



# Crop Production

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Released September 10, 1999, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, U.S. Department of Agriculture. For information on "Crop Production" call (202) 720-2127, office hours 7:30 a.m. to 4:00 p.m. ET.

## **Corn Production Down 2 Percent Soybean Production Down 3 Percent Cotton Production Down 4 Percent**

**Corn** production is forecast at 9.38 billion bushels, down 2 percent from the last forecast and down 4 percent from 1998. Based on September 1 conditions, yields are expected to average 132.2 bushels per acre, down 2.5 bushels per acre from August and 2.2 bushels from a year ago. If realized, this would be the fourth largest production and third highest yield on record. Acreage for grain harvest is estimated at 71.0 million acres, unchanged from August.

**Soybean** production is forecast at a record high 2.78 billion bushels, down 3 percent from August 1, but up 1 percent from last year's record of 2.76 billion bushels. Based on September 1 conditions, yields are expected to average 37.9 bushels per acre, down 1.3 bushels from last month and down 1.0 bushel from 1998. Acreage for harvest is estimated at a record 73.3 million acres, unchanged from August 1 but up 3 percent from 1998.

**All cotton** production is forecast at 17.5 million 480-pound bales, down 4 percent from last month, but up 26 percent from 1998. If realized, this would be the eighth largest cotton crop on record. Based on September 1 conditions, yields are expected to average 621 pounds per harvested acre, down 28 pounds from last month. Condition of the cotton crop has deteriorated since last month in most of the cotton-producing States. Dry soils and above normal temperatures have stressed dryland cotton. Harvested acreage, at 13.6 million acres, reflects an increase of 30,000 acres in Louisiana from last month.

**All wheat** production is placed at 2.31 billion bushels, down less than 1 percent from the August forecast and down 10 percent from 1998. The U.S. yield is forecast at 42.3 bushels per acre. This is down 0.3 bushels from last month.

### *-Special Note-*

**NASS PROGRAM CHANGES:** *The National Agricultural Statistics Service has completed a preliminary review of its statistical program to make sure it best meets the needs of data users in the future. These changes are documented at the following web site:*

**<http://www.usda.gov/nass/events/events.htm>**

*This site can be reached through the NASS home page by clicking on "Coming Events and News" under AGENCY INFORMATION. The proposed program changes are the first subject.*

**Other spring wheat** production is forecast at 508 million bushels, down 1 percent from last month and down 4 percent from last season. The final forecast of U.S. average yield is 33.9 bushels per acre, 0.3 bushels per acre lower than a month ago. Hard Red Spring production is down 1 percent from August to 455 million bushels because yields declined in Montana and South Dakota. Heat was the factor in both States. The South Dakota harvest is finished. Better Idaho yields have White Spring production up 1 percent to 52.5 million bushels.

**Durum wheat** production is forecast at 110 million bushels, down 3 percent from last month and 22 percent less than 1998. The U.S. yield is now forecast at 28.3 bushels per acre, down 0.9 bushels from August 1. North Dakota's crop is maturing slowly; only 19 percent was combined as of August 29.

**California Navel Oranges:** Production for 1999-00 is forecast at 40.0 million boxes, up 90 percent from last season's freeze damaged production of 21.0 million boxes, but down 9 percent from 1997-98 production. This initial forecast of the 1999-00 season is based on an objective measurement survey conducted in the California Central Valley. The new crop navel oranges are maturing well. Sizes are slightly below the average of the last 12 non-freeze years.

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This report was approved on September 10, 1999.



Secretary of  
Agriculture  
Dan Glickman



Agricultural Statistics Board  
Chairperson  
Rich Allen

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**Corn for Grain: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

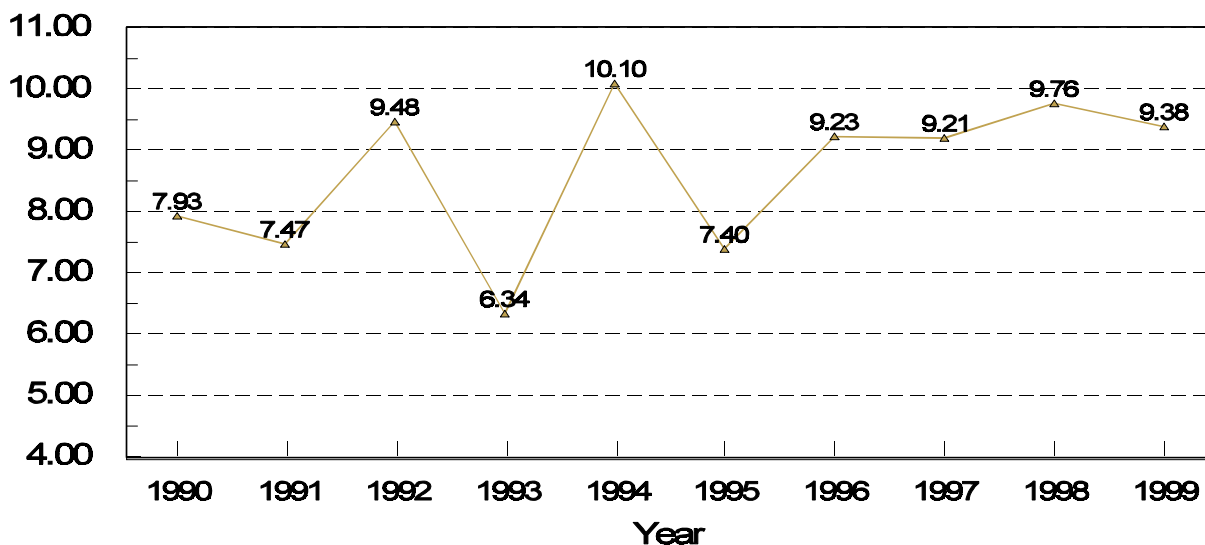
State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
AL	200	210	63.0	96.0	100.0	12,600	21,000
AZ <sup>1</sup>	30	30	175.0	190.0	190.0	5,250	5,700
AR <sup>1</sup>	215	135	100.0	125.0	125.0	21,500	16,875
CA	260	235	160.0	185.0	185.0	41,600	43,475
CO	1,070	1,130	145.0	146.0	146.0	155,150	164,980
CT <sup>2</sup>							
DE	155	154	100.0	92.0	84.0	15,500	12,936
FL <sup>1</sup>	55	40	62.0	88.0	88.0	3,410	3,520
GA	265	260	85.0	90.0	97.0	22,525	25,220
ID <sup>1</sup>	52	55	150.0	155.0	155.0	7,800	8,525
IL	10,450	10,650	141.0	140.0	140.0	1,473,450	1,491,000
IN	5,550	5,750	137.0	130.0	128.0	760,350	736,000
IA	12,200	11,800	145.0	151.0	151.0	1,769,000	1,781,800
KS	2,850	2,800	147.0	139.0	142.0	418,950	397,600
KY	1,180	1,240	115.0	105.0	98.0	135,700	121,520
LA <sup>1</sup>	540	410	81.0	127.0	127.0	43,740	52,070
ME <sup>2</sup>							
MD	400	400	109.0	90.0	85.0	43,600	34,000
MA <sup>2</sup>							
MI	2,050	1,900	111.0	127.0	127.0	227,550	241,300
MN	6,750	6,700	153.0	150.0	142.0	1,032,750	951,400
MS <sup>1</sup>	500	320	86.0	110.0	110.0	43,000	35,200
MO	2,500	2,600	114.0	103.0	95.0	285,000	247,000
MT <sup>1</sup>	18	19	115.0	135.0	135.0	2,070	2,565
NE	8,550	8,250	145.0	141.0	138.0	1,239,750	1,138,500
NH <sup>2</sup>							
NJ <sup>1</sup>	98	60	92.0	40.0	40.0	9,016	2,400
NM <sup>1</sup>	85	90	165.0	170.0	170.0	14,025	15,300
NY	580	590	114.0	105.0	102.0	66,120	60,180
NC	770	670	70.0	90.0	90.0	53,900	60,300
ND	825	810	107.0	102.0	107.0	88,275	86,670
OH	3,340	3,100	141.0	131.0	125.0	470,940	387,500
OK <sup>1</sup>	220	310	130.0	135.0	135.0	28,600	41,850
OR <sup>1</sup>	33	35	190.0	190.0	190.0	6,270	6,650
PA	1,050	1,030	111.0	72.0	72.0	116,550	74,160
RI <sup>2</sup>							
SC	275	260	40.0	68.0	70.0	11,000	18,200
SD	3,550	3,250	121.0	120.0	105.0	429,550	341,250
TN	620	560	96.0	105.0	98.0	59,520	54,880
TX	1,850	1,730	100.0	135.0	135.0	185,000	233,550
UT <sup>1</sup>	24	22	141.0	143.0	143.0	3,384	3,146
VT <sup>2</sup>							
VA	300	320	84.0	80.0	80.0	25,200	25,600
WA <sup>1</sup>	100	140	190.0	195.0	195.0	19,000	27,300
WV <sup>1</sup>	34	35	80.0	65.0	65.0	2,720	2,275
WI	2,950	2,800	137.0	143.0	143.0	404,150	400,400
WY <sup>1</sup>	60	55	127.0	130.0	130.0	7,620	7,150
US	72,604	70,955	134.4	134.7	132.2	9,761,085	9,380,947

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

<sup>2</sup> Not estimated.

## U.S. Corn Production 1990 - 1999

Billion Bushels



**Sorghum for Grain: Area Harvested, Yield, and Production by State and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
AL <sup>1</sup>	6	8	45.0	50.0	50.0	270	400
AR	130	115	53.0	75.0	72.0	6,890	8,280
CO	185	200	57.0	52.0	52.0	10,545	10,400
GA <sup>1</sup>	30	30	38.0	50.0	50.0	1,140	1,500
IL	107	97	74.0	80.0	77.0	7,918	7,469
KS	3,300	3,400	80.0	73.0	73.0	264,000	248,200
KY <sup>1</sup>	8	7	80.0	80.0	80.0	640	560
LA	125	250	60.0	75.0	80.0	7,500	20,000
MS	36	56	65.0	75.0	85.0	2,340	4,760
MO	320	310	83.0	74.0	70.0	26,560	21,700
NE	600	450	94.0	90.0	85.0	56,400	38,250
NM	65	135	45.0	55.0	55.0	2,925	7,425
NC <sup>1</sup>	12	11	45.0	57.0	57.0	540	627
OK	340	400	45.0	49.0	50.0	15,300	20,000
SC <sup>1</sup>	3	4	35.0	45.0	45.0	105	180
SD	140	110	71.0	60.0	58.0	9,940	6,380
TN <sup>1</sup>	16	16	70.0	75.0	75.0	1,120	1,200
TX	2,300	2,900	46.0	65.0	63.0	105,800	182,700
US	7,723	8,499	67.3	69.2	68.2	519,933	580,031

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**Barley: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
AZ <sup>1</sup>	56	62	110.0	114.0	114.0	6,160	7,068
CA <sup>1</sup>	125	130	60.0	60.0	60.0	7,500	7,800
CO	82	88	115.0	108.0	108.0	9,430	9,504
DE <sup>1</sup>	30	26	60.0	82.0	82.0	1,800	2,132
ID	760	690	78.0	74.0	76.0	59,280	52,440
KS <sup>1</sup>	8	14	35.0	29.0	29.0	280	406
KY <sup>1</sup>	7	8	63.0	86.0	86.0	441	688
MD <sup>1</sup>	54	50	64.0	80.0	80.0	3,456	4,000
MI <sup>1</sup>	26	21	50.0	60.0	60.0	1,300	1,260
MN	415	185	55.0	52.0	52.0	22,825	9,620
MT	1,200	1,150	48.0	46.0	46.0	57,600	52,900
NE <sup>1</sup>	8	4	50.0	41.0	41.0	400	164
NV <sup>1</sup>	4	4	100.0	95.0	95.0	400	380
NJ <sup>1</sup>	4	4	58.0	71.0	71.0	232	284
NC <sup>1</sup>	20	19	57.0	75.0	75.0	1,140	1,425
ND	1,930	1,300	55.0	50.0	49.0	106,150	63,700
OK <sup>1</sup>	5	3	47.0	39.0	39.0	235	117
OR	130	135	62.0	67.0	60.0	8,060	8,100
PA <sup>1</sup>	75	70	67.0	70.0	70.0	5,025	4,900
SC <sup>1</sup>	3	2	47.0	60.0	60.0	141	120
SD	95	74	48.0	48.0	48.0	4,560	3,552
TX <sup>1</sup>	5	10	43.0	46.0	46.0	215	460
UT	85	85	83.0	80.0	80.0	7,055	6,800
VA <sup>1</sup>	70	60	61.0	84.0	84.0	4,270	5,040
WA	520	490	65.0	55.0	59.0	33,800	28,910
WI	65	65	52.0	52.0	50.0	3,380	3,250
WY	85	85	86.0	86.0	89.0	7,310	7,565
US	5,867	4,834	60.1	58.2	58.5	352,445	282,585

