Cherry Production in South Africa Looks Promising

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South Africa is truly a land in transition. Ruled by the white minority since colonial times, the policy of apartheid, the separation of races, was finally ended in the early 1990's. In 1994 Nelson Mandela, the first native Black African to become president, took over the reins of government. With this revolutionary change many that could find a job elsewhere, fled the country for fear of violence and economic collapse. In addition, white residents left the inner cities causing real estate prices to plummet.

Although the preceding years have not been easy, steady progress has been made. Unlike Zimbabwe, its neighbor to the north, South Africa has avoided violence while encouraging change. White landowners have not been murdered in order to establish native African control, but instead a slow process of purchasing land from white landowners is taking place. In many cases, the former landowner is hired to manage the farm by the new native African landowners because they do not yet have the skills and knowledge to run a modern farm. In other cases, native Africans are being given 49% ownership of white-owned businesses. To be sure, not everyone is happy with these changes, but the economy has remained strong and many former residents are returning to the land of their birth.

Like the country itself, cherry production in South Africa has also gone through radical changes in the last few years. Traditional orchards consisted of large, unpruned trees on Mahaleb rootstock. Production was grown for the domestic market with 'Hedelfingen', a small-fruited variety, sold in the market under the name 'Giant', a true misnomer.

With the successful establishment of a "winter" cherry market by Chile, a number of individuals and corporations began to see a potential export niche market for South African cherries. Situated approximately 28 degrees south latitude, South African cherries can reach markets in the United Kingdom earlier than cherries grown in any other part of the world. The first harvest of 'Early Burlat' typically occurs in mid-October with returns of up to $9.40 per pound. Harvest continues until the first week of December with an average value to growers of $2.70 per pound.

The main cherry production region, producing about 80% of the total, is located in the Eastern Free State. Known as the high veld, or grassland, cherries are produced at approximately 6,000 feet above sea level. This is an unfriendly region for cherries with the landscape reminiscent of the American Southwest. Severe draughts and consequent wildfires burning everything in their path are common in the winter. The draught breaks in the spring as cherries are ripening. Thunderstorms, accompanied by heavy rain and hail, strip leaves and fruit from trees and plague growers in October and November. Strong winds of up to 60 miles per hour can accompany these spring storms. Winters are not only dry but also mild, preventing the accumulation of required chilling units leading to a light and protracted bloom. In addition to all of these factors, early frosts can damage whatever bloom is present.

Large corporate orchards are being planted to take advantage of high prices for early season export cherries. Trees are grown on Gisela 5 and trained to a spindle system.

It is into this environment that new, modern orchards are being planted. These new orchards average 25 acres in size, but one corporation is planting a 250-acre orchard. 'Bing' is by far the most common variety planted, but 'Lapins', 'Sweetheart', and 'Attika' can also be found. Surprisingly, Gisela 5 is the rootstock of choice, even though soils are shallow and very sandy. The other common rootstock, Mahaleb, is often too vigorous to grow under cover, a necessity in this severe climate. Trees are trained to a spindle system and planted 6 feet x 15 feet on Gisela 5.

The cost of producing cherries in these less than ideal conditions is substantially increased by the need to cover orchards for both rain and hail. Hail nets are erected at the time of planting to protect the leaves from destruction. Nets tilted to the west are often colored black to help screen the intense sunlight at this low latitude while east facing nets are white. As trees mature, rain covers are positioned to protect the fruit. The total cost of these coverings ranges from $27,000 to $30,000 per acre.

Finishing touches are put on a hail net. Severe spring hailstorms can strip leaves and fruit from trees unless protected.

Since 100% of the export production is sent to the United Kingdom, all fruit must be Eurep Gap certified by 2006. This certification establishes that the orchard has met strict environmental, labor and safety standards, allowing the fruit to be imported to Europe unimpeded. This certification costs growers $600 per farm. However, Tesco stores have their own certification program and won't accept Eurep Gap certified fruit, so growers must also be certified in a program called Nature's Choice. In all, there are a total of six separate inspection programs that could be required, costing the grower up to $6,500 annually.

Orchard labor is paid about $5.00 per day to hoe and perform other tasks. This lady has covered her face with mud to reduce sun exposure.

Offsetting these added expenses is the cheap cost of labor. Minimum wage is about $5.00 per day. Productivity, however, is low, with an average picking rate of 220 pounds per day. Unemployment is over 40% and rising so the government encourages growers to hire more workers by providing tax incentives. One particular grower permanently employs one worker for every 1000 trees. Due to the creation of new jobs, growers can recover up to 40% of the cost of building a new packing line through tax incentives.

Growers take advantage of this inexpensive labor by using local women to scare birds away from the ripening crop. Starting at 6:00 in the morning and continuing for 12 hours women walk up and down rows throughout the day shaking rock-filled cans and chanting in their native tongue. Gas stations throughout the country were further examples of the government's employment policy. As one pulled into a station an attendant would direct cars to pumps, each of which were manned by a separate attendant.

As cherries begin to ripen, local women are hired to walk orchard rows for 12 hours a day to scare birds with handmade noisemakers.
Photo by Mekjell Meland

New orchards are well maintained and trees are generally healthy. The growers themselves have pursued expert advice by attending and hosting international conferences. However, as might be expected when growing an unfamiliar crop under severe climatic conditions, production is not without problems. Most new orchards, especially 'Bing', are struggling with very low production that seems to be a combination of a number of factors. Inadequate winter chilling is probably the most important of these factors, although there have also been problems with pollinizer selection and bees. In the past the choice of pollinizers has not always been the best. For example one 'Bing' orchard had 'Royal Ann', and 'Hedelfingen' as pollinizers. The former is incompatible with 'Bing' and the latter blooms several days later. Better selections will be made in the future as growers learn more about cherry culture.

In addition, using African bees has brought further challenges. African bees are notorious for their nervous disposition that causes only fleeting visits to flowers. In order for adequate pollination to take place, additional hives need to be used. Growers were also learning that bees could not be placed along side the trees under the covers. The bees look for light and go straight to the roof. If the bees get out they lose their way and get lost. Beehives under covers had no field bees within five days of installation. South African scientists have discovered that placing hives six feet outside the covers and attracting bees to the flowers with a 50% glucose solution solves this problem.

Whether South African growers can overcome inherent climatic challenges and correct some of these early problems is still unclear. Finding varieties with lower chilling requirements and learning how to properly use dormancy breaking chemicals is their first and most important challenge. Combining these varieties with a more vigorous, yet productive rootstock will also be important as Gisela 5 is too dwarfing for their poor soils. Once these problems are overcome the future for South African cherries looks very promising. Competition free markets, high grower returns and inexpensive labor could mean high profits for South African growers.