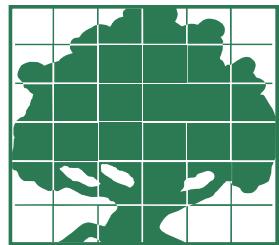


# Agricultural and Resource Economics UPDATE

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## Special Report: Marketing Issues and Opportunities in Organic Agriculture

### **Introduction by Karen Klonsky**

Congress passed the Organic Foods Production Act (OFPA) in 1990, but the rules for implementing the law did not go into effect until October 2002. From that time forward, all agricultural commodities sold or labeled as organic must be in compliance with the national organic standards developed by the National Organic Program (NOP), created by OFPA and housed within the USDA Agricultural Marketing Service.

The standards replaced an inconsistent array of state and private certification standards for customer assurance that organic foods meet a consistent and

known set of standards. Also, they were implemented to facilitate interstate commerce in fresh and processed organic food. The USDA standards mandate that genetic engineering, sewage sludge, or ionizing radiation cannot be used to produce organic food. Further, organic crop production excludes conventional pesticides and petroleum-based fertilizers with notable exceptions.

OFPA requires the establishment of a "National List of Allowed and Prohibited Substances" for organic production. The NOP crop standards require that soil fertility, crop nutrients, pests, and disease be managed primarily through cultural practices such as cultivation, hand weeding, crop rotation, and introduction of natural enemies. Only when these methods prove to be inefficient may growers use approved natural or synthetic substances on the National List.

For livestock production, animals must be fed 100% organic feed and must have access to the outdoors, including pasture for ruminants. Animals marketed as organic may not be given hormones to promote growth or antibiotics for any reason. Although, producers are also prohibited from withholding treatment from a sick or injured animal. The national standards also require producers grossing more than \$5,000 from organic sales to be certified by a third-party certifier that is accredited by the USDA.

California is the leading state in organic production. According to the

Census of Agriculture 2008 Organic Supplement, California accounted for 36% of all organic farmgate sales in the United States from 19% of all U.S. organic farms and 12% of all organic acres. Looking at the crop breakdown in more detail, California produces 55% of all organic fruit, 90% of all organic tree nuts, and 66% of all organic vegetables—for a total of 62% of all produce. In marked contrast, California represents only 11% of field crop production.

While California produces over half of domestic organic fruit, it is even more important for specific crops. Over 90% of all grapes, strawberries, avocados, plums and prunes, lemons, figs and dates—in addition to three-fourths of organic oranges—are produced in California. The only important fruit crops for which California does not dominate are apples, pears, and cherries—these are produced primarily in Washington.

Grapes are the most important fruit crop, both nationally and in California—including table grapes, raisin grapes, and wine grapes—with total California farmgate sales at \$111 million out of \$122 million for the United States. Strawberries show the second highest revenue both in California and nationally, with \$40 million in sales in California out of \$44 million in the United States.

California produces two-thirds of organic vegetables and over 90% of all organic lettuce, broccoli, celery, sweet potatoes, and onions. The most important individual crop both nationally and in California is lettuce, with over

### **Also in this issue**

#### **California's Proposition 37: Effects of Mandatory Labeling of GM Food**

Colin A. Carter, Guillaume P. Gruère, Patrick McLaughlin, and Matthew MacLachlan.....3

