

California's International Agricultural Exports in 2002

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The value of California's agricultural exports in 2002 remained unchanged from 2001 at about \$6.5 billion. The data reported in this *AIC Issues Brief* describe international agricultural exports for 2002 as well as revisions for 2000 and 2001. They are the product of a six year collaborative effort between the AIC and the California Department of Food and Agriculture to develop accurate estimates of the value of California agricultural products shipped to international markets. More detail about the history, methods, and early results from the project, along with export data since 1995, is available at <http://aic.ucdavis.edu/pub/exports.html>. The website also contains additional detail for individual commodities and markets.

Agricultural Exports in 2002

Our estimates of California's agricultural exports differ from those estimated by other sources. We have developed separate procedures for each of California's 50 top agricultural commodities and a process for assessing California content for exports of mixtures of products. Our estimates are based on various sources, mainly the U.S. International Trade Commission database (which contains official U.S. Department of Commerce data), Canadian official statistics, and industry sources. The data from each source is checked and analyzed with particular emphasis on formal and informal reports from California industry experts.

As with last year's total U.S. agricultural export value, California's exports remained almost unchanged from 2001 to 2002—California's share of U.S. agricultural exports was 12.2 percent in 2002. Table 1 provides agricultural export values and rankings by commodity

for 2002 and revisions for 2001 and 2000. We include the top 50 agricultural products by export value and an "Other Products" category comprised of smaller commodities, mixtures of commodities, and other agricultural products for which the commodity composition is difficult to determine. Of the \$6,469 million in exports in 2002, \$5,374 million were associated with the 50 principal commodities, and the remaining \$1,095 million were associated with other products and composites.

As a group, the top 10 export products have not changed in the last three years, although oranges moved into fifth place ahead of dairy in 2002. Overall, the top 10 products account for two-thirds of total export value of the 50 principal commodities and more than half of all agricultural exports. Twenty-six of the 50 principal export products increased in export value in 2002 while 24 products decreased in export value. Almonds have been the top export commodity for several years and showed a net increase in export value of 21 percent in 2002. However, if the four grape export products—wine, table grapes, raisins and grape juice—are combined, as they are for most other farm commodities, the total value of grape exports is more than \$1 billion, easily topping the list. Total value of 2002 exports for the grape industry showed little change. The table grape export decline was partially offset by increases in wine and raisin exports.

Cotton exports decreased by 15 percent from \$603 million in 2001 to \$513 million in 2002. Total volume exported decreased 11 percent while the state's production decreased by 17 percent. American Pima cotton exports increased by 12 percent, but upland cotton decreased by 25 percent in export value. Except for the long-staple

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TABLE 1 California Agricultural Commodity Export Values and Rankings, 2000 – 2002

Rank 2002	Commodity	2000	2001	2002	% change 2002/2001 ¹
		Export value \$ million			
1	Almonds	662.4	685.6	829.0	21%
2	Cotton	606.7	602.8 ²	513.5	-15%
3	Wine	499.3	474.7 ²	485.7	2%
4	Table Grapes	363.4	394.5	367.3	-7%
5	Oranges	298.2	297.5	303.0	2%
6	Dairy	347.6	338.4	300.9	-11%
7	Tomatoes, Processed	207.7	211.8 ²	215.4	2%
8	Walnuts	169.3	179.1	183.9	3%
9	Rice	167.3	166.4	183.0	10%
10	Beef and Products	162.9	154.8	167.7	8%
11	Strawberries	138.1 ²	136.0	156.7	15%
12	Raisins	145.9	144.1	151.9	5%
13	Lettuce	156.0	141.9 ²	136.4	-4%
14	Pistachios	97.9	108.9	130.7	20%
15	Prunes	140.3	149.5	127.9	-14%
16	Peaches/Nectarines	106.1	118.7	106.7	-10%
17	Hay	93.6	86.3	103.9	20%
18	Broccoli	114.3	90.1 ²	95.3	6%
19	Lemons	79.5	74.7	84.0	12%
20	Carrots	58.2	68.0	71.2	5%
21	Plums	54.4	53.5	54.9	2%
22	Cauliflower	44.9	45.5	51.4	13%
23	Tomatoes, Fresh	72.6	56.6	48.7	-14%
24	Cherries	42.2	63.7	45.5	-29%
25	Celery	55.2	46.0	42.3	-8%
26	Melons	40.5	39.3	40.1	2%
27	Onions	43.1	43.0 ²	37.7	-12%
28	Flowers & Nursery	43.3	39.7	37.2	-6%
29	Grapefruit	32.2	38.9	31.7	-18%
30	Apples	38.3 ²	29.2 ²	31.1	7%
31	Potatoes	29.3	26.4	30.2	15%
32	Grape Juice	32.5	31.4	28.5	-9%
33	Garlic	24.4	24.8	23.2	-6%
34	Bell Peppers	20.1	18.3	19.6	7%
35	Pears	20.3	24.0	19.4	-19%
36	Apricots	14.0	15.6	17.5	12%
37	Asparagus	46.8	31.0	17.1	-45%
38	Olives	12.3	10.3	11.3	9%
39	Dates	11.3	11.5	10.9	-5%
40	Dry Beans	10.9	5.6	10.4	85%
41	Eggs	9.7	8.6	8.3	-3%
42	Kiwi	6.7	6.4	7.6	18%
43	Figs	7.6	6.7	7.1	6%
44	Cottonseed byproducts	12.6	7.0 ²	6.9	-2%
45	Turkey	16.2	17.4	5.6	-68%
46	Chickens	10.5	11.3	5.3	-53%

