BIG LITTLE CHERRY

by Ron Welwood

Then, in your opinion, an orchard is not exactly a Garden of Eden? Not in England at any rate.

Is it so anywhere - in any part of the world?

Yes: in Canada. At least, so I am told. I mean in British Columbia. (Bealby viii)

At the turn-of-the-century fruit ranching in British Columbia was considered an ideal colonial alternative for many disenchanted Englishmen who sought independence as well as prosperity. Advertisements extolling the virtues of this gentleman's occupation abounded in the contemporary literature; and, consequently, many came west to seek their fortune. Often these pioneers purchased land from unscrupulous land brokers who extolled the virtues of fruit ranching in both the Okanagan and the Kootenay.

In 1906 Earl Grey, Governor-General of Canada, purchased 54 acres of fruit land on the east side of Kootenay Lake after a personal inspection of the region. This convinced many that, indeed, there was a great future in Kootenay fruit growing. Testimonials such as one from James Johnstone, a pioneer Nelson fruit-grower, also promoted the Kootenay region as a possible Garden of Eden:

"I consider the conditions here (Kootenay Lake District) the most perfect for fruit-culture.... The quality and size here are far superior, and the yield per acre is at least double that of anything I have ever seen or succeeded in producing during my ten years' residence in the States.... I have not found irrigation necessary, and this adds much to the superior quality of all our fruit. The fruit-grower will find here an ideal home. The climate is perfect; the soil is very rich and productive, and the market the best. He will be surrounded by beautiful scenery; and the shooting and fishing are the best to be found anywhere." (Bealby 13-14)

Among the fruit crops, cherries from the Kootenay region became famous; and although there was considerable labour involved in picking and packing the crop, this soft, sweet fruit commanded a ready market and a good price. Picking was slow because of the cherry's size; and packing cherries into cartons (eight into a small, shallow wooden box) required considerable skill to avoid shaking and bruising during transit. However, such careful attention to detail paid handsomely and in 1909, Mr. Johnstone reported that his average gross return was \$1,050 per acre. (Bealby 205)

In describing a cherry orchard J.T. Bealby, a Nelson fruit rancher and promoter, exuded that "One of the most wonderful sights in a British Columbia orchard, and more especially a Kootenay orchard, is the cherry-trees when laden with their snow-white blossoms. Every branch, from its divergence from a large limb or the main trunk, right away to the outermost twig, is thickly feathered with clusters of blossom, and tufts of bloom cling even to the main trunk and large limbs. This is true of every variety of cherry alike, sour as well as sweet.

"The crops are, as a rule, enormously heavy — so much so that the trees, and this applies to apples, pears, and plums, as well as to cherries — have to be well supported with props to prevent them from breaking down under the loads they carry, and even then it is no unusual thing for one or more branches to split off before the fruit can be gathered." (114)

Such was the euphoric hype relating to fruit ranching in the Kootenays at the turn of the century. However, underlying this supposed idyllic vocation was the reality of the hard back-breaking work required to clear treed and rock strewn land before planting, constructing buildings, and doing the many other mundane activities required to eke out a living while waiting for the fruit trees to mature. In fact, it took a great deal of intestinal fortitude, physical stamina and patience to become a successful fruit rancher.

After patiently waiting for the trees to mature, euphoria changed to disillusionment as competition increased and the markets became more saturated. It was not unusual at the end of the season for a rancher after tallying the additional costs of freight and packing expenses to end up in debt. (Dawson 62-65) In addition to these hardships was the abandonment of many developed lands when the call to arms and patriotic duty beckoned during the First Great War.

Fruit ranching encompassed orchards containing apples, pears, plums, etc., but during these halcyon years the Kootenay region became famous for its cherries. In fact, cherry production surpassed apples in many orchards. Bing and Lambert varieties were considered the best commercial producers because of their big, firm skinned and dark-coloured fruit that commanded good prices.

