown with a machine that not only mows it but also passes it through a set of rollers to condition it before returning it to the ground in a windrow. This all happens while travelling at a speed that an Olympic sprinter would battle to keep up with.



Mowing lucerne with two horses in the 1920s. Bolwarra Heights in the background.





A modern day mower conditioner

One of the most dramatic changes in the machinery used happened in the early 1900s was the invention of the farm tractor. Although very basic and crude by today's standards it revolutionised the agricultural industry by reducing, and in some cases, removing the manual labour needed for farming. There have been many changes and improvements over the years to the first humble tractor with steel wheels and powered by a petrol motor with kerosene and diesel fuel to follow. For farmers on small holdings the invention of hydraulics and three point linkage by Englishman Harry Ferguson in the late 1940s was the beginning of a revolution in tractor technology. The little grey Ferguson, or TEA 20 as it was referred to, along with implements matched to its capabilities, was a hit for small crop farmers. Harry Ferguson was considered as a smart inventor. He also designed and produced the Vanguard motor car and used the same 4 cylinder motor in both the car and the tractor. The concept of "The Ferguson System" of hydraulics and three point linkage was adopted by many tractor manufacturers, and is still used today.



A reconditioned TEA 20 Ferguson with a two furrow mouldboard plough

A modern day tractor complete with air conditioned cabs and ROPS frames

Over the last 60 years or so the advancement of tractors and machinery to today's varieties and models has been outstanding to the point where in broad acre farms some tractors are driverless and operated from satellite signals. In 1976 we bought an American made carrot harvester which was operated by two people that could harvest two rows of carrots, remove the tops and transfer the carrots into a tip trailer travelling alongside while travelling faster than walking pace. And that was more than 40 years ago. The advancement and capabilities of hay-making equipment used today is outstanding, as are vegetable harvesting and handling machinery.

## **IRRIGATION**

During the 1940s and 1950s we saw the installation of irrigation onto many of the Bolwarra farms, if financially viable to do so. Water is pumped through a maze of underground pipes which in some cases are more than two kilometres long. The majority of the original pipes are still in use today. The introduction of irrigation allowed the farmers to grow different crops. During dry times it was always a concern about whether to irrigate at high tide or not because the salt levels increased at high tide. All was working reasonably well in the lower Hunter until the influx of mining in the upper Hunter. As part of the mining process the mines accumulate copious quantities of water that is heavily laden with salts which render it unsuitable for irrigation. Strict Government guidelines determine when this water can be discharged into the river. Unfortunately the people who wrote the guidelines didn't take into consideration that the lower Hunter farmers could still be irrigating madly as they tried to keep their crops alive, while unbeknown to them they were in fact killing their crops with contaminated salty water.



A wonderful sight to the farmer in dry weather

Travelling Irrigators have made irrigating easier

## **HAY SHEDS**

In the mid 1800s the Bolwarra Flats were renowned for the quality and quantity of lucerne hay that was being made and shipped to Sydney Cove where there was a ready market supplying the milking herds of Sydney. Fresh milk was a valuable food item in the early days of settlement in the colony. No doubt the regular reliable steamer fleet working between Maitland and

Sydney provided an added incentive for this area being chosen as a regular supplier of hay. During the summer months, when supply exceeded demand, that oversupply needed to be stored out of the weather ready to be used at a later date when demand exceeded supply. Enter the unique Australian Hay Shed which was a very important asset on the local farms and a prominent feature on most, if not all Bolwarra farms. These structures were correctly called hay sheds, **DEFINITELY NOT** barns or hay barns as some people still mistakenly call them. Their design was based on a simple design depending on the size of the individual farm and the sheds intended future use. The shed was made up of individual bays measuring 20 feet by 20 feet and 20 feet from the ground to the top plate, with a pitched roof added to that. The basic shed was always two bays by two bays or 40 by 40 feet. Most sheds in the area were 40 by 60 with a 20 by 60 skillion added onto the rear. They were built on raised mounds to give them some chance of being above flood reach.



