

## California's Year 2000 International Agricultural Exports

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For each of the last 6 years California has exported between 16% and 19% of its agricultural production. This has resulted in annual agricultural exports of between \$6 billion and \$7 billion.

Despite continuing low prices for many commodities and a strong U.S. dollar, the value of California's agricultural exports to international destinations rebounded between calendar year 1999 and 2000, largely due to increases in some of the highest value export commodities. This *AIC Issues Brief* describes California's year 2000 international agricultural exports, using new data from the continuing AIC effort to produce accurate export statistics for the state. We also provide our revised data for 1999.

### Expanded Partnership with CDFA and Industry

The data are the product of a fourth year of collaboration between AIC and the California Department of Food and Agriculture Agricultural Export Branch to develop methods leading to more accurate statistics for California agricultural products shipped to international markets. This is also the fourth *AIC Issues Brief* based on the resulting export data. The previous three briefs provide more detail about the history, methods, and early results from the project. They are available on our website, <http://aic.ucdavis.edu>. Export data since 1995 is available at <http://aic.ucdavis.edu/pub/exports.html>.

Our estimates for the state's agricultural exports differ from other sources because, rather than apply a uniform approach to all commodities or commodity aggregates, such as using California port data or applying shares of national production to national exports, we devised separate procedures for each of 50 of California's top agricultural commodities. Industry sources helped us develop these commodity-specific methods, and they have also helped us revise the methods as newer data have become available and trade flows have changed.

This past year we increased our collaboration with industry sources by asking them to review our preliminary estimates for each commodity and offer suggestions for how we might increase the accuracy of our results. Their input allowed us to improve our estimating procedures for several commodities, especially milk and cream, beef and beef products, bell peppers, potatoes, hay, walnuts, asparagus and dry beans. For example, this year we worked with the CDFA Milk Pooling Branch and industry sources to improve our annual survey of dairy exporters. In a few cases, industry sources noted mistakes in U.S. government export data.

### Calendar Year 1999 and 2000 Exports

The average value of the U.S. dollar in international agricultural markets appreciated 23% between 1995 and

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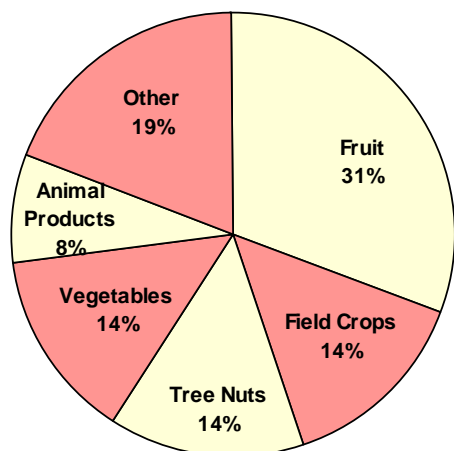
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2000, making U.S. agricultural products relatively more expensive for importers. In addition, California farmers were caught in the same cyclical downturn as much of the rest of U.S. agriculture in 1999 and 2000 as low output prices and high input prices decreased profits or caused losses for many farmers. These factors, coupled with adverse weather, caused California's agricultural exports to drop to \$6.1 billion in 1999, down from \$6.6 billion the previous year.

Despite the adverse conditions facing California farmers in 2000, the state's total agricultural export value increased back to \$6.6 billion, about the same as 1998. The percentage increase in California export value between 1999 and 2000 (9%) was larger than the percentage increase for the US as a whole (4%). In calendar year 2000, about half of the 50 commodities increased in export value from 1999, half increased in quantity, and about half had higher prices. For some export commodities, such as almonds and cotton, 2000 marked the third consecutive year of falling prices.

Of the top 20 export commodities, ranked by value, 17 exported higher quantities in 2000. But for a few, such as processed tomatoes and rice, lower prices more than offset the increased quantity, leading to a lower export value for those crops. The higher aggregate export value for California agriculture was largely due to increases in cotton and oranges, both of which rebounded from abnormally low exports in 1999 caused by El Niño weather patterns and a severe freeze. Figure 1 shows the share of total export value by commodity group in 1999, and Table 1 gives export values for the top 50 export commodities in 1999 and 2000.

Figure 1 **California Agricultural Export Value by Commodity Group, 2000**



Highlights of year 2000 are:

- Together, fruits, tree nuts and vegetables accounted for about 59% of the state's total agricultural export value. Fruit and tree nuts accounted for a higher share of California's export value than the state's production value, while vegetables accounted for a lower share.
- Winegrapes, table grapes and grape juice increased in export value, as the total value of grape product exports increased slightly from 1999, remaining over \$1 billion.
- Cotton exports increased by about 40% due to more favorable weather conditions in 1999 than during the uncommonly wet and cool growing season the previous year (There is usually a lag between cotton production and exports, so 1999 production was exported in calendar year 2000.)
- The export value of oranges doubled, returning to a relatively normal level after a freeze decreased 1999 production and exports dramatically.
- The export value of fresh tomatoes doubled because of higher prices and larger export quantities from an unusually long export season.
- Beef and beef products, broccoli, celery, eggs, and turkey increased in value by more than 20% while raisins, cherries, grapefruit, apples, kiwi, avocados, wheat and artichokes decreased in value by more than 20%.

