

Production and Marketing Report

Pecan Production Trends: A Comparison of Production in the Southeastern and Southwestern United States

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Summary. The United States pecan industry experienced dynamic production changes during the last 25 years. Production in Georgia, the leading state, experienced serious problems during the late 1980s and early 1990s as a result of orchard crowding, old orchards, high incidence of diseases, and other problems. During the same 25-year period, plantings and production shifted to the southwestern United States to new production centers in Texas, New Mexico, Arizona, and California under a drier, more-favorable growing environment. Although the southeastern region continues to lead the nation in annual pecan production due to the high number and concentration of orchards with improved varieties, production in the southwestern region eventually may dominate the industry.

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The United States pecan industry has undergone dynamic changes during the last 25 years (Fig. 1). Total United States production decreased after wide annual production swings during the early 1970s, followed by unprecedented growth starting around 1977 with significantly narrower annual production swings (Lee, 1994). Even with the all-time record high production of 365 million pounds in 1993, the industry has shown a decreasing production trend since 1987. Weak prices, production problems in the southeastern region (Goff, 1991), dynamic market swings, fierce competition, and the loss of federal income tax incentives are some of the reasons cited for the recent declining trend in United States pecan production.

The pecan industry has centered in the southeastern region, with Georgia leading United States production. A cursory review of production trends by region indicates that production is shifting to the western region, particularly as a result of the continuing development of highly productive centers in New Mexico, Arizona, and California. Consequently, a more-detailed comparison of acres planted, production, and prices received by region becomes important.

Acres planted

A review of the total acres planted in selected states (Table 1) supports the view that the industry is moving west (Census of Agriculture, 1974, 1978, 1982, 1987, 1992). Texas leads the nation, with 163,700 pecan acres planted (35.4% of the selected state total). Georgia follows closely behind Texas with 128,015 planted acres in 1992 (27.7%). A very large portion of this acreage is planted to improved varieties.

Total planting in the southwestern region in 1992 comprised 55.3% of the selected state total plantings compared to 44.7% in the southeastern

region. A further comparison of plantings in 1974 and 1992 indicates that pecan plantings in Georgia comprised the same proportion of 27.7% of the total selected state plantings. In 1974, however, the southeastern region comprised 55.4% of the total selected state plantings compared to 44.6% in the southwestern region. During that 18-year period, plantings in the southwestern region increased by more than 111,000 acres compared to an increase of about 26,000 acres in the southeastern region. As a result, even though total acres planted in selected southern states increased by more than 138,600, most of the growth in the pecan industry has been in the southwestern region.

Production

A review of average annual production indicates that Georgia continues to dominate the industry with 34% of average annual production during the last 8 years (Figs. 2 and 3) (Lee, 1994; Peña, 1994). Higher yields from the higher proportion of improved varieties in Georgia compared to plantings in Texas accounts for this dominance.

During the late 1980s and early 1990s, Georgia experienced a series of production disasters (Goff, 1991; Lee, 1994). After annual average production of about 110 million pounds during the 1980s, for example, production dropped to 30 million pounds in 1992, followed by 150 million pounds in 1993, and 75 million pounds in 1994. Those discouraging production dynamics can be attributed to a multitude of problems such as overcrowded old orchards, an increasingly high incidence of disease problems, and perceived management neglect (Goff, 1991). Work is underway to thin orchards, topwork trees with new varieties, improve drainage, and introduce more-modern production and chemical management

Fig. 1. Total United States pecan production, 1971-94

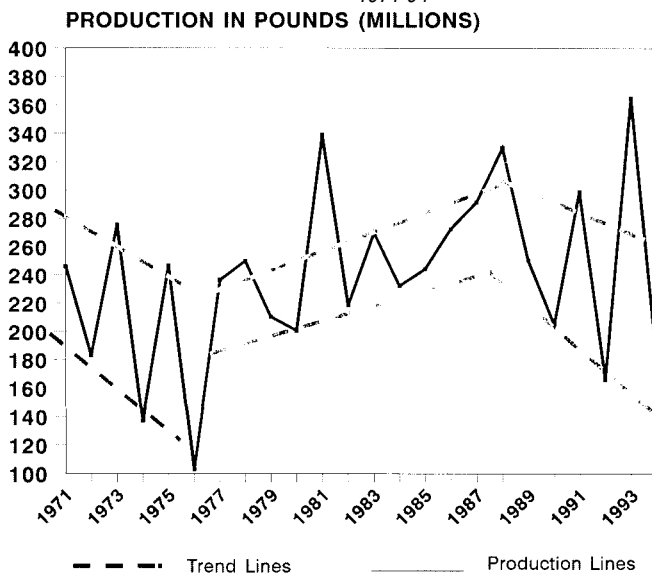


Table 1. Pecan acres planted, selected states, by region.

