ADMINISTRATIVE COMMITTEE FOR PISTACHIOS MARKETING POLICY STATEMENT 2017-2018 CROP YEAR

The Administrative Committee for Pistachios (ACP) is required to annually consider specific areas that directly affect the successful operation of the Marketing Order. This annual analysis is also used by the United States Department of Agriculture to determine the effectiveness of the Order in relationship to the requirement established by the Agricultural Marketing Agreement Act.

PROGRAM: Marketing Order No. 983, established April 2004, amended November 2009 and January 2012.

PROGRAM PURPOSES: Pursuant to the Act and continuing regulations, the purposes of the Order are: orderly marketing between producers and handlers; assurance of product quality and maximum aflatoxin tolerance; improvement of producer returns; and expansion of the market for United States pistachios.

ANALYSIS OF ECONOMIC IMPACT

ACREAGE AND PRODUCTION TRENDS: California produces approximately 98% of the pistachios grown in the United States. Other pistachio producing states included in the marketing order are Arizona and New Mexico. Arizona accounts for about 98% of the non-California domestic production and the three states together account for over 99.99% of the domestic production. Pistachios are grown in many California counties and a list of counties with more than three entities producing pistachios in 2015 and their actual production is given in the attached statistics. Some counties have been combined to prevent disclosure of individual operations and confidential business information. Most commercial production in California comes from Kern, Madera, Tulare, Kings, Fresno, and Merced Counties and these six counties account for over 95% of the production in California. Pistachio production in Arizona is almost entirely in Cochise County while that of New Mexico occurs primarily in Otero County. Due to the limited number of handlers in Arizona and New Mexico, reported production is combined for the two states.

The number of bearing acres has increased consistently since the beginning of the industry and there are an estimated 250,000 bearing acres for the 2017 crop year and likely about 80,000 nonbearing acres in California alone. Due to a problem with a particular rootstock that began in 2011 and uncertainty about how many acres were removed, acreage estimates are less accurate than in the past. Production has fluctuated with an upward trend due to the alternate bearing tendencies of pistachio trees as can be seen in the attached statistics. However, in recent years, the upward trend has been lacking due to ongoing drought conditions and the lack of winter chill. The 2010 crop was "on" with a record crop of 529 million pounds and the 2011 crop, at 448 million pounds, was larger than expected for an "off" year. The 2012 crop, at 555.4 million

pounds, set a new record but was disappointing to many growers and handlers who anticipated a 600+ million pound crop. The 2013 crop, at 475.5 million pounds was better than widely expected. The 2014 crop, at 519.1 million pounds, was better than many expected given drought and lack of chill. The 2015 crop was severely affected by lack of chill and, at 274.8 million pounds, was the smallest crop since 2006 and the lowest per acre yield since 1998. This set the stage for an extremely on-year 2016 crop of a record 903 million pounds.

There have been only a few cases of extremely off-extremely on combinations like that observed in 2015 and 2016 but in previous instances, the following year has been off. Consequently, an off-year is anticipated for 2017 and preliminary observations on bloom support this.

Crop potential for 2017 is affected by several factors including:

- 1. Alternate bearing. This will be an off-year crop. While drought concerns have receded following a wet winter, adverse summer weather could further reduce the potential total yields.
- 2. There was adequate winter chill in most growing areas. Following a relatively warm January and early February, the last two weeks of February added the chill needed according to the chill models. Male and female bloom was well synchronized. Bloom weather was mostly cool but had a few hot days interspersed which may reduce the potential yield.
- 3. A significant number of acres will be entering production this year. However, most of these trees developed during years of warm winters. How this affects yield potential in young trees is not known.
- 4. The winter rainfall and snowpack was above normal throughout the state. The water supply appears quite good with 100% allocations. Ground water remains depleted and recharge is needed.
- 5. Navel orangeworm populations are low due to winter mortality resulting from above normal winter rains. Growers are using a variety of controls, most recently augmented by pheromone confusion. Navel orangeworm populations respond to summer heat units and the summer conditions are an unknown. However, spring temperatures have been cool, delaying population development.

CURRENT SUPPLIES AND TRADE DEMANDS: With the 2016 crop and the carry in form 2015, gross pistachio inventory briefly exceeded 1 billion pounds. Both wholesale and retail prices declined due to supply and demand increased significantly, resulting in record domestic and export shipments on a monthly and total basis from September 2016 to date. The marketable inventory at the beginning of the 2017 harvest will depend on shipment volumes but is expected to be higher than normal. The 2017 crop will be smaller than 2016 but likely to be a relatively large off-year crop and grower, wholesale, and retail prices are expected to remain lower than the pre-2016 levels. This will likely contribute to increased exports and domestic consumption. Attached is the monthly inventory report for the year-to-date and the previous crop years. In addition, the attached statistics shows the open inshell carryover from previous years.