## International Destinations

East Asia was the top export region in 2000, receiving about 39% of the total export value, followed by North America and Europe. Table 2 shows export distribution by commodity group to each of these regions.

East Asia received the largest shares of fruit, field crop and animal product exports. North America accounted for the majority of vegetable exports, and Europe for the majority of tree nuts. Both North America and Europe accounted for large shares of fruit exports, but Europe purchased virtually no animal products. North America's large share in animal products is explained mainly by Mexico's imports.

Table 1 California Agricultural Commodity Export Values and Rankings,  
2000 and Revised 1999

<b>Commodity</b>	<b>2000 Rank</b>	<b>Export Value \$ million</b>	<b>1999 Rank</b>	<b>Export Value \$ million</b>	<b>% Change † 1999-2000</b>
Almonds	1	662.4	1	623.8	6
Cotton	2	616.2	3	442.5*	39
Wine	3	510.4	2	498.6*	2
Table Grapes	4	363.4	4	312.6	16
Milk & Cream	5	347.6	5	311.1	12
Oranges	6	284.5	10	138.8*	105
Tomatoes, Processed	7	208.1	6	220.8*	-6
Walnuts	8	169.3	9	147.5	15
Beef and Products	9	165.1	12	132.0*	25
Rice	10	165.0	7	193.9*	-15
Lettuce	11	148.2	14	126.0*	18
Raisins	12	145.9	8	191.7	-24
Prunes	13	140.3	13	130.2	8
Strawberries	14	137.5	11	133.7	3
Tomatoes, Fresh	15	115.3	21	56.2*	105
Broccoli	16	111.8	19	83.1*	35
Peaches/Nectarines	17	106.1	15	107.8*	-2
Pistachios	18	97.9	17	89.4	10
Hay	19	93.4	16	90.2*	4
Lemons	20	79.5	18	86.8	-8
Carrots	21	58.1	22	55.2*	5
Celery	22	55.3	30	39.9*	39
Plums	23	54.4	25	51.9	5
Flowers & Nursery	24	46.2	23	53.8*	-14
Cauliflower	25	44.9	24	52.1*	-14
Asparagus	26	42.0	28	40.8*	3
Cherries	27	41.9	20	65.5*	-36
Onions	28	40.9	26	48.1*	-15

Table 1 California Agricultural Commodity Export Values and Rankings,  
2000 and Revised 1999 (continued)

<b>Commodity</b>	<b>2000 Rank</b>	<b>Export Value \$ million</b>	<b>1999 Rank</b>	<b>Export Value \$ million</b>	<b>% Change<sup>†</sup> 1999-2000</b>
Melons	29	40.5	31	37.2*	9
Grape Juice	30	34.2	32	31.6	8
Grapefruit	31	32.2	27	43.2*	-25
Apples	32	31.5	29	40.7*	-23
Garlic	33	24.4	33	30.4	-20
Potatoes	34	22.3	35	21.4*	4
Dry Beans	35	22.0	36	21.2*	4
Pears	36	20.3	34	21.7	-7
Bell Peppers	37	20.1	37	18.5*	9
Turkey	38	16.1	40	12.2*	32
Apricots	39	14.1	38	15.6	-9
Olives	40	12.3	39	12.5	-1
Eggs	41	11.9	43	9.4*	27
Dates	42	11.3	42	10.9	3
Chickens	43	9.2	41	11.2	-17
Figs	44	7.6	46	7.6	-1
Kiwi	45	6.7	44	9.2	-28
Cottonseed oil	46	6.5	45	8.0*	-19
Wheat	47	3.5	48	5.7	-38
Avocados	48	3.4	47	7.2	-52
Artichokes	49	2.7	49	3.9	-30
Mushrooms	50	2.4	50	2.2*	11
Total Principal Commodities		5,406.9		4,905.3	10
Total Other Products**		1,218.0		1,155.2	5
Total All Agricultural Exports		6,625.0		6,060.5	9

<sup>†</sup>Actual values are reported. Numbers may not equal due to rounding.

\*The 1999 data for these commodities were revised from last year's publication. In some cases the methods used to determine exports were improved.

\*\* "Total Other Products" is composed of (1) highly processed products that are difficult to attribute to a specific commodity, such as mixtures of fruits, nuts, and vegetables and other processed foods (for example, candy bars), and (2) animal and plant products marketed in such small quantities that they are not included in the 50 leading commodities.