In October 1905, the Kaslo Fruit Grower's Association was formed and sponsored the first Kootenay Lake Fruit Fair in the fall of 1906. Kaslo cherries were renowned across Canada. The industry prospered and Kaslo's First Canadian Cherry Fair was held at the end of July 1912. By this time cherry cultivation was the most lucrative fruit crop in the Kaslo region. In August 1924, a Cherry Carnival was held at the Kaslo Drill Hall where 500 cases were displayed and, according to the reports, some of the cherries were so large they resembled small plums ("average three and a quarter inches in circumference"). In 1929 the Pacific Fruit and Produce Company of Portland,

Oregon, received a four-carton box of Lambert cherries and reported it "... the finest looking piece of merchandise we have ever seen in our lives... the best we can say is that you have the world beat... Since we are used to common, ordinary cherries it is hard for us to get an idea of the values of this kind of merchandise." The pride and popularity of this Kaslo fruit was touted by the city fathers who had the boulevards planted with cherry trees in 1932. (McCuaig 103-105; Kootenaian)

Unfortunately a mysterious cherry disease suddenly and inexplicably destroyed this thriving sweet cherry industry. When the symptoms were first noticed in 1933 at Mr. Heddle's orchard¹ on a bench above Willow Point on the West Arm of Kootenay Lake approximately 10 km (6 mi.) east of Nelson, this aberration completely baffled provincial and Dominion plant pathologists. Its most striking feature provided the name, Little Cherry Disease.

Cherries affected by the Little Cherry Disease were unsuitable for the fresh fruit market not only because they were small, but also because they lacked taste, sweetness and appearance (angular pointed with three flat sides). The fruit had a brick-red hue with a dull lustre. Most disheartening to the fruit rancher was that disease-infected trees only became obvious about two weeks before harvest. Nowhere was the impact on cherry production more dramatic than in the central Kootenay valley.

Until this time Little Cherry had not been recorded in any contemporary literature. This was "the first report in the world of the new disease of sweet cherry called Little Cherry" (Mealing 1989); and the first official description of the disease appeared in the British Columbia Department of Agriculture's Annual Report for 1936. For over a decade the Department's horticulturists and plant pathologists reported their frustration in trying to determine the cause and find a cure.

W.R. Foster, Assistant Plant Pathologist for the British Columbia Department of Agriculture, was assigned to study the disease. Although a virus was suspected, the symptoms appeared entirely in the fruit of healthy bearing trees. Naturally, growers were reluctant to have their healthy orchards used for testing purposes, so with the cooperation of the Consolidated Mining and Smelting Company an experimental cherry orchard was established at Columbia Gardens near Trail around 1940. This experimental orchard was immature and could not be used immediately; so infected trees were sprayed with concoctions such as the juice of cherry leaves and fruit, yeast extract (vitamin B), boric acid, magnesium or zinc. Fertilizer tests and soil analysis were also conducted. Buds from severely affected trees were taken and put into fruiting Lambert trees at the Dominion

¹ Malcolm Heddle pre-empted 40 acres (16 ha) at Willow Point on 12 April 1901 (Lang 146)

Experimental Station on Vancouver Island in Saanichton where the resultant fruit seemed identical to those of the disease, Little Cherry. This suggested a virus and, if so, the plant pathologists were determined to learn whether the abundant native wild cherries were also susceptible to the disease.

By 1942, Little Cherry symptoms appeared in every fruit section of the Kootenay District except Kaslo. Finding a cure for this rapidly spreading infestation was critical. Communication and travel between the Saanichton experimental station and the Kootenays was awkward enough without the added difficulty of Canada at war. Therefore, the research station at Summerland was made responsible for tackling the problem. In 1943, it was decided to abandon the young orchard at Columbia Gardens and lease an isolated, healthy, mature orchard on approximately five acres in the Kootenay Bay area.² By now it was almost certain that infected insects were the transmission agents. Insects could be carried by the wind, automobiles or other means and this would explain the rapid expansion of the infested area.

Meanwhile a large number of Little Cherry and wild cherry buds were grafted to trees in the leased Kootenay Bay orchard. This was done to ascertain whether or not the disease was truly a transmissible virus and also whether or not wild cherries were carriers. By 1944, the plant pathologists concluded that, indeed, Little Cherry was caused by a virus; and the next year the Department of Agriculture reported: "At this time the sweet-cherry growing industry here in the Kootenays, does not look very bright, and unless something can be done to prevent the spread of the 'little cherry' trouble one of the most profitable fruit-crops of this district will be eliminated." (1945 V55) The disease had spread throughout the entire Kootenay valley (including Kaslo), the Upper Arrow Lakes region and parts of the State of Washington by 1946.

