

Agriculture in Central California

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KEY POINTS

- Agriculture contributes 25 percent to the total GDP and generates 17 percent of the total employment in the counties of Fresno, Kings, Madera, Merced, and Tulare together.
- Fruit and nut crops are the major agricultural crops grown in Central California in terms of value, followed by dairy products and cattle.
- Prices have generally gone down for agricultural products in 2016 compared to the previous year, thereby adversely impacting farm revenues and land values in Central California.

Overview

In California's San Joaquin Valley, agriculture remains the backbone of the economy, with family-owned farms, agricultural commodity and food processors, and agriculturally related industries generating thousands of jobs and billions of dollars of economic activity. In the center of the Valley lies the counties of Fresno, Kings, Madera, Merced, and Tulare, which host a diverse range of agricultural enterprises of varying sizes. Each of these counties rank in California's top 10 in terms of gross agricultural farm gate value, combining for \$19.8 billion in 2016. Tulare County leads the five-county region and was the number two farm county in the nation in 2016, behind Kern County, with a value of \$6.37 billion, a decrease of 8.7 percent from the 2015 value. Fresno County, number three in the nation, brought in a gross production value of \$6.18 billion. In the five-county region, the

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direct contribution of agricultural production to total county GDP (not including the upstream and downstream economics of the farm) ranges from 15 to 39 percent as per 2016 figures. In contrast, the United States agriculture accounts for approximately one percent of total GDP.

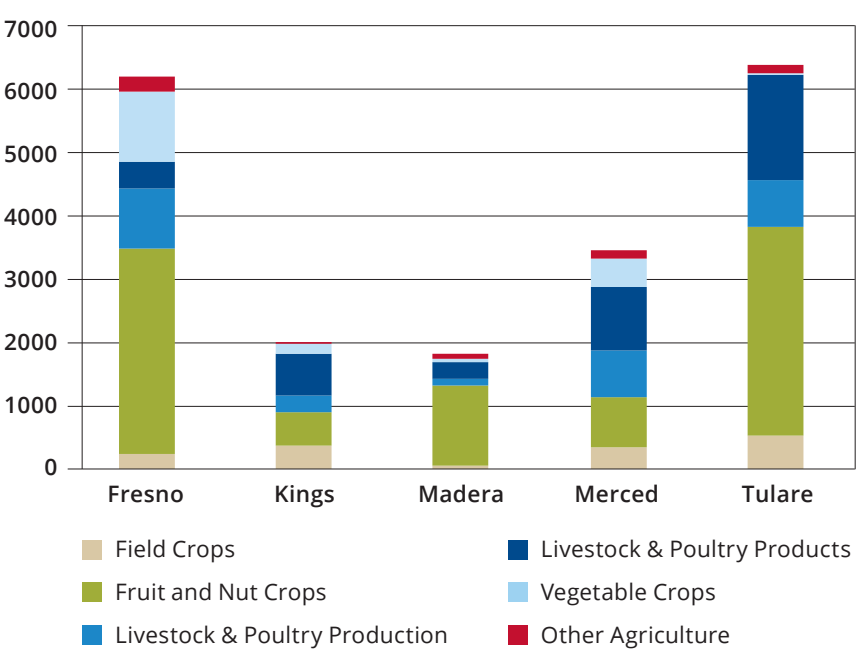
In addition to contributing 25 percent to the five-county total GDP, the agricultural production sector in these counties generates about 17 percent of total employment, thereby creating a significant multiplier effect. The employment impact would be much larger when factoring in the food processing and other supporting agribusinesses. This article provides a synopsis of commodities common to these five counties. Each of the commodities accounted for at least a \$1 billion in production value in 2016.

Table 1
Value of Agricultural Production in Central California, 2015-16

County & 2016 CA Rank	GDP from Farms (\$B) 2015	GDP from Farms (\$B) 2016	Total GDP (\$B) 2016	Value of Ag as % of Total GDP 2016
Fresno (3)	6.61	6.18	41.40	15
Kings (9)	2.02	2.00	5.77	35
Madera (10)	2.02	1.82	6.21	29
Merced (5)	3.59	3.45	8.87	39
Tulare (2)	6.98	6.37	16.52	39

Sources: NACo County Explorer, County Crop Reports, BEA, California Ag Statistics Review 2015-16
Notes: Nominal GDP values are derived using real GDP values from NACo and a Price deflator from BEA; Rankings for 2016 were developed without Ventura County's figures.