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**All Wheat: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
AL <sup>1</sup>	85	100	42.0	48.0	48.0	3,570	4,800
AZ <sup>1</sup>	152	83	104.2	94.6	94.6	15,840	7,853
AR <sup>1</sup>	900	870	51.0	56.0	56.0	45,900	48,720
CA <sup>1</sup>	555	455	69.5	79.7	79.7	38,550	36,250
CO <sup>1</sup>	2,610	2,452	39.7	42.6	42.6	103,710	104,440
DE <sup>1</sup>	73	73	51.0	60.0	60.0	3,723	4,380
FL <sup>1</sup>	13	9	43.0	40.0	40.0	559	360
GA <sup>1</sup>	240	225	43.0	44.0	44.0	10,320	9,900
ID	1,280	1,350	80.0	74.5	75.4	102,410	101,820
IL <sup>1</sup>	1,200	1,020	48.0	61.0	61.0	57,600	62,220
IN <sup>1</sup>	650	510	55.0	66.0	66.0	35,750	33,660
IA <sup>1</sup>	32	34	40.0	43.0	43.0	1,280	1,462
KS <sup>1</sup>	10,100	9,200	49.0	46.0	46.0	494,900	423,200
KY <sup>1</sup>	550	430	45.0	60.0	60.0	24,750	25,800
LA <sup>1</sup>	90	110	44.0	47.0	47.0	3,960	5,170
MD <sup>1</sup>	215	200	50.0	60.0	60.0	10,750	12,000
MI <sup>1</sup>	570	600	54.0	67.0	67.0	30,780	40,200
MN	1,982	2,218	40.6	39.7	39.7	80,444	87,994
MS <sup>1</sup>	150	165	45.0	50.0	50.0	6,750	8,250
MO <sup>1</sup>	1,250	920	46.0	51.0	51.0	57,500	46,920
MT	5,280	5,410	32.0	30.0	29.2	168,790	158,100
NE <sup>1</sup>	1,800	1,850	46.0	48.0	48.0	82,800	88,800
NV <sup>1</sup>	14	15	88.6	98.3	98.3	1,240	1,475
NJ <sup>1</sup>	44	35	52.0	54.0	54.0	2,288	1,890
NM <sup>1</sup>	265	270	30.0	35.0	35.0	7,950	9,450
NY <sup>1</sup>	130	125	54.0	54.0	54.0	7,020	6,750
NC <sup>1</sup>	680	580	41.0	49.0	49.0	27,880	28,420
ND	9,610	8,948	32.3	28.6	28.2	310,650	252,180
OH <sup>1</sup>	1,160	1,030	64.0	70.0	70.0	74,240	72,100
OK <sup>1</sup>	5,100	4,300	39.0	35.0	35.0	198,900	150,500
OR <sup>1</sup>	885	783	65.0	48.0	48.0	57,490	37,602
PA <sup>1</sup>	190	190	51.0	52.0	52.0	9,690	9,880
SC <sup>1</sup>	240	220	32.0	41.0	41.0	7,680	9,020
SD	3,294	2,949	36.7	39.6	39.0	120,884	115,035
TN <sup>1</sup>	370	310	41.0	57.0	57.0	15,170	17,670
TX <sup>1</sup>	3,900	3,400	35.0	36.0	36.0	136,500	122,400
UT <sup>1</sup>	173	174	51.1	53.3	53.3	8,834	9,280
VA <sup>1</sup>	245	240	45.0	58.0	58.0	11,025	13,920
WA	2,565	2,290	61.4	53.7	53.7	157,425	122,900
WV <sup>1</sup>	8	8	57.0	50.0	50.0	456	400
WI <sup>1</sup>	142	127	53.8	55.5	55.5	7,635	7,050
WY <sup>1</sup>	210	189	32.3	34.1	34.1	6,790	6,450
US	59,002	54,467	43.2	42.5	42.3	2,550,383	2,306,671

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**Durum Wheat: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
AZ <sup>1</sup>	144	75	105.0	95.0	95.0	15,120	7,125
CA <sup>1</sup>	175	85	90.0	100.0	100.0	15,750	8,500
MN	5	9	37.0	38.0	38.0	185	342
MT	430	390	28.0	28.0	28.0	12,040	10,920
ND	2,950	3,300	33.0	26.0	25.0	97,350	82,500
SD	24	39	26.0	28.0	25.0	624	975
US	3,728	3,898	37.8	29.2	28.3	141,069	110,362

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**Other Spring Wheat: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
CO <sup>1</sup>	60	52	71.0	70.0	70.0	4,260	3,640
ID	510	640	77.0	75.0	77.0	39,270	49,280
MN	1,920	2,150	41.0	40.0	40.0	78,720	86,000
MT	3,600	4,050	30.0	28.0	27.0	108,000	109,350
NV <sup>1</sup>	8	5	80.0	95.0	95.0	640	475
ND	6,600	5,600	32.0	30.0	30.0	211,200	168,000
OR <sup>1</sup>	95	153	48.0	44.0	44.0	4,560	6,732
SD	1,850	1,650	32.0	35.0	34.0	59,200	56,100
UT <sup>1</sup>	23	29	58.0	60.0	60.0	1,334	1,740
WA	465	620	45.0	42.0	42.0	20,925	26,040
WI <sup>1</sup>	7	7	30.0	30.0	30.0	210	210
WY <sup>1</sup>	10	4	39.0	40.0	40.0	390	160
US	15,148	14,960	34.9	34.2	33.9	528,709	507,727

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**Wheat: Production by Class, United States, 1997-98  
and Forecast September 1, 1999 <sup>1</sup>**

Year	Winter			Spring			Total
	Hard Red	Soft Red	White	Hard Red	White	Durum	
	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
1997	1,098,303	471,987	275,238	491,324	56,831	87,783	2,481,466
1998	1,182,092	442,639	255,874	486,781	41,928	141,069	2,550,383
1999	1,042,322	450,602	195,658	455,231	52,496	110,362	2,306,671

<sup>1</sup> Wheat class estimates are based on varietal acreage survey data available for all wheat producing States. Unless unusual situations dictate, the previous end-of-season class percentages are used throughout the forecast season. Washington Wheat Variety Survey indicates winter wheat is 93 percent White.



**Rice: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>
AR	1,525	1,640	5,800	5,900	5,850	88,420	95,940
CA	478	568	6,840	7,700	7,700	32,698	43,736
LA	620	625	4,530	4,900	4,850	28,107	30,313
MS	268	298	5,800	5,800	5,800	15,544	17,284
MO <sup>1</sup>	143	155	5,200	5,100	5,100	7,436	7,905
TX	283	269	5,600	6,300	6,300	15,846	16,947
US	3,317	3,555	5,669	5,993	5,967	188,051	212,125

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**Rice: Production by Class, United States,  
1997-98 and Forecasted September 1, 1999**

Year	Long Grain	Medium Grain	Short Grain	All
	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>
1997	124,485	57,091	1,416	182,992
1998	141,624	44,453	1,974	188,051
1999 <sup>1</sup>	150,723	57,623	3,779	212,125

<sup>1</sup> Indicated September 1, 1999, rice class estimates are based on a 5-year average of class percentages. The class percentages are adjusted as data become available through the growing season.

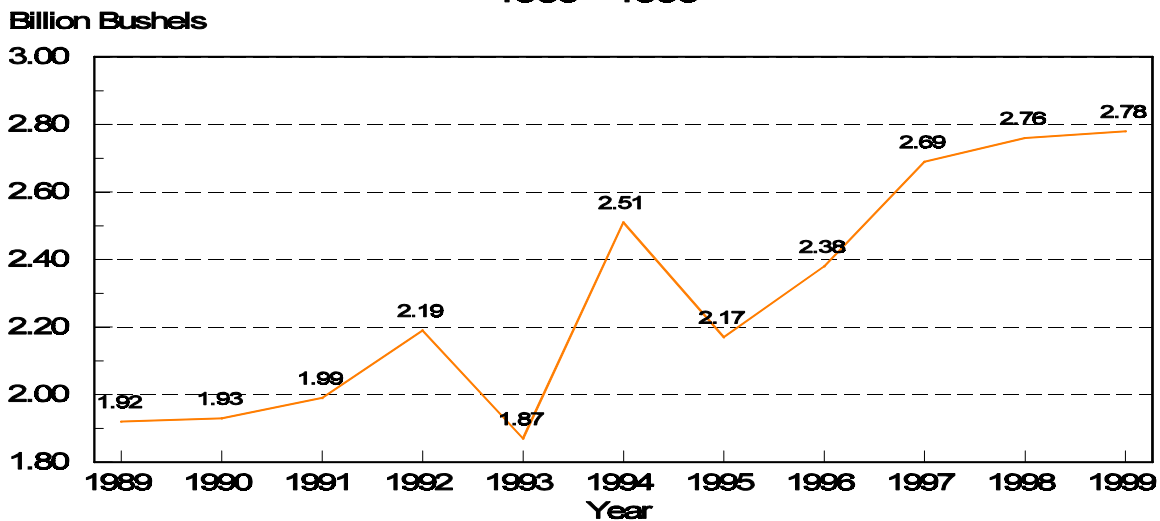
**Soybeans for Beans: Area Harvested, Yield, and Production by State and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>1,000 Bushels</i>
AL	320	230	22.0	29.0	18.0	7,040	4,140
AR	3,400	3,450	25.0	29.0	28.0	85,000	96,600
DE	216	201	33.0	28.0	26.0	7,128	5,226
FL <sup>1</sup>	30	19	23.0	30.0	30.0	690	570
GA	220	215	21.0	23.0	20.0	4,620	4,300
IL	10,650	10,750	44.0	43.0	43.0	468,600	462,250
IN	5,600	5,680	42.0	41.0	40.0	235,200	227,200
IA	10,450	10,850	48.0	48.0	50.0	501,600	542,500
KS	2,500	2,650	30.0	32.0	27.0	75,000	71,550
KY	1,200	1,180	30.0	27.0	21.0	36,000	24,780
LA	1,070	1,010	21.0	30.0	25.0	22,470	25,250
MD	460	450	31.0	26.0	26.0	14,260	11,700
MI	1,890	1,990	39.0	40.0	40.0	73,710	79,600
MN	6,800	6,900	42.0	42.0	41.0	285,600	282,900
MS	2,000	1,950	24.0	27.0	25.0	48,000	48,750
MO	5,000	5,350	34.0	34.0	29.0	170,000	155,150
NE	3,750	4,300	44.0	44.0	44.0	165,000	189,200
NJ <sup>1</sup>	113	108	28.0	22.0	22.0	3,164	2,376
NY <sup>2</sup>	97	108	41.0	40.0	40.0	3,977	4,320
NC	1,415	1,390	27.0	27.0	27.0	38,205	37,530
ND	1,525	1,480	32.0	31.0	34.0	48,800	50,320
OH	4,390	4,680	44.0	42.0	39.0	193,160	182,520
OK <sup>1</sup>	340	480	18.0	26.0	26.0	6,120	12,480
PA <sup>1</sup>	395	360	40.0	28.0	28.0	15,800	10,080
SC	500	490	21.0	24.0	21.0	10,500	10,290
SD	3,420	3,860	39.0	39.0	35.0	133,380	135,100
TN	1,210	1,100	29.0	30.0	20.0	35,090	22,000
TX	270	320	22.0	30.0	31.0	5,940	9,920
VA	480	460	23.0	24.0	24.0	11,040	11,040
WI	1,100	1,250	47.0	47.0	47.0	51,700	58,750
US	70,811	73,261	38.9	39.2	37.9	2,756,794	2,778,392

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

<sup>2</sup> NY included beginning with the 1998 crop year.