The inventory report (May 2017 summary attached) indicates that total shipments year-to-date for 2016/2017 are up significantly from the previous year's pace and exceed all previous years as well. Both domestic and export shipments are up but exports have increased more than domestic. Currently, exports account for about 73% of shipments. Given the expected carryover in the US and the likely crop sizes in the major pistachio producing countries, global pistachio supplies will be similar to larger than in past years. Consequently, there will be some downward pressure on prices. Carryover will likely be high going into the 2017 harvest.

PRICES: Prices are determined by a number of factors including individual handler inventories and sales projections, negotiations with producers, expected crop size, etc. Grower returns are affected by the quality delivered as well as cultural and harvest costs. As the Figures indicate, producers saw the average return per pound from the 2000 crop through the 2005 crop more than double (from \$1.01 to \$2.05). The average crop return over the previous five crop years has been \$2.39. The 2014 crop price is estimated at \$3.10 as of February 2016. USDA estimates for prices received in 2016 are not available but are expected to be close to \$2.00 per pound. According to data collected by the USDA, the pistachio parity price for January 2017 was \$6.63 per pound.

PRODUCTION AND ESTIMATED CROP SIZE: Historically, the California pistachio industry used the California Agricultural Statistics Service for crop size estimates. The industry found these estimates varied widely from the actual crop size and that they were not timely for either marketing or budget purposes. At a recent meeting, an informal survey of growers indicated a likely crop of 450-600 million pounds. The ACP has determined for budgetary purposes only, the crop estimate for crop year 2017/2018 should be set at 525 million pounds.

RECEIPTS BY REGULATED HANDLERS: Regulated handlers do not know of significant quantities of pistachios in the production area other than those received by regulated handlers. Pistachios may be produced in backyard plots but these do not enter the channels of commerce and, thus, are not regulated. Over 99% of the pistachio production in the production area is delivered to regulated handlers.

IMPACT ON SMALL BUSINESS: The ACP is required to assess the impact of its proposed regulations on small business units. The ACP's record keeping and reporting regulations do not directly affect producers because all regulations are enforced on handlers. The definition of small handlers is limited to those with gross sales of less than \$7 million. Of the 19 assessed handlers, all but eight fall below that level.

2016 Pistachio Bearing Acreage, Production and Yield Per Acre by District and County

	Bearing Acres*	Open Inshell	Closed Shell	Shelling Stock	Total Production (Pounds)	Yield/ Bearing Acre (Pounds)
District 1**						
Kern	86,548	270,674,897	58,263,885	27,363,643	356,302,425	4,117
San Bernardino (1)	288	91,864	33,588	10,720	136,172	473
San Luis Obispo	244	648,904	352,337	58,766	1,060,007	4,344
Santa Barbara	650	2,889,098	858,156	150,027	3,897,281	5,996
Tulare	29,228	87,043,781	20,848,501	7,781,459	115,673,741	3,958
District 1 Totals	116,958	361,348,544	80,356,467	35,364,615	477,069,626	4,079
District 2						
Fresno	56,247	151,098,179	42,680,175	11,902,094	205,680,448	3,657
Kings	18,925	44,968,254	9,057,502	3,691,161	57,716,917	3,050
Madera	33,480	82,393,107	26,865,506	7,304,443	116,563,056	3,482
Merced	8,222	16,949,815	6,594,811	1,223,722	24,768,348	3,012
District 2 Totals	116,874	295,409,355	85,197,994	24,121,420	404,728,769	3,463
District 3**						
Northern Counties (2)	5,165	9,251,080	3,597,337	798,679	13,647,096	2,642
Southern Counties (3)	388	559,720	428,132	53,328	1,041,180	2,683
District 3 Totals	5,553	9,810,800	4,025,469	852,007	14,688,276	2,645
California Totals	239,385	666,568,699	169,579,930	60,338,042	896,486,671	3,745
District 4 Totals***	N/A	4,742,049	1,247,253	662,528	6,651,830	N/A
Total US Pistachio	Crop	671,310,748	170,827,183	61,000,570	903,138,501	

Sources: Administrative Committee for Pistachios Processors' Producer Delivery Reports and Acreage Surveys

^{*}Bearing acreage is defined as plantings six years old and older

^{**}Counties with few growers have been combined due to privacy issues.

