

World Production Trends

Lynn E. Long

Extension Horticulturist

Oregon State University

In the Pacific Northwest, USA, large new sweet cherry plantings began to replace less profitable apple orchards in the 1990's. At that time, in Washington State, it was common to see huge piles of uprooted apple trees mounded together, ready for burning. Soon after, those blocks were planted to cherries and that expansion has continued to the present.

However, this trend has not been confined solely to the Pacific Northwest or even to the USA. Data from the UN, FAO indicate that harvested acres of cherries have increased from 285,000 (704,235 acres) to over 400,000 hectares (988,400 acres) in the last two decades ending 2005. According to the same source, harvested acreage expanded in the last decade in every region of the world except Eastern Europe. The largest expansion was recorded in Asia (less the Near East) with an increase of nearly 54% followed by North America at 48%.

USA

How to maintain profitability while acreage and production continues to expand is a question that cherry growers throughout the world must address. For USA growers the answer has been expanding both domestic and international markets while increasing the production of new varieties to broaden the harvest window beyond mid-season 'Bing'. According to O'Rourke (2006) foreign markets have been very profitable to USA growers with returns averaging nearly 60% above the world average. For this reason, a major effort has been made to expand markets in Asia, especially Taiwan and Hong Kong as well as opening new markets in Australia and Mexico.

While new cherry varieties have allowed USA growers to stretch their season new plantings extending from the Canadian border in Washington State down to Bakersfield in southern California have opened new lucrative markets for early and late season cherries. These additions, coupled with modified atmosphere packaging, allow USA cherries to reach international and domestic markets from April into September.

Germany

In the mid-1980's Germany was the largest sweet cherry producer in the world (O'Rourke, 2006). However, large acreage and yield declines occurred over the following decade until Germany now ranks only fifth in overall production (UN FAO). Although yield is still down, and will take some time to rebound, new plantings of fresh market cherries are booming and nurseries are sold out of future production.

Most new orchards are planted with high density spindle trees with 80% on Gisela® 5 rootstock. However, many growers prefer a smaller tree than provided by Gisela 5 and initially looked to Tabel Edabriz®. Inconsistent growth and survival has caused growers to look beyond both Edabriz and the Weiroot series towards Gisela 3.

With 35% of the total production, 'Regina' is the most popular cherry grown in the country. In fact, production of both 'Regina' and 'Kordia' (15%) is increasing as is the production of a number of early varieties which now represent 20% of the total.

Due to the relatively high summer rainfall potential in western Germany, 30 ha (74 A) of cherries have now been covered with plastic in the state of Rheinland Platz alone. Forty growers in this same region have even taken this one step further and are growing cherries in greenhouses for an April harvest, significantly improving returns.

Turkey



Turkish employees prepare consumer packs for export to Europe in this modern packing facility near Bursa.

Although Turkish cherry production has leveled off in the first five years of this century, the late 1990's saw steady production increases as Turkey overtook the USA as the top producer of cherries in the world. Traditional cherry orchards, averaging less than 2,000 m² (0.5 A) are found throughout central and western Turkey. These orchards are often a mixture of several crops including cherries, olives and figs and are rarely pruned.

In recent years, new high density orchards are starting to make an appearance. Turkish export companies, such as Alara have planted their own modern orchards utilizing Gisela 6 rootstock. One of the most modern cherry packing facilities in the world receives fruit from thousands of growers throughout the country and distributes Turkish cherries throughout Western Europe. In addition, Alara personnel are training thousands of these traditional growers each year in modern production techniques including tree training, pruning and pest management. Their efforts have helped 1,000 Alara growers to become EUREPGAP certified so that their cherries can be exported to Europe.

