



Marketing Channels for Pecans

Guide Z-307

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Pecan marketing has a long history in the United States, dating back to the late 1700s, although the first official planting of improved pecans did not occur until 1822 in South Carolina. Commercial propagation of pecan trees began in the 1880s. In 1925, mechanized shelling was introduced, which created a boom in the industry. Today, pecan production is dominated by the United States and Mexico. Together, these two countries exported more than 30,000 short tons of pecans in 2001. U.S. pecan production is concentrated in the southern states of Alabama, Arizona, Arkansas, California, Florida, Georgia, Kansas, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina and Texas.

NEW MEXICO PRODUCTION

In New Mexico, there were 1,105 pecan orchards with a total of 29,622 acres in production, according to the 1997 Census of Agriculture. Doña Ana County leads the state in annual pecan production (81 percent of the 44,333,199 pounds produced in 1997), as 66 percent of the farms that produce pecans are located in the county. Although alternate-year bearing has caused great variability in pecan production in the past, New Mexico has nearly constant pecan production, even in the low production years. This is due to previously nonbearing trees entering production and production increases in early-bearing trees. In 1997, 14 percent of the 1,231,902 pecan trees in the state were at a nonbearing age, indicating that production is likely to increase during the next decade.

Significant barriers to entry in the form of high capital costs exist in pecan production. One of these costs is initial orchard establishment. In

addition, pecan trees reach acceptable yields about seven years after planting, and they need 10 to 12 years to reach maximum production. A large amount of capital is required to cover the expenses and investment for this nonproductive and low productive period.

THE MARKETING CHAIN

Marketing channels for pecans are shown in fig. 1. Once harvested, pecans may be taken directly to shellers or sold to wholesalers, accumulators, brokers or local buyers. Growers with limited acreage can benefit by selling to accumulators, who buy pecans in small quantities until they have enough to sell to shellers or wholesalers. Producers with greater acreage also may sell to accumulators, but they often sell to brokers or wholesalers. Few accumulators or brokers, however, operate in the West, leaving farmers to sell to wholesalers or local buyers. Local buyers are located in the areas where pecans are produced. Pecans are bought directly from producers in large or small quantities. Some buyers also shell pecans and sell the shelled nuts to wholesalers and retail outlets. If shelling facilities are not available, nuts are sold to commercial shellers or unshelled pecans are sold to wholesale and retail firms. Wholesalers, in turn, resell to retail, industrial and institutional outlets, among others.

SHELLING AND GRADING

Shellers separate the pecan shell from the nut meat, then grade and package the nuts. When pecans are hauled to the shelling facility, the load is weighed and graded while still on the truck or trailer. Although there are U.S. Department of Agriculture

