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*Working Paper Series*

WORKING PAPER NO. 676, *REV.*

MARKETING CALIFORNIA WALNUTS

by

Jerome B. Siebert

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California Agricultural Experiment Station  
Giannini Foundation of Agricultural Economics  
Revised April, 1994

# Marketing California Walnuts<sup>1</sup>

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Revised April 15, 1994

California walnut production has increased significantly over the past 30 years. This increase has been accomplished without a significant change in walnut acreage, particularly since 1980. Hence, increases in production have been brought about through improved cultivars, orchard management practices, and technology. The projected 1993/94 crop at 259,285 tons will be the largest realized so far in the history of the industry.

As production expands, increased emphasis is placed on marketing programs in order to boost sales and realize profits for those who produce and handle walnuts. The demand for walnuts is influenced by a number of economic factors or variables. Among these factors are walnut prices, consumer income levels, prices of competing products (largely other nuts) and quality. These factors are coupled with industry-financed promotion programs and aggressive marketing by walnut handlers.

Exports currently account for nearly 35 percent of production and have increasingly exposed the industry to international competitive influences. The markets for California walnuts are subject to availability as well as prices of foreign-produced nuts and the policies that both restrict imports of walnuts, and subsidize

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<sup>1</sup> Initially written July, 1992; Revised April, 1994; Working Paper 676; also submitted to David Ramos, editor, UC Davis, as chapter in forthcoming new edition of *Walnut Orchard Management*.

production and marketing in other countries. Therefore, the marketing of California walnuts has become more complex, requiring an understanding not only of domestic markets, but also of foreign markets.

### **California Production**

From 1980 to 1993, production of California walnuts has been on the upswing following the significant increases over the past 30 years. Table 1 presents acreage and production data for the years 1980-93. Production during this time averaged over 221,000 tons. However, it has been quite variable, ranging from a low of 180,000 tons in 1986, to 259,285 tons in 1993, which represents an 18 percent deviation from average production during this time period.

Acreage, on the other hand, has been relatively more stable. From 1980 to 1993, California walnut acreage has shown a slight increase and averaged slightly more than 178,000 acres for this period. The variation in acreage is from a low of 175.1 thousand acres in 1981 to a high of 182 thousand acres in 1993. This range represents a variation of only two percent from the average. Hence, while acreage has remained relatively constant, yield has shown much more variation.

These production trends draw two conclusions. The first is that producers and handlers will be challenged to develop new and expanded markets for walnuts. Second, the variability in production poses added problems in marketing walnuts from the standpoint of being able to promise and deliver consistent and dependable supplies. Handler carry-over of supplies from year to year partially offsets this concern.

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**Table 1. Production and Prices of California Walnuts.**

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Year	Acres (000)	Production (Tons)	Quantity Shelled (Tons)	Shelled (Percent)	Farm Price (cts./lb)	Deflated Farm Price (cts./lb)
1980/81	179.9	197,000	121,046	61.44	46.30	46.30
1981/82	175.1	225,000	141,381	62.84	49.85	45.19
1982/83	178.0	234,000	157,160	67.16	56.00	47.82
1983/84	175.7	199,000	139,302	70.00	31.55	26.10
1984/85	178.2	213,000	142,894	67.09	36.50	28.95
1985/86	178.6	219,000	157,791	72.05	39.90	30.56
1986/87	179.8	180,000	114,721	63.73	54.00	40.60
1987/88	175.2	247,000	170,950	69.21	49.20	35.69
1988/89	177.0	206,000	138,237	67.11	46.10	32.11
1989/90	179.0	229,000	157,414	68.74	53.50	35.55
1990/91	181.0	227,000	160,422	70.67	52.00	32.78
1991/92	181.0	259,000	188,193	72.66	53.00	32.06
1992/93	181.4	201,351	146,323	72.67	66.00	38.76
1993/94*	182.0	259,285	194,400	74.98	N.A.	N.A.

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\* Projected

Source: Walnut Marketing Board Records (Tables 1 and 8).

