Economic Importance of the Pecan Industry

Revised by Don Blayney and Paul Gutierrez[1]

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The United States is the world's largest pecan-producing country. Two types of pecans are produced in the U.S.: native or seedling and improved varieties. Native pecans are varieties that developed under natural conditions. Seedling pecans are produced from seed (the nut) and have not been budded or grafted. Improved pecans are varieties that have been genetically developed through breeding and grafting techniques to produce more nuts, and nuts with a greater percentage of nut meat. Depending on the variety, pecan trees require 205–233 frost-free days for the nuts to reach maturity, and this restricts pecan production to southern states. Other countries producing pecans include Australia, Brazil, Israel, Mexico, Peru, and South Africa.

A recent action by U.S. pecan growers has the potential to change the economics of the industry to some degree. On May 6, 2016, the U.S. Department of Agriculture (USDA) announced the passage of a Federal Marketing Order (FMO) for pecans by an overwhelming majority of pecan growers in the 15-state production area of the nation. The final rule was published in the Federal Register of August 4, 2016, and took effect the following day.

The summary reads:
This rule establishes a marketing agreement and order (order) for pecans grown in the states of Alabama, Arkansas, Arizona, California, Florida, Georgia, Kansas, Louisiana, Missouri, Mississippi, North Carolina, New Mexico, Oklahoma, South Carolina, and Texas. The order provides authority to

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collect industry data and to conduct research and promotion activities. In addition, the order provides authority for the industry to recommend grade, quality and size regulation, as well as pack and container regulation, subject to approval by the Department of Agriculture (USDA). The program will be financed by assessments on handlers of pecans grown in the production area and will be locally administered, under USDA oversight, by a Council of seventeen growers and shellers (handlers) nominated by the industry and appointed by USDA. (pp. 51298–51312, Fed. Reg. vol. 81, no. 150)

PECAN PRODUCTION BY STATES

The following states all have some level of commercial pecan production: Alabama, Arizona, Arkansas, California, Florida, Georgia, Kansas, Louisiana, Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, South Carolina, and Texas (Table 1). There are also some pecan trees grown in Kentucky, Maryland, Tennessee, and Virginia. Improved varieties are utilized in production mostly in Arizona, Georgia, New Mexico, and Texas. The highest utilization of native and seedling varieties is in Oklahoma and Texas. The top three states based on combined utilization are Georgia, New Mexico, and Texas.

Over the 2013–2015 period, the utilized production of all varieties averaged about 261.5 million pounds. The improved varieties accounted for about 86% of that production.

PECAN PRICES

The U.S. average price for improved pecans has been consistently above the U.S. average native pecan price. In part, this price differential results from quality differences, meat yields, and differences in quantities produced.

The average price of all pecans during the 2013–2015 period ranged from $1.73 to $2.20 per pound, averaging $1.96. Over the same period, U.S. average prices for native pecans ranged from a low of $0.92 per pound in 2013 to a high of $1.36 per pound in 2015, and from $1.90 (2013) to $2.12 (2015) per pound for improved pecans. During this same period, U.S. improved pecans averaged $2.11 per pound, while native or seedling pecans averaged $1.07 per pound—an average price difference of $1.04 per pound. Differences in prices from state to state reflect national and local difference in supply and demand, as well as differences in quality, nut meats obtained, and market outlets. The annual gross value of pecans produced ranged from $460.4 million in 2013 to $560.2 million in 2015, a 22% increase over the period.

PECAN IMPORTS/EXPORTS

Historically, pecan imports and exports were small (both less than 10% of total supply, on a shelled basis) prior to the 1990/91 season (Table 2). From that point forward, both import and export shares have grown, but at different rates. Import share reached almost 17% in the 1990/91 season and has grown since then to an estimated 42% in the 2015/16 season. The export share went to just over 11% in the 1990/91 season and reached slightly more than an estimated 29% in 2015/16. Clearly, both imports and exports have become important for the U.S. pecan industry. The export market holds particular importance, especially in light of flat domestic consumption over many years, hovering around 0.5 pound per capita. The newly established marketing order includes authority for conducting research and promotion activities that may alter the domestic consumption situation.