Typical of the hay sheds of the area  
This one, in good condition, is at Wallalong

This fully enclosed shed on Dalveen Road, Bolwarra  
just makes it into the corner of Bolwarra Estate

Most sheds were built by one of the King families from Largs from round timbers which generally were sourced from the Paterson Valley. They were floated down the Paterson River to Hinton and then up the Hunter to Bolwarra where they were landed and dragged to the shed site by two draft horses. The measurement of 20 feet to the top plate was determined as that was considered to be the maximum height that a man standing on the floor of a dray could pitch a heap of hay over when stacking it in the shed. Unfortunately the tyranny of time has taken its toll on hay sheds on Bolwarra Flats with very few remaining. From my reckoning in the last 70 years 25 hay sheds have disappeared from Bolwarra for one reason or another. One of those left standing is in poor condition with a heritage listing on it, even though it is of an odd design and far different from the design of the typical hay sheds of Bolwarra.





Top: An example of history being maintained in this old gem. In 1940s and 1950s hay sheds were a popular advertising billboard.

Bottom: One of the 25 sheds lost since the 1940s. Some as a result of storms, white ants, or lack of maintenance.

In the time leading up to the early 1950s the main use of the hay shed was for the storage of hay and a place where it could be pressed as and when required. The hay press was a permanent fixture in the shed, positioned so that it was reasonably close to where the hay would normally be stacked and also close to the outside edge of the building. The hay shed was used for many things including the storage of seed potatoes between plantings. On wet days it was an ideal area to carry out repairs to machinery, attend to the horses, or repair any broken harness or just greasing the dray wheels. As the mechanical era evolved the shed continued to be used for those wet day jobs.

## **The Crops**

As much of the early colony depended on the produce grown on the rich alluvial river flats of the lower Hunter and the Hawkesbury regions it was necessary for the farmers to adapt to the types of crops required by the early settlers. In those early times of settlement they were

required to not only produce the basic staple vegetables which the early settlers were accustomed to from the "old country," but also other items such as tobacco and crops to sustain their livestock as and when needed. Some of the crops grown on the Bolwarra Flats and surrounding areas were, lucerne, potatoes, cabbage, onions, pumpkins, tobacco, hops, corn, wheat, oats, millet and barley to name a few.

The Hunter was well known for developing many varieties of different crops. The production of high quality seeds also added diversification to local farming. To name a couple, there were Hunter River Brown and White Onions, the seed for which is still available today from the local seed outlets, although the early farmers of the Hunter would shudder if they saw how the characteristics of the original strain they developed have disappeared over time. Hunter River lucerne was also grown for seed in and around the Maitland area. In the early 1950s the Queensland Blue pumpkin was a popular crop grown on Bolwarra, and I can clearly remember being taught, while still in primary school, how to choose and mark with a stick where those special true-to-type pumpkins (and melons) were, and therefore suitable for seed. These marked pumpkins and melons were overlooked when picking for the market and thus left on the vine to allow them to mature. This improved the germination of the seed when saved and planted later. By overlooking these pre-marked fruit it sped up picking on the day. These special pumpkins and melons were picked much later and if still considered to be true-to-type by Dad then, and only then, were they selected and put aside to be seeded at a later date. The absolute best of these were carefully stored away to be brought out later for the annual show. I can remember as a child being fed copious quantities of pumpkins and other vegetables saved for their seed. These seeds, once collected, were dried and stored in vermin-proof containers with enough ready for at least the next two or so years' plantings. The excess was sold to seed companies such as Yates or Krempins. As with any breeder of pedigree livestock, whether it be horses, cattle or sheep, the vegetable growers who were saving seeds from their pedigree crops were diligent in maintaining high standards of selecting only fruit which was true-to-type. This standard of selection was paramount, not only for them, but also if the surplus seeds were to be sold to seed companies. After the final culling of the pumpkins etc, which was normally a wet day job, the fruits which didn't make the grade were sent to market. The waste pumpkins and melons, minus their seeds, were fed to the pigs and the house cow. Who said recycling was a recent initiative? Unfortunately with the advent of hybrid seeds the saving of your own seeds is now a thing of the past. At the time of the second world war some changes needed to be made to the types of vegetables grown in the lower Hunter so that the crops grown could be used in the dehydration plant at Morpeth for shipment to the troops. All farmers who did their bit with whatever they produced for the war effort were extremely proud to be able to do so.