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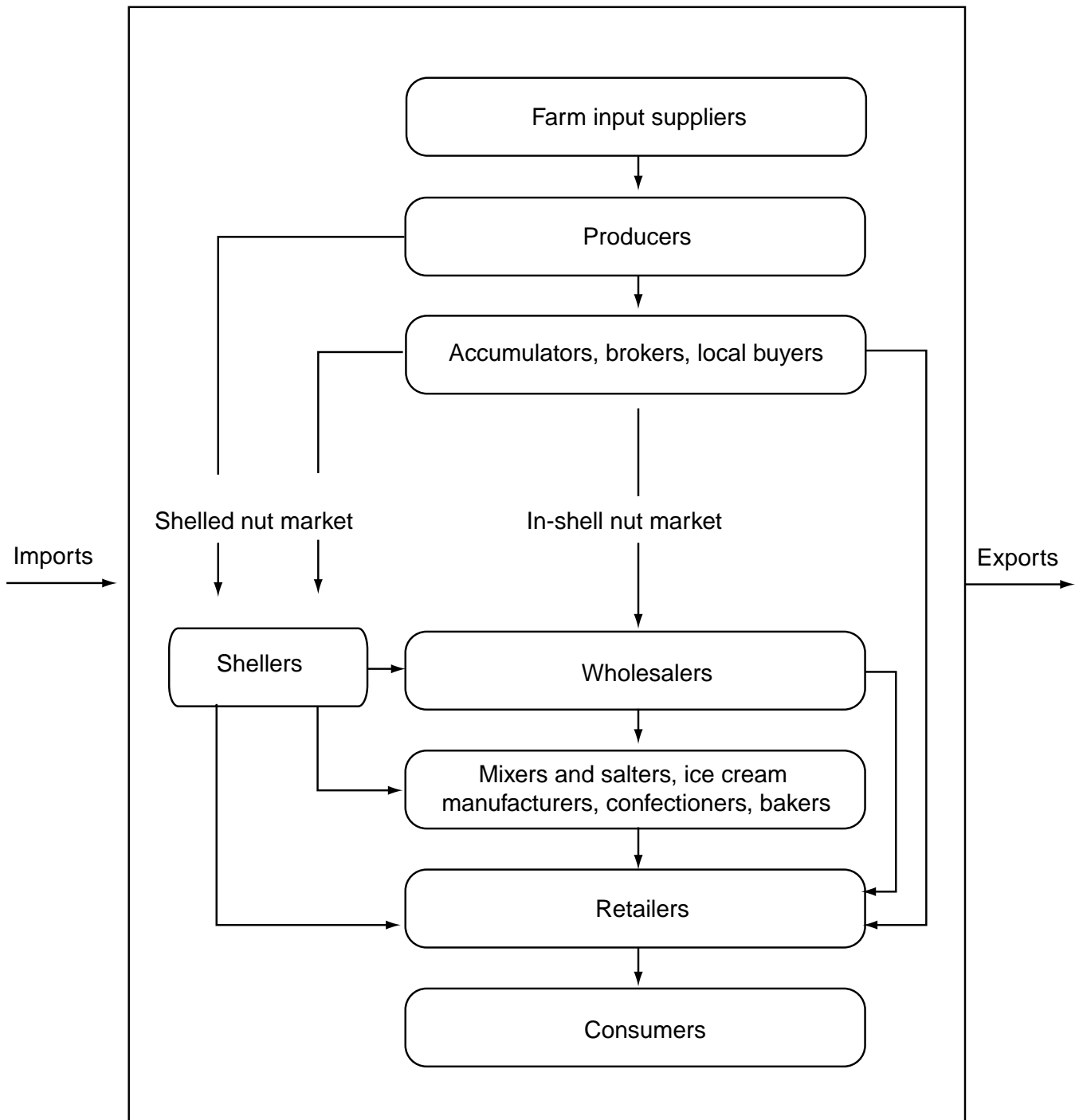


Figure 1. Pecan marketing channels.

grades for pecans, the grades are generally not used in the West, since the quality of the region's pecans exceeds the maximum quality of USDA grades. Detailed information is outlined in Extension Guide H-630, "Pecan Buyers and Custom Shellers in the Western Pecan Growing Region."

After nuts have been cracked or stripped of shells, the pecan nut meats are classified as fines, bits, pieces or halves (small, large, jumbo and chipped). These pecan nut meats typically are packaged in one of two ways. The first method is packaging for direct outlets that account for a minor portion of pecan sales (2- to 12-ounce packages). The second method is the 30-pound boxes sold to major food processing companies. Shell by-products also may be sold and have the following uses: air blasting material to strip old paint from metal, filler material for drilling mud used in oil fields, roughage supplement in cattle feed, particle board manufacturing and landscape mulch.

VALUE-ADDED PROCESSING AND RETAIL OUTLETS

Once pecans are shelled, they often are processed again by mixers, salters, ice cream manufacturers, confectioners and bakers. Bakers and confectioners make up the largest part of this market. Bakeries use pecans mainly in fruit cakes and custard pies. Confectioners use pecans to make pralines, brittle, divinity, clusters, fudge, glaze and log rolls. Pecans for processing compete with other tree nuts, such as almonds, filberts and walnuts. Peanuts are lower priced and do not compete directly on a price basis with tree nuts. Peanuts are used primarily in salted nut mixtures and candy, while tree nuts dominate the manufacture of bakery and ice cream products.