**U.S. Soybean Production  
1989 - 1999**



**Peanuts: Area Harvested, Yield, and Production by State  
and United States, 1998 and Forecasted September 1, 1999**

State	Area Harvested		Yield			Production <sup>1</sup>	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
AL	197.0	198.0	2,195	2,200	2,200	432,415	435,600
FL	90.0	88.0	2,590	2,700	2,600	233,100	228,800
GA	537.0	538.0	2,815	2,600	2,600	1,511,655	1,398,800
NM	22.0	19.0	2,820	2,600	2,600	62,040	49,400
NC	124.5	125.0	3,190	2,800	2,900	397,155	362,500
OK	75.0	78.0	2,130	2,600	2,600	159,750	202,800
SC	11.5	11.5	2,450	2,900	2,900	28,175	33,350
TX	335.0	315.0	2,740	2,900	2,900	917,900	913,500
VA	75.0	75.0	2,950	3,000	3,000	221,250	225,000
US	1,467.0	1,447.5	2,702	2,657	2,660	3,963,440	3,849,750

<sup>1</sup> Estimates comprised of quota and non-quota peanuts.

**Cottonseed: Production, United States,  
1997-98 and Forecasted September 1, 1999**

State	Production		
	1997	1998	1999 <sup>1</sup>
	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>
US	6,934.6	5,365.4	6,613.0

<sup>1</sup> Based on a 3-year average lint-seed ratio.

**Cotton: Area Harvested, Yield, and Production by Type, State,  
and United States, 1998 and Forecasted September 1, 1999**

Type and State	Area Harvested		Yield			Production <sup>1</sup>	
	1998	1999	1998	1999		1998	1999
				Aug 1	Sep 1		
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>1,000 Bales <sup>2</sup></i>	<i>1,000 Bales <sup>2</sup></i>
Upland							
AL	475.0	560.0	559	711	583	553.0	680.0
AZ	248.0	239.0	1,177	1,115	1,155	608.0	575.0
AR	900.0	930.0	645	743	697	1,209.0	1,350.0
CA	620.0	585.0	887	1,067	1,190	1,146.0	1,450.0
FL <sup>3</sup>	80.0	88.0	489	524	524	81.5	96.0
GA	1,280.0	1,450.0	578	629	596	1,542.0	1,800.0
KS <sup>3</sup>	16.5	28.0	404	411	411	13.9	24.0
LA	525.0	595.0	586	697	686	641.0	850.0
MS	940.0	1,180.0	737	773	716	1,444.0	1,760.0
MO	357.0	445.0	471	593	561	350.0	520.0
NM <sup>3</sup>	60.3	67.0	640	716	716	80.4	100.0
NC	705.0	870.0	699	687	687	1,026.0	1,245.0
OK	120.0	190.0	560	531	531	140.0	210.0
SC	286.0	315.0	587	686	549	350.0	360.0
TN	445.0	595.0	589	589	516	546.0	640.0
TX	3,300.0	5,000.0	524	509	480	3,600.0	5,000.0
VA <sup>3</sup>	91.0	109.0	765	819	819	145.1	186.0
US	10,448.8	13,246.0	619	641	610	13,475.9	16,846.0
Amer-Pima							
AZ	15.5	11.2	830	776	814	26.8	19.0
CA	180.0	259.0	941	1,075	1,112	352.8	600.0
NM	7.3	7.0	658	651	651	10.0	9.5
TX	32.0	39.0	791	738	738	52.7	60.0
US	234.8	316.2	904	1,013	1,045	442.3	688.5
All							
AL	475.0	560.0	559	711	583	553.0	680.0
AZ	263.5	250.2	1,156	1,099	1,140	634.8	594.0
AR	900.0	930.0	645	743	697	1,209.0	1,350.0
CA	800.0	844.0	899	1,069	1,166	1,498.8	2,050.0
FL <sup>3</sup>	80.0	88.0	489	524	524	81.5	96.0
GA	1,280.0	1,450.0	578	629	596	1,542.0	1,800.0
KS <sup>3</sup>	16.5	28.0	404	411	411	13.9	24.0
LA	525.0	595.0	586	697	686	641.0	850.0
MS	940.0	1,180.0	737	773	716	1,444.0	1,760.0
MO	357.0	445.0	471	593	561	350.0	520.0
NM	67.6	74.0	642	710	710	90.4	109.5
NC	705.0	870.0	699	687	687	1,026.0	1,245.0
OK	120.0	190.0	560	531	531	140.0	210.0
SC	286.0	315.0	587	686	549	350.0	360.0
TN	445.0	595.0	589	589	516	546.0	640.0
TX	3,332.0	5,039.0	526	511	482	3,652.7	5,060.0
VA <sup>3</sup>	91.0	109.0	765	819	819	145.1	186.0
US	10,683.6	13,562.2	625	649	621	13,918.2	17,534.5

<sup>1</sup> Production ginned and to be ginned.

<sup>2</sup> 480-Lb. net weight bales.

<sup>3</sup> Estimates for current year carried forward from previous forecast.

**Potatoes: Area Planted and Harvested, Yield, and Production by Seasonal Group, State, and United States, 1997-99**

Seasonal Group and State	Area Planted		Area Harvested		Yield		Production	
	1998	1999	1998	1999	1998	1999	1998	1999
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Cwt</i>	<i>Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>
Winter <sup>1</sup>								
CA	7.0	7.8	7.0	7.8	220	210	1,540	1,638
FL	8.5	10.1	8.0	9.9	180	200	1,440	1,980
Total	15.5	17.9	15.0	17.7	199	204	2,980	3,618
Spring <sup>1</sup>								
AL	1.8	1.7	1.7	1.6	130	175	221	280
AZ	8.1	9.4	8.1	9.4	280	290	2,268	2,726
CA	18.5	19.5	18.5	19.5	335	365	6,198	7,118
FL	35.8	29.8	34.5	29.0	213	261	7,358	7,560
Hastings	25.5	22.5	24.5	22.0	235	280	5,758	6,160
Other FL	10.3	7.3	10.0	7.0	160	200	1,600	1,400
NC	18.0	17.0	17.5	16.5	190	195	3,325	3,218
TX	10.8	10.3	10.3	9.8	170	235	1,751	2,303
Total	93.0	87.7	90.6	85.8	233	270	21,121	23,205
Summer								
AL	4.4	3.5	4.3	2.8	130	220	559	616
CA	6.2	6.7	6.1	6.7	355	360	2,166	2,412
CO	7.7	7.9	7.5	7.7	350	345	2,625	2,657
DE	4.6	4.3	4.6	4.3	220	250	1,012	1,075
IL	5.8	4.9	4.9	4.7	290	300	1,421	1,410
IA	1.4	1.0	1.3	0.9	235	185	306	167
MD	4.6	4.8	4.6	4.8	235	220	1,081	1,056
MO	9.6	8.0	8.8	6.3	215	305	1,892	1,922
NE	4.5	4.9	4.4	4.5	365	320	1,606	1,440
NJ	2.7	2.6	2.6	2.4	270	235	702	564
NM	4.3	4.3	3.7	4.3	260	290	962	1,247
NC	1.1	1.0	1.1	1.0	95	90	105	90
TX	9.1	8.6	8.2	8.0	380	370	3,116	2,960
VA	7.0	6.5	6.0	6.0	230	165	1,380	990
Total	73.0	69.0	68.1	64.4	278	289	18,933	18,606

See footnotes at end of table.

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**Potatoes: Area Planted and Harvested, Yield, and Production by Seasonal Group, State, and United States, 1997-99 (continued)**

Seasonal Group and State	Area Planted		Area Harvested		Yield		Production	
	1998	1999	1998	1999	1998	1999	1998	1999
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Cwt</i>	<i>Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>
Fall <sup>2</sup>								
CA	10.3	9.8	10.3	9.8	360		3,708	
CO	75.8	77.2	75.7	77.0	335		25,360	
ID	410.0	400.0	408.0	398.0	338		138,000	
10 SW Co	28.0	26.0	28.0	26.0	450		12,600	
Other ID	382.0	374.0	380.0	372.0	330		125,400	
IN	5.3	5.2	5.0	4.9	320		1,600	
ME	65.5	68.0	64.5	67.0	280		18,060	
MA	2.9	3.0	2.9	3.0	235		682	
MI	47.0	48.0	46.5	47.5	315		14,648	
MN	82.0	70.0	73.0	65.0	290		21,170	
MT	10.6	11.0	10.6	11.0	300		3,180	
NE	22.0	21.6	21.8	21.4	375		8,175	
NV	7.0	5.0	7.0	5.0	400		2,800	
NM	6.2	6.6	5.9	6.6	380		2,242	
NY	27.6	26.0	27.0	25.5	270		7,290	
ND	126.0	125.0	122.0	121.0	235		28,670	
OH	5.1	4.8	4.8	4.6	250		1,200	
OR	59.0	58.0	58.0	57.5	452		26,229	
Malheur	11.5	10.5	11.4	10.5	400		4,560	
Other OR	47.5	47.5	46.6	47.0	465		21,669	
PA	14.5	14.5	14.0	14.0	240		3,360	
RI	0.7	0.7	0.7	0.7	210		147	
SD	5.0	3.5	4.8	3.3	260		1,248	
UT	2.7	2.0	2.6	2.0	280		728	
WA	165.0	170.0	165.0	170.0	565		93,225	
WI	84.5	86.0	83.5	85.0	370		30,895	
WY	0.4	0.5	0.4	0.5	300		120	
Total	1,235.1	1,216.4	1,214.0	1,200.3	356		432,737	
US	1,416.6	1,391.0	1,387.7	1,368.2	343		475,771	

<sup>1</sup> Estimates for current year carried forward from earlier forecast.

<sup>2</sup> The forecast of fall potato production will be released November 10, 1999.

**Tobacco: Area Harvested, Yield, and Production by State and United States, 1997-98 and Forecasted September 1, 1999**

State	Area Harvested		Yield		Production		
	1998	1999	1998	1999	1997	1998	1999
	<i>Acres</i>	<i>Acres</i>	<i>Pounds</i>	<i>Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
CT <sup>1</sup>	2,815	3,030	1,519	1,630	4,128	4,276	4,939
FL	6,800	6,000	2,515	2,600	19,053	17,102	15,600
GA	41,000	35,000	2,200	1,900	89,225	90,200	66,500
IN	8,500	6,500	2,000	2,000	18,690	17,000	13,000
KY	226,260	226,350	1,961	1,773	497,928	443,628	401,408
MD	6,500	6,500	1,400	1,350	12,000	9,100	8,775
MA <sup>1</sup>	1,265	1,250	1,413	1,750	1,913	1,788	2,187
MO <sup>1</sup>	2,700	2,300	2,130	1,950	7,035	5,751	4,485
NC	251,100	218,400	2,197	2,245	731,199	551,730	490,320
OH	9,800	9,800	1,830	1,620	22,230	17,934	15,876
PA	7,800	6,200	2,015	1,717	17,020	15,720	10,646
SC	45,000	39,000	2,050	2,150	126,360	92,250	83,850
TN	59,415	59,160	1,870	1,809	114,292	111,100	107,022
VA	45,000	38,600	2,131	2,120	117,576	95,898	81,835
WV <sup>1</sup>	1,600	1,700	1,350	1,300	3,060	2,160	2,210
WI	2,100	1,320	1,687	2,114	5,690	3,542	2,790
US	717,655	661,110	2,061	1,984	1,787,399	1,479,179	1,311,443

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.