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### In-Shell and Shelled Supply

Walnut production is either packed inshell or shelled. Approximately three-fourths of walnut production is shelled at present (Table 1). The amount of walnuts packed inshell since 1980 has remained relatively stable while rises in production have increasingly gone to the shelled product (Table 2). Walnuts packed inshell during this same period of time have averaged 136.2 million pounds while shelled walnuts have averaged 286.6 million pounds (inshell basis).

Table 2 shows the total supply of walnuts on an inshell and shelled basis when production and carryin are taken into account. As can be seen from this table,

handler carryin (defined as the amount of inventory carried over from a previous marketing year by handlers) varies significantly and serves as a balance between long and short crop years. Average carryin for inshell walnuts is 8.2 million pounds while average carryin for shelled walnuts is 107.9 million pounds. Carryin as a percent of total supply has averaged 5.81 percent for inshell and 27.20 percent for shelled walnuts from 1980-93. Total supply of inshell walnuts is on a slight downward trend while total supply of shelled walnuts is on a strong upward trend reflecting the increased direction of walnuts to those channels.

**Table 2. Production, Carryin, and Total Supply of California Walnuts.**

Year	-----Inshell Walnuts----- (Actual Inshell)			-----Shelled Walnuts----- (Shelled)		
	Production	Handler Carryin	Total Supply	Production	Handler Carryin	Total Supply
	-----million pounds-----					
1980/81	149.9	8.6	158.5	90.1	37.2	127.3
1981/82	165.2	7.4	172.6	113.4	27.5	141.0
1982/83	151.4	6.6	158.0	122.2	35.3	157.5
1983/84	111.1	24.3	135.3	100.9	61.8	162.8
1984/85	138.2	7.0	145.2	90.1	53.9	143.9
1985/86	120.4	11.3	131.7	120.8	38.7	159.5
1986/87	128.6	4.2	132.7	90.3	50.6	140.9
1987/88	150.1	0.8	150.9	142.0	29.0	170.0
1988/89	133.5	10.9	144.4	112.9	55.4	168.4
1989/90	141.2	8.3	149.4	135.0	44.9	179.9
1990/91	131.2	7.4	138.6	131.7	51.0	182.7
1991/92	139.6	6.2	145.9	156.0	46.2	202.2
1992/93	109.8	7.8	117.5	122.3	52.5	174.9
1993/94*	129.8	4.2	134.0	158.2	35.4	193.7

\* Projected

Source: Walnut Marketing Board Records (Tables 3 and 5).



## Disappearance

Table 3 shows the relative packs of shelled and inshell walnuts for the period 1980-93, and the amounts that are exported. By far, the dominant form in which walnuts are marketed is shelled which historically accounts for over two-thirds of disappearance. Domestic consumption of California walnuts accounts for about 70 percent of disappearance of walnuts, most in the shelled form. Most of the inshell walnuts are exported. The amount of inshell walnuts going to exports has been growing since the 1980s and accounted for 74 percent of the inshell market in 1993/94. Shelled walnuts into export have also been growing, and, while not accounting for as significant a market share as inshell, now amount to over 17 percent of the total shelled pack in 1993/94.

**Table 3. Disposition of California Walnuts.**

Marketing Year	Packed Inshell	Packed Shelled	Exported Inshell	Exported Shelled	Percent Inshell Exported	Percent Shelled Exported	Percent Total Exported
	-----1,000 Pounds, Inshell Basis-----				%	%	%
1980/81	149,909	242,091	95,628	18,440	63.79	7.62	29.10
1981/82	165,238	282,762	109,287	20,607	66.14	7.29	28.99
1982/83	151,431	314,319	81,567	18,323	53.86	5.83	21.45
1983/84	111,077	278,603	72,305	23,729	65.09	8.52	24.64
1984/85	138,213	285,787	84,463	24,813	61.11	8.68	25.77
1985/86	120,419	315,581	81,475	27,493	67.66	8.71	24.99
1986/87	128,559	229,441	93,932	31,060	73.07	13.54	34.91
1987/88	150,101	341,899	104,071	38,533	69.33	11.27	28.98
1988/89	133,527	276,473	99,708	47,768	74.67	17.28	35.97
1989/90	141,173	314,827	107,182	48,770	75.92	15.49	34.20
1990/91	131,156	320,844	101,153	57,313	77.12	17.86	35.06
1991/92	139,615	376,385	103,776	72,794	74.33	19.34	34.22
1992/93	109,785	292,646	84,877	57,232	77.31	19.56	35.31
1993/94*	129,769	388,800	96,000	66,339	73.98	17.06	31.31

\* Projected

Source: Walnut Marketing Board Records (Tables 1 and 19).