Industries use pecans in different food products, and the retailer markets pecans directly to the consumer. The retailer buys shelled and packaged pecans, in-shell pecans and food products containing pecans and then resells the products to consumers. Supermarkets and grocery stores are the largest retail outlets for pecans and food products containing pecans. Mail order outlets and gift packers are other important retail outlets.

CONSUMPTION

The average annual per capita pecan consumption in the United States was approximately 0.42 pounds between 1997 and 2002. This was a slight decrease from the 0.44 average annual per capita consumption recorded for the previous five-year period (1992 to 1997). Per capita pecan consumption is approximately equal to that of walnuts, both of which rank behind almonds, which averaged about 0.68 pounds per capita for the five-year period between 1997 and 2002. A summary of average annual U.S. tree nut consumption is provided in table 1.

PRODUCTION, EXPORTS AND IMPORTS

During the last 10 years, pecan production ranged from a low of 146.4 million pounds in 1998 to a high of 406.1 million pounds in 1999 (table 2). Fluctuation in production can be attributed to several causes. First, pecan trees produce high and low yields in alternate years. In addition, yield is sensitive to temperature (number of chilling hours) and water supply. Annual production of improved varieties is relatively more stable than production of native varieties, since the former are more resistant to poor cultivation practices and less than optimum production conditions.

The United States imports more pecans than it exports. Most U.S. pecan imports originate in Mexico, a producer of high-quality pecans. These high-quality nuts, products of optimal growing conditions, are produced primarily in the Mexican states of Chihuahua, Coahuila, Durango, Nuevo Leon and Sonora.

Since 1992, Mexican imports of U.S. pecans have decreased, while exports have remained stable. This can be attributed to new plantings by Mexican growers in the late 1980s and early 1990s in response to high export prices in U.S. markets. Bearing pecan tree stocks in Mexico have increased by 17 percent since 1993, while production has increased by 36 percent. Meanwhile, Mexican imports of lower-quality pecans from the United States have decreased by 64 percent since 1993. This trend is expected to continue as more nonbearing trees come into production. New pro-

duction will likely be channeled to exports first, while domestic consumption gaps will be met with lower-quality pecan imports from the United States. Further information about foreign production and trade in pecans can be found at the Foreign Agricultural Services Web site at www.fas.usda.gov.

ORGANIC PECANS

In recent years, production and marketing of pecans certified as organic have developed. While growing at a slower pace than other organic products (e.g., organic vegetables), organic pecan production continues to increase. According to the USDA, the number of acres devoted to organic tree nut production increased 20 percent between 1997 and 2001, with 108 acres of organic tree nuts in production in 2000. A large

majority of the 108 acres in organic tree nut production is devoted to pecans.

Marketing organic pecans requires additional efforts by producers. Producers and handlers must abide by national standards for organic production. Organic production and handling certification can be provided by a number of agencies. The only certifying agency headquartered in the state is the New Mexico Organic Commodity Commission. Additional information about the certification process can be obtained from the commission, 516 Chama Street NE, Room D, Albuquerque, NM 87108 or phone (505) 266-9849. Additional information concerning organic certification and requirements can be found on the USDA's Agricultural Marketing Services' Web site at <http://www.ams.usda.gov/nop>.

Table 1. Tree nuts (shelled basis): per capita consumption 1980-1981 to 2001-2002.