While the source of little cherry disease outbreak near Nelson in 1933 was not then known, subsequent research by plant pathologists proved that Japanese ornamental flowering cherries (principally, *Prunus serrulata*) were carrying the Little Cherry Disease in symptomless or masked form. Apparently, three specimens of *P. serrulata* Lindl were growing not far from the Heddle orchard.

Less than 5 km (3 mi.) west, at Roberts Bay on Kootenay Lake, was the property of Selwyn Gwillym Blaylock, Vice-President and General Manager of Consolidated Mining and Smelting

² In 1927, William Fraser planted a cherry orchard on his land just north of Kootenay Bay. Fifty-five trees were planted on 1.5 acres (.6 ha) of cleared land. This isolated orchard was leased to the Department of Agriculture for seven years. (Fraser 19-20)

Company (later Cominco). The property, purchased in 1927, contained a modest residence and a small orchard, but it was Blaylock's intention to have this summer retreat replaced with a stately manor. Since one of his passions was gardening, he developed an exotic garden oasis around his newly constructed mansion known as Lakewood. The land sloping up from the lake included terraced lawns and rock gardens. The grounds purportedly featured one of every species of tree native to Canada as well as countless other ornamental trees and fragrant flowering shrubs.

It is rumoured that Blaylock encouraged his frequent weekend guests, including foreign dignitaries, to bring gifts of trees and shrubs from their native lands to add to his garden collection and give it an international appearance. Although it would be simple to conclude that the Japanese ornamental flowering cherry tree was introduced to the Kootenay Lake region in this manner, it is more likely that Blaylock was directly responsible.

"The ornamental Japanese Flowering Cherry trees were on the 'Lakewood' estate. They were imported clandestinely in the 1930's by the owner, Blaylock, who was aware of the Ministry of Agriculture ban but went ahead anyway." (Mealing 1989) "Mr. Foster stated that Cominco's Blaylock while developing the Lakewood estate in the late 1920's inquired officially about importation of Japanese Ornamental Cherries. He was told that the trees were diseased & might not be imported. He decided to smuggle some in anyway & did so; they were established & the disease likewise." (Mealing 1994)³

Although the ornamental flowering cherry was identified to be the viral source, the manner in which Little Cherry spread was unknown. An insect vector was suspected because of the rapidity in which the disease infected an orchard and spread from one orchard to another. The culprit was eventually identified as the apple mealy bug (*Phenacoccus aceris* Sig.). In 1936 when the first description of Little Cherry was published, the Department of Agriculture's Horticulturalist Report for the same year also stated this "very troublesome insect pest" was widely distributed in the Kootenays, particularly in the Willow Point area. Unfortunately, at that time it was felt that the mealy bug caused damage "chiefly to the apple crop." (P35)

³ As Blaylock was President and General Manager of Cominco at the time, it makes one wonder why Cominco was so willing to provide Columbia Gardens for an experimental cherry orchard in 1940.

To control this infestation two tactics were eventually employed. Sprays and biocontrol⁴ were used to reduce the mealy bug population. In addition, infected trees were removed and destroyed. The removal of infected cherry trees was devastating to the fruit ranchers, but such action was necessary. By 1958, removal became mandatory under the British Columbia Plant Protection Act through the Little Cherry Control Regulation.

In 1920, 65% of British Columbia's sweet cherry trees were planted in the Kootenay-Arrow Lakes district; but by 1950 this figure had dropped to 11% and by 1955 it had been dramatically reduced to a mere 2%. (MacPhee 217) Geographic isolation, transportation difficulties, marketing and war were contributing factors to the decline of this once thriving Kootenay fruit crop; but the biggest blow came from the Little Cherry. The famous and bountiful cherry crops of the Kootenays were no more.

And life is like a cherry tree,
With branches all around;
And up upon the topmost twig
The finest fruit is found.
Sometimes the picking's difficult,
Sometimes it's bloody tough —
But a good cherry picker
Can always do his stuff. (The Cherry Picker)

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⁴ A parasitic wasp (*Allotropa utilis* Mues.) was released in the Kootenays between 1938 - 1943. "The establishment of A. utilis population coincided with a dramatic decline in the rate at which little cherry disease spread through orchards of the Kootenay Valley." This proved that the rate at which little cherry disease spread was directly correlated with the population densities of the apple mealy bug. (Eastwell 147)

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