⁽¹⁾ Includes Riverside County

⁽²⁾ Butte, Colusa, Glenn, Placer, Sutter, Tehama, Yolo

⁽³⁾ Alameda, Calaveras, Contra Costa, San Joaquin, Stanislaus

^{***}District 4 is Arizona and New Mexico

California Pistachio Acreage and Crop Value

Acreage				Yield		Crop Value			
					Bearing	Production	Average	·	Value/
	1	Non-		New	Yield/	(Million	Return/	Total Value	Bearing
Year	Bearing ¹	Bearing	Total	Plantings	Acre	Pounds)	Pound ²	(Million \$)	Acre
1979	25,440	6,211	31,651	666	676	17.2	1.60	27.50	1,081
1980	25,773	8,989	34,762	1,382	1,055	27.2	2.05	55.80	2,165
1981	27,541	13,084	40,625	6,494	523	14.4	1.36	19.60	712
1982	29,902	15,619	45,521	5,002	1,468	43.9	1.49	63.70	2,130
1983	31,143	15,959	47,102	4,349	844	26.3	1.41	37.30	1,198
1984	30,788	16,794	47,582	2,488	2,027	63.0	0.98	61.70	2,004
1985	32,332	18,739	51,071	5,126	838	27.1	1.37	36.60	1,132
1986	34,243	20,438	54,681	2,579	2,240	76.7	1.12	85.90	2,509
1987	40,985	16,365	57,350	1,266	818	33.0	1.37	47.20	1,152
1988	47,234	10,258	57,492	1,461	2,117	93.4	1.22	109.30	2,314
1989	50,900	12,000	62,900	3,209	800	38.8	1.63	63.20	1,242
1990	53,700	11,100	64,800	2,655	2,375	119.9	1.02	129.50	2,412
1991	55,700	13,300	69,000	3,686	1,465	76.3	1.25	100.70	1,808
1992	56,500	13,900	70,400	2,894	2,592	146.5	1.03	150.90	2,671
1993	57,000	15,700	72,700	2,480	2,648	150.9	1.07	161.50	2,833
1994	57,507	16,633	74,140	3,568	2,232	128.3	0.92	118.10	2,054
1995	60,300	13,400	73,700	3,413	2,449	147.7	1.09	160.94	2,669
1996	64,300	17,100	81,400	4,872	1,622	104.3	1.16	120.99	1,882
1997	65,373	17,062	82,435	3,839	2,746	179.5	1.13	202.84	3,103
1998	68,000	19,300	87,300	3,620	2,757	187.5	1.03	193.10	2,840
1999	71,000	21,000	92,000	5,496	1,724	122.4	1.33	162.78	2,293
2000	74,578	21,730	96,308	3,903	3,239	241.6	1.01	244.02	3,272
2001	78,000	23,500	101,500	8,025	2,055	160.3	1.01	161.90	2,076
2002	83,000	23,000	106,000	2,475	3,644	302.4	1.10	332.64	4,008
2003	88,000	23,000	111,000	3,016	1,341	118.0	1.22	143.96	1,636
2004	93,000	24,733	117,733	7,314	3,729	346.8	1.34	464.71	4,997
2005	104,552	32,295	136,847	11,465	2,701	282.4	2.05	578.92	5,537
2006	112,532	40,112	152,644	15,842	2,110	237.5	1.89	448.88	3,989
2007	115,007	62,341	177,348	24,794	3,615	415.7	1.41	586.14	5,097
2008	118,133	78,155	196,288	18,740	2,353	278.0	2.05	569.90	4,824
2009	125,637	82,969	208,606	12,128	2,822	354.5	1.67	592.02	4,712
2010	137,102	78,234	215,336	6,730	3,806	521.8	2.22	1,158.40	8,449
2011	152,944	73,392	226,336	11,000*	2,902	443.8	1.98	878.72	5,745
2012	177,738	62,308	240,046	13,710*	3,100	551.0	2.61	1,438.11	8,091
2013	202,997	68,068	271,065	24,500*	2,312	469.3	3.48	1,633.16	8,045
2014	220,527	73,940	294,467	18,000*	2,329	513.6	3.57	1,833.55	8,314
2015	232,655	69,312	301,967	7,500*	1,161	270.1	2.48	669.85	2,879
2016	239,385	72,582	311,967	10,000*	3,745	896.5	2016 avera	ge return unavailable	

Sources: CPC, ACP and CASS statistical data

¹Bearing acreage for 1989 to date is defined as plantings six years old and older. Bearing acreage prior to 1989 is defined as plantings seven years and older.