## **POTATOES**

Along with potatoes, pumpkins and cabbage were the other staple vegetables grown for the expanding population of the colony. These main crops were considered to be necessary as they generally formed the basis of a hearty meal, were relatively easy to prepare and sustained the hard working settlers. Two crops of potatoes were grown per year in the Maitland area. The main, or summer crop, was planted in late May/June using certified seed from Thorpdale, Crookwell or Guyra. A medium to large sized seed potato, when cut ready for planting, could be



cut into 5 or 6 individual sets, each with its own eye when cut by hand using a sharp knife. After the mid-1960s we saw mechanical seed cutters which sped up the cutting process greatly. On the down side they weren't as economical as the old method as they produced fewer sets with some having no eye at all. In the days of horses the seed or sets were planted into a shallow furrow made by a mouldboard plough and one horse in rows 3 feet apart. This allowed for cultivation with a horse and shim to control weeds and maintain moisture while the crop grew to maturity. When mature they were harvested using the same plough to pass under the potatoes and turn the soil to expose the crop. The potatoes were collected and graded into trug baskets or buckets and bagged into 3 bushel jute bags made in Bangladesh. From the crop harvested in November and December, the chats were saved and stored in the shed to be planted at the end of January as the winter crop. The late 1940s and early 1950s saw a great change in machinery, and the methods used to grow potatoes and other vegetables has gone ahead in leaps and bounds in the last 60 years or so, to the point where potatoes are planted in multiple rows with a mechanical planter. Gone are the horses, with the cultivation and harvesting of potatoes now all done with machines made in Australia and different countries from around the world.



Top: A scene from the past. Potatoes being picked and graded into three bushel jute bags  
Bottom: A new potato harvester ready to be unloaded, assembled and put to work  
once the crop is ready for harvesting

Mechanical potato harvesters have replaced the backbreaking task of picking potatoes along with the practice of paddock grading which has diminished in favour of mechanical shed grading since the 1970s. From the mid 1950s we saw a practice adopted by growers to improve the soil as many growers began to plant a green manure crop, of oats or sudax, and whenever possible a legume crop, such as one of the pea family, which were ploughed back in before planting. This improved the soil structure resulting in better moisture and fertiliser retention and at the same time made the soil more pliable, thus aiding mechanical harvesting.

Up unto the early to mid-1970s Maitland was considered to be one of the major potato growing areas in Australia, along with other areas such as Gatton, Crookwell, Thorpdale, Guyra, Robertson to name a few. At that time there were at least 28 farms producing potatoes in the Maitland area. At peak harvesting time in December it was not uncommon for each of these 28 farms to all be picking on the same day and mostly 4 to 6 days a week and for them to harvest anywhere between 6 to 28 imperial tons per farm depending on the size of their operation. The majority of the 28 growers mentioned were harvesting a daily average of 20 plus tons per day. With the summer crop there were a couple of obstacles which would raise their ugly heads throughout the harvesting period. As with cereal crops on the eastern coast of Australia, potato planting would also commence in the Queensland growing areas and progress in a southerly direction down the coast. This then dictated when the crops were ready to harvest. Unfortunately for Maitland, the potato growing area of Gatton sometimes still had the tail end of their crops unpicked, which clashed with the start of the Maitland season. Then to compound the issue the start of the Windsor harvesting season would clash with the middle to end of the Maitland season. As with all rural produce sales the price paid to the grower is dependent on supply and demand, and often the supply would exceed demand, thus reducing the on farm price. Summer storms could sometimes delay picking for days also. During extremely hot weather ground temperatures could sometimes cook the potatoes while they were still in the ground.

## **ONIONS**

As said before, the Hunter region was instrumental in developing its own variety of brown and white onion known as Hunter River onions. These varieties were grown in all the major onion growing areas of Australia. It was therefore only natural that onions were a crop grown by several Bolwarra growers. As onion seed is very small it was imperative that the seedbed was prepared to a very high standard and in a position on the farm which was as weed free as possible. Many months were spent in preparing the ground in readiness for planting. The optimum time for planting in the Hunter was always Anzac Day, plus or minus a week with the crop maturing in November. As with potatoes the harvesting of onions followed on from the finish of the season in the Darling Downs area of Queensland. The varieties grown in both the Darling Downs and the Hunter had similar characteristics which meant that when the Hunter crop came on the market the public was unaware of any change with no need for them to readjust, as was needed when using the harder, hotter varieties grown in Victoria, the Riverina and South Australia. If at harvesting time there was an oversupply of onions they could be stored for some weeks waiting for the price to improve. The water needs of onions are quite low which suited growers without irrigation. Unfortunately they are a very labour intensive

crop as competition from weeds has a major effect on the growth of the onion and creates issues during harvesting. All weeding during the growing period was done by hand. Harvesting was equally as backbreaking with the picklers being graded out before being bagged into red net onion bags which were specially made to allow maximum ventilation and eliminate condensation. During the late 1960s there were great savings in labour with the introduction of a small tractor-mounted machine called an Onion Topper and Tailer. The small loss of picklers when using the machine was far outweighed by the large saving in labour costs and back strain.