TABLE 1 California Agricultural Commodity Export Values and Rankings, 2000 – 2002 (continued)

Rank 2002	Commodity	2000	2001	2002	% change 2002/2001 ¹
		Export value \$ million			
47	Wheat	3.4	3.9	4.1	4
48	Artichokes	2.7	3.3	3.1	- 5
49	Mushrooms	11.4 ²	3.5 ²	1.8	-49
50	Avocados	3.4	2.1	1.5	-27
Total principal commodities		5387.9	5348.3	5374.1	0
Total other products ³		1148.3	1173.4	1094.7	-7
Total all agricultural exports		6536.2	6521.7	6468.8	-1

¹ Actual values are reported, numbers may not equal due to rounding.

² Revised 2000 and 2001 data.

³ "Other Products" is composed of (a) highly processed products that are difficult to attribute to a specific commodity such as mixtures of fruits, nuts and vegetables and other processed foods; and (b) animal and plant products marketed in such small quantities that they are not included in the 50 leading commodities.

upland cotton, export prices decreased by about 13 percent. California's share of U.S. cotton production has decreased from 15 percent in 2000 to 12 percent in 2002. Cotton exports remain well below the 1995-99 average annual value of approximately \$827 million.

The export value of oranges went from \$298 million in 2001 to \$303 million in 2002, a 1.7 percent increase. Export quantity was about the same as in 2001 but was 8 percent lower than in 2000. The state's production remained unchanged from 2001 but is still lower than in 2000.

California's dairy product export value decreased by 11 percent in 2002. Nationally, dairy exports were down 15 percent. Much of this decrease can be explained by reduced Mexican purchases of nonfat dry milk, nearly 40 percent less than in 2001. California's 20 percent share of the U.S. dairy production has not changed in recent years. Value of production diminished by 18 percent despite a 5 percent increase in quantity in 2002.

The export value of processed tomatoes was \$215 million, 1.4 percent higher than 2001. Export quantity increased by 3.7 percent. The state's production was almost 30 percent higher than 2001 and 7 percent higher than 2000.

Walnuts export value increased from \$179 million in 2001 to \$184 million in 2002, a 3 percent increase. Quantities exported increased 7 percent, although production decreased 8 percent.

Rice export value increased from \$166 million to \$183 million (10 percent) due to increased average export prices.

Beef and beef product export value increased 8 percent, from \$155 million to \$168 million. In terms of liveweight, exports increased 14 percent despite a decrease in total state production.

Other commodities that showed significant increases in export value were strawberries and pistachios.

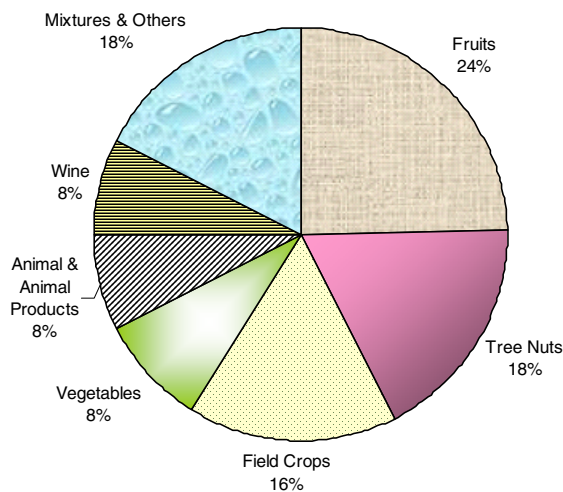
- Strawberry export value increased by 15 percent. Volume exported increased 13 percent and export prices went up by 5 percent. State production increased by 24 percent in 2002 (recovering from a decrease of 13 percent in 2001), as a result of an 8 percent increase in area harvested and a 14 percent increase in yield.
- Pistachios export value increased 20 percent in 2002 (a 34 percent since 2000). In 2001, export prices were 20 percent lower than in 2000; prices partly recovered in 2002 (by 10 percent). Production

increased 86 percent in 2002 after a decrease of 33 percent during 2001. Year 2001 yields were extremely low—only 57 percent of year 2002 yields.