## **Producer Prices**

Producer prices for walnuts are related to many factors. A significant one is the size of the crop in each season coupled with the ability of the trade to dispose of the crop. This latter factor is dependent on many variables as will be discussed in later parts of this paper. Table 1 shows producer prices both on a current and deflated basis (as adjusted by the Consumer Price Index). On a current basis, producer prices for walnuts have been trending upward during the 1980-93 period. However, if inflation is taken into account, and the current prices are adjusted by the Consumer Price Index, the picture is not so clear. Producer prices are up from the 1983-85 period, but significantly below the 1980-82 period. In short, producer prices have not kept up with inflation since the early 1980s, but appear to be strengthening.

## **Competing Supplies**

Competition to California-produced walnuts comes from two sources: domestically-produced competing nuts and foreign-produced walnuts and other nuts. Table 4 shows the production of nuts in the United States from 1980/81 to 1992/93. California produces virtually all of the commercial walnuts, almonds and pistachios in the United States. Other nuts produced in the U.S. are filberts, pecans and macadamias. Growth in the U.S. nut industry is dominated by almonds whose production has nearly doubled since 1980/81. Significant growth has also taken place in pistachios whose production has shown variation but still has attained new highs. Filbert production appears to be relatively stable, although increasing somewhat since 1990, while macadamias have shown a slight upward trend in production.

Pecan production, which is a significant competitor of walnuts, has been highly erratic. It has shown an overall decline since 1986, but appears to be at the

same levels as in the early 1980s. Pecan plantings in California have been increasing. A large pecan crop brings significant pressure to bear on walnut-producer prices; when the crop is high, demand for walnuts decreases.

Exports of competing nuts produced in the United States vary. Almond exports are significant and amount to nearly two-thirds of marketable production. In addition, significant amounts of filberts (over 60 percent) and pistachios (over 43 percent) are exported.

**Table 4. United States Production of Tree Nuts (1,000 Tons)**

Marketing Year	Walnuts	Filberts	Inshell Basis			Almonds Shelled
			Pecans	Macadamias	Pistachios	
1980/81	197.0	15.4	91.8	16.7	13.5	161.0
1981/82	225.0	14.7	169.6	16.7	7.3	204.0
1982/83	234.0	18.8	109.3	18.4	22.0	173.5
1983/84	199.0	8.2	135.0	18.2	13.2	121.0
1984/85	213.0	13.4	116.2	18.9	31.6	295.0
1985/86	219.0	24.6	122.2	21.0	13.6	232.5
1986/87	180.0	15.1	136.4	22.0	37.5	125.0
1987/88	247.0	21.8	131.1	21.4	16.6	330.0
1988/89	209.0	16.5	154.0	22.8	47.0	295.0
1989/90	229.0	13.0	125.3	25.3	19.5	245.0
1990/91	227.0	21.7	102.5	25.0	60.0	330.0
1991/92	259.0	25.5	149.5	24.8	38.5	245.0
1992/93	203.0	27.7	83.0	24.0	73.5	274.0

Source: Fruit and Tree Nuts, Situation and Outlook Report Yearbook, ERS, USDA, July 1993.

The United States has been the dominant producer and exporter of walnuts worldwide. However, some significant changes have occurred since the 1980s. World walnut production is dominated by six countries: the United States, Mainland China, Turkey, France, India, and Italy. As shown in Table 5, production

in these six countries amounted to 583,500 tons in 1993/94. 1992/93 production among these six countries represented about 51 percent of world production; U.S. production amounted to 43 percent of that figure. However, important increases have taken place in other countries, primarily in Mainland China, followed by France and Italy. Since the early 1980s, China has increased its production by over 60 percent, France by 150 percent, with an increase in production of 15 percent in Italy. Production in India appears to be stable while production in Turkey has declined. Not listed in Table 5 is production in South America (Argentina, Brazil, and Chile) which amounted to 21,164 tons in 1992, with significant growth in production taking place in Chile.

