



Fruit and Tree Nuts Outlook: Commodity Highlight

Organic Tree Nuts

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Organic agriculture continued to grow at a rapid pace in the United States through 2012, with 10-percent growth in 2011 (Organic Trade Association, 2012). U.S. organic food sales more than doubled in the 8-year period from 2004 to 2011, increasing from \$11 billion to \$25 billion (Osteen, et.al., 2012). In October 2012, USDA NASS released the 2011 Certified Organic Production Survey, an update to the initial 2008 Organic Production Survey, which was a follow up survey to the 2007 Census of Agriculture also conducted by NASS. Based on this most recent organic survey, California leads the nation in organic production, with \$1.4 billion in organic farm sales, roughly 40 percent of total gross value of sales of organically produced crop and livestock commodities in the United States in 2011 (NASS, 2012). As the organic sector continues to find ways to grow and expand, California is also leading the way in U.S. organic fruit and vegetable production, representing 61 percent of total U.S. organic fruit and vegetable gross value of sales.

Organic tree nut overview

Organic fruit and tree nut sales (including berries) have increased 26 percent between 2008 and 2011, totaling \$667 million (fig. 1). During the same period, organic tree nut sales were valued at \$47 million, which is a mere 7 percent of total organic fruit and tree nut sales in the United States, but 52 percent higher than the category's 2008 total sales value of \$30.9 million. California fruit and tree nuts (including berries) account for 65 percent of total U.S. organic fruit and nut sales.

California is the largest producer of tree nuts in the United States, being the predominant supplier of almonds, walnuts and pistachios. In 2011, California's organic tree nut sales totaled \$40 million, up 44 percent from 2008 and representing 85 percent of total U.S. organic tree nut sales. Growers in 20 other States reported production and sales of tree nut crops in 2011, although total sales were under \$1 million dollars in most of these States. Tree nut production has been expanding rapidly in the United States and abroad in response to strong export demand, especially for almonds, pistachios and walnuts. Organic production, while growing rapidly, still accounts for a small share of this acreage.

Total organic tree nut acreage increased 10 percent since 2008 to reach 17,478 acres in 2011, demonstrating a trend toward increased organic tree nut production over the years. It is fairly common for producers to establish tree nut orchards using conventional weed and disease management practices in order to increase tree survival and growth and then transition the orchards to organic production practices around their third year (Brodt et al., 2009).

Organic Almonds

The value of organic almond production accounts for the largest share of organic tree nut production, representing 45 percent of 2011 organic tree nut sales in the United States (fig. 2), followed by walnuts (21 percent) and pistachios (20 percent). From 2008 to 2011, the value of organic almond farm sales rose 69 percent to \$21 million. This is similar to the change in conventional almond production, the value of which also has increased by 70 percent over the same period (fig. 3).

In terms of quantity, 8.2 million pounds of organic almonds were harvested in 2011, up 25 percent from 2008, but still a small volume compared to the over 2 billion pounds of conventional almonds produced for the same year. Even with this growth, organic almond production still remains very small relative to conventionally produced almonds, with organic crop size and gross value of farm sales each reaching only half a percent of those for total conventional almonds in 2011.

Overall, organic almonds represent 43 percent of total organic tree nuts harvested in 2011 (fig. 4). Almond acreage accounts for 30 percent of total planted organic tree nut acreage. Acreage of organic almonds has increased 5 percent from 4,937 acres in 2008 to 5,196 in 2011.

Organic Walnuts

U.S. organically grown walnuts have lost some ground in farm sales value over the 4-year period from 2008-11, declining 11 percent from \$11.2 million (nearly 36 percent of total organic tree nut sales) to \$9.9 million (21 percent of total organic tree nut sales) in 2011—approximately less than 1 percent of the 2011 record-breaking \$1.3 billion U.S. conventional walnut crop value (fig. 5). Likewise, the quantity of organic walnuts harvested also has declined during this period, down 18 percent. This, however, does not necessarily suggest a sustained downward trend in organic walnut production: while production value and quantity have declined for organic walnuts, overall acreage has gone up 19 percent from 4,321 acres in 2008 to 5,150 acres in 2011.