State	1974	1978	1982	1987	1992	Percent		
						Of total	1987-92	1974-92
Alabama	27,814	32,620	29,520	30,738	28,974	6.3%	-5.7%	4.2%
Arkansas	7,640	8,918	7,795	7,181	7,184	1.6%	0.0%	-6.0%
Florida	7,897	11,500	12,738	11,967	9,843	2.1%	-17.7%	24.6%
Georgia	89,652	126,081	116,876	121,398	128,015	27.7%	5.5%	42.8%
Louisiana	24,461	18,328	15,093	13,887	12,081	2.6%	-13.0%	-50.6%
Mississippi	17,925	18,054	16,118	15,153	15,161	3.3%	0.1%	-15.4%
North Carolina	1,050	1,055	985	1,039	1,247	0.3%	20.0%	18.8%
South Carolina	2,771	4,378	5,352	4,393	4,258	0.9%	-3.170	537%
Southeast Total	179,210	220,934	204,477	205,756	206,763	44.7%	0.5%	15.4%
Arizona	13,680	15,795	15,885	17,798	15,110	33%	-15.1%	10.5%
California	421	1,691	2,722	3,234	4,028	0.9%	24.6%	856.8%
New Mexico	10,810	16,880	17,811	22,394	25,240	55%	12.7%	133.5%
Oklahoma	30,927	48,432	43,970	44,835	47,419	103%	5.8%	53.3%
Texas	88,554	144,094	144,690	148,891	163,700	35.4%	9.9%	84.9%
Southwest total	144,392	226,892	225,078	237,152	255,497	55.3%	7.7%	76.9%
United States total	323,602	447,826	429,555	442,908	462,260	100.0%	44%	42.8%

systems, Weakening markets beginning in 1993, however, may slow the modernization process, but there are indications that production in Georgia may regain United States dominance in the near future.

Meanwhile, growing production centers in the western region, with new varieties and production systems, drier climates, and relatively abundant irrigation water, continue to emerge as leading pecan-production centers,

A comparison of production by region (Fig. 4) reflects Georgia's influence in production in the southeastern region. Although there are variations by year due to the alternate-bearing characteristics of pecan production, production in the southeastern region generally exceeds production in the southwestern region.

Production in the southwestern region, however, has been displaying more-manageable annual production swings recently and exceeded the southeastern region's production in 1979, 1990, 1992, and 1994.

A close review of production trends by region (Fig. 5) indicates that, whereas production in the southeastern region has ranged from constant since 1970 to declining recently, production in the southwestern region has shown steady growth. Production in Texas has been growing as a result of the expansion program in the early 1980s. Since production in Texas continues to reflect a high density of native groves with a high incidence of alternate-bearing years, the trend of increasing production may be attributed more to increased production in New Mexico, Arizona, and California,

Prices

A comparison of prices by region (Fig. 6) indicates that, whereas prices in the 1970s were very similar in both regions, pecans produced in the southwestern region have enjoyed a distinct