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Table 1. U.S. Pecan Production, Season Average Price, and Value

Variety and State	Utilized production			Price per pound			Value of utilized production		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
	1,000 pounds			Dollars			1,000 dollars		
Improved varieties									
Alabama	2,500	1,500	1,600	1.94	2.06	2.17	4,850	3,090	3,472
Arizona	22,500	21,000	22,500	1.90	2.00	2.40	42,750	42,000	54,000
Arkansas	2,000	2,200	1,200	1.60	1.91	1.98	3,200	4,202	2,376
California	5,000	5,000	3,960	2.06	2.14	2.18	10,300	10,700	8,633
Florida	700	100	190	1.72	1.75	2.17	1,204	175	412
Georgia	83,000	74,000	90,000	1.96	2.34	2.18	162,680	173,160	196,200
Louisiana	1,500	2,500	1,000	1.40	1.52	1.71	2,100	3,800	1,710
Mississippi	3,800	700	1,000	1.23	1.57	1.54	1,615	270	372
Missouri	500	210	310	1.34	1.93	2.01	670	405	623
New Mexico	72,000	67,000	73,000	1.90	2.10	2.50	136,000	140,700	182,500
Oklahoma	3,000	4,000	3,000	2.05	1.63	2.09	6,150	6,520	6,270
South Carolina	1,500	200	420	2.00	2.16	1.65	3,000	432	693
Texas	22,000	49,000	27,000	1.79	1.96	2.30	39,380	96,040	62,100
United States	**220,000**	**227,410**	**225,180**	**1.90**	**2.12**	**2.31**	**417,758**	**482,323**	**520,529**
Native and seedling									
Alabama	770	200	300	1.02	1.14	1.23	785	228	369
Arkansas	700	1,300	1,000	0.83	0.86	1.10	581	1,118	1,100
Florida	D	D	D	D	D	D	D	D	D
Georgia	6,000	2,000	3,000	1.24	1.38	1.36	7,440	2,760	4,080
Kansas	D	D	D	D	D	D	D	D	D
Louisiana	9,500	11,500	4,000	0.86	0.79	1.00	8,170	9,085	4,000
Mississippi	1,700	300	300	0.95	0.90	1.24	1,615	270	372
Missouri	2,240	460	1,200	1.01	1.04	1.50	2,262	478	1,800
Oklahoma	17,000	8,000	10,000	0.80	0.92	1.45	13,617	7,384	14,500
South Carolina	60	50	30	1.50	1.27	1.26	90	64	38
Texas	6,000	12,000	8,000	0.90	0.98	1.47	5,400	11,760	11,760
Other States	2,360	930	1,280	1.13	1.21	1.30	2,672	1,121	1,668
United States	**46,330**	**36,740**	**29,110**	**0.92**	**0.93**	**1.36**	**42,632**	**34,268**	**39,687**
All pecans									
Alabama	3,270	1,700	1,900	1.02	1.14	1.23	5,635	3,318	3,841
Arizona	22,500	21,000	22,500	1.90	2.00	2.40	42,750	42,000	54,000
Arkansas	2,700	3,500	2,200	1.40	1.52	1.58	3,781	5,320	3,476
California	5,000	5,000	3,960	2.06	2.14	2.18	10,300	10,700	8,633
Florida	D	D	D	D	D	D	D	D	D
Georgia	89,000	76,000	93,000	1.91	2.31	2.15	170,120	175,920	196,200
Kansas	D	D	D	D	D	D	D	D	D
Louisiana	11,000	14,000	5,000	0.93	0.92	1.14	10,270	12,885	5,710
Mississippi	5,500	1,000	1,300	1.14	1.37	1.47	6,289	1,369	1,912
Missouri	2,740	670	1,510	1.07	1.32	1.60	2,932	883	2,423
New Mexico	70,000	67,000	73,000	1.90	2.10	2.50	136,800	140,700	182,500
Oklahoma	20,000	12,000	13,000	0.99	1.16	1.60	19,767	13,904	20,770
South Carolina	1,560	250	450	1.98	1.98	1.62	3,090	496	731
Texas	28,000	61,000	35,000	1.60	1.77	2.11	44,780	107,800	73,860
Other States	2,360	930	1,280	1.27	1.26	1.41	3,876	1,296	2,080
United States	**266,330**	**264,150**	**254,290**	**1.73**	**1.96**	**2.20**	**460,390**	**516,591**	**560,216**