Walnuts, as well as other tree nuts, struggle with blight and need intensive treatments in seasons with wet springs. New growth is the most susceptible to the disease and in very wet winter and springs, significant damage can occur. Risk of loss due to these disease pressures might reduce many growers interest in organic production. However, the disease can be treated organically so it cannot be the only reason behind the decline in quantity and value produced of organic walnuts.

Organic Pistachios

Unlike walnuts, organic pistachio production has demonstrated tremendous growth during the 4-year period from 2008-11, with gross farm sales more than doubling from \$3.9 million to \$9.3 million, and outpacing growth for conventional pistachios, which increased just over 50 percent to \$879 million (fig. 6). Though still small relative to conventional pistachios, organic pistachio farm sales grew from 0.6 percent to slightly over 1 percent of the value of conventional pistachio production over the 4-year period. On a year-to-year basis, however, farm sales may have demonstrated large swings in increases and decreases due to the alternate-bearing pattern natural to pistachio trees. Overall, organic pistachio sales in 2011 account for 20 percent of total organic tree nut sales value, up from 2008 when they only accounted for 13 percent.

The size of the organic pistachio harvest almost doubled from 2008 to 2011, increasing from 1.5 million pounds to 2.9 million pounds, driven by a 36-percent increase in harvested acreage, reaching 1,221 acres in 2011. California

has the largest production area for organic pistachios, accounting for 93 percent of the total harvested acreage. While organic pistachio production has increased over the years, it still remains only a fraction of a percent of total conventional production.

Organic Pecans

Between 2008 and 2011, the value of organic pecan production has increased from just 8 percent of total organic tree nut sales value to 13 percent. In 2011, U.S. organic pecan production generated \$5.9 million in farm sales, more than double its farms sales reported in 2008 at \$2.3 million (fig. 7). While the crop value has increased over time, it has remained near the equivalent value of 0.9 percent of conventional pecan farm sales during both these years as the conventional value has increased at nearly the same pace.

As with farm sales, the quantity of organically produced pecans also more than doubled from 2008 to 2011, reaching 2.8 million pounds. The amount of organic pecans harvested in 2011 represents just over 1 percent of total conventionally harvested pecans; making pecans the tree nut with the largest share of organic production. Organic pecan acreage has increased 14 percent between the two observation periods to total 5,526 acres in 2011, representing 32 percent of total organic tree nut acreage.

Organic Hazelnuts

Organic hazelnuts represent less than 1 percent of 2011 total organic tree nut gross farm sales in the United States. Even though the organic hazelnut crop value is small, it has increased 56 percent since 2008 to total \$455,424 in 2011 (fig. 8), roughly 0.51 percent of the gross value of farm sales or conventional hazelnuts for the same year. That year was a record breaking year for conventional hazelnuts in terms of farm sales, increasing 73 percent over the 4-year period and totaling \$89.7 million.

While value increased, quantity harvested declined by less than 1 percent between 2008 and 2011. The loss of organic production could be associated with the 12-percent decline in harvested acres (reduced from 154 acres to 135 acres). Hazelnuts are plagued by Eastern Filbert Blight, which has constrained conventional production to less than 30,000 acres annually. Filbert worm is the main concern for organic producers and poses the largest hurdle to the increase in organic hazelnut production (DeFrancesco, 2006). As new cultivars are introduced with filbert-blight resistance and further investigation into organic pest controls are researched, organic hazelnut production could overcome these obstacles to production.