Figure 1
Value of Agricultural Production, 2016 (\$ millions)

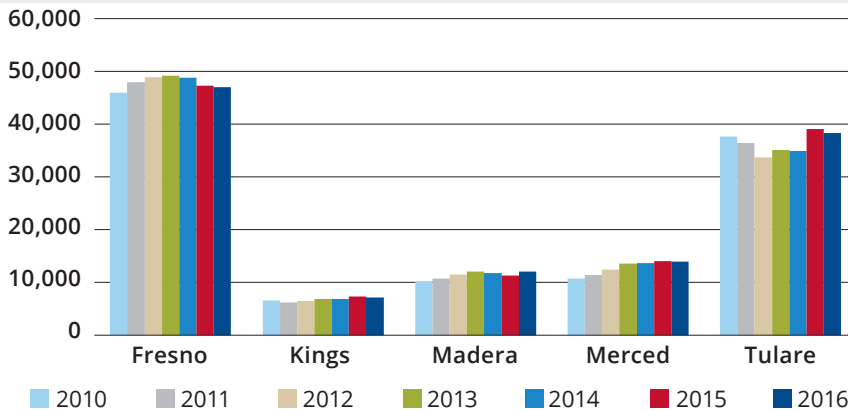


Source: California Ag Statistics review 2015-16

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Figure 2
Employment Generated by Farms



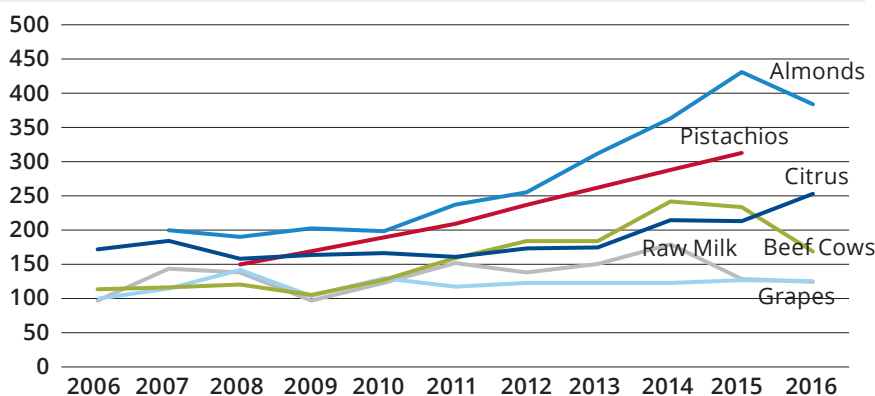
Source: EDD, California (www.edd.ca.gov)

Table 2
Value of Agricultural Production in Central California, 2015-16

County	Leading Products
Fresno	Almonds, poultry, grapes (raisin), milk
Kings	Milk, cattle & calves, almonds, cotton (pima)
Madera	Almonds, milk, pistachios, grapes (wine)
Merced	Milk, almonds, chickens, cattle & calves
Tulare	Milk, cattle & calves, oranges, grapes (table)

Source: California Ag Statistics review 2015-16

Figure 3
Price Indices of Important Commodities



Source: Federal Reserve Economic Data (fred.stlouisfed.org) • Note: Almonds, Pistachios: 1991=100 Raw Milk, Tomatoes, Grapes, Beef Cows, Citrus: 1982=100

MILK is one of the **TOP FIVE** **COMMODITIES** in all five counties.



Dairy

The leading commodities by value in the five counties are given in Table 2. Milk is one of the top five commodities in all five counties. Tulare County is the largest milk producer in the United States, accounting for about \$1.6 billion in 2016, down slightly from the 2015 value, due to lower prices. After a record year of milk prices in 2014, prices took a tumble in 2015 and 2016. The lower milk prices were partially offset by cost of production decreases in 2016, but, in most cases, production costs still exceeded returns. Even though milk prices started slowly moving upward in 2017, supported by domestic demand, increased production in rest of the country has kept prices down (Proceedings of Ag Outlook Forum, 2017).

Tree Nuts

The almond industry plays an important role in Central California agriculture. According to the Almond Board of California, the almond industry contributed about 97,000 jobs to the Central Valley

For pistachios, the 2017 crop is an “off” year crop after the record-breaking production year of 2016.



ALMONDS rank first among the agricultural commodities **EXPORTED FROM** **CALIFORNIA.**



of California in 2014, with roughly 44,000 jobs attributed solely to the growing of almonds. The total value of almonds grown in the five counties in 2016 is \$2.29 billion, down 25 percent from 2015 due to a drastic fall in prices. Almond production is expected to increase in 2017 due to more harvested acreage despite lower nut set per tree. Almonds rank first among the agricultural commodities exported from California, accounting for more than \$5 billion in 2015. Top export destinations include Spain, China, India, Germany, and Japan, to name a few (CA Ag Exports, 2015-16). Although there has been a decline in the price of almonds in 2016-17 compared to the previous two years,

demand from Western European and Asia-Pacific markets is expected to remain similar to that of the previous year.