Russia

According to the UN FAO database cherry production in Russia is increasing with 30,000 ha (74,000 A) harvested in 2005. Average production over the five year period ending in 2005 was 93,000 tonnes (102,514 U.S. tons), making per hectare yields very low. Most orchards are grown without irrigation or the use of modern horticultural techniques. However, in the Black Sea region near Krasnodar, acreage in this district alone is expanding by 40 (99 A) to 100 ha (247 A) per year. New orchards in this region are utilizing Ukrainian varieties and are grown on dwarfing, precocious rootstocks such as

VSL-2 and LC-52, both developed at a local research station. Interestingly, Spanish Bush is the training system of choice for these new plantings.

China

In recent years there has been a major expansion in cherry production in China. Most of these cherries are grown in such eastern Chinese provinces as Shaanxi and along the coastal areas of Shandong and Liaoning provinces. Orchards are small as each farmer is provided only about 500 m² (1/8 A) of land. However, cherries afford growers significantly greater potential income than traditional grain crops. For that reason both growers and government are interested in promoting new cherry plantings.

In the late 1990's plantings were typically primitive with double cropping a common practice. Usually ginger, radishes or wheat were grown between the rows accentuating the already serious problem of waterlogged soils as growers often irrigated based on the needs of the lower value crop. Although growers used manure to fertilize trees, most trees were weak. In addition, there was little understanding of cherry culture as trees were often grown with multiple trunks arising from the ground and long, unbranched limbs were evidence of a lack of understanding of simple pruning basics.



Chinese farmers receive only one mu (approximately 500 m²) of land to farm. Sweet cherries provide sufficient income to support a family on this limited allotment.

According to the United States Department of Agriculture (USDA), intensive plantings occurred in 2001 as a result of high prices in 2000. These plantings are now in production and are reflected in the very significant increase recorded from 1996. At that time the UN, FAO estimated only 1,000 ha (2,471 A) of cherries harvested producing 3,800 tonnes (4,189 tons) of fruit. The USDA estimates planted acreage in 2006 as 44,500 ha (110,000 A) producing 116,500 tonnes (128,419 tons) of cherries. New plantings were estimated to have grown at a 10% rate from 2005 to 2006. All but 212 of the 116,500 tonnes of estimated production were utilized by domestic consumption.

If these figures are accurate, Chinese production, in one decade, has grown to the point where China may now be the fifth largest cherry producer in the world. That said, the UN, FAO production estimates differ significantly from the USDA. The UN estimates harvest acreage at only 4,500 ha (11, 100 A) and 17,000 tonnes (18,739 tons) of production in 2005, a significant discrepancy. It is obvious that quality information is lacking when it comes to Chinese cherry production.

Chile

Although Chile is by far the largest producer of cherries in the southern hemisphere, producing 33,000 tonnes (36,376 tons) in 2005 (UN FAO), they rank only 11th in overall world production. However, production is increasing rapidly with a 160% increase in the last two decades ending in 2005 and a forecasted rise of over 52% for the next 5 year period to 2010 (O'Rourke, 2006).

Although there are a lot of small traditional orchards in Chile, most of the new plantings incorporate a range of varieties, dominated by 'Bing', on rootstocks as varied as Mazzard, Mahaleb and Colt to Gisela 6 and Maxma 14. New orchards are moderate to high density, often trained to the Solaxe system. Solaxe is a French system developed for apples and converted for use on cherries. Lateral branches are tied down to 120°. Crop load is managed through spur thinning rather than pruning. Unfortunately, this has not prevented oversetting and the consequent lack of vigor.

Chile's strength, cherry production in the opposite season to the majority of the world, may also be their weakness as winter markets may be limiting. Chile's largest market is the USA, however, large quantities of fruit are also exported to Asia. Production extends between November and January, but modified atmosphere packaging and surface transport extend the market into February and beyond.