Summary

Currently, organic tree nut production amounts to less than 1 percent of total conventional tree nut production, with 85 percent of organic tree nut farm sales originating from California. Organic acreage has increased 9 percent during the two observation periods of 2008 and 2011. Value of farm sales has also increased 52 percent during the same time frame. As organic producers and scientists find more effective pest control methods, organic tree nut production will continue to increase in the future as there is continued room for market growth.

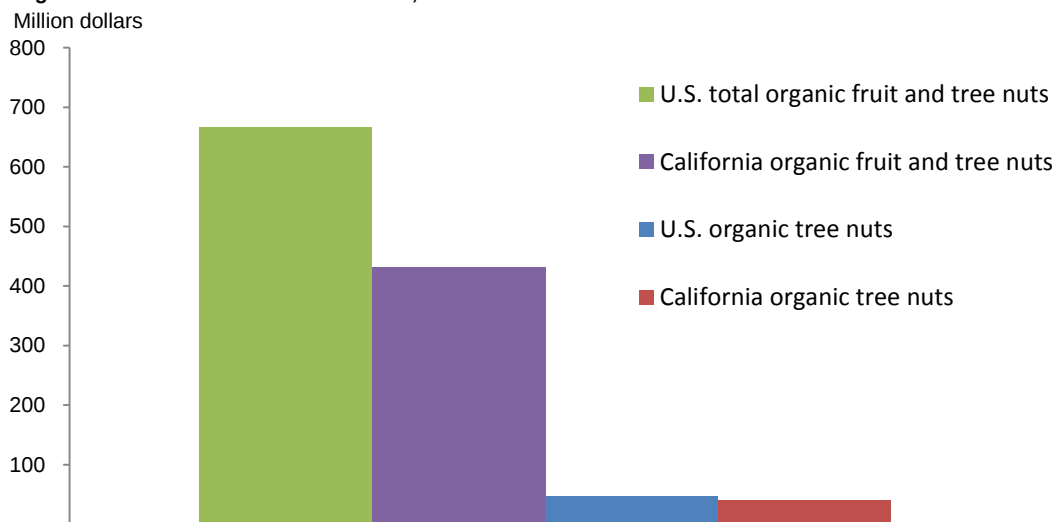
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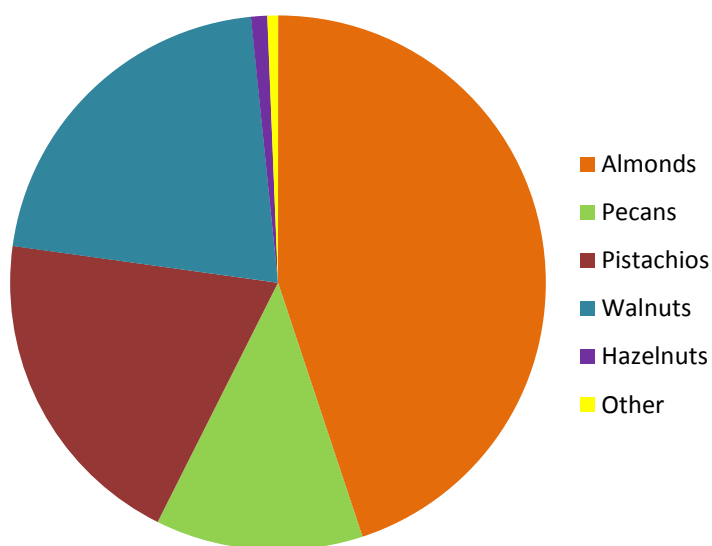
Osteen, C., Gottlieb, J., and U. Vasavada. *Agricultural Resources and Environmental Indicators, 2012*. August 2012. EIB-82, USDA, Economic Research Service. Available at: <http://www.ers.usda.gov/publications/eib-economic-information-bulletin/eib98>