Source: USDA–NASS, Noncitrus Fruits and Nuts 2015 Summary (July 2016). D = Data withheld to avoid disclosing data for individual operations.

Table 2. Selected Pecan Supply and Utilization (shelled basis) Data, 1980/81 to Present[1]					
				Utilization	
Season[2]	Imports	Total Supply	Exports	Domestic	Per capita
	1,000 pounds				Pounds
1980/81	952	133,341	4,665	97,824	0.43
1981/82	849	181,583	4,194	103,983	0.45
1982/83	1,625	177,773	7,298	113,186	0.49
1983/84	5,789	185,658	3,376	112,567	0.48
1984/85 P	1,934	180,180	2,720	127,090	0.54
1985/86	14,298	175,626	2,264	113,410	0.47
1986/87	10,918	196,312	2,755	130,134	0.54
1987/88	12,966	197,525	3,935	131,071	0.54
1988/89	2,718	200,267	5,885	152,639	0.62
1989/90	15,855	159,588	11,215	113,369	0.46
1990/91	26,235	158,770	17,740	118,134	0.47
1991/92	20,480	162,310	17,082	112,685	0.44
1992/93	31,099	137,788	15,045	101,299	0.39
1993/94	21,728	200,068	17,213	136,594	0.52
1994/95	34,221	166,716	13,739	98,806	0.37
1995/96	32,604	208,966	18,311	135,927	0.51
1996/97	27,064	175,685	19,838	130,924	0.48
1997/98	35,621	208,685	22,011	123,554	0.45
1998/99	40,383	169,005	17,605	130,858	0.47
1999/2000	28,963	209,902	20,335	113,415	0.40
2000/01	32,990	201,788	20,045	132,740	0.47
2001/02	35,456	230,039	24,972	128,879	0.45
2002/03	41,672	196,304	30,523	137,078	0.47
2003/04	62,719	208,392	34,169	133,046	0.46
2004/05	81,150	204,879	30,565	145,124	0.49
2005/06	75,403	229,845	38,181	132,075	0.44
2006/07	56,998	207,980	44,105	133,303	0.44
2007/08	79,853	290,681	71,319	133,924	0.44
2008/09	61,855	245,503	52,652	150,627	0.49
2009/10	83,178	257,385	70,502	146,923	0.48
2010/11	88,457	268,824	61,479	164,528	0.53
2011/12	74,610	242,028	74,113	113,993	0.36
2012/13	79,347	274,044	91,274	134,664	0.43
2013/14	92,493	271,367	81,408	111,826	0.35
2014/15	103,964	310,210	99,944	155,943	0.49
2015/16 P	114,842	273,678	80,277	142,203	0.44

[1]Conversion factors from in-shell to shelled basis vary year to year for production, stocks, and exports, and were 0.45 in 1996/97, 0.44 in 1997/98, 0.45 in 1998/99, 0.40 in 1999/2000, 0.44 in 2000/01, 0.43 in 2001/02, 0.45 in 2002/03, 0.42 in 2003/04, 0.44 in 2004/05 to 2006/07, 0.47 in 2007/08, 0.49 in 2008/09, 0.44 in 2009/10, 0.48 in 2010/11, 0.46 in 2011/12, 0.47 in 2012/13, 0.49 in 2013/14 and 2014/15, and 0.41 in 2015/16. For imports, the conversion factor was a constant 0.50.

[2]Season begins in October as of 1989; prior to 1989, season began in July.

P = Preliminary.

Source: USDA, Economic Research Service calculations.

Revised August 2017   **Las Cruces, NM**