#### **EU–U.S. Organic Equivalence Agreement: Effects on International Trade**

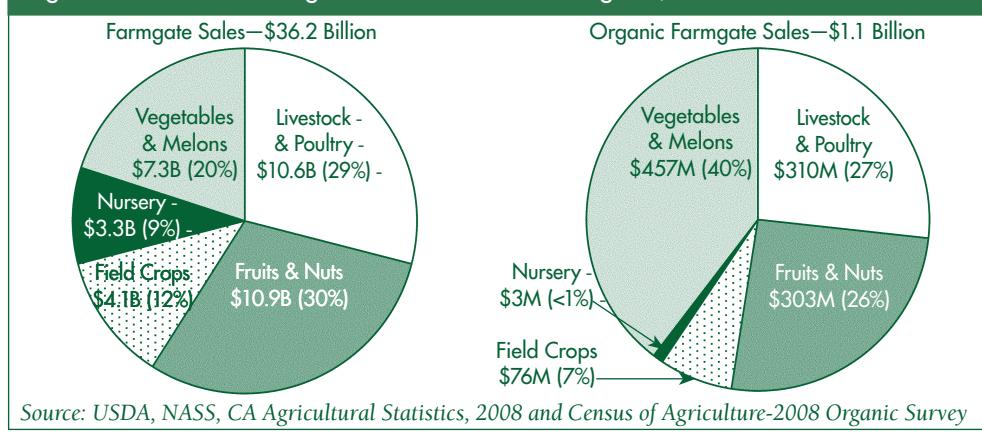
Kaitlyn Smoot and Chiao Su.....9

#### **Price Premiums for Organic Strawberries**

Christine Carroll, Diane Charlton, and Emilia Tjernström.....12

#### **Faculty Profile: Kevin Novan....15**

**Figure 1. California Farmgate Sales: Total versus Organic, 2008**



Source: USDA, NASS, CA Agricultural Statistics, 2008 and Census of Agriculture-2008 Organic Survey

one-third of all vegetable sales. California organic lettuce sales are \$175 million out of \$187 million in sales nationally. To put this in perspective, tomatoes are the second most important vegetable crop with \$36 million in sales in California and \$59 million nationally.

Fruit is grown on almost two-thirds of California organic farms, by far the most dominant commodity group in terms of farm numbers. Vegetables crops are grown on 20% of California organic farms. In contrast, fruit is grown on 23% of U.S. organic farms and vegetables on 27%. Field crops are grown on 11% of California organic farms and 21% of organic acreage. In marked contrast, one-third of U.S. organic acreage is in field crops. California produces 69% of the country's organic rice, but is not an important producer of any other field crop.

Looking at livestock, California produces 43% of organic livestock and poultry and only 18% of livestock and poultry products. California dominates in chicken and turkey production (66% and 31% of the U.S. total, respectively) but has a smaller presence in the production of milk from cows and chicken eggs (18% and 20%, respectively). Nonetheless, milk from cows and broiler chickens are the second and third most important organic commodities in California, with \$134 million and \$129 million in sales, respectively.

Animals raised in accordance with the NOP are required to eat 100%

organic feed. California produces only 15% of organic hay in the United States and less than 2% of corn for grain or silage. Therefore, organic livestock producers in California typically import organic feed from other states.

It is important to keep organic agriculture in perspective. In California, organic represents only 3% of farmgate sales, \$1.1 billion out of \$36.2 billion in 2008. Organic penetration is highest for vegetables, at 6% of farmgate sales (Figure 1). While vegetable production is a healthy 20% of all California farmgate sales, it is 40% of organic sales. In contrast, field crops contribute 12% of total sales and only 7% of organic sales. Therefore, organic agriculture is not simply a smaller version of conventional agriculture.

Another way to look at organic production is that it brought in only 0.5% of California farmgate sales a decade ago and is now over 3%—a six-fold increase. The growing importance can be explained by a number of reasons.

Price premiums allow farmers a way to diversify and increase revenue. The growth in processed organic foods provides additional opportunities for organic farmers. According to an ERS report, over 3% of new food products introduced in retail outlets are labeled as organic. Consumer demand for organic food has risen from \$8.6 billion in retail sales in 2002 to \$29.2 billion in 2011—according to the Organic Trade Association—compared to fairly flat food sales

overall. Early in the decade, annual growth in retail sales hovered at 20% but has slowed in the past few years.

With this rate of growth, the organic industry faces several unique challenges. Worldwide demand is rising and organic imports and exports are becoming increasingly common. The United States signed an equivalency agreement with Canada in 2009 and another with the EU in 2012. These agreements will undoubtedly escalate trade of organic foods.

California's dominance in domestic organic fruit, nut, and vegetable production corresponds to a reliance on exports out-of-state and internationally. Organic foods generally command significant price premiums attributable in part to increasing demand, but also because organic food costs more to produce. In particular, organic strawberries are one of the hardest crops to grow organically and costs are higher with lower yields.

Low adoption of organic practices by grain and hay producers restricts the expansion of organic livestock production, although livestock remains the fastest growing organic sector. Organic products compete with an increasing number of labels including locally grown, natural, no preservatives, and GMO-free. Coexistence of organic grain and hay producers alongside producers of genetically modified crops will be an increasing challenge as organic feed production expands. Clearly, the organic industry is expanding but also adapting to changing policy and market conditions.

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