Figure 1
Organic fruit and tree nut value of sales, 2011



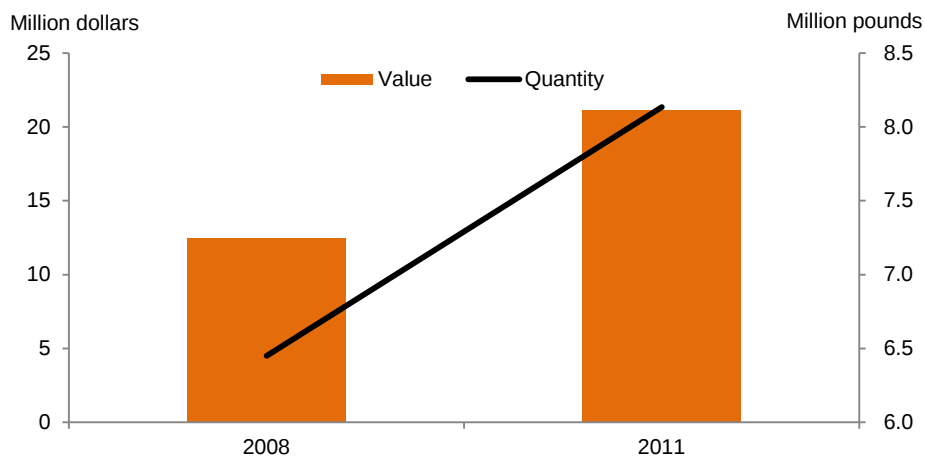
Source: USDA, National Agriculture Statistics Service, 2011 USDA Certified Organic Production Survey.

Figure 2
Share of organic tree nut sales values, 2011



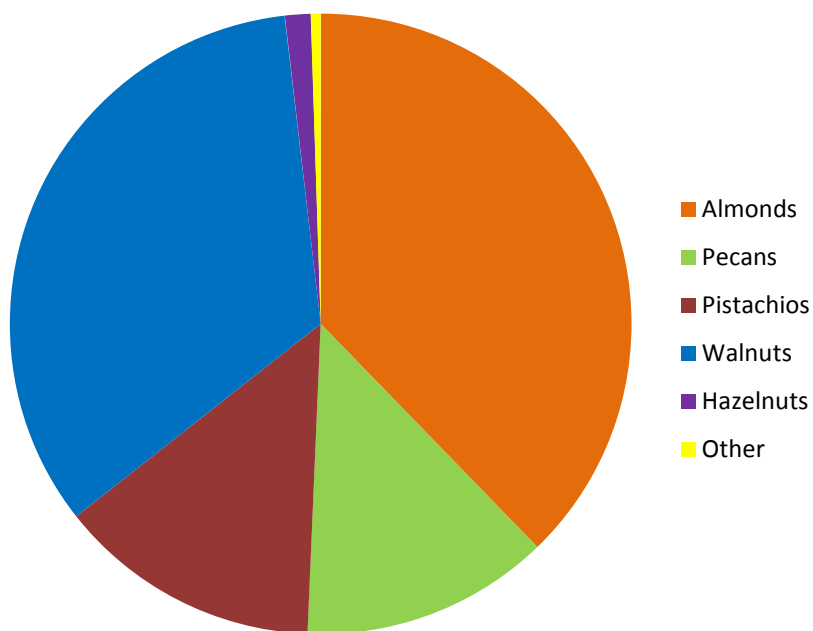
Source: USDA, National Agricultural Statistics Service, 2011 USDA Certified Organic Production Survey.