**Tobacco: Area Harvested, Yield, and Production by Class, Type,  
State, and United States, 1998 and Forecasted September 1, 1999**

Class and Type	Area Harvested		Yield		Production	
	1998	1999	1998	1999	1998	1999
	<i>Acres</i>	<i>Acres</i>	<i>Pounds</i>	<i>Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
Class 1, Flue-cured						
Type 11, Old Belts						
NC	69,000	60,000	2,285	2,250	157,665	135,000
VA	33,000	26,000	2,220	2,200	73,260	57,200
US	102,000	86,000	2,264	2,235	230,925	192,200
Type 12, Eastern NC Belt						
NC	143,000	123,000	2,240	2,300	320,320	282,900
Type 13, NC Border & SC Belt						
NC	31,000	27,000	2,000	2,200	62,000	59,400
SC	45,000	39,000	2,050	2,150	92,250	83,850
US	76,000	66,000	2,030	2,170	154,250	143,250
Type 14, GA-FL Belt						
FL	6,800	6,000	2,515	2,600	17,102	15,600
GA	41,000	35,000	2,200	1,900	90,200	66,500
US	47,800	41,000	2,245	2,000	107,302	82,100
Total 11-14	368,800	316,000	2,204	2,217	812,797	700,450
Class 2, Fire-cured						
Type 21, VA Belt						
VA	1,500	1,500	1,560	1,650	2,340	2,475
Type 22, Eastern District						
KY	3,850	3,650	2,315	2,100	8,913	7,665
TN	7,300	7,000	2,330	2,200	17,009	15,400
US	11,150	10,650	2,325	2,166	25,922	23,065
Type 23, Western District						
KY	3,600	3,450	2,805	2,400	10,098	8,280
TN	590	560	2,500	2,200	1,475	1,232
US	4,190	4,010	2,762	2,372	11,573	9,512
Total 21-23	16,840	16,160	2,365	2,169	39,835	35,052
Class 3, Air-cured						
Class 3A, Light Air-cured						
Type 31, Burley						
IN	8,500	6,500	2,000	2,000	17,000	13,000
KY	215,000	215,000	1,935	1,750	416,025	376,250
MO <sup>1</sup>	2,700	2,300	2,130	1,950	5,751	4,485
NC	8,100	8,400	1,450	1,550	11,745	13,020
OH	9,800	9,800	1,830	1,620	17,934	15,876
TN	51,000	51,000	1,795	1,750	91,545	89,250
VA	10,400	11,000	1,940	2,000	20,176	22,000
WV <sup>1</sup>	1,600	1,700	1,350	1,300	2,160	2,210
US	307,100	305,700	1,896	1,754	582,336	536,091
Type 32, Southern MD Belt						
MD	6,500	6,500	1,400	1,350	9,100	8,775
PA	3,300	3,000	1,900	1,650	6,270	4,950
US	9,800	9,500	1,568	1,445	15,370	13,725
Total 31-32	316,900	315,200	1,886	1,744	597,706	549,816

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**Tobacco: Area Harvested, Yield, and Production by Class, Type, State,  
and United States, 1998 and Forecasted September 1, 1999 (continued)**

Class and Type	Area Harvested		Yield		Production	
	1998	1999	1998	1999	1998	1999
	<i>Acres</i>	<i>Acres</i>	<i>Pounds</i>	<i>Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
Class 3, Air-cured						
Class 3B, Dark						
Air-cured						
Type 35, One Sucker						
Belt						
KY	2,450	2,750	2,280	2,150	5,586	5,913
TN	525	600	2,040	1,900	1,071	1,140
US	2,975	3,350	2,238	2,105	6,657	7,053
Type 36, Green River						
Belt						
KY	1,360	1,500	2,210	2,200	3,006	3,300
Type 37, VA Sun-cured						
Belt						
VA	100	100	1,220	1,600	122	160
Total 35-37	4,435	4,950	2,206	2,124	9,785	10,513
Class 4, Cigar Filler						
Type 41, PA Seedleaf						
PA	4,500	3,200	2,100	1,780	9,450	5,696
Class 5, Cigar Binder						
Class 5A, CT Valley						
Binder						
Type 51, CT Valley						
Broadleaf						
CT <sup>1</sup>	1,435	1,480	1,600	1,740	2,296	2,575
MA <sup>1</sup>	925	870	1,445	1,815	1,337	1,579
US	2,360	2,350	1,539	1,768	3,633	4,154
Class 5B, WI Binder						
Type 54, Southern WI						
WI	1,500	940	1,735	2,200	2,603	2,068
Type 55, Northern WI						
WI	600	380	1,565	1,900	939	722
Total 54-55	2,100	1,320	1,687	2,114	3,542	2,790
Total 51-55	4,460	3,670	1,609	1,892	7,175	6,944
Class 6, Cigar Wrapper						
Type 61, CT Valley						
Shade-grown						
CT <sup>1</sup>	1,380	1,550	1,435	1,525	1,980	2,364
MA <sup>1</sup>	340	380	1,325	1,600	451	608
US	1,720	1,930	1,413	1,540	2,431	2,972
All Cigar Types						
Total 41-61	10,680	8,800	1,784	1,774	19,056	15,612
All Tobacco	717,655	661,110	2,061	1,984	1,479,179	1,311,443

<sup>1</sup> Estimates for current year carried forward from an earlier forecast.



**Oranges: Utilized Production by State and United States,  
1997-98, 1998-99 and Forecasted September 1, 1999<sup>1 2 3</sup>**

Crop and State	Utilized Production Boxes			Utilized Production Ton Equivalent		
	1997-98	1998-99	1999-00	1997-98	1998-99	1999-00
	<i>1,000 Boxes</i>	<i>1,000 Boxes</i>	<i>1,000 Boxes</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>
Early Mid & Navel <sup>4</sup>						
AZ	350	550		13	21	
CA	44,000	21,000	40,000	1,650	787	1,500
FL	140,000	112,000		6,300	5,040	
TX	1,350	1,250		57	53	
US	185,700	134,800		8,020	5,901	
Valencia						
AZ	650	600		25	22	
CA	25,000	17,000		938	638	
FL	104,000	73,700		4,680	3,317	
TX	175	180		7	8	
US	129,825	91,480		5,650	3,985	
All						
AZ	1,000	1,150		38	43	
CA	69,000	38,000		2,588	1,425	
FL	244,000	185,700		10,980	8,357	
TX	1,525	1,430		64	61	
US	315,525	226,280		13,670	9,886	

<sup>1</sup> 1997-98 and 1998-99 revised. Revised grapefruit and other citrus fruit totals will be released September 23, 1999, in "Citrus Fruits, 1999 Summary".

<sup>2</sup> The crop year begins with the bloom of the first year shown and ends with the completion of harvest the following year.

<sup>3</sup> Net lbs. per box: AZ & CA-75, FL-90, TX-85.

<sup>4</sup> Navel and miscellaneous varieties in AZ and CA. Early (including Navel) and midseason varieties in FL and TX. Small quantities of tangerines in TX.

**Sugarbeets: Area Harvested, Yield, and Production by State and  
United States, 1997-98 and Forecasted September 1, 1999<sup>1</sup>**

State	Area Harvested		Yield		Production		
	1998	1999	1998	1999	1997	1998	1999
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>
CA	100.0	105.0	28.3	31.0	2,970	2,830	3,255
CO	57.3	68.0	22.7	21.6	1,308	1,301	1,469
ID	203.0	210.0	27.1	25.3	5,210	5,501	5,313
MI	173.0	187.0	16.0	19.0	3,040	2,768	3,553
MN	458.0	469.0	21.2	20.0	8,251	9,710	9,380
MT	62.4	61.8	22.6	23.5	1,224	1,410	1,452
NE	47.4	66.8	19.7	19.8	1,013	934	1,323
NM <sup>2</sup>					49		
ND	242.6	253.0	22.2	21.0	4,205	5,386	5,313
OH	1.1	1.2	17.3	18.5	17	19	22
OR	17.7	19.7	26.6	25.0	494	471	493
TX <sup>2</sup>					270		
WA	35.8	27.0	33.3	31.8	595	1,192	859
WY	53.4	57.0	20.3	21.0	1,240	1,084	1,197
US	1,451.7	1,525.5	22.5	22.0	29,886	32,606	33,629

<sup>1</sup> Relates to year of intended harvest except for overwintered spring planted beets in CA.

<sup>2</sup> No acres planted in 1998 or 1999.

**Sugarcane for Sugar and Seed: Area Harvested, Yield, and Production  
by State and United States, 1997-98 and Forecasted September 1, 1999**

State	Area Harvested		Yield <sup>1</sup>		Production <sup>1</sup>		
	1998	1999	1998	1999	1997	1998	1999
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>
FL	447.0	456.0	40.1	39.0	16,236	17,925	17,784
HI	32.5	35.0	86.1	84.0	3,009	2,798	2,940
LA	435.0	465.0	29.7	33.0	11,562	12,920	15,345
TX	32.6	31.5	32.6	32.0	902	1,064	1,008
US	947.1	987.5	36.6	37.5	31,709	34,707	37,077

<sup>1</sup> Net tons.

**Papayas: Area and Fresh Production, by Month, Hawaii, 1998-99**

Month	Area				Fresh Production	
	Total in Crop		Harvested		1998	1999
	1998	1999	1998	1999		
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
Jul	3,670	3,490	2,440	2,030	3,095	3,250
Aug	3,650	3,515	2,420	2,025	2,785	3,500

**Nuts: Utilized Production, In-shell Basis, by Crop and State,  
1997-98 and Forecasted September 1, 1999**

Crop and State	Utilized Production		
	1997	1998	1999
	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
Hazelnuts			
OR	46,850	15,400	37,700
WA	150	100	300
Total	47,000	15,500	38,000
Walnuts			
CA	269,000	227,000	280,000
	1,000 Pounds		
Pistachios			
CA	180,000	188,000	110,000

**Crop Summary: Area Planted and Harvested, United States, 1998-99**  
(Domestic Units)<sup>1</sup>

Crop	Area Planted		Area Harvested	
	1998	1999	1998	1999
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>1,000 Acres</i>
Grains & Hay				
Barley	6,340.0	5,167.0	5,867.0	4,834.0
Corn for Grain <sup>2</sup>	80,187.0	77,611.0	72,604.0	70,955.0
Corn for Silage			5,919.0	
Hay, All			60,016.0	62,051.0
Alfalfa			23,642.0	23,968.0
All Other			36,374.0	38,083.0
Oats	4,902.0	4,698.0	2,765.0	2,631.0
Rice	3,345.0	3,600.0	3,317.0	3,555.0
Rye	1,571.0	1,573.0	418.0	396.0
Sorghum for Grain <sup>2</sup>	9,626.0	9,299.0	7,723.0	8,499.0
Sorghum for Silage			305.0	
Wheat, All	65,871.0	62,733.0	59,002.0	54,467.0
Winter	46,449.0	43,419.0	40,126.0	35,609.0
Durum	3,805.0	4,015.0	3,728.0	3,898.0
Other Spring	15,617.0	15,299.0	15,148.0	14,960.0
Oilseeds				
Canola	1,127.0	1,095.0	1,092.0	1,067.0
Cottonseed				
Flaxseed	336.0	341.0	329.0	334.0
Mustard Seed	98.9	59.7	95.6	58.2
Peanuts	1,521.0	1,468.0	1,467.0	1,447.5
Rapeseed	4.8	3.5	4.7	3.5
Safflower	303.0	313.0	285.0	294.0
Soybeans for Beans	72,375.0	74,145.0	70,811.0	73,261.0
Sunflower	3,553.0	3,676.0	3,476.0	3,593.0
Cotton, Tobacco & Sugar Crops				
Cotton, All	13,392.5	14,601.2	10,683.6	13,562.2
Upland	13,064.3	14,283.0	10,448.8	13,246.0
Amer-Pima	328.2	318.2	234.8	316.2
Sugarbeets	1,498.8	1,560.6	1,451.7	1,525.5
Sugarcane			947.1	987.5
Tobacco			717.7	661.1
Dry Beans, Peas & Lentils				
Austrian Winter Peas	9.0		7.4	
Dry Edible Beans	2,010.1	1,992.6	1,913.9	1,903.0
Dry Edible Peas	323.4		309.1	
Lentils	162.0		158.5	
Wrinkled Seed Peas				
Potatoes & Misc.				
Coffee (HI)			6.1	
Ginger Root (HI)			0.4	0.4
Hops			36.6	34.2
Peppermint Oil			124.0	
Potatoes, All	1,416.6	1,391.0	1,387.7	1,368.2
Winter	15.5	17.9	15.0	17.7
Spring	93.0	87.7	90.6	85.8
Summer	73.0	69.0	68.1	64.4
Fall	1,235.1	1,216.4	1,214.0	1,200.3
Spearmint Oil			27.4	
Sweet Potatoes	87.2	88.1	83.8	85.2
Taro (HI) <sup>3</sup>			0.5	

<sup>1</sup> Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 1999 crop year. <sup>2</sup> Area planted for all purposes. <sup>3</sup> Acreage is total acres in crop, not harvested acreage.