Season ¹	Almonds	Hazelnuts	Pecans	Walnuts	Macadamias	Pistachios	Other ²	Total ³
1980-1981	0.42	0.05	0.43	0.50	0.03	0.05	0.32	1.79
1981-1982	0.50	0.05	0.45	0.52	0.03	0.04	0.33	1.92
1982-1983	0.59	0.07	0.49	0.47	0.04	0.05	0.46	2.16
1983-1984	0.58	0.05	0.48	0.52	0.04	0.07	0.52	2.25
1984-1985	0.68	0.06	0.54	0.48	0.04	0.11	0.47	2.37
1985-1986	0.81	0.07	0.47	0.48	0.05	0.12	0.45	2.45
1986-1987	0.53	0.03	0.54	0.49	0.05	0.11	0.47	2.21
1987-1988	0.59	0.06	0.54	0.46	0.05	0.09	0.41	2.20
1988-1989	0.65	0.07	0.50	0.50	0.05	0.12	0.40	2.29
1989-1990	0.62	0.05	0.46	0.45	0.06	0.08	0.51	2.23
1990-1991	0.74	0.07	0.49	0.45	0.06	0.11	0.50	2.42
1991-1992	0.61	0.06	0.46	0.45	0.05	0.08	0.44	2.15
1992-1993	0.59	0.08	0.35	0.46	0.05	0.10	0.57	2.21
1993-1994	0.60	0.10	0.52	0.38	0.05	0.13	0.55	2.33
1994-1995	0.57	0.07	0.48	0.44	0.06	0.13	0.49	2.25
1995-1996	0.47	0.09	0.38	0.38	0.05	0.12	0.42	1.91
1996-1997	0.48	0.02	0.47	0.32	0.06	0.06	0.51	1.93
1997-1998	0.51	0.07	0.41	0.36	0.07	0.14	0.53	2.09
1998-1999	0.56	0.05	0.44	0.38	0.07	0.15	0.52	2.17
1999-2000	0.75	0.10	0.38	0.51	0.08	0.18	0.53	2.53
2000-2001	0.56	0.06	0.41	0.44	0.07	0.21	0.47	2.22
2001-2002 ⁴	1.01	0.09	0.45	0.42	0.07	0.18	0.69	2.91

¹Beginning August of first year indicated for walnuts, September for pistachios, and July for all others.

²Includes Brazil nuts, pignolias, chestnuts, cashews and mixed nuts.

³Some figures may not add due to rounding.

⁴Preliminary estimates.

Source: Economic Research Service, USDA.

Table 2. U.S. production of pecans and season-average grower price (in-shell basis), 1980 to 2001.

Year	Improved Varieties ¹		Native and Seedling		All Pecans ²	
	Production (1,000 lbs)	Price (cents/pound)	Production (1,000 lbs)	Price (cents/pound)	Production (1,000 lbs)	Price (cents/pound)
1980	128,500	84.8	55,000	62.3	183,500	78.1
1981	174,550	64.7	164,550	43.7	339,100	54.5
1982	169,000	72.6	49,600	49.8	218,600	67.5
1983	167,250	67.7	102,750	44.0	270,000	58.7
1984	169,230	68.2	63,170	46.6	232,400	62.3
1985	152,500	79.1	91,900	49.7	244,400	68.0
1986	182,650	79.3	90,050	57.6	272,700	72.1
1987	179,650	60.1	82,550	37.7	262,200	53.1
1988	185,500	62.6	122,700	41.1	308,200	54.1
1989	161,000	78.6	73,200	53.8	250,500	71.5
1990	143,500	128.0	41,250	90.2	205,000	121.0
1991	163,300	114.0	115,000	83.5	299,000	104.0
1992	104,800	154.0	41,000	112.0	166,000	145.0
1993	237,100	62.9	109,200	39.6	365,000	58.6
1994	118,900	115.0	59,600	76.4	199,000	104.0
1995	174,800	112.0	76,800	72.5	267,500	101.0
1996 ³	165,125	68.9	44,375	46.4	209,500	64.1
1997	202,900	93.3	132,100	53.0	335,000	77.4
1998	112,000	135.0	34,400	77.2	146,400	121.0
1999	219,400	101.0	186,700	57.7	406,100	81.4
2000	160,550	126.0	49,300	75.4	209,850	114.0
2001	246,550	66.2	91,950	41.2	338,500	59.4

¹Budded, grafted or topworked varieties.

²Includes Arizona, Kansas, Missouri and Tennessee in 1989–1992; Arizona, Missouri and Tennessee in 1993 and 1995; and Arizona, Mississippi, Missouri and Tennessee in 1994.

³Estimates discontinued in 1996 for Missouri and Tennessee.