Fresh tomatoes, asparagus, and poultry had significant decreases in export value, as did prunes and cherries.

- Fresh tomatoes export value in 2002 was 14 percent less than in 2001 and 33 percent less than in 2000. These decreases were an influence of Canada’s dumping suit against the U.S. industry. The suit was eventually thrown out, but in the interim, dumping margins were being charged and California export volumes decreased 10 percent in 2001 and another 17 percent in 2002. Production remained relatively stable.
- Asparagus export value was 45 percent less than in 2001 and 63 percent less than in 2000. Export quantities also have decreased in the last two years. Production has decreased 14 percent in the last two years. The area harvested as well as yields were lower than in 2000.

FIGURE 1 California Agricultural Export Value by Commodity Group, 2002



Note: Flowers and nursery are included in “Mixture and Others” category.

TABLE 2 Percent of California Export Value Shipped to Major Markets by Commodity Group, 2002¹

Commodity Group	Canada	EU-15	Japan	China/ Hong Kong	Mexico	Korea
Animal products ²	2	0	26	13	24	19
Field crops ³	16	6	24	4	4	7
Fruits ⁴	31	10	16	11	6	6
Flowers and nursery	41	13	8	3	28	1
Tree nuts	6	52	12	5	2	2
Vegetables ⁵	68	3	15	1	6	0
Wine	16	59	15	1	1	1
All commodities	23	21	17	7	6	5

Commodity Group	Taiwan	Indonesia	India	Malaysia	Rest of the World	All Countries
Animal products ²	6	2	0	0	9	100
Field crops ³	7	8	2	0	20	100
Fruits ⁴	5	1	0	3	11	100
Flowers and nursery	0	0	0	0	6	100
Tree nuts	1	0	6	0	14	100
Vegetables ⁵	3	0	0	0	4	100
Wine	1	0	0	0	8	100
All commodities	4	2	2	1	12	100

1 Mixtures and food preparations are not included in this table. Totals may not add due to rounding.

2 Excluding poultry and dairy subproducts

3 Excluding wheat

4 Excluding avocado

5 Excluding mushrooms

- Poultry export value (chicken and turkey) decreased an estimated 62 percent, while production remained approximately the same. California's share of U.S. production is 6 percent for turkeys and 3 percent for chicken.

Figure 1 shows the share of total export value by commodity group. Together, fruits, wine, tree nuts and vegetables accounted for about 58 percent of the state's total agricultural export value. Most of the "Mixtures and Others" category is comprised of highly processed products and is hard to separate into individual commodities.

International Destinations

Table 2 shows export distribution by commodity group among the 10 principal destinations and the "Rest of the World" based on 44 commodities—the top 39 export commodities and five additional commodities with reliable data on export destinations. No reliable destination data was available for six commodities with relatively low export values or for the "Mixtures and Others" category. California exports agricultural products to almost 150 countries, but the 10 principal destinations account for 85 percent of the export value, and the main four destinations—Canada, the EU, Japan, and China/Hong Kong—account for more than two thirds of that total.

China/Hong Kong has displaced Mexico from the fourth position because of a 25 percent reduction in Mexican imports. Mexico purchased smaller amounts of several commodities, especially dairy products and cotton. China/Hong Kong, in contrast, increased purchases of California's agricultural products by 6 percent. China/Hong Kong's main imports are dairy products, fresh grapes and oranges.

Canada has been the main market for California's agricultural exports for several years, accounting for 22 to 23 percent of total exports. The European Union became the second largest market in 2000, displacing Japan from that position, and is gradually increasing imports. Last year European import values increased 10 percent, narrowing the difference with Canada, which increased imports by 5 percent. While Canada is an important market for flowers, nursery products, vegetables, and fresh fruits, the EU is important for tree nuts, dried fruits, and wine. Increased European

imports are mainly explained by higher imports of almonds (23 percent increase) and pistachios (95 percent increase). The U.K., Germany, Spain, and the Netherlands are the primary destinations within the EU, although it is difficult to know with absolute accuracy the final destination of a particular commodity due to intracommunity trade.