**Crop Summary: Yield and Production, United States, 1998-99**  
(Domestic Units)<sup>1</sup>

Crop	Unit	Yield		Production	
		1998	1999	1998	1999
				<i>1,000</i>	<i>1,000</i>
Grains & Hay					
Barley	Bu	60.1	58.5	352,445	282,585
Corn for Grain	"	134.4	132.2	9,761,085	9,380,947
Corn for Silage	Ton	16.0		94,525	
Hay, All	"	2.52	2.59	151,338	160,769
Alfalfa	"	3.47	3.47	82,010	83,160
All Other	"	1.91	2.04	69,328	77,609
Oats	Bu	60.4	61.6	167,122	162,096
Rice <sup>2</sup>	Cwt	5,669	5,967	188,051	212,125
Rye	Bu	28.2		11,795	
Sorghum for Grain	"	67.3	68.2	519,933	580,031
Sorghum for Silage	Ton	11.4		3,487	
Wheat, All	Bu	43.2	42.3	2,550,383	2,306,671
Winter	"	46.9	47.4	1,880,605	1,688,582
Durum	"	37.8	28.3	141,069	110,362
Other Spring	"	34.9	33.9	528,709	507,727
Oilseeds					
Canola	Lb	1,455		1,588,620	
Cottonseed <sup>3 4</sup>	Ton			5,365	6,613
Flaxseed	Bu	20.4		6,708	
Mustard Seed	Lb	855		81,750	
Peanuts	"	2,702	2,660	3,963,440	3,849,750
Rapeseed	"	1,353		6,360	
Safflower	"	1,446		412,085	
Soybeans for Beans	Bu	38.9	37.9	2,756,794	2,778,392
Sunflower	Lb	1,509		5,246,701	
Cotton, Tobacco & Sugar Crops					
Cotton, All <sup>2</sup>	Bale	625	621	13,918.2	17,534.5
Upland <sup>2</sup>	"	619	610	13,475.9	16,846.0
Amer-Pima <sup>2</sup>	"	904	1,045	442.3	688.5
Sugarbeets	Ton	22.5	22.0	32,606	33,629
Sugarcane	"	36.6	37.5	34,707	37,077
Tobacco	Lb	2,061	1,984	1,479,179	1,311,443
Dry Beans, Peas & Lentils					
Austrian Winter Peas <sup>2</sup>	Cwt	1,405		104	
Dry Edible Beans <sup>2</sup>	"	1,611	1,656	30,828	31,506
Dry Edible Peas <sup>2</sup>	"	1,920		5,934	
Lentils <sup>2</sup>	"	1,223		1,938	
Wrinkled Seed Peas	"			674	
Potatoes & Misc.					
Coffee (HI)	Lb	1,560		9,500	
Ginger Root (HI)	"	50,000	46,000	18,000	16,100
Hops	"	1,625	1,813	59,548	62,080
Peppermint Oil	"	78		9,727	
Potatoes, All	Cwt	343		475,771	
Winter	"	199	204	2,980	3,618
Spring	"	233	270	21,121	23,205
Summer	"	278	289	18,933	18,606
Fall	"	356		432,737	
Spearmint Oil	Lb	109		2,987	
Sweet Potatoes	Cwt	148		12,382	
Taro (HI) <sup>3</sup>	Lb			6,000	

<sup>1</sup> Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 1999 crop year. <sup>2</sup> Yield in pounds. <sup>3</sup> Yield is not estimated. <sup>4</sup> Revised from Crop Production released May 12, 1999.

**Fruits and Nuts Production, United States, 1997-99**  
(Domestic Units)<sup>1</sup>

Crop	Unit	Production		
		1997	1998	1999
		<i>1,000</i>	<i>1,000</i>	<i>1,000</i>
Citrus <sup>2</sup>				
Grapefruit	Ton	2,885	2,626	2,552
K-Early Citrus (FL)	"	7	2	4
Lemons	"	962	935	817
Oranges <sup>3</sup>	"	12,692	13,670	9,886
Tangelos (FL)	"	178	128	115
Tangerines	"	425	360	337
Temples (FL)	"	108	101	81
Non-Citrus				
Apples	1,000 Lbs	10,323.8	11,387.4	10,562.8
Apricots	Ton	139.2	118.3	130.0
Bananas (HI)	Lb	13,700.0	21,000.0	
Grapes	Ton	7,290.9	5,903.0	6,556.9
Olives (CA)	"	104.0	90.0	125.0
Papayas (HI)	Lb	38,800.0	39,900.0	
Peaches	1,000 Lbs	2,624.6	2,429.3	2,502.1
Pears	Ton	1,042.5	955.1	942.9
Prunes, Dried (CA)	"	214.0	108.0	180.0
Prunes & Plums (Ex CA)	"	25.5	25.6	25.1
Nuts & Misc.				
Almonds (CA)	Lb	759,000	520,000	830,000
Hazelnuts	Ton	47.0	15.5	38.0
Pecans <sup>4</sup>	Lb	335,000	146,400	
Pistachios (CA)	"	180,000	188,000	110,000
Walnuts (CA)	Ton	269.0	227.0	280.0
Maple Syrup	1,000 Gal	1,298	1,159	1,180

<sup>1</sup> Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 1999 crop year.

<sup>2</sup> Production years are 1996-97, 1997-98, and 1998-99.

<sup>3</sup> Orange production revised. Grapefruit and other citrus fruit revisions will be released on September 23, 1999 in "Citrus Fruits, 1999 Summary".

<sup>4</sup> First forecast of 1999 crop will be October 1, 1999.

**Crop Summary: Area Planted and Harvested, United States, 1998-99**  
(Metric Units)<sup>1</sup>

Crop	Area Planted		Area Harvested	
	1998	1999	1998	1999
	<i>Hectares</i>	<i>Hectares</i>	<i>Hectares</i>	<i>Hectares</i>
Grains & Hay				
Barley	2,565,730	2,091,030	2,374,320	1,956,270
Corn for Grain <sup>2</sup>	32,450,880	31,408,400	29,382,110	28,714,780
Corn for Silage			2,395,360	
Hay, All <sup>3</sup>			24,287,880	25,111,420
Alfalfa			9,567,680	9,699,610
All Other			14,720,190	15,411,810
Oats	1,983,790	1,901,230	1,118,970	1,064,740
Rice	1,353,690	1,456,880	1,342,360	1,438,670
Rye	635,770	636,580	169,160	160,260
Sorghum for Grain <sup>2</sup>	3,895,550	3,763,210	3,125,420	3,439,460
Sorghum for Silage			123,430	
Wheat, All <sup>3</sup>	26,657,330	25,387,420	23,877,520	22,042,250
Winter	18,797,450	17,571,240	16,238,590	14,410,610
Durum	1,539,850	1,624,830	1,508,680	1,577,480
Other Spring	6,320,040	6,191,350	6,130,240	6,054,160
Oilseeds				
Canola	456,090	443,140	441,920	431,800
Cottonseed				
Flaxseed	135,980	138,000	133,140	135,170
Mustard Seed	40,020	24,160	38,690	23,550
Peanuts	615,530	594,080	593,680	585,790
Rapeseed	1,940	1,420	1,900	1,420
Safflower	122,620	126,670	115,340	118,980
Soybeans for Beans	29,289,440	30,005,740	28,656,500	29,647,990
Sunflower	1,437,860	1,487,640	1,406,700	1,454,050
Cotton, Tobacco & Sugar Crops				
Cotton, All <sup>3</sup>	5,419,810	5,908,960	4,323,550	5,488,490
Upland	5,286,990	5,780,190	4,228,520	5,360,520
Amer-Pima	132,820	128,770	95,020	127,960
Sugarbeets	606,550	631,560	587,490	617,350
Sugarcane			385,060	399,630
Tobacco			290,430	267,540
Dry Beans, Peas & Lentils				
Austrian Winter Peas	3,640		2,990	
Dry Edible Beans	813,470	806,390	774,540	770,130
Dry Edible Peas	130,880		125,090	
Lentils	65,560		64,140	
Wrinkled Seed Peas				
Potatoes & Misc.				
Coffee (HI)			2,470	
Ginger Root (HI)			150	140
Hops			14,830	13,860
Peppermint Oil			50,180	
Potatoes, All <sup>3</sup>	573,280	562,920	561,590	553,700
Winter	6,270	7,240	6,070	7,160
Spring	37,640	35,490	36,660	34,720
Summer	29,540	27,920	27,560	26,060
Fall	499,830	492,260	491,290	485,750
Spearmint Oil			11,090	
Sweet Potatoes	35,290	35,650	33,910	34,480
Taro (HI) <sup>4</sup>			200	

<sup>1</sup> Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 1999 crop year. <sup>2</sup> Area planted for all purposes. <sup>3</sup> Total may not add due to rounding. <sup>4</sup> Area is total hectares in crop, not harvested hectares.

**Crop Summary: Yield and Production, United States, 1998-99**  
(Metric Units)<sup>1</sup>

Crop	Yield		Production	
	1998	1999	1998	1999
	<i>Metric Tons</i>	<i>Metric Tons</i>	<i>Metric Tons</i>	<i>Metric Tons</i>
<b>Grains &amp; Hay</b>				
Barley	3.23	3.15	7,673,580	6,152,560
Corn for Grain	8.44	8.30	247,942,980	238,287,030
Corn for Silage	35.80		85,751,640	
Hay, All <sup>2</sup>	5.65	5.81	137,291,520	145,847,180
Alfalfa	7.78	7.78	74,398,220	75,441,480
All Other	4.27	4.57	62,893,300	70,405,700
Oats	2.17	2.21	2,425,770	2,352,820
Rice	6.35	6.69	8,529,850	9,621,830
Rye	1.77		299,610	
Sorghum for Grain	4.23	4.28	13,206,910	14,733,470
Sorghum for Silage	25.63		3,163,350	
Wheat, All <sup>2</sup>	2.91	2.85	69,410,050	62,777,300
Winter	3.15	3.19	51,181,680	45,955,670
Durum	2.54	1.90	3,839,270	3,003,560
Other Spring	2.35	2.28	14,389,100	13,818,060
<b>Oilseeds</b>				
Canola	1.63		720,590	
Cottonseed <sup>3</sup>			4,867,410	5,999,210
Flaxseed	1.28		170,390	
Mustard Seed	0.96		37,080	
Peanuts	3.03	2.98	1,797,790	1,746,220
Rapeseed	1.52		2,880	
Safflower	1.62		186,920	
Soybeans for Beans	2.62	2.55	75,027,640	75,615,440
Sunflower	1.69		2,379,860	
<b>Cotton, Tobacco &amp; Sugar Crops</b>				
Cotton, All <sup>2</sup>	0.70	0.70	3,030,330	3,817,690
Upland	0.69	0.68	2,934,030	3,667,780
Amer-Pima	1.01	1.17	96,300	149,900
Sugarbeets	50.35	49.42	29,579,670	30,507,720
Sugarcane	80.24	84.17	30,895,990	33,635,690
Tobacco	2.31	2.22	670,940	594,860
<b>Dry Beans, Peas &amp; Lentils</b>				
Austrian Winter Peas	1.58		4,720	
Dry Edible Beans	1.81	1.86	1,398,330	1,429,090
Dry Edible Peas	2.15		269,160	
Lentils	1.37		87,910	
Wrinkled Seed Peas			30,570	
<b>Potatoes &amp; Misc.</b>				
Coffee (HI)	1.75		4,310	
Ginger Root (HI)	56.04	51.56	8,160	7,300
Hops	1.82	2.03	27,010	28,160
Peppermint Oil	0.09		4,410	
Potatoes, All <sup>2</sup>	38.43		21,580,610	
Winter	22.27	22.91	135,170	164,110
Spring	26.13	30.31	958,030	1,052,560
Summer	31.16	32.38	858,790	843,950
Fall	39.95		19,628,620	
Spearmint Oil	0.12		1,350	
Sweet Potatoes	16.56		561,640	
Taro (HI) <sup>3</sup>			2,720	

<sup>1</sup> Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 1999 crop year. <sup>2</sup> Production may not add due to rounding. <sup>3</sup> Yield is not estimated.