Source: Economic Research Service, USDA.

Table 3. Pecan supply and use (shelled basis), 1980-1981 to 2002.

Season ¹	Utilized		Beginning	Total	Ending	Domestic Consumption		
	Production	Imports	Stocks	Supply ²	Stocks	Exports	Total	Per Capita
1,000 pounds								
1980-1981	85,144	952	47,245	133,341	30,852	4,665	97,824	0.43
1981-1982	149,882	849	30,852	181,583	73,406	4,194	103,983	0.45
1982-1983	102,742	1,625	73,406	177,773	57,289	7,298	113,186	0.49
1983-1984	122,580	5,789	57,289	185,658	69,715	3,376	112,567	0.48
1984-1985	108,531	1,934	69,715	180,180	50,370	2,720	127,090	0.54
1985-1986	110,958	14,298	50,370	175,626	59,952	2,264	113,410	0.47
1986-1987	125,442	10,918	59,952	196,312	63,423	2,755	130,134	0.54
1987-1988	121,136	12,966	63,423	197,525	62,520	3,935	131,071	0.54
1988-1989	135,030	2,718	62,520	200,267	70,785	5,885	123,598	0.50
1989-1990	101,989	9,990	70,785	182,764	58,260	9,509	114,996	0.46
1990-1991	97,530	30,493	58,260	186,284	45,892	17,793	122,599	0.49
1991-1992	118,933	18,725	45,892	183,550	49,585	17,215	116,750	0.46
1992-1993	74,147	30,311	49,585	154,043	48,160	16,536	89,347	0.35
1993-1994	156,896	23,916	48,160	228,971	76,731	15,165	137,075	0.52
1994-1995	86,233	32,612	76,731	195,576	55,035	13,459	127,082	0.48
1995-1996	122,191	27,712	55,035	204,938	85,907	17,359	101,672	0.38
1996-1997	93,894	28,125	85,907	207,925	59,723	19,570	128,633	0.47
1997-1998	148,141	24,638	59,723	232,501	98,027	20,808	113,666	0.41
1998-1999	65,501	28,449	98,027	191,976	50,283	19,960	121,734	0.44
1999-2000	160,396	26,446	50,283	237,125	110,265	18,854	108,006	0.38
2000-2001	92,647	20,238	110,265	223,149	85,128	20,566	117,455	0.41
2001-2002 ³	144,565	19,241	85,128	248,934	98,066	22,257	128,611	0.45

¹Season beginning July 1.²Used production plus imports and beginning stocks.³Preliminary estimates.

Source: Economic Research Service, USDA

Table 4. U.S. pecan imports 1992-2001.

Country	Year									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	— Short tons —									
Mexico	20,083	10,033	2,732	28,652	22,517	19,944	32,974	22,204	32,294	19,680
Peru	17	-	45	23	21	15	-	328	430	125
South Africa	-	108	-	8	-	-	-	44	-	70
China	-	17	-	-	-	-	-	-	-	18
Zimbabwe	-	-	-	-	-	-	-	-	-	13
Others	353	1,169	618	522	356	217	289	534	142	11
World	20,454	11,326	27,986	29,205	22,893	20,176	33,263	23,110	32,866	19,917

Source: Economic Research Service, USDA.

Table 5. U.S. pecan exports 1992-2001.

Country	Year									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	— Short tons —									
Canada	3,459	3,473	3,217	2,870	3,358	3,680	3,568	3,860	4,209	4,168
Mexico	8,376	7,168	3,966	3,355	5,597	3,252	3,657	1,403	2,595	1,820
United Kingdom	588	610	905	633	861	1,143	1,726	880	1,997	1,680
Netherlands	450	396	807	863	1,518	1,454	1,770	1,397	1,581	1,574
Israel	201	155	547	456	583	774	734	614	541	876
Others	882	1,232	1,400	1,197	1,836	2,144	2,074	1,490	1,895	1,472
World	13,956	13,034	10,842	9,374	13,752	12,448	13,527	9,644	12,818	11,590

Source: Economic Research Service, USDA.

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