

Chile Positioned to Become Major Cherry Producer

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A couple of years ago I was invited to give a series of talks at a cherry seminar in Curicó, Chile. Prior to the seminar I was able to tour the cherry production area from north of Santiago to south of Curicó.

At 30,000 tons, Chile's cherry production is about equal to that of Wasco County. However, from 1990-1998 the cherry production area increased 98% to 13,585 acres. About 1/3 of this is exported. In 2001, 1.5 million 5 kg (11 lb) boxes were shipped out of the country, of which nearly half were shipped to the United States and Canada. 'Bing' and 'Van' are harvested for export (although many other varieties are shipped under the 'Bing' label) to the USA and Europe. These are shipped by air in order to obtain the early market prior to Christmas.

Unlike the USA and Europe, harvest labor in Chile is readily available and cheap. Typically, pay is \$10 per day but the average production per picker per day is only 110 pounds on old, large trees and 250 pounds from pedestrian orchards. Low productivity rates like these are fairly typical where pickers are paid an hourly or daily wage. However, this method is giving way to a piecemeal pay scheme, which is increasing productivity.

The main cherry production region in Chile is the Curicó area, a few hours south of Santiago by car. Cherry production was established here because the Chileans believed that cherries grew best in poor soils. The soils here are stony and shallow. Production levels average only about two tons per acre in the old orchards but is up to 5 tons on younger orchards with self-fertile varieties. The winter climate in the Curicó region is moderately cool with frost possible at bloom. The building where the seminar was held did not have heat, although outside temperatures were in the upper 40's in August, which is comparable to our February. Sufficient winter chilling is a problem in this area and further north, which is probably one reason why production is so low. Unless cherry trees receive a certain level of chilling units, for 'Bing' it is 900, they will bloom only lightly in the spring. Humidity is high, near 100% most of the winter and 50% in the summer, making bacterial canker a major problem.

Old orchards are non-uniform and many have been poorly managed. My host commented that growers used to think that all they had to do was harvest the fruit. No one worried about irrigation or pruning.

New orchards are much different; they were nicely maintained and advanced in technology. I found the owners of these new orchards to be well informed and well traveled. Many of them had been to the USA and Europe to study production practices. Dr. Jacque Clavarie, from the CTIFL research station in Bordeaux, France is a sought after speaker in Chile. Many growers have adopted his Solax training system in new orchards. With this system, cherry trees are grown as a central leader tree, with the tips of all laterals and the leader bent towards the ground in order to reduce



Old orchards are often poorly pruned, leading to long spurs and small fruit.

tree vigor. Spur thinning controls crop load. Trees on many different rootstocks, including mazzard, were being grown in this manner. Growers liked this system because there is little pruning, which helps to keep the incidence of bacterial canker low. Most growers thought that the Vogel Central Leader system, which utilizes few pruning cuts in the early years, was too pruning intensive for their liking. This said, I saw a number of nice Spanish Bush orchards, which utilize a lot of pruning cuts, grown on dwarfing rootstocks.

One of the reasons Chile is advancing so rapidly in their production technology is due to a well-trained group of consultants that are hired by the growers to provide advice. These individuals are highly educated and are well traveled, attending international cherry symposiums and touring cherry production sites around the world to increase their proficiency. They help growers with all phases of production decisions, from rootstock and variety selection, to pest management. One consultant was recommending Maxma 14 and Sante Lucia 64 as rootstocks for the warmest regions of the country. He further recommended Gisela 6, Maxma 14 and Sante Lucia 64 for central Chile, while Gisela 6, Weirroot 158 and Colt were being recommended for the south.



One of several well-maintained Spanish Bush Orchards.



High density orchards are the norm for new plantings. Full size rootstocks are managed by tying down branches.

A nursery called Viverosur produced eight different rootstocks. Forty percent of their trees were produced on Sante Lucia 64, while 25% were produced on Gisela 6 and 20% on Maxma 14. ‘Bing’ is the number one variety. This is especially true in the Curicó region where rain at harvest is typically not a problem. In Chile, ‘Bing’ makes up 40-50% of the total production. ‘Lapins’ and ‘Sweetheart’ combine for about 25%. Regional preferences, however, do prevail. ‘Brooks’ is the principle variety in the north where early production is desired. In the south, ‘Regina’, ‘Attika’, ‘Sweetheart’ and ‘Lapins’ are the varieties of choice.

Driven by high returns and cheap labor, the Chilean cherry industry is growing rapidly. Informed growers supported by well-educated consultants are planting new high-density orchards on dwarfing and standard rootstocks. They are producing high quality cherries for the Christmas markets in the USA and Europe.