**Fruits and Nuts Production, United States, 1997-99**  
(Metric Units) <sup>1</sup>

Crop	Production		
	1997	1998	1999
	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>
Citrus <sup>2</sup>			
Grapefruit	2,617,230	2,382,270	2,315,140
K-Early Citrus (FL)	6,350	1,810	3,630
Lemons	872,710	848,220	741,170
Oranges <sup>3</sup>	11,513,990	12,401,220	8,968,430
Tangelos (FL)	161,480	116,120	104,330
Tangerines	385,550	326,590	305,720
Temples (FL)	97,980	91,630	73,480
Non-Citrus			
Apples	4,682,800	5,165,240	4,791,210
Apricots	126,310	107,320	117,930
Bananas (HI)	6,210	9,530	
Grapes	6,614,190	5,355,070	5,948,320
Olives (CA)	94,350	81,650	113,400
Papayas (HI)	17,600	18,100	
Peaches	1,190,500	1,101,910	1,134,930
Pears	945,740	866,490	855,380
Prunes, Dried (CA)	194,140	97,980	163,290
Prunes & Plums (Ex CA)	23,130	23,220	22,770
Nuts & Misc.			
Almonds (CA)	344,280	235,870	376,480
Hazelnuts	42,640	14,060	34,470
Pecans <sup>4</sup>	151,950	66,410	
Pistachios (CA)	81,650	85,280	49,900
Walnuts (CA)	244,030	205,930	254,010
Maple Syrup	6,490	5,790	5,900

<sup>1</sup> Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 1999 crop year.

<sup>2</sup> Production years are 1996-97, 1997-98, and 1998-99.

<sup>3</sup> Orange production revised. Grapefruit and other citrus fruit revisions will be released on September 23, 1999 in "Citrus Fruits, 1999 Summary".

<sup>4</sup> First forecast of 1999 crop will be October 1, 1999.



## Corn for Grain: Plant Population

The National Agricultural Statistics Service is conducting objective yield surveys in 7 major corn producing states during 1999. Randomly selected plots in corn for grain fields are visited monthly from August through harvest to obtain specific counts and measurements. Data in this table are rounded actual field counts from this survey.

**Corn for Grain: Plant Population per Acre,  
Selected States, 1995-99**

State	Month	1995	1996	1997	1998	1999
		<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
IL	Sep	24,000	24,350	25,000	25,550	25,750
	Nov	23,650	24,200	24,900	25,400	
IN	Sep	23,900	23,550	23,700	24,350	25,250
	Nov	24,000	23,500	23,800	24,300	
IA	Sep	24,800	25,000	25,700	25,700	25,850
	Nov	24,650	24,950	25,500	25,600	
MN	Sep	26,400	26,500	26,300	27,750	26,750
	Nov	26,350	26,600	26,600	27,650	
NE	Sep	22,600	22,750	22,850	23,350	23,200
	Nov	22,500	22,700	22,850	23,050	
OH	Sep	23,400	23,100	23,450	25,350	25,000
	Nov	23,300	22,750	23,500	25,450	
WI	Sep	24,600	24,800	24,750	26,600	26,050
	Nov	24,000	24,900	24,800	25,850	

### All Spring Wheat: Head Population

The National Agricultural Statistics Service is conducting objective yield surveys in three spring wheat producing states during 1999. Randomly selected plots in wheat fields are visited monthly from August through harvest to obtain specific counts and measurements. Data in this table are actual field counts from this survey. The final number of heads is determined when the plots are harvested at maturity. These data will be published in January.

**All Spring Wheat: Heads per Square Foot,  
Selected States, 1995-99**

Crop and State	Month	1995	1996	1997	1998	1999
		<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Other Spring						
MN	Sep	45.6	41.6	47.7	45.8	49.0
	Final	45.6	41.6	47.8	45.8	
MT	Sep	30.4	25.2	25.8	29.5	24.5
	Final	30.4	25.1	25.8	29.5	
ND	Sep	39.5	36.0	37.8	38.5	37.2
	Final	39.5	36.1	37.7	38.3	
Durum						
ND	Sep	24.8	24.7	22.8	27.5	22.9
	Final	24.8	24.7	22.8	27.5	

## Soybeans: Pods with Beans

The National Agricultural Statistics Service is conducting objective yield surveys in 8 soybean producing States during 1999. Randomly selected plots of soybeans fields are visited monthly from August through harvest to obtain specific counts and measurements. Data in this table are actual field counts from this survey.

**Soybeans: Pods with Beans per 18 Square Feet,  
Selected States, 1995-99**

State	Month	1995	1996	1997	1998	1999
		<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
AR	Sep <sup>1</sup>					
	Nov	1,755	1,521	2,098	1,640	
	Final	1,609	1,481	1,956	1,613	
IL	Sep	1,816	1,505	1,828	2,087	1,917
	Nov	1,764	1,573	1,708	1,902	
	Final	1,764	1,581	1,708	1,906	
IN	Sep	1,755	1,416	1,622	1,883	1,771
	Nov	1,677	1,470	1,532	1,709	
	Final	1,677	1,457	1,532	1,709	
IA	Sep	1,739	1,654	1,894	1,914	2,142
	Nov	1,611	1,463	1,458	1,745	
	Final	1,616	1,463	1,461	1,748	
MN	Sep	1,613	1,543	1,585	1,598	1,612
	Nov	1,501	1,487	1,506	1,450	
	Final	1,501	1,487	1,506	1,442	
MO	Sep	895	1,491	1,539	1,847	1,242
	Nov	1,462	1,688	1,591	1,878	
	Final	1,469	1,655	1,650	1,931	
NE	Sep	1,404	1,715	1,716	1,849	1,877
	Nov	1,420	1,514	1,345	1,810	
	Final	1,420	1,514	1,342	1,810	
OH	Sep	1,790	1,452	1,711	1,887	1,699
	Nov	1,647	1,378	1,485	1,710	
	Final	1,650	1,383	1,467	1,710	

<sup>1</sup> Not available due to plant immaturity.

### Cotton: Cumulative Boll Counts

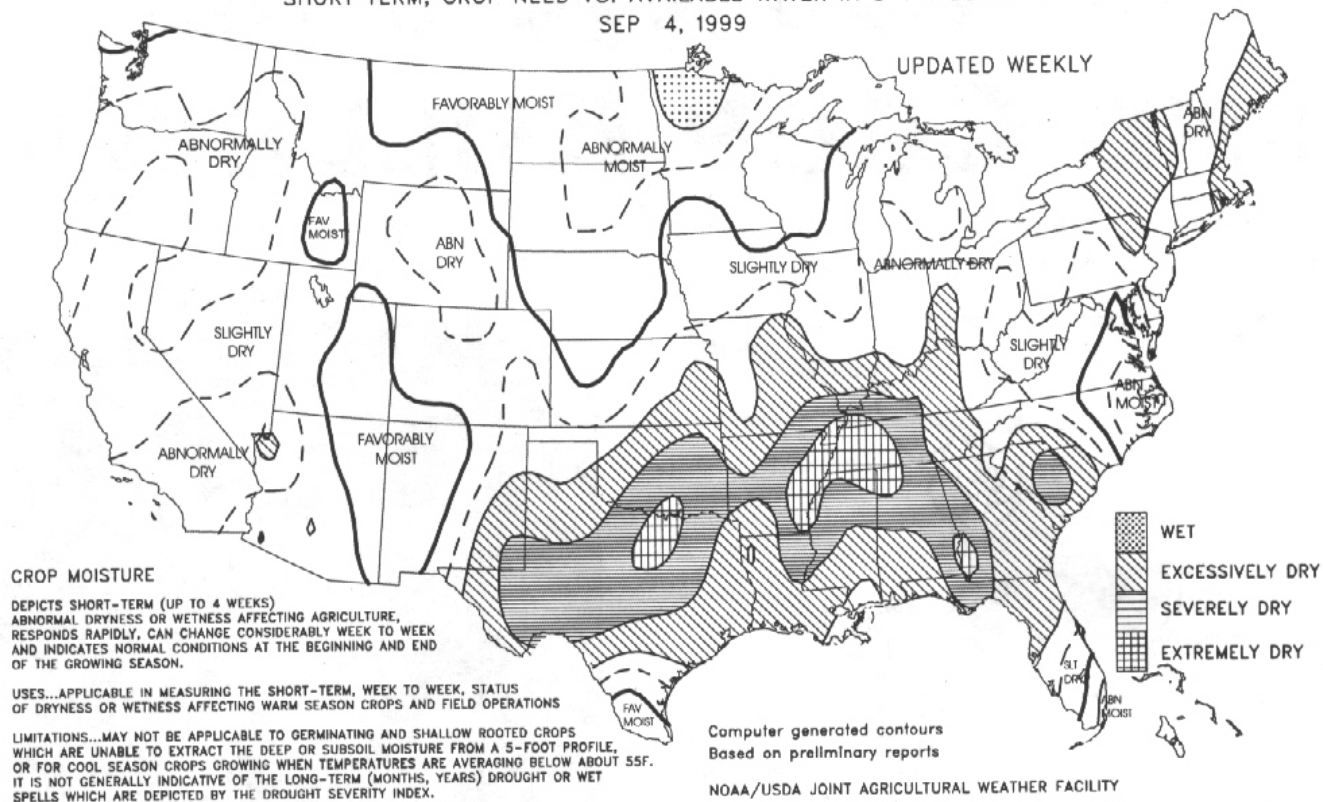
The National Agricultural Statistics Service is conducting an Objective Yield survey in 12 cotton producing states during 1999. Randomly selected plots of cotton fields are visited monthly from August through harvest to obtain specific counts and measurements. Data in this table are actual field counts from this survey for 5 States which accounted for 60 percent of the 1998 U.S. upland cotton production. The remaining 7 States are new to the Objective Yield survey and do not have 3 years of historical counts available.

**Cotton: Cumulative Boll Counts, September 1995-99, and November and Final, 1995-98<sup>1</sup>**

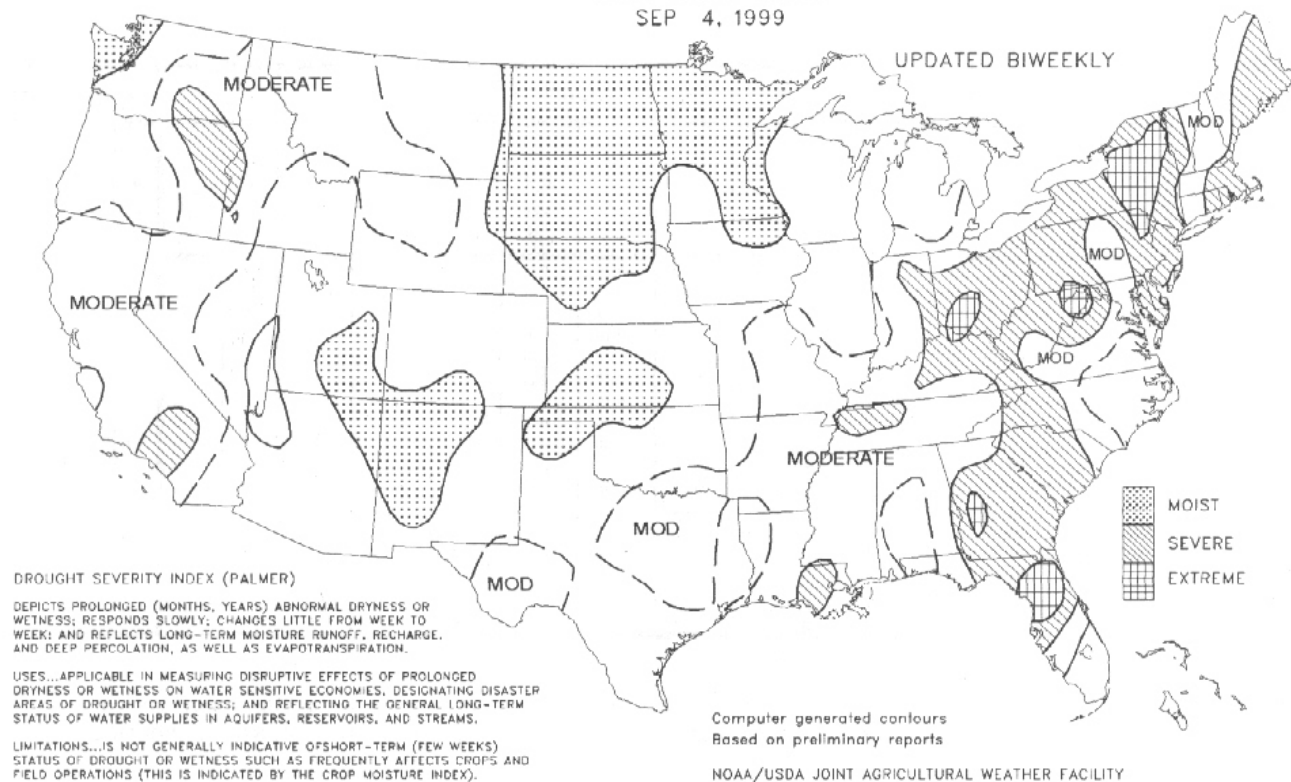
State	Month	1995	1996	1997	1998	1999
		<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
AR	Sep	850	857	975	637	720
	Nov	689	741	810	633	
	Final	689	741	811	640	
CA	Sep	751	707	701	755	921
	Nov	682	748	697	665	
	Final	680	744	697	655	
LA	Sep	679	665	639	694	722
	Nov	615	607	643	600	
	Final	615	607	643	600	
MS	Sep	682	816	908	835	761
	Nov	607	731	835	823	
	Final	607	729	833	821	
TX	Sep	423	383	500	498	465
	Nov	409	498	468	477	
	Final	415	498	458	482	