Figure 3
Organic almond value and quantity harvested, 2008-2011



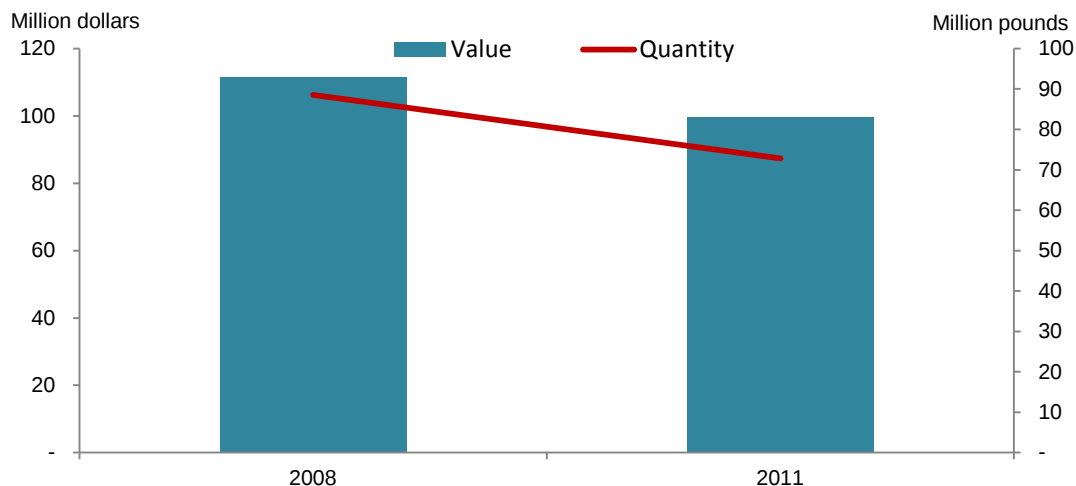
Source: USDA, National Agricultural Statistics Service, *USDA Certified Organic Production Surveys*, various issues.

Figure 4
Share of organic tree nut harvested production, 2011



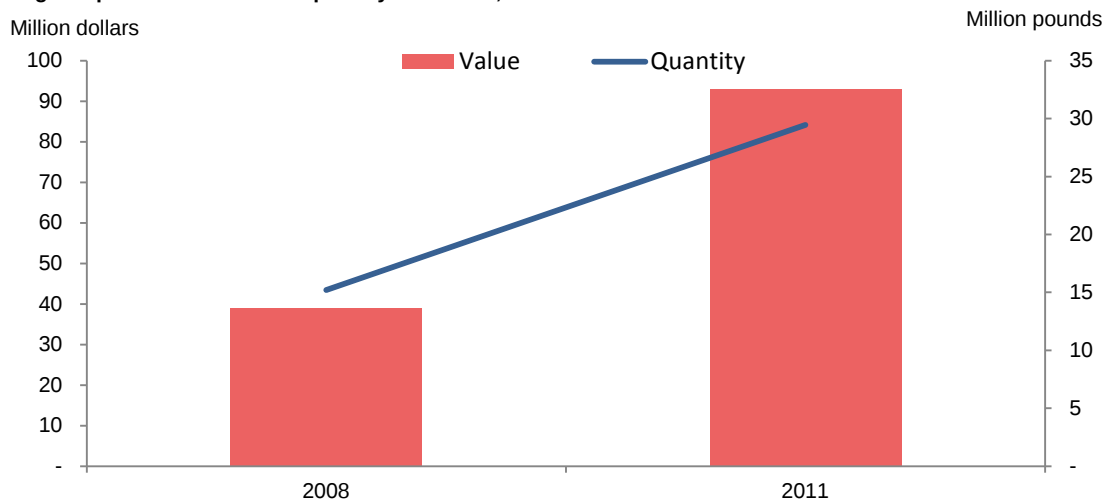
Source: USDA, National Agricultural Statistics Service, *2011 USDA Certified Organic Production Survey*.