Another important tree nut grown in Central California is pistachios, ranking among the top 10 agricultural commodities by value in four of the five counties analyzed in this article. For pistachios, the 2017 crop is an “off” year crop after the record-breaking production year of 2016. Pistachios are alternate bearing, meaning that as an industry they tend to have a heavy production year followed by a much lighter year. Both domestic and export shipments have been increasing tremendously due to increased awareness of their health benefits driven by many public relations and marketing campaigns.

Grapes

Grape acreage in the five counties decreased approximately six percent in 2016 compared to 2015. For wine grapes, District 13 (under which Fresno, Madera, Merced and Tulare counties fall), had the largest share of the state’s crush capturing about 32 percent in 2016. The average price in District 13 was about \$302 per ton, up more than 2 percent

GRAPE **ACREAGE** decreased 6 percent in 2016 compared to 2015.



from 2015 (Grape Crush Reports, NASS). Fresno and Madera counties are the dominant growers of raisin grapes, accounting for more than 80 percent of production. The price of raisins in 2016 fell by almost 30 percent from the previous year to about \$1,100 per ton, primarily due to heavy competition in international markets, which is expected to continue in the future. In table grape production, Tulare and Fresno counties are ranked second and third in California in terms of acreage and production after Kern County in 2016 (California Grape Acreage Report, 2016). The price of table grapes fell by almost 13 percent in 2016 compared to the previous year.

Agriculture in Central California



BEEF CATTLE & CALVES
ranked 4th in the five-county region.



Beef

Beef cattle and calves ranked fourth in the five-county region at \$1.7 billion. The counties of Fresno, Merced and Tulare contain the largest concentration of beef cattle production in California. Record high prices in 2014 and 2015 led to expansion of herd sizes and thereby increased supply in the market-place in the following years. Thus, prices in 2016 were lower, and the downward pressure on prices continued into 2017 as well (Food Price Outlook 2017-18).

Citrus and Tree Fruits

The citrus industry is climbing out of the impacts of the prolonged drought in California. The 2016-17 Central Valley Navel Orange crop was estimated to be eight percent less than that of 2015-16. The reduction is attributed to the drought-induced stress on trees and reduced acreage. Though the weighted average price per carton was 18 percent higher in 2016-17 compared to the previous year, total revenue was less than last year due

CITRUS INDUSTRY
is climbing out of the impacts of the **PROLONGED DROUGHT IN CALIFORNIA.**



to reduced production (Proceedings of Ag Business Management Conference, 2017). The production of other tree fruits remained stable with not much variation compared to the last two years. The productive acreage for tree fruits such as peaches, plums, and nectarines has remained relatively constant in the last couple of years.

Land Values

Due to the continuing strong performance of the agricultural sector, the demand for agricultural properties remained strong in Central California in early 2016 but declined later in the year and into 2017 due to softening commodity prices. The range of land values for various types of orchards in five counties in 2016 are given in Table 3. The sales activity among tree nut and wine grape properties was moderate-to-limited in 2016 compared to the previous year (Trends Report 2017, ASFMRA). In Central California, the main driver of land values, and hence demand, is the stability of water sources, water rights, and delivery histories for parcels up for sale.

Overall, the Central California region plays an important role in the state's agricultural sector as a significant producer and exporter of many agricultural products, such as

Table 3
Range of Land Values per Acre, 2016 (\$1,000s)

	Almonds	Cropland	Pistachios	Table Grapes	Citrus
Fresno	9-38	10-28	20-36	20-32**	15-30
Kings	27-30	20-25*	30-35	30-45	NA
Madera	9-38	18-23	20-36	20-32**	15-30
Merced	22-42	15-32	NA	NA	NA
Tulare	27-30	19-26	30-35	30-45	20-28

Source: Trends in Agricultural Land and Lease Values, ASFMRA, 2017

Notes: *North side of Kings county.

**Grape acreage values reflect table, raisin and wine.

Overall, the Central California region plays an important role in the state's agricultural sector as a significant producer and exporter.

almonds, dairy products, grapes, and pistachios. The agricultural sector in this area is also a major employer and supports numerous related industries, thereby manifesting itself as the backbone of the Central California's economy.

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