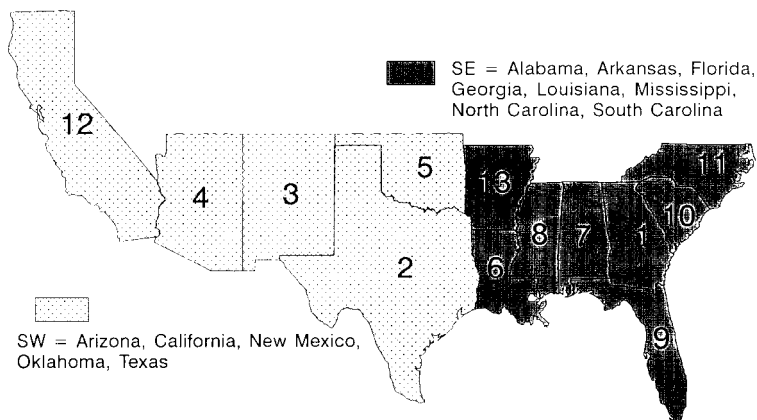
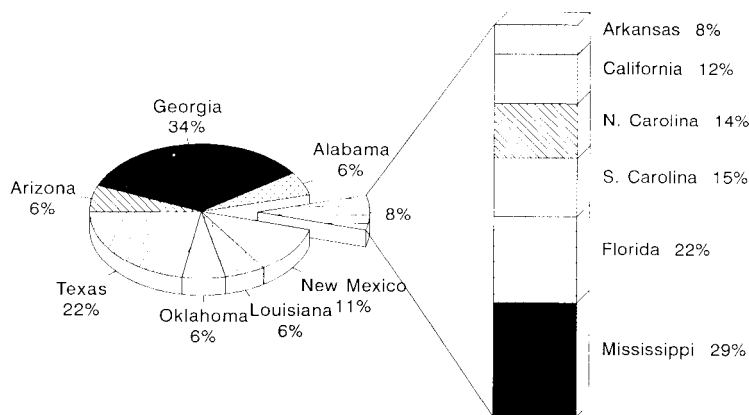


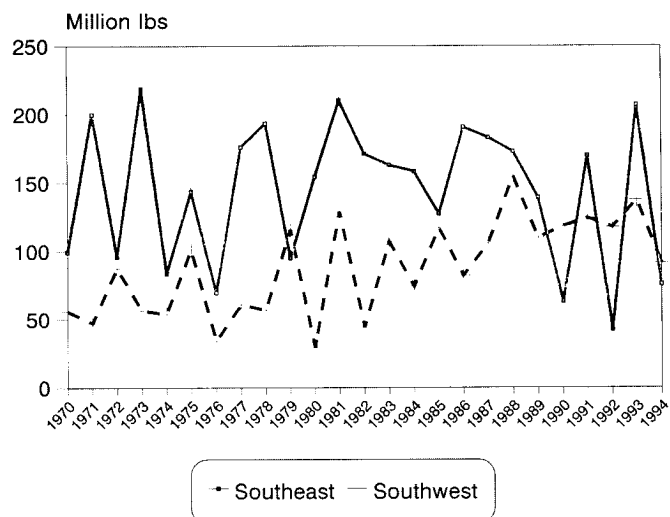
Fig. 2. Major pecan-producing states and ranking



Eight-Year Average = 254,043,000 lbs

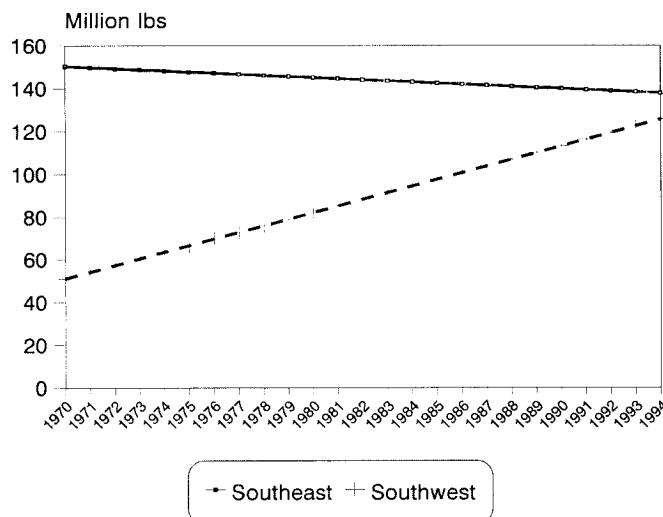
Fig. 3 Total United States pecan production, 1978-94.

Fig. 4. *In-shell pecans produced in the United States by region, 1970-94.*



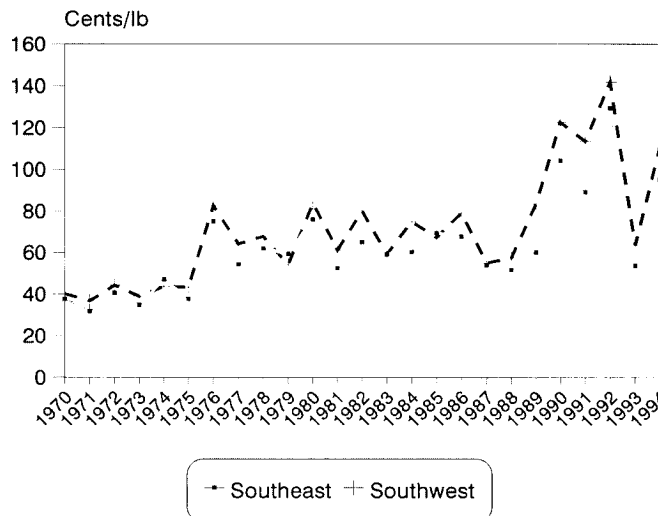
SE = Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, N. Carolina, S. Carolina
SW = Arizona, California, New Mexico, Oklahoma, Texas

