

California agriculture profitable and growing

Today, while many sectors of the statewide economy are struggling, California agriculture is profitable and growing. The Golden State remains the largest agricultural producer in the nation, despite the fact that since 1992, total land in California farms dropped from 29 million to 25.3 million acres.

The story behind these figures is complex. Harvested cropland decreased only slightly; the greatest losses were in pasture and grazing land. Irrigated acres actually increased from 7.6 million in 1992 to 8 million in 2010. Growers shifted toward high-value crops: orchard acreage rose from 2.2 million to 2.8 million acres and vegetable acreage from 1 million to 1.1 million.

Supported by UC research and extension, farmers across the state have adapted to changing economic conditions by changing their production mix, adopting new practices and adjusting their levels of production. The aggregate result determines the revenues, costs and net income or profitability of the farm sector. California agriculture posted a healthy \$10.7 billion profit in 2010, 26% of gross income. California's agricultural products garnered \$37.5 billion in revenue in 2010, while another \$4 billion came from government payments and work hired by one farmer from another.

In California, three-fourths of the cash income from agriculture is attributable to cropland, and the other fourth is from livestock, poultry and related products. This ratio of crops to animal products has been nearly constant for 20 years. But the breakdown by crop type and for specific crops has changed. Increased revenue from agricultural products is the result of changes in enterprise selection, farm prices and yield per acre.

Field crops. The percentage contribution of field crops to farm income fell by \$3.5 billion, from 15% in 1992 to 9% in 2010. Taking inflation into account, revenue from cotton and sugarbeets fell while rice revenue rose; these decreases reflect dramatic declines in acreage. Cotton acreage, for instance, declined due to poor prices. In marked contrast, rice revenue increased, because rice prices and acres rose.

Fruits and nuts. Fruits and nuts are increasingly important, rising from 27% of cash income in 1992 to 36% in 2010. All of the major nut crops expanded: almonds, pistachios and walnuts. Even taking inflation into account, almonds doubled in value, walnuts almost tripled and pistachios increased almost seven-fold. To meet increasing world demand, almond acreage has increased by 307,000 acres, pistachios by 79,500 acres and walnuts by 38,000 acres since 1992. Yields also grew as a result of improved irrigation and fertilization methods and the closer spacing of trees, among other cultural improvements.

Vegetables. Overall, the value of vegetable production adjusted for inflation was 10% lower in 2010 than in 1992, primarily due to lower prices and increased imports. Three of the most important vegetable crops showed increases in

value: broccoli, carrots and lettuce. Perhaps the most dramatic story in yield increase is processing tomatoes with an average of 34 tons per acre in 1992 rising to a record 45.5 tons per acre in 2010. These gains, a testament to public- and private-sector research, result from improved varieties, a shift from direct-seeded to transplanted tomatoes, an increase in drip irrigation and fertigation, and a migration of tomato production from the Sacramento Valley to the San Joaquin Valley.

Livestock. Among livestock products, the relative importance of cattle and calves decreased while that of milk and cream increased. The total value of cattle and calves stayed constant while milk and cream increased in real value by 34% in 2010 compared to 1992, making California the number-one dairy state.

Organic. Organic agriculture, while still a small proportion of total revenue, rose from \$75 million in 1992 to over \$1 billion in 2010 and has become an important means of diversification for primarily conventional producers.

Expenses. Total farm expenses reached \$31 billion in 2010. The largest increase compared to 1992 was in purchased inputs of farm origin, up by 62%, adjusted for inflation, over the time period. The dramatic increase in feed prices over the past 5 years partly reflects the jump in demand for corn in ethanol production in the Midwest. In contrast, total expenditures on pesticides only increased by 6%, adjusted for inflation, despite the fact that pesticide prices move in tandem with petroleum. This suggests more efficient and reduced use of pesticides over two decades. Farm labor, both hired and contract, represented 27% of total expenditures in 2010 and will remain a critical factor for continued profitability.

Net revenue. Overall, adjusting for inflation, total farm revenue increased 31% from 1992 to 2010, with slightly larger gains in crop than livestock production. Total costs also increased by 31% with the percentage increase in costs greater for farm-produced inputs (feed, livestock and seed) than manufactured inputs (fertilizer, pesticides, petroleum fuel and electricity). The bottom line is an increase in net farm income of 31%, to \$10.7 billion in 2010. The percentage of revenue going to pay expenses is exactly the same in the 2 years, 74%. Looked at another way, for every dollar of revenue 26 cents is profit, meaning that for every dollar spent on inputs farms generate \$1.35 in revenue.

Given the pressures from global economic conditions, competition from other regions and challenges that face farming in an increasingly urban state, California agriculture has shown remarkable capacity to innovate with new crops, new markets and cutting-edge technologies.



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