

California's International Agricultural Exports in 2004

José E. Bervejillo and Daniel A. Sumner

In 2004 California's agricultural exports surpassed \$8 billion for the first time. This represents a 9 percent increase over 2003 and a 25 percent increase over 2002.

The data reported in this *AIC Issues Brief* describe international agricultural exports for 2004 and revisions for 2002 and 2003. These data are the product of an eight-year collaborative effort between the AIC and the Agricultural Export Program of the California Department of Food and Agriculture to develop accurate estimates of the value of California agricultural products shipped to international markets. As in the past, we have relied upon national and international data as well as informal estimates from industry sources. 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 by commodity or product

California agricultural exports declined in the late 1990's and stabilized at the lower plateau before beginning to rise again in 2003 and 2004 (Figure 1). This pattern also holds for the top 50 and top 10 export commodities.

In Table 1 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 \$8,194 million in exports in 2004, \$6,900 million were associated with the 50 principal commodities, and the remaining \$1,294 million were associated with other products and composites.

Twenty-nine of the 50 principal export products or commodities increased in export value in 2004, while 18 products decreased in export value, and a few others remained almost unchanged. The top 10 agricultural exports combined increased by 15 percent in 2004. Overall, the top 10 products accounted for more than two-thirds of export value of the 50 principal commodities and

Figure 1. California's agricultural exports, 1995-2004

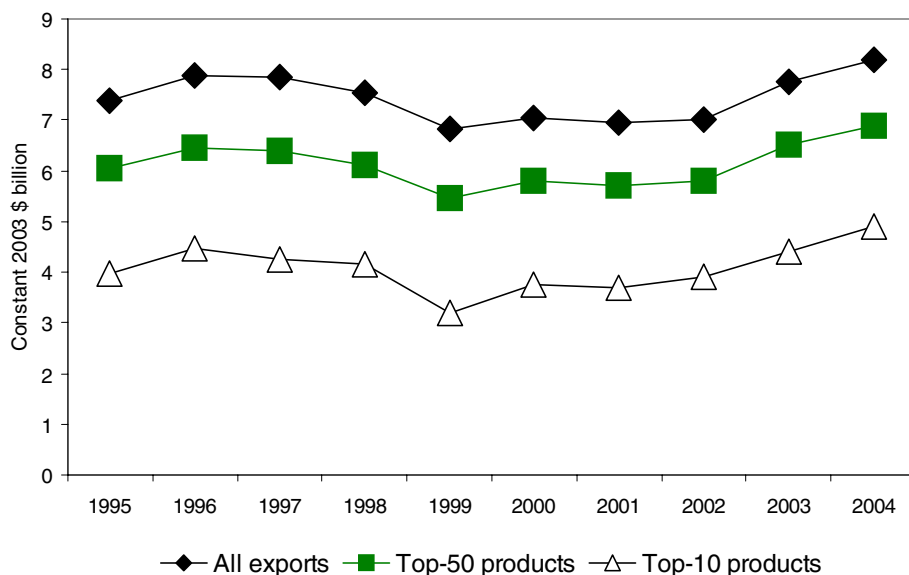


Table 1. **California agricultural product export values and rankings, 2002-2004**

Rank 2004	Product	Export value \$ million			Percent change 2004/2003
		2002	2003	2004	
1	Almonds	829.0	1,081.2	1,369.7	27
2	Wine ¹	485.0	551.8	683.8	24
3	Cotton	510.7	676.4	629.3	-7
4	Table grapes ¹	367.2	386.3	453.9	17
5	Dairy	300.9	326.2	439.9	35
6	Oranges ²	303.2	343.8	345.2	0
7	Rice	183.3	217.1	279.7	29
8	Tomatoes, processed ¹	214.9	238.7	250.3	5
9	Walnuts	183.9	213.9	240.5	12
10	Strawberries ¹	156.0	197.9	204.5	3
11	Raisins	151.9	164.7	195.1	18
12	Lettuce ²	159.5	178.1	188.3	6
13	Pistachios	130.7	135.3	179.0	32
14	Prunes	127.9	133.6	130.1	-3
15	Peaches, nectarines ²	106.7	125.7	123.3	-2
16	Hay ¹	105.9	106.7	106.6	0
17	Broccoli ¹	92.1	96.9	99.4	3
18	Beef and products	167.7	214.7	80.1	-63
19	Carrots ¹	71.3	76.3	78.4	3
20	Lemons ²	84.5	75.5	77.0	2
21	Cherries	62.9	65.4	76.7	17
22	Tomatoes, fresh	48.7	54.0	67.7	25
23	Celery	42.3	42.8	49.8	16
24	Cauliflower	51.4	53.2	48.0	-10
25	Grapefruit ²	34.2	48.1	43.0	-11
26	Onions ¹	33.8	46.3	40.7	-12
27	Flowers and nursery	36.8	37.8	40.6	7
28	Melons	40.0	39.4	39.3	0
29	Plums	54.9	58.5	37.6	-36
30	Grape juice	28.5	30.4	29.8	-2
31	Wheat ¹	26.9	38.6	26.6	-31
32	Peppers	19.5	21.9	26.4	20
33	Potatoes	30.2	28.3	24.1	-15
34	Pears	17.5	14.5	21.4	47
35	Garlic	23.2	22.3	21.2	-5
36	Asparagus ¹	17.4	26.7	18.0	-33
37	Apples	31.1	19.9	17.0	-15
38	Cottonseed byproducts	6.9	9.2	16.9	83
39	Olives	11.3	11.1	15.6	41
40	Turkey ¹	5.6	12.4	13.1	6