Fig. 5. *In-shell pecan production trends by United States region 1970-94.*

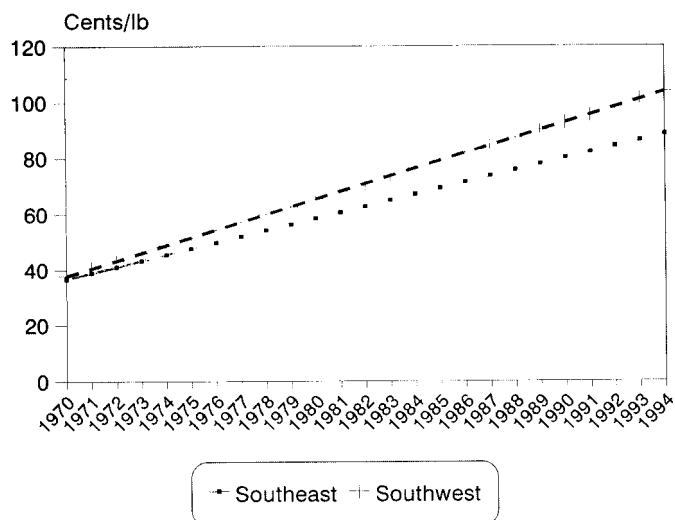


SE = Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, N. Carolina, S. Carolina
SW = Arizona, California, New Mexico, Oklahoma, Texas

Fig. 6. *United States prices received by region—all pecans, 1970-94.*



SE = Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, N. Carolina, S. Carolina
SW = Arizona, California, New Mexico, Oklahoma, Texas



SE = Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, N. Carolina, S. Carolina
 SW = Arizona, California, New Mexico, Oklahoma, Texas

Fig 7. United States prices received by region—all pecans, 1970-94.

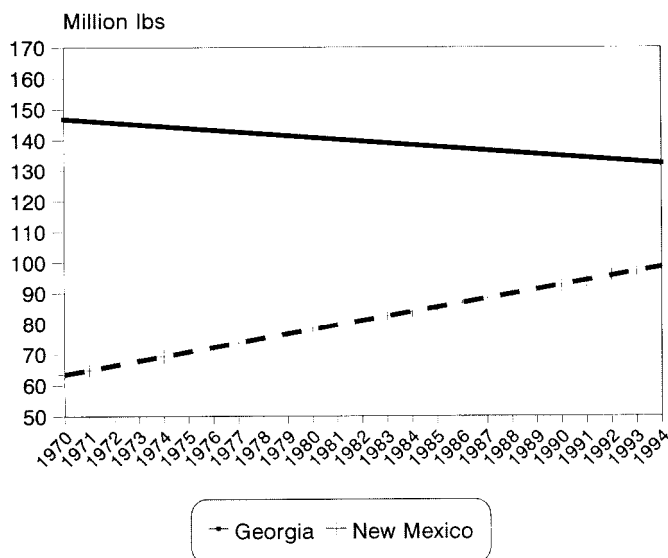


Fig. 8. In-shell pecan production—New Mexico and Georgia trends, 1970-94

price advantage since about 1980.

A further comparison of price trends by region (Fig. 7) indicates that, although prices have increased steadily in both regions, prices have increased at a significantly higher rate in the southwestern region than in the southeastern region. The higher prices in the southwestern region probably indicate that higher quality pecans are being produced.

New Mexico and Georgia

Finally, a brief production comparison between New Mexico, emerging as a leading pecan production state, and Georgia, the leading state (Fig. 8), indicates that the production trend in Georgia has decreased compared to production in New Mexico, which has increased substantially and continues to increase. Similar comparisons can be made for Texas, Arizona, and California.

If these trends continue, the industry will gradually shift to the western region. This may also cause a gradual shifting of the agribusiness infrastructure, which processes a large portion of pecans.

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