



By Mechel S. Paggi, Ph.D.

Global production of walnuts is forecast to be up 3 percent in 2002/03 reaching about 800,000 tons. China is the largest walnut producer accounting for around 44 percent of the world production (Figure 1). In 2002/03 walnut production in China is forecast to be about 352,000 tons, up 15 percent from last year.

By way of comparison, walnut production in the U.S., the world's second largest producer, is expected to decline by over 7 percent to around 280,000

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tons. All other major producing countries (Turkey, India, France, Italy and Chile) are expected to have increased in production in 2002/03.

The United States is the world's largest exporter of walnuts, accounting for about 53 percent of the total trade (Figure 1). At the present time exports from China make up about 14 percent of global walnut trade. Other important exporters include France, India and Chile.

The importance of China as a producer of walnuts and the increasing role China plays in the global walnut trade leads to increased interest in monitoring the situation and outlook for the Chinese walnut industry and its potential impact on California producers. In this article we examine some of the fundamentals that are driving the supply and demand for Chinese walnuts and policy issues that may affect the long-term outlook for their industry.

Production

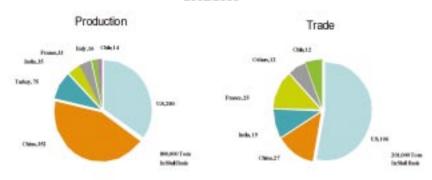
It is difficult to get an accurate ac-

counting of current Chinese walnut production and new plantings of walnut trees and the increased production we can expect from China in the coming years. Part of the difficulty results from a lack of good data on just how much area is devoted to commercial walnut production versus individual farmers with one or two walnut trees that hopefully supplement their income from small scale multi-crop production enterprises. Currently the best information available suggests that Chinese walnut production is increasing significantly, but perhaps not alarmingly.

Information available from the United Nations, Food and Agriculture Organization (FAO), provides one picture of walnut harvested area in China (Figure 2). According to the latest FAO data, walnut harvested area in China has increased by 22 percent from 1993 to 2002, increasing from over 355,000 acres to about 435,000.

In contrast to the FAO official statistics, USDA Foreign Agricultural

Figure 1. World Walnut Production and Trade 2002/2003

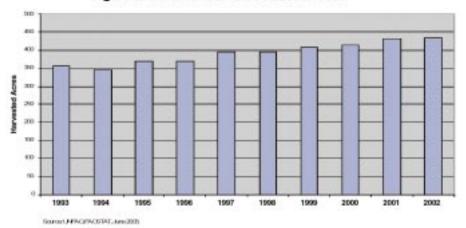


Source: USDA, International Tree Nut Council

Service reports suggest that the total area planted to walnuts in China is currently about 1.7 million acres, of which about 1.2 million acres are comprised of bearing trees. If the FAO data is representative of commercial operations then only about 36 percent of the total walnut bearing acreage is currently devoted to what could be viewed as "commercial" walnut production.

Expectations for future increases in area devoted to walnut production are based in large part on China's agricul(continued on page 6)

Figure 2. Chinese Walnut Production Area









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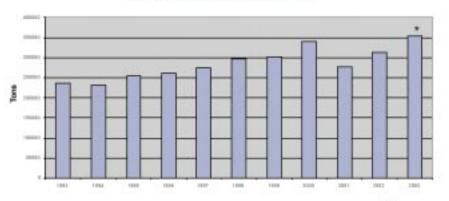
Chinese Walnuts

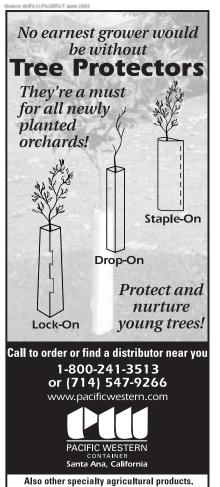
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tural restructuring program that includes China's State Forestry Administration pilot program called Cropland Conversion to Forest and Grassland. During 2000, the first year for the program, a total of 1.688 million acres were converted. The program provides cash, grain, and seedling subsidies and farmers cannot grow other crops. The program allows a maximum of 20 percent of the converted area to be for economic trees (e.g. walnuts, pecans, and other nut or fruit bearing trees).

Several specialists in key production areas believe that walnut trees will be the tree of choice in the conversion. In some areas, walnut seedlings could comprise 5 to 10 percent of the total converted area. The maximum impact on walnut plantings resulting from the program would be in the range of 33,000 acres per year if this pace continues and walnuts were to comprise 10 percent of total converted area. This is likely an upside limit as reports suggest that farmers in some areas are selecting less expensive and poorer quality seedlings in order to keep some of the financial

Figure 3. Chinese Walnut Production





subsidies in cash. As a result, seedling suitability is often neglected in the decision making process and not all trees are expected to survive.