**Table 5. Walnut Production in Major Producing Countries.**  
(1,000 Tons, Inshell Basis)

Marketing Year	Mainland China	France	India	Italy	Turkey	United States	Total
1981/82	117.9	11.0	18.7	14.3	77.2	225.0	464.2
1982/83	113.5	34.2	19.7	13.2	79.4	234.0	494.1
1983/84	131.2	19.8	21.8	13.2	80.5	199.0	465.5
1984/85	141.1	17.3	22.0	15.4	77.2	225.0	498.0
1985/86	134.4	25.7	24.3	15.4	77.2	219.0	495.9
1986/87	149.9	30.8	25.4	13.2	75.0	180.0	474.2
1987/88	162.0	29.2	22.0	22.0	71.7	247.0	554.0
1988/89	195.2	25.1	19.8	12.1	70.5	209.0	531.9
1989/90	176.4	28.4	18.7	19.8	70.5	229.1	543.1
1990/91	164.9	27.1	22.0	19.8	71.7	227.0	532.5
1991/92	167.2	18.3	19.8	13.2	73.9	259.0	551.4
1992/93	180.8	27.6	25.9	24.3	72.8	203.0	534.2
1993/94	192.9	27.6	21.5	16.5	75.0	250.0	583.5

Note: Marketing years are as follows: August-July for the U.S.; September-August for Italy and Turkey; October-September for China, France, and India.

Sources: Horticultural Products Review, November 1993, Foreign Agricultural Service, USDA, and Production Yearbook, FAO, United Nations (Data for China for years 1981-85).

In 1988/89, China appeared to be in a position to become the world's leading walnut producer, replacing the U.S., however due to decreases in production, it faltered. Visits to China clearly indicate that it is on a program to both plant more walnut trees and top-work old trees in order to make them more productive.<sup>2</sup> The Chinese view walnut production as an opportunity to secure foreign exchange which is needed for their economic development. As seen from the data in Table 5, China's production is quite variable. Statistics from China are not the most reliable in terms of accuracy, however, if the investment China has made in increasing its production capacity pays off, and it resumes its upward trend, it could pose significant challenges to the U.S. as the world's leading exporter provided the crop isn't diverted to domestic uses. This latter point is a realistic consideration as China's economy develops and its consumers improve their diets.

France and Italy are members of the European Community which has a subsidy program in place for the production and marketing of walnuts. While it cannot be determined how much this program has led to the increased planting of walnuts in those countries, clearly sustained production increases have taken place.

The combination of production increases by China, France and Italy could mean increased competition for the United States, particularly in its export markets. Table 6 presents data on exports by the six leading walnut-producing countries. The U.S. and China are the leading exporters. The U.S. continues to dominate the export market comprising approximately 50 percent of the total exports by the six leading world walnut producers. Of the six major producers, only the U.S. has shown a sustained ability to increase its exports over the past thirteen years. France and India also export significant amounts of their crops. However, while a factor in world trade, it is unlikely that their exports will play a major role in the near future.

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<sup>2</sup> For further details, see "Walnut Production in the People's Republic of China," A Report to the California Walnut Commission, 1989.

**Table 6. Exports of Walnuts From Major Producing Countries.**  
(1,000 Tons, Inshell Basis)

Marketing Year	Mainland China	France	India	Italy	Turkey	United States	Total
1981/82	N/A	6.5	11.6	3.6	8.5	59.5	N/A
1982/83	N/A	12.0	11.5	3.0	4.4	46.9	N/A
1983/84	N/A	12.7	11.7	2.1	5.5	46.3	N/A
1984/85	N/A	6.3	14.3	2.8	4.4	59.4	N/A
1985/86	41.8	10.3	9.9	1.9	6.6	61.5	131.9
1986/87	52.6	11.8	13.2	2.1	5.5	75.1	160.4
1987/88	51.8	13.2	12.1	2.0	2.2	80.1	161.5
1988/89	60.4	12.0	11.0	2.6	4.4	85.3	175.7
1989/90	43.6	13.1	9.4	5.9	3.2	90.7	165.8
1990/91	37.5	15.1	10.3	2.2	1.3	89.7	156.1
1991/92	42.2	13.2	11.8	2.1	3.6	108.2	181.1
1992/93	59.5	14.3	16.0	1.1	2.2	92.1	185.3
1993/94	66.1	14.3	13.2	1.1	2.2	93.1	190.1

Note: Marketing years are as follows: August-July for the U.S.; September-August for Italy and Turkey; October-September for China, France, and India.