²Weighted average which includes shelling stock. CASS revises periodically (Note: 2014 was revised from 3.10 to 3.57).

^{*}Acreage based on rootstock sales. Due to removal and replanting affecting these specific years, the new plantings will be reduced when corrections have been determined.

California Pistachio Production History

Year	Total Production	Open Inshell	Percent of Total Production	Closed Shell*	Percent of Total Production	Shelling Stock	Percent of Total Production	Yield (Pounds/ Acre)
1979	17,200,000	17,200,000	=	-	_	n/a	n/a	676
1980	27,200,000	18,600,000	68.4%	_	_	8,600,000	31.6%	1,055
1981	14,147,875	10,903,242	77.1%	_	_	3,244,633	22.9%	523
1982	43,214,539	37,366,499	86.5%	_	-	5,848,040	13.5%	1,468
1983	26,319,156	20,886,616	79.4%	=	-	5,432,540	20.6%	844
1984	62,638,990	45,171,125	72.1%	=	-	17,467,865	27.9%	2,027
1985	27,288,795	22,497,527	82.4%	_	-	4,791,268	17.6%	838
1986	76,693,882	64,518,438	84.1%	_	-	12,175,444	15.9%	2,240
1987	33,458,574	29,152,439	87.1%	_	-	4,306,135	12.9%	818
1988	96,402,259	71,989,599	74.7%	_	-	24,412,660	25.3%	2,117
1989	39,514,481	33,186,931	84.0%	_	-	6,327,550	16.0%	800
1990	117,294,912	92,657,459	79.0%	_	-	24,637,453	21.0%	2,375
1991	76,429,547	58,913,785	77.1%	_	-	17,515,762	22.9%	1,465
1992	146,500,153	114,320,726	78.0%	_	-	32,179,427	22.0%	2,592
1993	150,906,921	112,645,883	74.7%	-	-	38,261,038	25.3%	2,648
1994	128,328,015	94,074,802	73.3%	-	-	34,253,213	26.7%	2,232
1995	147,652,532	107,342,387	72.7%	-	-	40,310,145	27.3%	2,449
1996	104,324,193	84,469,382	81.0%	-	-	19,854,811	19.0%	1,622
1997	179,492,470	136,616,006	76.1%	-	-	42,876,464	23.9%	2,746
1998	187,487,319	137,644,225	73.4%	38,644,205	20.6%	11,198,889	6.0%	2,757
1999	122,391,521	104,374,839	85.3%	12,029,978	9.8%	5,986,704	4.9%	1,724
2000	241,554,218	188,796,676	78.2%	38,638,066	16.0%	14,119,476	5.8%	3,239
2001	160,295,282	125,849,554	78.5%	26,356,995	16.4%	8,088,733	5.1%	2,055
2002	302,434,693	241,664,914	79.9%	42,096,386	13.9%	18,673,390	6.2%	3,644
2003	118,042,323	89,248,483	75.6%	22,072,569	18.7%	6,721,271	5.7%	1,341
2004	346,781,488	253,920,610	73.2%	73,011,946	21.1%	19,848,932	5.7%	3,729
2005	282,385,160	214,575,387	76.0%	56,858,178	20.1%	10,951,595	3.9%	2,701
2006	237,471,763	200,234,652	84.3%	25,004,012	10.5%	12,233,099	5.2%	2,111
2007	415,694,893	332,444,535	80.0%	53,953,597	13.0%	29,296,761	7.0%	3,615
2008	277,990,206	230,547,823	82.9%	36,538,701	13.1%	10,903,682	3.9%	2,353
2009	354,510,976	289,857,258	81.8%	48,436,667	13.7%	16,217,051	4.6%	2,822
2010	521,798,038	377,922,848	72.4%	124,552,672	23.9%	19,322,518	3.7%	3,806
2011	443,814,053	340,629,631	76.8%	86,846,692	19.6%	16,337,730	3.7%	2,902
2012	550,984,409	463,303,334	84.1%	67,233,364	12.2%	20,447,710	3.7%	3,100
2013	469,344,208	378,050,138	80.5%	69,415,633	14.8%	21,878,437	4.7%	2,312
2014	513,626,672	407,691,332	79.4%	88,500,092	17.2%	17,435,248	3.4%	2,329
2015	270,096,856	203,538,562	75.4%	53,607,893	19.8%	12,950,401	4.8%	1,161
2016	896,486,671	666,568,699	74.4%	169,579,930	18.9%	60,338,042	6.7%	3,745

*Prior to 1998 closed shell was included in shelling stock.

Sources:

^{1979 - 2006:} California Pistachio Commission Processors' Producer Delivery Reports and Acreage Surveys.