<sup>1</sup> Includes small bolls (less than one inch in diameter), large unopened bolls (at least one inch in diameter), open bolls, partially opened bolls, and burrs, per 40 feet of row. In November, excludes small bolls.

**Crop Moisture**  
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE  
SEP 4, 1999

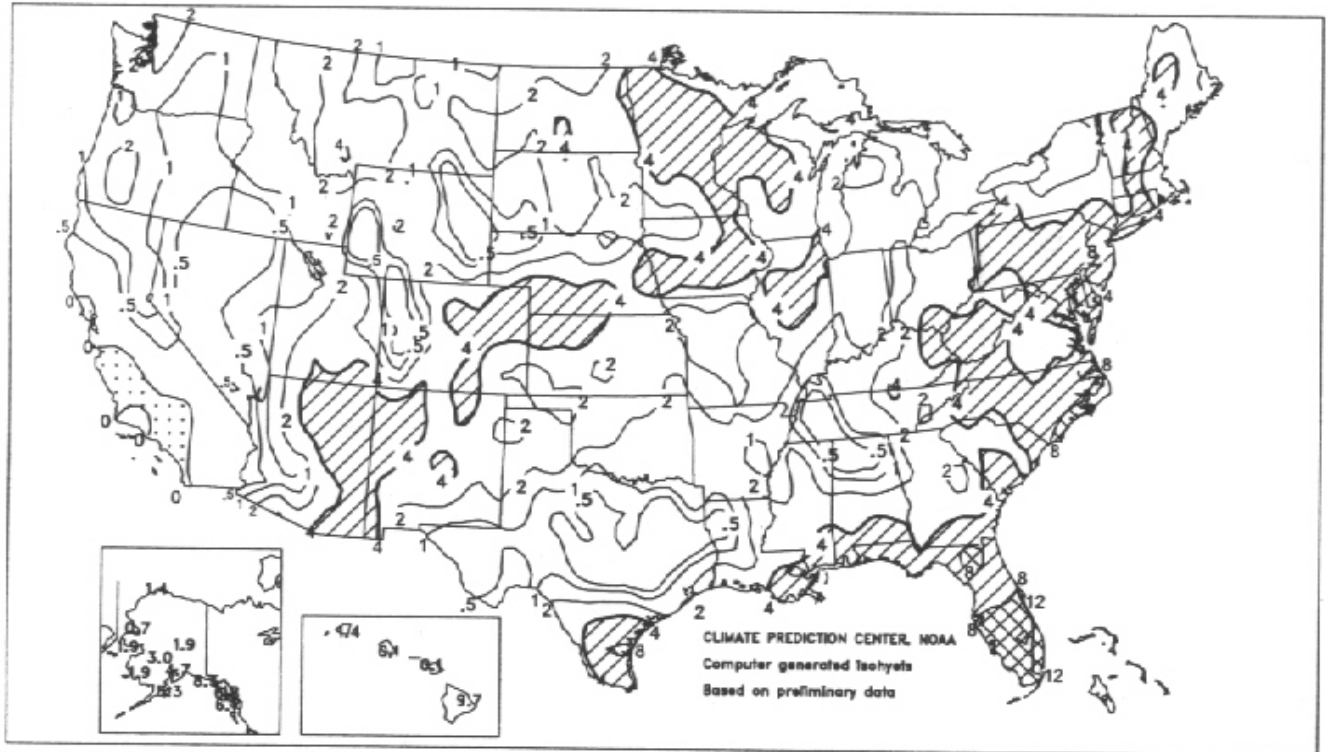


**DROUGHT SEVERITY**  
LONG TERM PALMER  
SEP 4, 1999



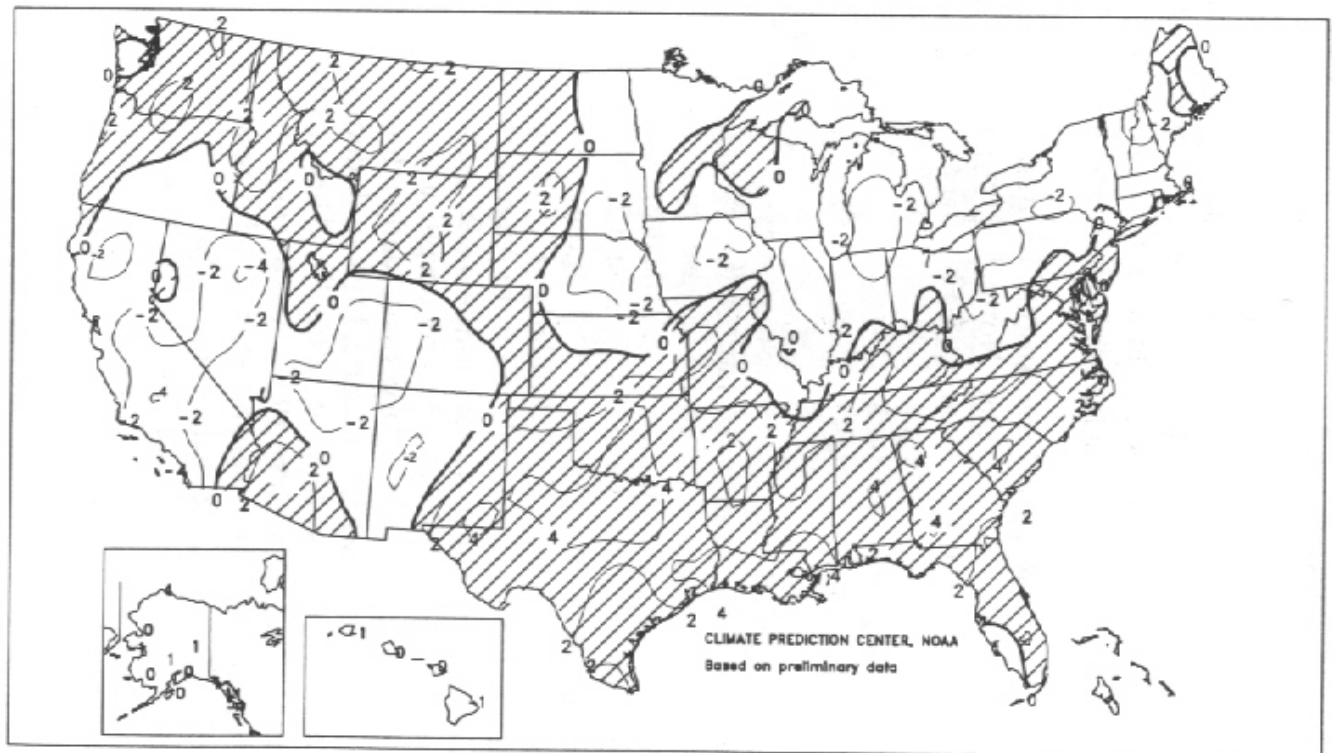
# Total Precipitation (Inches)

AUG 1999



# Departure of Average Temperature from Normal (°F)

AUG 1999



## August Weather Summary

The extreme heat and dryness that developed in late July from Oklahoma and Texas to the southern Atlantic Coast persisted through August, stressing pastures and immature summer crops, including cotton and soybeans. Meanwhile, heat did not return to the Corn Belt after late July, keeping heat stress on Midwestern corn and soybeans at a minimum. Unfavorably dry weather persisted, however, across the southern and eastern Corn Belt, particularly in Missouri and the lower Ohio Valley. In contrast, wet conditions prevailed from the Southwest to the northern Plains and upper Midwest, courtesy of an active monsoon and numerous cold fronts. Beneficial rain fell in the Northwest, but dry conditions and lightning strikes sparked wildfire activity in California and the Great Basin. Much-needed rain also fell in the northern Mid-Atlantic region, tempering the 14-month drought. In the tropics, Bret became the first hurricane to cross the Texas coast this decade on August 22, arriving as a Category 3 storm (125 mph sustained winds) in sparsely populated Kenedy County, Texas. Hurricane Dennis, a category 2 storm (100 to 105 mph winds) brushed the coastal Carolinas on August 29-31, producing heavy rain, gusty winds, and beach erosion. Although no tropical systems affected southern Florida, rainfall was well above normal.

Monthly rainfall was more than 200 percent of normal from the Four Corners region to the central High Plains, and in a few locations on the northern Plains and interior Northwest. Precipitation was less than 25 percent of normal in many areas from central Texas to the middle and lower Mississippi Valley, in portions of the Great Basin, and in coastal and southern California.

Monthly temperatures averaged 2 to 5 degrees F above normal from Texas and Oklahoma to the southern Atlantic Coast. Temperatures were up to 3 degrees F above normal in the northern High Plains and the Northwest. In contrast, readings averaged as much as 3 degrees F below normal in the Corn Belt and as much as 5 degrees F below normal in California's San Joaquin Valley. Near-normal temperatures prevailed in the Mid-Atlantic region.

**General Crop Comments:** Mild temperatures eased crop stress in the central and northern Great Plains and most of the Corn Belt. Timely rains provided adequate moisture for crop development in parts of the central and western Corn Belt and central Great Plains. Increasing moisture shortages stressed crops in the southern and eastern Corn Belt and most of the lower Mississippi Valley and Southeast. Dry conditions aided small grain harvest across the Northern States from the Great Lakes to the Pacific Northwest and row crop harvest in the southern States from the Great Plains to the Atlantic Coastal Plains. Field preparations began for winter wheat seeding, but planting and tillage were delayed while growers waited for rain to recharge soil moisture supplies. Crop development remained slow in the Southwest due to persistent cool weather.

Corn rapidly entered the silking stage in South Dakota, Colorado, and Pennsylvania early in the month. In Ohio, 40 percent of the crop entered the dough stage during the first week of the month and was nearly twice the normal rate on August 15. As mid-month approached, corn in the dough stage rapidly advanced in Iowa, Nebraska, and South Dakota. Fields quickly progressed to the dent stage along the Ohio River Valley in the southern Corn Belt, with more than half of the acreage denting in Missouri and Kentucky by August 15. After midmonth, acreage entering the dough stage rapidly increased in Colorado, while denting accelerated in Iowa, Illinois, Indiana, and Kansas. As of August 29, corn in the dough stage or beyond was at 92 percent, and 62 percent of the crop was at the dent stage or beyond. Development was about 1 week ahead of the 5-year averages of 81 and 44 percent, respectively. Twelve percent of the crop was mature by the end of the month, as progress neared 50 percent along the Mississippi and Ohio River Valleys in the southern Corn Belt. Harvest began in the central and High Plains regions of Texas and was virtually complete in the southern and coastal regions of the State.