While some commodities are shipped mostly to a single destination—artichokes, bell peppers, potatoes, and carrots to Canada (90 percent) and hay to Japan (75 percent)—others are shipped in large quantities to many destinations. For example, cotton and almonds are widely distributed, with at least six destinations receiving 5 percent or more of these exports.

FIGURE 2 California Agricultural Exports to the Top 10 Destinations, by Value, 2002

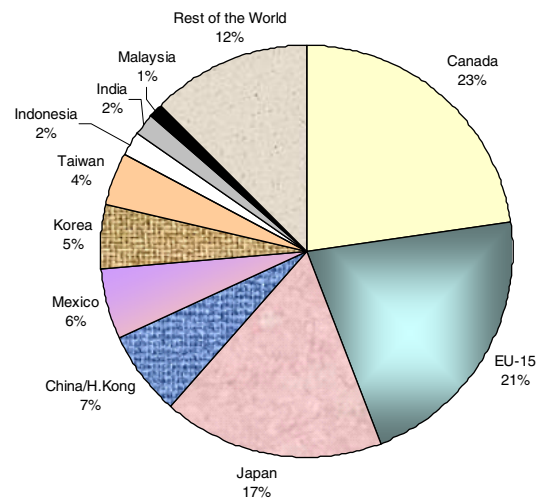


Figure 2 shows the share of total export value shipped to each of the top nine countries and the EU as a group. As in 2001, Canada and the EU were the top two export destinations in 2002, each receiving more than \$1 billion in exports. Together they accounted for about 44 percent of California's exports. Canada imported at least \$2 million each of 40 different commodities, and the EU imported \$2 million or more of each of 20 different commodities.

Farm Quantity Exported

Table 3 shows the ratio of farm quantity exported in 2002 to farm quantity produced in 2002. We used standard USDA conversion ratios to translate export

quantities of processed products back to farm gate production. For example, to estimate the farm quantity equivalent of all grape products in terms of fresh grapes, we converted export quantities of raisins, wine and grape juice back to fresh grapes and then added this figure to fresh grape exports.

For certain crops, such as cotton, the ratio of farm quantity exported to farm quantity produced may not represent the share of the year 2002's production because the exports may have been produced in a previous year and stored before export. For other crops not easily stored, such as lettuce and table grapes, this ratio approximates the annual share of farm production exported, except when harvest is late in the year and shipments take place early in the subsequent year. Nonetheless, the data in Table 3 provide a picture of the importance of exports across commodities.

The average ratio of exports to production for the top 50 commodities is weighted by the export value of each product. For 2002, the ratio was 18 percent, similar to that in 2000. It ranged from 1 percent for avocados to 93 percent for cotton. Thirteen commodities had a ratio equal to or higher than 25 percent in 2002, including seven of the top 15 listed in Table 3 plus apricots, plums, kiwi, grapefruit, olives, and cauliflower.

TABLE 3 Ratio of Farm Quantity Exported to Farm Quantity Produced: First Ranked 15 Commodities

Commodity	2001 percent	2002 percent
Grapes, all	22	21
Almonds	67	61
Cotton	87	93
Oranges	27	27
Dairy	6	5
Tomatoes, processed	13	11
Walnuts	33	39
Rice	49	43
Beef and Products	6	7
Strawberries	13	12
Lettuce	8	10
Pistachios	50	29
Prunes	69	48
Peaches/Nectarines	11	10
Hay	7	7
Weighted Average of 50 Principal Commodities	17	18

The year 2002 was not unlike 2001 for California's agricultural exports—the dollar remained strong against other currencies and demand from California's major trade partners was relatively depressed. Within the State's top 50 agricultural export commodities, a significant decline in value of dairy and cotton exports was offset by significant increases in almond exports.

Accessibility of Government Trade Data

For those interested only in international trade in agricultural products, the USDA Economic Research Service (ERS) has created an online database where users can search the Department of Commerce trade data by commodity and country from 1989 to the present. The U.S. International Trade Commission database is located at <http://dataweb.usitc.gov/> and the ERS database is available at <http://www.ers.usda.gov/data/fatus/>. By making it easier to collect export data, the online trade databases have allowed us to dedicate more resources to improving our commodity-specific methods of estimating exports. The online trade databases may be a useful resource for anyone interested in U.S. international trade of agricultural or nonagricultural products.

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