^{2007 -} Present: Administrative Committee for Pistachios Processors' Producer Delivery Reports and Acreage Surveys.

Pistachio Industry Open Inshell Shipments/Inventory Carryover History

Crop Year	New Crop (Open Inshell) ¹	Inventory Adjustments ²	Total Salable Supply	Domestic Shipments	Export Shipments ³	Total Shipments	Inventory Carryout/ Carryin
1985/86	22,497,527	638,935	36,173,788	23,517,699	1,594,195	25,111,894	11,061,894
1986/87	64,518,438	(8,791,131)	66,789,201	37,271,746	3,754,449	41,026,195	25,763,006
1987/88	29,152,439	(1,800,790)	53,114,655	40,276,878	6,266,497	46,543,375	6,571,280
1988/89	71,989,599	4,112,916	82,673,795	48,158,964	11,190,380	59,349,344	23,324,451
1989/90	33,186,931	(3,202,786)	53,308,596	35,311,575	5,753,338	41,064,913	12,243,683
1990/91	92,657,459	2,523,709	107,424,851	63,387,571	16,113,721	79,501,292	27,923,559
1991/92	58,913,785	6,647,377	93,484,721	59,662,021	25,921,087	85,583,108	7,901,613
1992/93	114,320,726	10,897,159	133,119,498	76,037,890	34,635,897	110,673,787	22,445,711
1993/94	112,645,883	3,571,570	138,663,164	69,590,108	32,555,293	102,145,401	36,517,763
1994/95	94,074,802	9,028,163	139,620,728	80,314,468	36,071,219	116,385,687	23,235,041
1995/96	107,342,387	(1,480,859)	129,096,569	69,740,482	39,330,159	109,070,641	20,025,928
1996/97	84,469,382	1,988,738	106,484,048	58,683,031	33,203,907	91,886,938	14,597,110
1997/98	136,616,006	5,081,231	156,294,347	74,821,240	66,380,564	141,201,804	15,092,543
1998/99	137,644,225	7,873,838	160,610,606	85,112,260	49,995,685	135,107,945	25,502,661
1999/00	104,374,839	(3,392,808)	126,484,692	76,866,274	33,061,606	109,927,880	16,556,812
2000/01	188,793,654	(515,762)	204,834,704	106,683,890	48,008,950	154,692,840	48,409,891
2001/02	125,849,554	(8,249,269)	166,010,176	97,347,328	55,355,787	152,703,115	13,307,061
2002/03	241,656,847	(6,455,957)	248,507,951	97,959,721	63,773,344	161,733,065	86,774,886
2003/04	89,255,589	(3,984,770)	172,045,705	111,929,789	53,169,870	165,099,659	6,946,046
2004/05	253,920,610	(11,043,286)	249,823,370	105,773,078	95,761,666	201,534,744	48,288,626
2005/06	214,575,387	(4,204,583)	258,659,430	85,915,717	82,552,955	168,468,672	90,190,758
2006/07	200,234,652	(34,185,741)	256,239,669	87,363,653	97,983,575	185,347,228	70,892,441
2007/08	332,378,075	(26,075,313)	377,563,791	115,787,557	168,995,508	284,783,065	92,780,726
2008/09	230,547,823	(3,125,768)	320,202,781	85,313,225	183,089,493	268,402,718	51,800,063
2009/10	289,857,258	(10,950,254)	330,707,067	114,842,769	192,436,136	307,278,905	23,428,162
2010/114	381,890,117	(30,363,452)	374,954,827	122,456,770	173,191,437	295,648,207	79,306,620
2011/12	343,786,231	(30,876,217)	392,216,634	153,904,736	200,542,576	354,447,312	37,769,322
2012/13	466,618,504	(34,760,117)	469,627,709	146,797,517	237,746,411	384,543,928	85,083,781
2013/14	382,681,859	(31,379,912)	436,385,728	125,696,820	255,976,908	381,673,728	54,712,000
2014/15	412,063,855	(49,541,570)	417,234,285	116,481,103	194,362,124	310,843,227	106,391,058
2015/16	207,217,512	(34,886,402)	278,722,168	106,066,958	125,698,802	231,765,760	46,956,408

¹Only open inshell is reported as this is the industry standard for determining inventory carrover.

²Inventory adjustments include splitting and shelling adjustments as well as inventory adjustments resulting from processing loss and inventory corrections.

³Countries of destination may be found in Year End Shipment Reports (www.acpistachios.org/statistics.htm)

⁴District 4 data included starting with the 2010/2011 Crop Year