

History of Commercial Apple Production on the Prairie

Around 1920 many farmers became interested in growing apples for their own use as a result of the development and promotion of hardy small apples and crabapples, which were being released from the early breeding programs. Some of these farmers took a keen interest in apple growing and became quite skillful at it. It wasn't long until some orchards had grown to the size where production was larger than the needs of family and close friends. These farmers began to sell fruit to the larger community, attracting customers from as far away as 100 kms. The Heaver orchard near Raddison SK, Seager Wheeler's orchard near Rosthern SK, Peter J. Neufeld's orchard near Laird SK, the McCloy orchard near Kinistino SK**and others** were early commercial producers.

With automobiles becoming much more common, a drive to pick fruit at a 'local' orchard was seen as a good fall outing for the family. The fruit of some apple cultivars was capable of being stored in root cellars for several months but most of the fruit was processed into canned crabapples and applesauce and mixed fruit sauce. Some of the fruit was dried and consumed in that form or cooked into mixed fruit sauce at a later date. The orchard business was good and provided a significant portion of the farm income for many producers.

However, after a number of years market dynamics began to put pressure on these small commercial orchards on the prairies. Producers in warmer climates were benefiting from advances in production techniques, the use of refrigerated storage and a developing distribution system for fresh produce. The development of chemical disease and pest control and superior apple cultivars for warmer climates along with a rapidly developing storage and distribution system allowed other growing areas to supply the prairies very good quality fruit at a reasonable price. McIntosh apples became very popular and the fruit of other apple cultivars became available in the coming years. Locally produced fruit was quite inferior and the best of the local cultivars were not reliably hardy being winter killed during severe winters.

The winter of 1942 was extremely severe and many apple cultivars were killed back to the snow line. As a result of this changing situation, the commercial orchards on the prairies down sized or were removed completely. A few of the more determined apple growers began to do breeding work thus contributing to the long process of developing fully hardy apple cultivars capable of producing high quality fruit. To their credit a number of growers and Dr. C. F. Patterson of the University of Saskatchewan had already been doing breeding work prior to this crisis. The Federal Government joined this effort through Agriculture Canada in 1946 by providing leadership and financial support to the Prairie Co-operative Fruit Breeding Project, which was initiated by the Western Canadian Society for Horticulture. The Federal Government began withdrawing their financial support for this project in 1953 for some unknown reason. A few private breeders and provincial government institutions carried on.

With the exception of areas with warmer winters near Morden MB commercial apple production on the prairies was almost none existent between 1950 and 1985. With the introduction of good apple cultivars from the Prairie Co-operative Fruit Breeding Project in the late 70s, commercial apple production began to start again in the mid 80s. Norland apple was hardy enough and had fruit quality good enough for commercial production.

Ripening in mid August, it is the first good dessert apple available. After Norland, a series of apple introductions was made from among the coop seedlings and from other breeding programs leading to more interest in commercial production. In 1999 the University of Saskatchewan released SK Prairie Sun, a hardy apple with excellent processing quality and very good dessert quality. Since that time the Domestic Fruit Program there has made its advanced apple selections available for commercial production as part of the testing program. The fruit from these selections is very competitive with the fruit coming from warmer production areas.

Changing Business Environment

Concurrent with this recent improvement in the fruit quality of our hardy apples, have been the changing market characteristics, economic environment, availability of expertise and production and storage techniques. Many of these changes favour us.

Changes in the Global Apple Marketplace

In the last fifteen years the selection of apples being sold has increased noticeably. This increase in selection is directly due to the customers' demand for choice. We now have a group of apples that was developed in New Zealand: beginning with Gala and Braeburn and most recently Pacific Rose and Southern Rose. These apples are well adapted to New Zealand growing conditions and are produced under very high quality standards resulting in excellent apples in supermarket produce departments. They sell for a premium price and compete very well with lower-priced North American apples. Many new cultivars have been introduced in North America but we see few of them in prairie supermarkets. Jonagold is relatively new and satisfies people who have a taste for a rich flavour with a good measure of astringency.

The market has become tolerant of a wider range of colours. Since the introduction of Gala to the North American market, striped apples have become quite acceptable if they have a light ground colour. Apples are considered attractive if they are mostly bright green or bright yellow or red with a light green, light yellow or cream coloured ground. The ground is the base colour of an apple over which the orange or red colour is super-imposed.