Table 1. **California agricultural product export values and rankings, 2002-2004**
(continued)

Rank 2004	Product	2002	2003	2004	Percent change 2004/2003
		Export value \$ million			
41	Apricots	17.5	15.5	12.7	-18
42	Dates	10.9	13.9	12.5	-10
43	Kiwi	7.6	8.8	10.6	21
44	Figs	7.1	8.0	9.2	15
45	Chickens	5.3	5.5	7.0	28
46	Dry beans	10.4	8.0	6.5	-19
47	Eggs	8.5	6.4	5.3	-17
48	Artichokes	3.1	2.9	4.2	42
49	Mushrooms	2.9	2.1	2.3	11
50	Avocados	1.5	1.5	2.2	52
Total 50 principal products		5,430.2	6,294.2	6,900.1	10
¹ Total other products		1,116.5	1,207.2	1,294.3	7
Total all agricultural exports		6,546.7	7,501.5	8,194.4	9

¹ 2002 and 2003 figures were revised based on updated production data from the U.S. Department of Agriculture, National Agricultural Statistics Service.

² 2002 and 2003 figures were revised based on updated Canadian import data.

more than half of all agricultural exports (also illustrated in Figure 1).

The top export commodity for several years, almonds, showed a 27 percent net increase in export value in 2004, most of which is explained by higher prices. In previous years, the combined export value of the four grape export products—wine, table grapes, raisins and grape juice—was higher than almond exports. In 2004, however, almond exports were slightly higher than the combined grape export products.

Wine exports increased by 24 percent in 2004, reaching \$684 million. This represents an increase of 40 percent with respect to the annual average export value of the period 2000-2002. By volume, wine exports increased 17 percent in 2004 with respect to 2003, and 40 percent with respect to the annual average of 2000-2002.

Cotton exports decreased 7 percent, from \$676 million in 2003 to \$629 million in 2004. Exports of

American Pima cotton decreased by about 40 percent due to smaller volumes and lower values than in 2003, which was a relatively good year for American Pima exports. A reduced harvest during the 2003-2004 season negatively affected the 2004 exports. Lower exports of American Pima were partly offset by an increased value of upland cotton exports that was 20 percent higher than in 2003. Cotton exports remained well below the 1995-99 average annual value of approximately \$827 million.

The export value of California dairy products increased by 35 percent in 2004. Export of dairy products expanded nationwide during 2004. The U.S. export value of nonfat dry milk increased 75 percent. Mexico remained a strong market for California's nonfat dry milk. As a result, dairy exports climbed to fourth in the ranking, displacing oranges, which showed little change from 2003.

California rice exports also increased significantly thanks to increased export prices. In 2004, exports rose 29 percent in value over 2003, increasing from

\$217 million to \$280 million. The 2004 rice export value was 57 percent higher than the annual average export value of 2000-2002, but quantities exported have changed little during the last five years.

Other important increases during 2004 were for walnuts (12%), raisins (18%), and pistachios (32%). Export value of walnuts increased by \$26 million, export value of raisins increased by \$30 million, and the export value of pistachios increased by \$44 million.