Figure 5
Organic walnut value and quantity harvested, 2008-2011



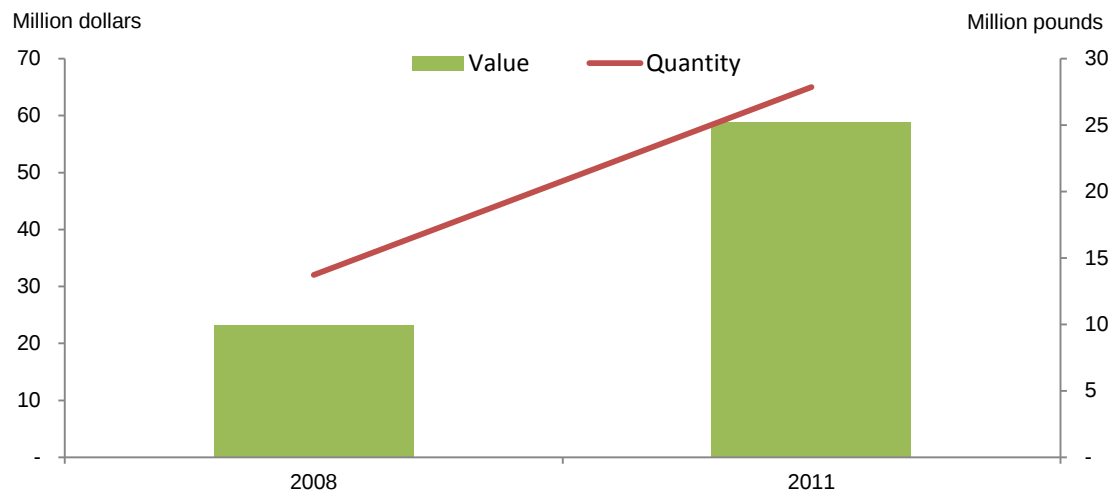
Source: USDA, National Agricultural Statistics Service, *USDA Certified Organic Production Surveys*, various issues.

Figure 6
Organic pistachio value and quantity harvested, 2008-2011



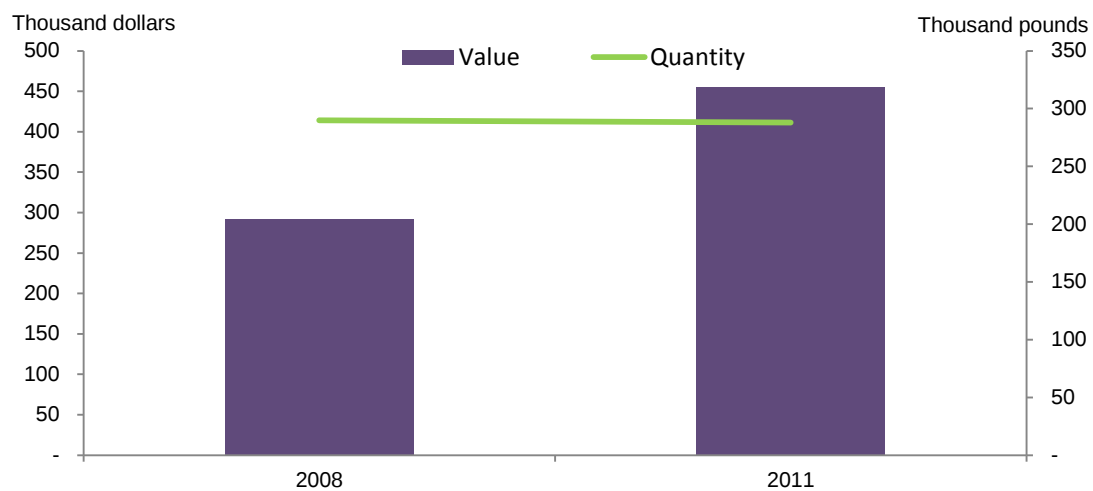
Source: USDA, National Agricultural Statistics Service, *USDA Certified Organic Production Surveys*, various issues.

Figure 7
Organic pecan value and quantity harvested, 2008-2011



Source: USDA, National Agricultural Statistics Service, *USDA Certified Organic Production Surveys*, various issues.

Figure 8
Organic hazelnut value and quantity harvested, 2008-2011



Source: USDA, National Agricultural Statistics Service, *USDA Certified Organic Production Surveys*, various issues.