Source: Horticultural Products Review, November 1993, Foreign Agricultural Service, USDA.

The U.S. walnut industry has made significant investments in developing export markets which have become a major outlet. Whether production, and, in turn, exports from other countries increase and provide more competition for U.S. walnuts, California walnut producers will need to continue to invest in marketing programs directed at market development.

## Marketing California Walnuts

The markets for California walnuts are changing and dynamic. The U.S. remains the largest market for California walnuts, although export sales are increasing and are important to the disposition of the crop.

Per capita consumption of walnuts and other tree nuts is shown in Table 7. Consumption of walnuts is less than one-half pound per person and appears to be slightly declining. Per capita consumption of competing nuts appears to be stable to increasing. In particular, significant increases have occurred for almonds and pistachios. Per capita consumption of pecans has increased slightly over the years (except for 1992). Per capita consumption of filberts appears to be stable with per capita consumption of macadamias rising slightly.

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**Table 7. United States Per Capita Consumption of Tree Nuts.  
(Pounds, Shelled Basis)**

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Marketing Year	Walnuts	Filberts	Pecans	Macadamias	Pistachios	Almonds
1980/81	0.50	0.05	0.43	0.03	0.05	0.42
1981/82	0.52	0.04	0.45	0.03	0.04	0.50
1982/83	0.47	0.06	0.49	0.04	0.05	0.59
1983/84	0.52	0.06	0.48	0.04	0.07	0.58
1984/85	0.48	0.06	0.54	0.04	0.11	0.68
1985/86	0.48	0.06	0.47	0.05	0.12	0.81
1986/87	0.49	0.04	0.54	0.05	0.11	0.53
1987/88	0.47	0.06	0.54	0.05	0.09	0.59
1988/89	0.49	0.07	0.50	0.05	0.12	0.66
1989/90	0.49	0.06	0.46	0.05	0.08	0.71
1990/91	0.49	0.07	0.49	0.05	0.11	0.87
1991/92	0.52	0.06	0.46	0.04	0.08	0.73
1992/93	0.46	0.06	0.37	0.04	0.13	0.74

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Source: Fruit and Tree Nuts, Situation and Outlook Yearbook, ERS, USDA, July 1993.

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Walnuts are marketed primarily through approximately 80 handlers who buy their supplies from producers. Some handlers also produce various quantities of their own supplies as well as purchase from other producers. The industry has a major cooperative handler which, since 1980, has accounted for nearly half of the walnuts produced in California. There are several large non-cooperative forms of handlers (independents) who, combined with the cooperative, provide leadership to the industry in marketing. In addition, a bargaining association was formed in 1991 that serves as an agent for producers to handlers.

Producers and handlers of walnuts operate under a Federal Marketing Order. This order authorizes minimum size and quality standards, inspection, export percentages, export prices, market promotion, research, and data and information dissemination. It does not authorize advertising programs. In addition, the California Walnut Commission, which is a state program, was developed to enhance export promotion, primarily in conjunction with a federal Market Promotion Program (formerly called the Targeted Export Assistance, or TEA, Program). Both the federal and state programs are financed by producer assessments and jointly administered under the same management. Recently these programs, and the efforts of handlers, have been instrumental in dealing with various trade barriers designed to inhibit access of California walnuts to export markets.

Other nut industries that have marketing orders and commissions are California almonds, California pistachios, and Oregon filberts. Some consideration has been given to establishing a marketing order for pecans which is much more difficult due to the geographic and cultural diversity of the industry.

Other than the public data on disposition of walnuts to inshell and shelled uses, both domestic and export, no public data exists on the disposition of walnuts into the various trade channels. For example, in the almond industry, published data show that in 1991, 32 percent of consumption was in confectionery, 24 percent



in consumer products, 17 percent in food processing, 10 percent in nut salters, 10 percent in ice cream, 7 percent in food service, and 6 percent in baker channels. Although similar data are not available for walnuts, industry sources indicate that walnuts are used primarily in baking, and as condiments with other foods. The Marketing Board has promotion programs directed at consumers, food service and food manufacturers.