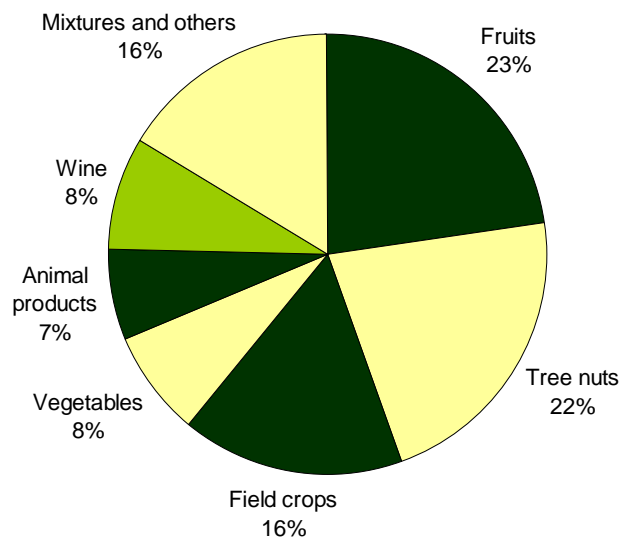
Other commodities that showed significant increases in export value, although of less impact on the overall gain, were cherries, fresh tomatoes, cottonseed byproducts, celery and pears.

Beef exports collapsed in 2004. At the end of 2003, a case of “mad cow” detected in the state of Washington resulted in the immediate closing of all export markets for U.S. beef. Exports plummeted to an estimated value of \$80 million, 63 percent below the 2003 record. In fact, reduction in meat export was even larger since this value includes exports of hides and skins, which were not as strongly affected as fresh and processed meat exports. Beef and products were in the top 10 California export commodities until 2004. In 2004 they ranked 18th.

Besides beef and cotton, other significant decreases in export values were recorded for cauliflower, grapefruit, onions, plums, wheat, potatoes, asparagus, apples, apricots and dates. All commodities with decreasing export values during 2004 had a total “loss” in export value of approximately \$261 million. This loss was more than offset by the total “gain” of \$867 million from all commodities that increased in export value.

As Table 1 documents, California exports a broad variety of agricultural products. Figure 2 shows the share of total export value by commodity group. Fruits, wine, tree nuts and vegetables accounted for 61 percent of the 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. The commodity groups that increased the most from 2003 to 2004 were tree nuts (25%) and wine (24%).

Figure 2. California agricultural exports by category, 2004



Note: Flowers and nursery are included in “mixtures and others.”

International destinations

California exports agricultural products to almost 150 countries or aggregates, but the 10 principal destinations accounted for 84 percent of the 2004 export value, and the main four destinations—the European Union (EU), Canada, Japan and Mexico—accounted for two-thirds of the total (Figure 3). Our destination data relies on information for 43 commodities accounting for about 99 percent of exports of the top 50 commodities. No destination data are available for wheat, apples, turkey, chicken, eggs, mushrooms, avocados or for the total of other products.

The EU has been the leading market for California agricultural exports over the last two years. It accounted for 25 percent of the 2004 export value. EU imports reached a record high of \$1.7 billion, 21 percent higher than in 2003. The EU expanded to 25 members in 2004, but most of California’s agricultural exports still go to the U.K., Spain, Germany and the Netherlands.

Together the EU and Canada accounted for 46 percent of California’s 2004 exports. Canada imported at least \$2 million of each of 38 commodities, and

Table 2. **Percent of California export value shipped to major markets, by commodity group,¹ 2004**

	EU-25	Canada	Japan	Mexico	China/ H.Kong	Korea	Rest of the world
Animal products ²	0.9	1.7	7.7	45.6	7.1	3.7	33.3
Field crops ³	2.6	13.0	23.8	7.7	15.1	5.7	32.1
Flowers and nursery	19.1	39.6	5.9	26.1	1.7	0.3	7.3
Fruits ⁴	9.9	32.8	14.5	5.0	7.9	6.3	23.6
Tree nuts	56.4	6.7	8.3	1.7	3.3	2.2	21.4
Vegetables ⁵	2.3	69.0	12.0	7.7	0.8	0.3	7.9
Wine	65.2	14.9	8.2	0.8	1.3	1.0	8.6
All commodity groups	24.9	21.5	13.3	7.7	6.7	3.8	22.2

¹ Based on 43 individual products for which reliable data were available.

² Only beef and dairy products.

³ Excluding wheat.

⁴ Excluding apples and avocados.

⁵ Excluding mushrooms.