With a less than perfect estimate of actual planted acreage it is not surprising that estimates of Chinese walnut production and trend projections for future production are less than precise (Figure 3). Current estimates of China's walnut production, 352,000 tons, are reports of official production estimates from the Chinese government for 2003. Total production estimates from all sources reflect these government statistics.

The difficulty in projecting future production stems from the vast difference in estimated yields that result from comparison of production estimates. In official FAO statistics, the apparent yield per acre is 1445 pounds, USDA/FAS attaché reports from China the apparent yield per acre is 575 pounds.

While some of the difference arise because the total acreage reports from FAS reflect some non-bearing acreage, it is clearly difficult to forecast future production trends with any degree of accuracy based on readily available current information.

Even with the difficulty present in the data, it is apparent that walnut production in China is increasing. Based on official statistics, it appears that production can be expected to increase about 10,000 tons per year, with production likely to be reported to reach around 375,000 pounds by 2005.

Domestic Consumption

China's role in the world walnut market will, like with many agricultural commodities China produces, depends largely on the result of the race between increasing domestic production and demand from an increasingly affluent urban population. As incomes in China increase, the market for a more diversified diet will grow. China has one-fifth of the world's population and its economy has been growing at an average rate of 10 percent annually since 1980 and is expected to continue to grow at an annual rate of around 7 percent through 2010. Increasing per capita income should increase the overall demand such for dietary diversity as fruits, vegetables and tree nuts.

According to information provided by in-country specialist, Chinese consumers prefer in-shell nuts that can be cracked by hand. They are considered to be cleaner and they are cheaper than processed nuts. Like promoters of walnuts in the U.S., the Chinese consider walnuts to be a health food. While walnuts are most often consumed fresh or

□ US 0.4 China Italy £ 0.3 ■ France Japan S. Korea Per Capita Consumption

Figure 4. Per Capita Consumption Walnuts 2002/2003*

"USDA, PS&D Welnuts Selected Counties

dried there is a growing market for walnuts in processed snack food, baking and the confectionary industry. Higher quality walnut consumption in packaged form is in demand in large cities with rural areas having higher purchases of bulk bin walnuts.

Domestic consumption of walnuts in China has increased at about 5 percent per year over the past 5 years. So far the increased consumption has been supplied by increasing domestic production with 92 percent of domestic production consumed locally. If the growth in consumer demand continues it remains to be seen if domestic production can keep pace.

The current level of per capita consumption is China is well below that of other countries, at .21 lbs. (Figure 4). For every .01 pound increase in per capita consumption, China would require an addition of over 15,000 tons of domestic production. If the estimates for domestic production increases are in the ball park, and recent trends in domestic consumption continue, it would appear that the supply/demand balance in China will remain very tight for the foreseeable future.

Trade

At the present time China exports about 8 percent of its annual production. The primary markets for Chinese exports are Japan, the United Kingdom, Canada, Australia and France (Figure 5). Continued success in the export market will depend on the ability of China to provide a low cost, high qual-

ity product. Increasingly China is facing competition for its export markets from India in Australia and in Europe from Eastern European suppliers.

Currently the U.S. and China compete directly in a limited number of export markets. In the major markets for shelled walnuts the U.S. and China compete primarily in Germany, Canada and Japan. In the market for in-shell walnuts the most significant direct competition between China and the U.S. is in Germany. If surplus production continues to be available, China will likely remain a competitor in world markets and can be expected to be more formidable as more modern processing and handling facilities come online.

Conclusions

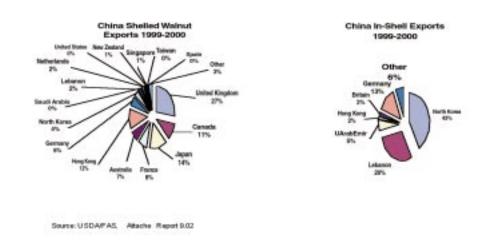
China is the world's largest producer

of walnuts and is aggressively promoting the expansion of walnut production throughout the country. Given the importance of the walnut industry to many California producers it is prudent to pay close attention to the development of the walnut industry in China. While current trends suggest China will remain a self sufficient producer with a competitive presence in the export market, the future for the industry remains less than clear. China can remain a competitor or emerge as a market opportunity, only time will tell.

Mechel S. Paggi is the Director, Center of Agricultural Business, Calif. State University, Fresno.

Note: The author would like to thank Adam Branson, Agricultural Specialist, U.S. Embassy, Beijing, for sharing his insights regarding the Chinese walnut industry and related data.

Figure 6. Export Markets for Chinese Walnuts



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