Demand is increasing for firm, crisp and juicy apples that hold these characteristics in storage and on the shelf. Although McIntosh, which has soft flesh, and Spartan, which has a relatively short shelf-life are still selling well. The cultivar Fuji, which has a very firm, crisp and juicy texture is selling very well in both the North American and the Pacific Rim markets. Honeycrisp, one of the new cultivars from the University of Minnesota, has even better texture characteristics and is experiencing outstanding early success in North America.

New Zealand growers are exporting their apples to North America. Being in the southern hemisphere, they have the advantage of selling fresh apples to us during our off-season. Higher shipping costs are incurred because of the distance but the quality of their product is very high and commands a premium price here. Also, they are the leaders in breeding and promoting new cultivars.

Growing areas ie producing countries

Juice/Cider

Organic and health concerns
Chemical scares

The Changing Economic Environment

We are now nearing the place in the development of apple growing on the prairies where we can begin to calculate costs of production. One could speculate that the bottom line will look very good given low disease and pest pressure and low land prices, but these advantages could be offset by more frequent crop loss due to hail and wind. Time will tell.

The devalued Canadian dollar, a fact that doesn't elicit any pride, never the less benefits our exports while squelching imports.

On the prairies the price of agricultural land seems to depend more on the production capacity of the land and commodity prices and less on the activity of speculators and developers. However, one could argue the opposite regarding the cost of cultivated land in warmer areas. It seems that old orchard land in warmer areas is popular for new residential areas. It is reasonable that people would associate orchard with a good place to live. Witness the number of subdivisions in Kelowna, British Columbia, and other places with the word 'Orchard' in their name.

Good agricultural land in British Columbia sells for between \$5,000 and \$16,000 per acre as of January, 2002. Saskatchewan land suitable for growing apples sells for around \$400 per acre. There are still opportunities for young people to grow specialty crops on the prairies, make a good living and build equity by making land payments.

Availability of Technical Expertise

There are a number of people who have had experience in growing commercial apples in warmer areas who have moved here and intend to grow apples commercially. We have been attracting people with technical expertise without trying. Young people involved in apple production in warmer areas have encountered much difficulty in gaining equity in those agricultural enterprises outside of inheritance and gifts. We should experience little difficulty in getting more professional growers as needed with a modest amount of advertizing.

Changing Production and Storage Techniques

Ott 3, other dwarfing rootstocks and high density orchards
frequent change of cultivars
changing climate?

Current Prairie Markets

With regard to markets we have seen over many years solid evidence of strong local markets. Some growers are doing very well in serving these markets in 2001. While we don't know how big these markets are, there are strong indications that they are much larger than the present supply. These include U-pick, farm gate and farmers market sales.

Possible Markets for Prairie Fruit

It is clearly true that the world market for conventionally produced apples has been over supplied for some time and there is little change in sight. Therefore, there seems to be little chance of achieving export sales into the world market unless we could target some niche or have our fruit identified as special in some way. And actually, there are opportunities to pursue niches and to promote uniqueness. **We could target the niche for organically produced fruit and promote our unique climate as distinct from other fruit growing areas. After all, isn't it reasonable to expect crisp, clean fruit to come from an environment of similar description? The world market for organically grown produce has been growing at 20% per annum.**

We have credibility and natural advantages here. Few other agricultural areas of the world can make a stronger claim to being crisp and clean given the abundance of fresh cool air here. The size and remoteness of our farmland allows our apples and other non-native fruits to escape many diseases and pests. Many apple diseases and pests are not here in the first place because of our climate. Those that have shown up can be controlled well organically or our apples are resistant to them.

The marketing structure could be a New Generation Coop. By co-operating in this way, growers could gain access to larger markets and share marketing profits. The organisation could be called the 'Prairie Fruit Growers Coop' and could include fruit growers in Manitoba, Saskatchewan and Alberta. In this way the production area would be widely dispersed thus reducing the chance of crop failure and loss of markets. Several storage and shipping facilities co-ordinated by one office could be located in appropriate areas.

There would seem to be an opportunity here for those who are up for the challenges involved in a pioneering venture. Some farmers have already begun to grow apples commercially. The largest apple orchard on the prairies is Yoanna Nurseries and Orchards in Radisson, Saskatchewan, owned by Craig and Yvette Hamilton. They have ten acres in production. Other smaller orchards are already in production and many are being started or planned. Thousands of trees are being started each year. Already there have been discussions among growers regarding co-operative marketing. Those people involved in these discussions want to see this small industry grow in a solid, sustainable way and they are very helpful to newcomers.