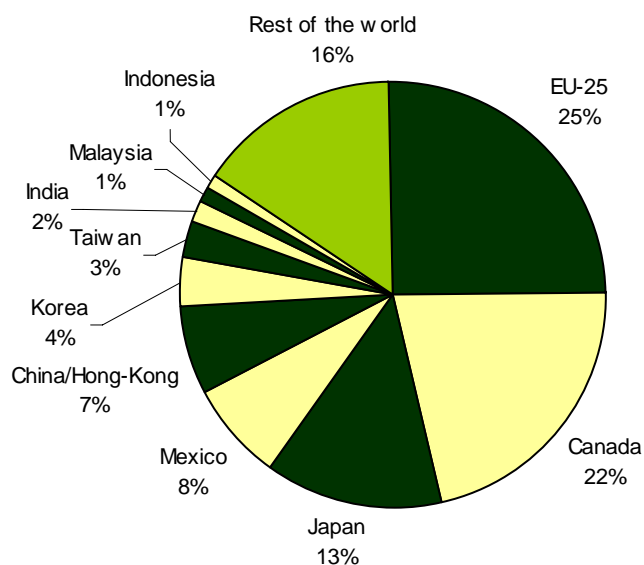
the EU imported \$2 million or more of each of 18 commodities, with only two (almonds and wine) accounting for 72 percent of all imports. Conversely, the two principal products going to Canada (lettuce and strawberries) accounted for only 20 percent of all Canadian agricultural imports from California. The Canadian market expanded by 7 percent in 2004.

Japan is the third major market for California's agricultural products, with 13 percent of the export value. Japan is also a diversified market. The two main commodities, rice and almonds, accounted for only 31 percent of all shipments. Japan's purchases decreased slightly from 2003, partly because of negligible beef imports. Beef was the third most important product shipped to Japan in 2003.

Mexico accounted for 8 percent of California's agricultural exports. The principal commodity exported to Mexico is nonfat dry milk. Total dairy products accounted for more than 40 percent of all sales to Mexico and for almost 50 percent of all dairy exports from California. Exports to Mexico increased by 17 percent in 2004.

China/Hong Kong accounted for 7 percent of total California shipments. China/Hong Kong increased purchases of California's agricultural products by 6 percent. The main imports were cotton, oranges and table grapes.

Figure 3. **California agricultural exports to the top 10 destinations, by value, 2004**



Note: Based on 43 individual products for which reliable data were available.

Table 2 shows export distribution by commodity group among the six principal destinations and the "rest of the world". Canada is an important market for flowers, nursery products, vegetables and fruits. The EU is especially important for tree nuts and wine. Although not shown in Table 2, the EU is also the main market for dried fruits.

Table 3. Ratio of farm quantity exported to farm quantity produced, 2003 and 2004

	2003 Percent	2004 Percent
Grapes, all	25	28
Almonds	65	69
Cotton	103	73
Dairy and products	N/A	9
Oranges	40	30
Rice	48	38
Tomatoes, processed	14	12
Walnuts	39	42
Strawberries	12	11
Lettuce	10	9
Pistachios	70	29
Dried plums ¹	42	154
Peaches and nectarines	12	12
Hay	7	7
Broccoli	15	14
Weighted average ²	21	22

¹ The ratio is higher than 100 because a large volume of past season inventories were exported due to a small 2004 harvest and an unchanged demand.

² The weighted average is based on each commodity's share of production value.

Farm quantity exported

Table 3 shows the ratio of farm quantity exported in 2004 to farm quantity produced in 2004. We used standard U.S. Department of Agriculture 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 production in 2004 because the exports may have been produced in a previous year and stored before export. For crops not easily stored, such as lettuce and table grapes, the 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.

Excluding the special case of dried plums, the 2004 individual commodity ratio of exports to production ranged from one percent for avocados and eggs to 73 percent for cotton. Fifteen commodities had a ratio equal to or higher than 25 percent in 2004, including eight of the top 15 listed in Table 3 plus cauliflower, cherries, dates, grapefruit, kiwi, olives, and plums. The overall average ratio of exports to production for the top 50 commodities weighted by the production value of each product was 22 percent, one point higher than in 2003.

Final remarks

In 2004, California's agricultural exports increased 9 percent over 2003 and reached a record high, surpassing \$8 billion. Of the top 10 export commodities, six recorded increases in export values higher than the general increase. Among specific commodities, the continued rapid increases of almonds and wine account for a large share of the overall increase in California agricultural exports. On the down side, the collapse of beef exports (due to the "mad cow" event) was the big story in 2004. As of November 2005, major markets of Korea and Japan had still not reopened. Preliminary data for 2005 are looking relatively positive for many of the major commodities, but a full accounting awaits final data and analysis. ■