### Exports

As noted previously, exports are an important channel for marketing California walnuts. Table 8 shows the distribution of exports to the European Community, Japan, and other countries for the period 1980-92. It is clear from this table that the European Community is an important market for California walnuts, both in terms of inshell and shelled shipments. More recent information from the Walnut Marketing Board gives data for individual countries. This data show that Germany is the most important outlet for inshell walnuts, even exceeding the U.S. market. In the marketing year 1992/93, Germany imported 25.5 percent of total inshell shipments compared to U.S. domestic consumption of 23.3 percent. The next most important countries importing California walnuts were Spain (21.3 percent), Italy (10.7 percent), the Netherlands (2.4 percent), Canada (1.7 percent), the United Kingdom (2.3 percent), France (1.6 percent) Portugal (1.5 percent) and Greece (1.3 percent). Japan (0.5 percent) imports relatively few of California's inshell walnuts, but is the major export outlet for shelled walnuts at 4.8 percent of total shelled shipments. (Most of the shelled shipments, 80.6 percent, are consumed in the U.S.) In addition to Japan, other countries that import shelled walnuts are Germany (2.6 percent), Greece (2.1 percent), Spain (1.5 percent), Austria (1.4 percent), Israel and Canada (1.2 percent each) and Taiwan (1.1 percent).

**Table 8. United States Walnut Exports to EC-12, Japan, and Other Countries.**  
(1,000 Tons)

Year	-----Inshell Exports-----				-----Shelled Exports-----			
	EC-12	Japan	Other	Total	EC-12	Japan	Other	Total
1980	43.94	0.05	5.54	49.53	2.83	0.29	2.30	5.42
1981	46.59	0.06	6.37	53.02	1.71	0.49	2.57	4.77
1982	33.65	0.00	7.79	41.44	1.48	0.46	2.47	4.41
1983	24.29	0.03	5.52	29.84	1.49	0.59	2.71	4.79
1984	37.53	0.02	6.02	43.57	2.92	1.02	2.89	6.82
1985	33.16	0.08	15.32	48.55	4.51	0.68	2.99	8.18
1986	36.61	0.73	12.30	49.65	4.56	1.29	3.55	9.40
1987	46.87	2.77	8.78	58.42	3.06	1.31	3.76	8.13
1988	43.22	1.14	8.58	52.94	3.69	1.39	5.23	10.30
1989	50.95	0.98	5.37	57.30	5.15	4.43	6.88	16.46
1990	49.23	0.65	6.24	56.13	4.49	2.34	6.16	12.98
1991	47.61	0.66	6.06	54.32	6.48	2.78	9.16	18.42
1992	34.84	0.78	6.55	42.16	11.32	3.61	8.56	23.49

Sources: California Agricultural Exports, Statistical Appendix, various issues, California Department of Food and Agriculture, and California Agricultural Exports, Annual Bulletin and Statistical Appendix, 1991 and 1992, Worldtariff.

Key factors in export markets include the price of California walnuts compared to those of other competing countries, quality, currency exchange rates, and import barriers. One major advantage in marketing California walnuts has been the ability of handlers to provide high, consistent quality and timely delivery of product. However, with more product being exported by other countries, notably China, market promotion has become an essential factor in marketing California walnuts. A number of handlers have developed export markets through the investment of their own resources. More recently, additional resources have also been provided from public funds under the MPP Program.

In order to encourage and enhance exports of farm commodities, the TEA program was authorized under the 1985 Food Security Act and subsequently

reauthorized under the 1990 Farm Act as the Market Promotion Program (MPP). This program's purpose is to encourage the development, maintenance, and expansion of commercial farm export markets. Assistance is provided on a priority basis to agricultural industries that have been the victim of unfair trade practices by other countries. It requires a cost share by the entity requesting assistance and is administered by the U.S.D.A.'s Foreign Agricultural Service.