Source: University of California Agricultural Issues Center

Table 2 Percent of California Export Value Shipped to Major Markets by Commodity Group, 2000\*

Destination	Fruit	Tree Nuts	Vegetables	Field Crops	Animal Products	All Products
East Asia	39	21	22	72	48	39
Japan	18	11	15	35	24	19
North America	31	9	69	7	28	30
Canada	26	6	62	0	1	22
Europe	25	51	5	10	0	21
European Union	23	49	4	7	0	19
Other	6	19	5	11	23	10

\*Totals do not account for highly processed products not attributable to a specific commodity, or too small to appear among the top 50 commodities.

Figure 2 shows the share of total export value shipped to each of the top 10 countries. These shares were calculated based on the top 34 export commodities and 10 additional commodities for which reliable data on export destinations were available.

As in previous years, Canada and Japan were the top individual export destinations in 2000, each receiving over \$1 billion in exports. Together they accounted for about 42% of California's exports. Canada imported at least \$2 million of each of 38 different commodities, and Japan did the same for 32 different commodities. Japan imported 18% of California fruit exports and about 35% of California field crop exports. Canada's imports mainly consist of fruits and especially vegetables; it imports virtually no field crops or animal products from California. In 2000, Canada accounted for over half of the exports for each of the following: lettuce, strawberries, fresh tomatoes, carrots, celery, cauliflower, onions, melons, grape juice, potatoes, bell peppers, kiwi and artichokes. European Union countries imported about \$1,043 million of agricultural products from California in 2000. Tree nuts and grape products accounted for \$837 million of that total.

While some commodities are shipped mostly to a single destination, such as bell peppers to Canada (97%) and hay to Japan (77%), others are shipped in large quantities to many destinations. For example, almonds, walnuts, and pistachios were widely distributed, with at least 6 destinations receiving 5% or more of these exports.

## Farm Quantity Exported

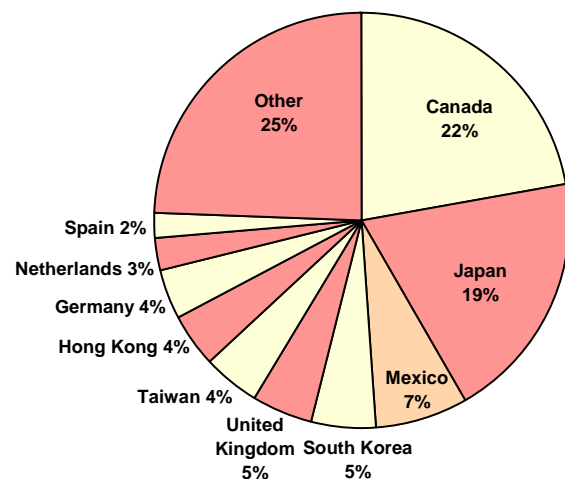
Table 3 shows the ratio of farm quantity exported to farm quantity produced for the top 15 export crops in 2000. To arrive at these figures, we used standard USDA conversion ratios to translate export quantities of processed products back to farm gate production. For example, to estimate the farm quantity 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 some crops, such as cotton, the ratio of farm quantity exported to farm quantity produced may not represent the share of the year 2000's production because the exports may have been produced in a previous year and stored before export. For other crops that are not easily stored, such as lettuce and table grapes, this ratio should approximate the annual share of farm production exported.

The weighted average ratio of exports to production for the top 50 commodities was 18% in 2000, up from 16% in 1999. The ratio ranged from 1% for avocados to 78% for cotton. Thirteen commodities had a ratio over 25% in 2000. Of the 13, those not listed in Table 3 are plums, grapefruit, onions, apples, dry beans and apricots. Most commodities with high ratios have one or more of the following characteristics: (1) storability,

Figure 2 Agricultural Exports to the Top 10 Destinations by Value, 2000



- (2) both fresh and processed products are exported,  
 (3) California is a significant source of U.S. and world production.

Table 3 **Ratio of Farm Quantity Exported to Farm Quantity Produced**

Commodity	2000	1999
	%	%
Grapes, All	16	19
Almonds	71	53
Cotton, Lint	78	63
Milk and Cream	7	7
Oranges	27	28
Tomatoes, Processed	13	10
Walnuts	46	38
Beef and Products	6	5
Rice	32	35
Lettuce	8	8
Prunes	40	44
Strawberries	15	13
Tomatoes, Fresh	26	14
Broccoli	16	15
Peaches/Nectarines	10	16
<b>Weighted Average for the Top 50 Commodities</b>	<b>18</b>	<b>16</b>

### Increased Accessibility of Government Trade Data

Government export data, which are an important component of our export statistics, has become increasingly accessible since we began this project in

1997. Heavy books with small print have given way to online searchable databases that are publicly available and free. Each month, the Census Bureau of the Department of Commerce (DOC) tracks imports and exports for agricultural and non-agricultural trade between the U.S. and other nations. The United States International Trade Commission (USITC) has used this data to create a searchable database on the web where users can track imports or exports of any agricultural or non-agricultural commodity and print the results or convert them to a database format. Users can track international trade from 1989 to the present for specific commodities by quantity, value, port district of entry/exit, and trading partner.

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 DOC trade data by commodity and country from 1989 to the present. The USITC trade 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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