These onions are almost ready to pick

Onions drying in readiness for harvesting

## **CABBAGE AND CAULIFLOWERS**

The common cabbage and cauliflower, which are members of the Brassica family, were until about the 1980s, grown in abundance on the Bolwarra Flats. Both were usually considered as a winter crop and grown in rotation with summer potatoes. Some patches of cabbage were planted for harvesting in the warmer months to cater for its popularity for use as a salad vegetable and in coleslaw. The soil types of the lower Hunter, when prepared properly, suited the long tap root of both cabbages and cauliflowers.

### **Cauliflowers**

The varieties of cauliflowers are many and varied with each variety having its own special characteristics, the main differences between varieties being the growing times to maturity. The aim of the serious cauliflower grower was to plant the various varieties, so that he would have steady continuity of supply starting in early May and going through to November. It was no mean feat to be able to achieve this as some varieties would mature in three and a half months with others taking seven months. Caulies have a very short window of one and a half to two days from the time when they are fit, to when they are too old and are unmarketable. Christmas week saw the first caulie seeds planted into seed raising beds, either by the individual growers or in some cases bought from commercial nurseries. When at a suitable size, the plants were transplanted by hand out into the farm in rows about 3 feet apart and in a patch made up of 14 to 18 rows. Between these patches some rows were not planted so as to provide a roadway wide enough to initially accommodate a horse and dray, and later a truck

when picking time arrived. With the advent of mechanical transplanters in the 1970s we saw the use of styrene seedling raising trays being used by some growers.



Top: A nice healthy patch of caulies

Bottom: With the advent of cartons the caulies were picked and placed onto a conveyor which transferred them to a trailer for packing similar to the lettuce above.

It was paramount for the grower to be diligent and go through each patch every two days or so and pick those that had opened to expose the flower since the last picking. As the object of the exercise was to pick them when the flower was snow white in colour and before they had started to go yellow and then mauve after exposure to the sunlight, it was necessary to maintain that regular regime rain, hail or shine. After cutting the cauliflower with a butcher's knife they were loaded onto a dray in the early days and with the advent of motorised transport onto trucks in readiness for the markets. From the mid-1960s Chep wire sided bulk bins on a standard pallet were used. Waxed cardboard cartons also came into use for many vegetables. Although the purchase of the carton was an added expense for the grower, they were in the long run very cost-effective. As the carton provided protection for the caulies, they were picked with fewer outside leaves which allowed for anywhere between 6 and 16 individual caulies in each carton. They were graded and packed on the farm into the cartons according to their size. When loading onto a truck it was possible to get twice the number of caulies on each individual load in cartons compared to a loose load.





Top: A load of loose caulies destined for Sydney Markets  
Bottom: Waxed cardboard cauliflower cartons

## **Cabbages**

From the early days of the colony until the mid-to late 1960s, the varieties of cabbage available were by today's standards very basic and generally quite boring as they were usually served as a boiled vegetable along with potatoes and pumpkins. With the advent of the migrant population came different uses and recipes which created more demand for the common old cabbage. From the late 1970s the use of hybrid cabbage seed became the norm along with varieties bred for a particular type of dish. Hybrid seed was extremely expensive compared to the open pollinated seed but it proved itself by giving the grower more vigorous plants with a very high germination count. Cabbages were generally planted and grown in a similar manner to caulies. Initially they too were picked and loaded on the particular means of transport used in that era. As with caulies the introduction of the Chep bins took much of the manual handling out of the transporting and marketing of cabbage as the bins were handled by fork lifts.





Can I go to Sydney with the cabbage tonight also?