In order to take advantage of, first the TEA program, and now the MPP, the California Walnut Commission was formed. Producers are assessed in order to meet the cost-sharing requirements of the MPP. Market promotion efforts have been directed at key countries to enhance the sales of California walnuts. Levels of expenditures have amounted to over \$8 million per year with growers contributing over \$2 million. These monies are used for both consumer and industrial promotions in order to stimulate interest and demand for California walnuts. Activities include advertising, promotion, development and distribution of technical materials and consumer information.

The MPP Program has come under increased pressure from budget cuts as the federal government attempts to deal with deficit reduction. If MPP funds are reduced, the walnut industry must decide if they should be replaced by industry funds in order to preserve the markets that have been developed, as well as to further increase export sales to accommodate expanding production.

Fluctuations in exchange rates also have played a key role in marketing California walnuts in export channels. Exchange rate variations affect the local currency prices paid by export customers. When the dollar is strong against an export customer's currency, walnuts become more expensive. When the dollar becomes weak, as it did in the late 1980's, the export customer can purchase more walnuts for the same amount of local currency. Hence, currency rate fluctuations strongly influence the demand for California walnuts.

## Policy Considerations

The California walnut industry has faced several trade restrictions since the 1980s. These restrictions have taken the form of tariffs as well as phytosanitary regulations directed at alleged pest and disease problems. The European Community has been one source of concern; Japan has been another. A number of developments in world trade that affect the marketing of walnuts as exports bear mentioning.

Trade is regulated under the General Agreement on Tariffs and Trade (GATT) which is a multilateral agreement that provides rules for settlement of disputes. This agreement was concluded in 1993. The U.S. position in trade negotiations including GATT is to liberalize trading rules in order to achieve a freer market in trade. This position is historically at odds with the European Community. Under the U.S. position, with the liberalization in trading rules, production and marketing subsidies would be phased out, non-tariff barriers would be converted to tariffs and phased out over a set time period, and phytosanitary barriers would be determined on the basis of scientific evidence. Programs such as the MPP could be phased out, placing greater responsibility on the California walnut industry to provide more of its promotion funds. Hence, the California walnut industry has a great deal at stake (in both a positive and negative sense) in the outcome of trade negotiations such as GATT.

Another trade negotiation that impacts the California walnut industry is the North American Free Trade Agreement (NAFTA) which links the U.S., Canada, and Mexico together into a trading bloc. Negotiations began in early 1992 and concluded with the signing of the agreement in 1993. NAFTA forms a significant trading bloc which rivals the European Community. Some parts of California agriculture look on NAFTA as a trade opportunity, while others perceive it as a

threat to domestic industries. Freer trade with Mexico should benefit the California walnut industry.

The world appears to be evolving into several trading blocs, one is NAFTA and another is the European Community. The European Community, now the European Union, achieved unity in 1992 with the removal of the last of internal barriers. Many U.S. companies are wary regarding the effect on business opportunities. One thing is certain. Countries within the EC that produce walnuts will have an advantage over outside importers throughout the community.

In addition to the EC, developments in Eastern Europe, with the shift of a centralized, planned economy to a market-oriented one, bear watching. The transformation of the Eastern European economies into market-oriented economies, coupled with trade liberalization, pose both a challenge and an opportunity in marketing California walnuts. Also of consequence to the California's walnut industry is the emerging markets and developing economies of South America.

### Summary

Currently, California dominates world production and trade in walnuts. Its efficient production, processing, and marketing methods have stimulated and expanded markets on a worldwide basis. Through aggressive marketing and promotion by handlers, demand for California walnuts has expanded. Programs financed by the Walnut Marketing Board and California Walnut Commission have added to this demand stimulation, particularly in export markets.

The California walnut industry will need to continue to sharpen its skills in marketing, particularly if U.S. production continues to rise, and increased supplies appear in export markets. While many factors influence the sale of walnuts, the ability to consistently deliver a high-quality product at a competitive price will be

important. Changes in multilateral trading rules and regulations such as GATT and NAFTA can have significant impact on the California walnut industry. As changes take place in the world, the California walnut industry needs to be able to adjust its programs to take advantage of opportunities. The California walnut industry has been a world leader in production and processing technology as well as marketing. This leadership will serve it well in meeting the competitive challenges in both the near and long term future.

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