Australia

Like Chile, Australia can take advantage of high market prices by providing cherries for a world caught in the grips of winter. Early and late season cherries can sell for US\$12 to \$16 per kg (US\$5.45 to \$7.27 per pound). Tasmania, in particular exports the majority of their cherries to Asia. Other states that produce cherries include New South Wales, South Australia and Victoria. Production in Australia is expanding, but at 6,000 to 8,000 tonnes (6,614 to 8,818 tons) they are not among the top 20 cherry producers in the world.

However, that said the Australian have implemented a number of innovations that are worth mentioning. Due to a two decade long drought, orchardists have devised ways to conserve water. Utilizing straw mulch and automatic moisture monitoring devices are two ways in which growers reduce their use of this precious commodity. Another innovation includes an adaptation of the Spanish Bush training system. This adaptation simplifies and hastens pruning so that even untrained workers can understand and learn the pruning process in only a few minutes.

Conclusion

Cherry production around the world has increased significantly over the last decade and is projected to increase an additional 25% in the five years leading up to 2010 (O'Rourke, 2006). With this increased production it will be difficult for cherry growers to maintain their profitability. Future success will be a team effort of growers, scientists and marketers.

For growers this means maintaining and improving fruit quality through good growing practices. It also means finding ways to reduce the expenses associated with growing and harvesting the fruit. More innovations like the modified Spanish Bush system used in Australia that reduces labor needs during both the growing and harvesting process also need to be found. For scientists it means developing new large fruited varieties that taste good and are firm enough to ship around the world by boat. Finally, for marketers it means extending international markets into the developing nations of the world such as China, India and Brazil.

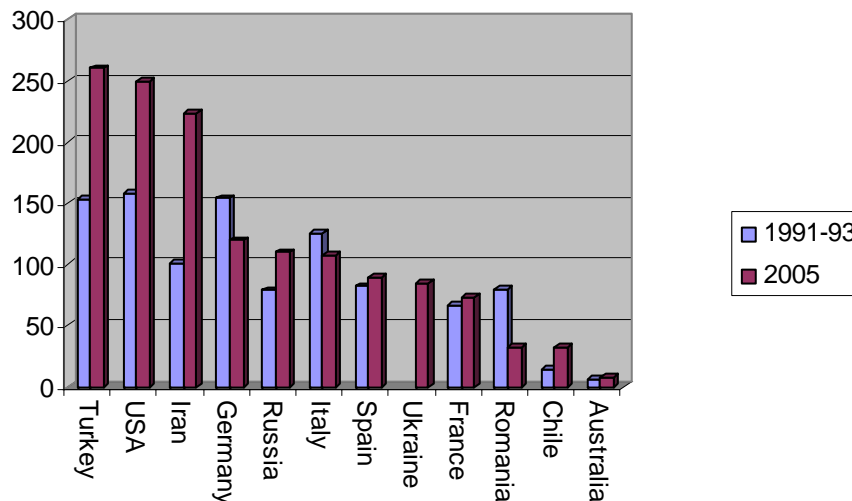
Sweet Cherry Area Harvested by Region, 1985-2005 (x1000 ha)

Period	Near East	Other Asia	Eastern Europe	EU-15	North America	Other	World
1985-87	30.8	n.a.	69.4	117.3	19.9	n.a.	288.5
1991-93	39.8	18.8	64.9	112.9	19.6	43.6	299.6
1997-99	62.0	20.9	57.4	118.7	24.0	67.1	350.1
2003-05	70.3	27.5	47.6	134.3	32.3	69.2	381.2
2005	69.9	28.6	50.8	147.0	32.7	72.1	401.1
Δ 94-96 to 2005	38.4%	53.8%	-15.1%	29.6%	48.0%	14.8%	22.6%

Source UN, FAO

World cherry production 1991-93 to 2005 (1,000 tonnes)

Source UN, FAO



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Specific country information provided by:

Martin Balmer, Rheinland Research Station, Germany

Dr. Victor Eremin, Krymsk Breeding and Research Station, Krasnodar, Russia

Peter Kennedy, Delta Agribusiness, New South Wales, Australia