## **CARROTS**

For some farmers during the 1960s and 1970s carrots were popular as a fill in crop that could be grown all year round to provide an income in between other major crops. During that period carrots were extensively grown in the Murrumbidgee Irrigation Area. The lighter soil types around Griffith suited carrots for most of the year, until the summer months when it would get so hot it would cause problems with seed germination and burning off the young carrot plants, sometimes even cooking the carrot in the ground. This heat gave our local farmers the chance to plant carrots to mature from late January, February and March at a time when Griffith could experience problems with the heat. Such was the success of carrots in those hot months that they were adopted by a number of growers as a fill in crop during other times of the year. As was the case with caulies and cabbage the deep rich soils of the Hunter, when well prepared before planting, suited the long tap root of the carrots. As with onions, carrots could be very labour intensive to keep ahead of weed infestation. But alas, someone found an easy to use secret weapon to overcome the weed problem in young carrots. As we know, 'necessity is the mother of invention', and so it was with weed control in carrots. Someone tried a 50/50 mix of power and lighting kerosene sprayed over the crop at about the four and five leaf stage and found that the mixture would burn off the weeds and leave the carrots unaffected and with no tainting of the mature carrot. Then someone found that by replacing the kerosene mix with dry cleaning fluid the same result was obtained with a lot less trouble. Up until the mid to late 1960s the picking of carrots also was very labour intensive and all done by hand. They were washed and bagged in clear plastic bags. As with all crops grown by primary producers, mechanisation of the whole process has been made easier, with none more so than carrots. They are now harvested with a specially designed harvester which is able to handle most root vegetables including beetroot and onions. Washing, grading and bagging of carrots has also been improved greatly.



Top left: Carrots planted in a particular way to suit mechanical harvesting  
Top right: Come on dad, let's get this new harvester unloaded. The carrots are waiting.  
Bottom: Washed and bagged ready for Newcastle Markets

## **OTHER POPULAR CROPS**

The early days of the colony saw Bolwarra produce hops, barley corn, millet and mustard to name a few. As the land holdings increased in size after the 1950s with more emphasis on broader acre, more specialised crops and the advent of mechanisation, things such as hops, mustard and barley fell by the wayside. Water melons, rock melons, gramma and numerous varieties of the modern pumpkin types have been tried at various times to cater for the changing customer expectations. During the 1940s and 1950s there were a couple of Bolwarra farms with extensive glass houses which were used for the cultivation of tomatoes. Unfortunately many were destroyed in the 1955 flood, never to be rebuilt again. Bunched beetroot, carrots and onions were also a desired addition to the green grocer and the door-to-door fruito.



Rockmelons ready to be packed into used banana cases  
then off to Newcastle Markets 1989

## **LUCERNE**

For the early farmers in the area, lucerne was important to them as it was used to feed their horses and other livestock especially if they were running a dairy. For the dairies it was used in a green state or made into hay. The hay could be used almost immediately or sold, or as happened on many occasions, it was stored in the unique hay sheds for sale or use at a later date.



Two dray loads of loose hay,  
Flat Road Bolwarra 1923



Popular square bales



Round bales

Once the hay was stacked in the “shed”, the farmer considered that it was as good as money in the bank as well made hay would last for many years and could be pressed and brought out and sold at times when it was in short supply. Up until the early 1950s, when the time came to sell the hay it was made into large bales in the press before being loaded, usually onto a dray ready for transport. Since the mid 1950s it was pre baled on the farm and stored in bales.

Because lucerne seed is so fine, the ground into which it was to be planted needed to be of a fine tilth and free from as many weeds as possible, which when grown in competition with the lucerne would rob it of valuable moisture. Weed content in the hay greatly reduced its value when sold, so to try to eliminate this problem the ground intended for the lucerne was continually worked over many months to bring it up to the desired standard, which also encouraged early weed germination and optimum retention of soil moisture.

In part one we have touched on some of the background of farming on the Bolwarra Flats since the days of settlement through to present times by highlighting early crops, methods and machinery. As the types of crops, machinery and technology have changed, so also has the need for farm sizes to increase for them to remain viable.

In Part II we look at farming survival and the methods used along with the linkage of transport and marketing options. We also look at changes in machinery and technology and how they have affected farming operations. Self help farming organisations and other community organisations with no direct connection to farming but which formed part of the Bolwarra farmers' daily lives are discussed also.