Ninety-six percent of the soybean acreage was blooming by mid-August, slightly ahead of last year and the average. Acreage entering the blooming stage remained active in the northern Mississippi Delta and lower Ohio and Tennessee River Valleys after mid-month. Soybeans setting pods advanced well ahead of the average in the eastern Corn Belt, and slightly ahead of normal in the western Corn Belt. Nearly one-fourth of the acreage in Indiana and almost one-third of the crop in Ohio began setting pods during the first week of the month. As mid-month approached, pod setting accelerated in the central and western Corn Belt, advancing about 25 percentage points in Nebraska and Minnesota and nearly 20 percentage points in Illinois and Kansas during the second week of the month. Warm weather quickly ripened fields in Kentucky, Mississippi, Tennessee, and Ohio late in the month. On August 29, more than half of the acreage was dropping leaves in

Mississippi, 34 percentage points ahead of the average. A few isolated fields began dropping leaves in the western Corn Belt, while ripening accelerated in the eastern and southern Corn Belt.

Above normal temperatures promoted cotton development in the southern Plains, Mississippi Delta, and Southeast during most of August. Conditions steadily deteriorated throughout the month in most areas, as soil moisture levels diminished. Isolated showers temporarily boosted conditions along parts of the Gulf Coast and Atlantic Coastal Plains. Cool weather hindered growth in California most of the month. By August 29, bolls were opening on 35 percent of the cotton acreage, as warm weather accelerated ripening in Mississippi, Missouri, and Tennessee. Harvest began in southern Texas and advanced northward into the Blacklands, Central Texas, and the Upper Coast as the month progressed.

As the month began, winter wheat harvest was nearly complete, while spring wheat and barley harvest gained momentum. Dry weather aided harvest efforts in the northern Great Plains and Pacific Northwest, but late developing fields limited the harvest pace for most of the month. The oat harvest proceeded ahead of normal in the Corn Belt, but slow crop development and late-month rains delayed progress in Minnesota and North Dakota. Growers prepared fields for seeding winter wheat in the southern and central Great Plains, but planting was delayed due to dry soils.

Warm weather promoted rice development in the lower Mississippi Valley as fields rapidly entered the heading stage in Arkansas and Mississippi. Development lagged in California due to persistent cool weather. In Texas and Louisiana, the harvest began early in the month and remained active as dry weather prevailed most of the month along the western Gulf Coast. The harvest pace gained momentum in inland areas of the Mississippi Delta late in the month. As of August 29, the crop was 26 percent harvested.

Sorghum development proceeded slightly behind normal for most of the month, with 94 percent headed, 53 percent turning color, and 28 percent mature on August 29. Fields rapidly progressed to the heading stage in New Mexico and South Dakota late in the month. Fields turning color advanced 29 percentage points in Illinois during the last week in August. Hot weather quickly ripened fields in the southern Great Plains and lower Mississippi Valley.

**Corn for grain:** Acreage harvested and to be harvested for grain is forecast at 71.0 million acres, unchanged from last month but down 2 percent from 1998. The September 1 Corn Objective Yield data indicate a record level stalk count for the seven objective yield States (Illinois, Indiana, Iowa, Minnesota, Nebraska, Ohio, and Wisconsin). The September forecasted ears per acre are the highest on record and, if realized, would exceed the previous record final ears per acre set in 1998. Ear measurements from the sample plots indicate a length equal to last year and the 5-year average. As of August 29, 62 percent of the acreage was reported dented in the 17 major States. This compares with 62 percent last year and 44 percent for the 5-year average. Corn rated in good to excellent condition totaled 57 percent compared to 69 percent for a year ago.

Corn rapidly entered the silking stage in South Dakota, Colorado, and Pennsylvania early in the month. As mid-month approached, corn in the dough stage rapidly advanced in Iowa, Nebraska, and South Dakota. Fields quickly progressed to the dent stage along the Ohio River Valley in the southern Corn Belt, with more than half of the acreage denting in Missouri and Kentucky by August 15. Harvest began in the central and High Plains regions of Texas and was virtually complete in the southern and coastal regions of the State.

In Iowa, forecasted stalk and ear populations are both at record levels when compared to final counts. Ear length is above the 1994-98 average and 1998. Sixty-four percent of the corn was dented as of August 29, compared to 64 percent in 1998 and the 5-year average of 41 percent. Corn condition was rated 70 percent good to excellent.

Forecasted stalk and ear counts are at a record high level for Illinois when compared to final counts. Ear length is below last year but equal to the 5-year average. Seventy-five percent of the corn was dented, compared with 60 percent last year and 48 percent for the 5-year average. Forty percent of the corn was rated in good to excellent condition.

In Indiana and Nebraska, forecasted stalk and ear counts are at a record high. Ear length is below both last year and the average for both states. The corn dented in Indiana was at 74 percent compared to 55 percent for last year and the average of 40 percent. The majority (72 percent) of corn in Indiana was rated in fair to good



condition. Nebraska corn was 52 percent dented on August 29 compared with 67 percent in 1998 and the average of 45 percent. The Nebraska corn crop was rated 71 percent good to excellent.

Wisconsin stalk and ear counts are at the highest level on record. Ear length is above both last year and the average. Forty-two percent of the crop was dented on August 29, compared with 45 percent in 1998 and the average of 25 percent. Condition of the Wisconsin corn crop was rated 86 percent good to excellent.

Minnesota and Ohio stalk and ear counts from Objective Yield data indicate levels below last year but above average. Ear length in Minnesota is below 1998 but above the 5-year average. In Ohio, ear length is below both 1998 and the average for 1994-98. Corn dented in Minnesota was 56 percent by August 29, compared to 71 percent for 1998 and the average of 35 percent. Ohio corn was 62 percent dented, compared to 38 percent for last year and the average of 28 percent. Minnesota corn was rated 63 percent good to excellent while the Ohio crop was rated 68 percent fair to good.

**Sorghum:** Production is forecast at 580 million bushels, down 1 percent from the August forecast but 12 percent above the 1998 production. Area harvested and to be harvested is unchanged from August, at 8.50 million acres, 10 percent higher than the previous year. The forecasted yield, at 68.2 bushels per acre, is down 1 bushel from last month but 0.9 bushels higher than last year's yield.

Compared to August, forecasted yields are higher for Louisiana, Mississippi, and Oklahoma; unchanged for Colorado, Kansas, and New Mexico; and lower in the remaining States. Record high yields are expected in Louisiana, Mississippi, and Texas. As of August 29, 28 percent of the crop was mature in the 12 major States, equal to the average. The crop matured ahead of normal in Louisiana and Mississippi during August.

**Barley:** Production for 1999 is forecast at 283 million bushels, less than 1 percent higher than the August forecast but 20 percent below the 1998 production. Area harvested and to be harvested is unchanged from August, at 4.83 million acres, down 18 percent from the previous year. Yields are expected to average 58.5 bushels per acre, up 0.3 bushels from last month but 1.6 bushels below last year's yield.

Forecasted yields were unchanged from August in 5 of the 11 September forecast States. Compared to the August forecast, Idaho, Washington, and Wyoming are expecting higher yields, while North Dakota, Oregon, and Wisconsin are forecasting lower yields. Wet weather slowed harvest in most major States during August. As of August 29, 55 percent of the barley was harvested, behind the 71 percent 5-year average. If achieved, the forecasted yield in Wyoming would equal the record high.

**Durum Wheat:** Grain area is unchanged from the last forecast at 3.90 million acres. Harvested yields were lower than expected in South Dakota because of dry conditions. The North Dakota Durum crop trailed a week behind the 5-year average throughout August; harvest was only 19 percent complete on August 29. Average harvest progress in North Dakota is 33 percent. North Dakota's Durum Objective Yield survey head count and weight forecasts are improved from a month ago, but still lower than average.

**Other Spring Wheat:** Harvested area for 1999 is 15.0 million acres, unchanged from last month and down 1 percent from last year. As of August 29, harvest trailed average by four points in the major producing states; only the South Dakota harvest was ahead of average and was nearing completion.

Idaho harvested yields are a bit higher than were expected last month. Washington's average yield is unchanged and thunderstorms are slowing the harvest. Objective Yield survey data shows plant populations at above average levels in Minnesota, below in Montana, and about average in North Dakota. Head weight forecasts are up from August in Minnesota and North Dakota, but are still below average; Montana's weight forecast dipped but remains better than average.

**Rice:** Production is forecast at a record high 212 million cwt, down 1 percent from August 1 but 13 percent above 1998. Area for harvest is expected to total 3.56 million acres, down slightly from August 1 but 7 percent above a year ago. Yields are expected to average 5,967 pounds per acre, down 26 pounds from August but up 298 pounds from 1998. Yield prospects in California, Mississippi, Missouri, and Texas remained unchanged while Arkansas and Louisiana decreased from a month ago.

The Arkansas harvest was slightly ahead of schedule, while Texas was 22 percent ahead of the 5-year average. California harvest has not begun. The cooler temperatures in July are expected to delay harvest by about two weeks. As of August 29, Arkansas crop development was slightly ahead of normal and was rated 71 percent good to excellent. The Louisiana harvest was 79 percent complete and yields are less than earlier expectations. The crop condition in Mississippi and Texas rated mostly good.

**Soybeans:** Acres expected for harvest, at 73.3 million acres, are unchanged from August but are 3 percent above the 1998 record harvested acreage.

As of August 29, the soybeans crop was rated mostly in fair to good condition. At month's end, crop conditions had deteriorated in much of the Delta, Southeast, and the Mid-Atlantic region as soil moisture levels remained depleted and high temperatures persisted. Conditions in the western Corn Belt States and northern tier States were more favorable during August as milder temperatures and occasional rains eased the stress caused by the heat wave that hit in late July. In the drier eastern Corn Belt and Mid-Atlantic, the crop began to show some signs of improvement as much needed precipitation was finally received by the second week of August and continued through the end of the month.

In the seventeen non-Objective Yield states that make yield forecasts in September, ten states reduced yields from August. The largest yield reductions in September were seen in Alabama, Tennessee, Kentucky, Louisiana, Kansas, and South Dakota. Yields were also lowered in Georgia, Delaware, Mississippi, and South Carolina. Yield increases were made in two states, North Dakota and Texas, while yields in Maryland, Michigan, North Carolina, Virginia, and Wisconsin were unchanged from August.

If realized, pod counts from the September Objective Yield survey will be the highest on record in Illinois, Indiana, Iowa, Minnesota, and Nebraska. In Missouri, pod counts for September were the lowest since 1988. In Ohio, pod counts were the second highest on record following the 1998 season.

Overall, crop maturity was running at an accelerated pace. As of August 29, 94 percent of the soybeans crop had already set pods, 1 percentage point ahead of 1998 and 2 percentage points ahead of the 5-year average. The percent of soybeans dropping leaves, at 6 percent, was 1 percentage point ahead of the previous year and 3 percentage points ahead of the average.

**Peanuts:** Production is forecast at 3.85 billion pounds, up slightly from the August 1 forecast but down 3 percent from last year's crop. Area for harvest is expected to total 1.45 million acres, down slightly from August and down 1 percent from 1998. North Carolina was the only state to adjust their harvested acreage from the August report, decreasing their expectations by 1,000 acres. Yields are expected to average 2,660 pounds, up 3 pounds from last month but down 42 pounds from last year.

Production in the Southeast States (Alabama, Florida, Georgia, and South Carolina) is expected to total 2.10 billion pounds, down slightly from last month and down 5 percent from last year's level. Yield in the Southeast region are expected to average 2,509 pounds per acre, down 11 pounds from August 1 and 131 pounds below 1998. Yield prospects in Alabama, Georgia, and South Carolina were unchanged from last month while Florida decreased 100 pounds. Early harvest was underway in Florida and Georgia. As of August 29, the crop condition in the 4-State area was mostly fair to good.

The Virginia-North Carolina production is forecast at 588 million pounds, up 2 percent from last month, but down 5 percent from 1998. Yield is forecast at 2,938 pounds, 63 pounds above last month but down

162 pounds from last year. On August 29, the Virginia-North Carolina crop was rated in mostly good condition.

Southwest crop production (New Mexico, Oklahoma, and Texas) is expected to total 1.17 billion pounds, unchanged from last month but up 2 percent from 1998. Yields are expected to average 2,829 pounds, 191 pounds above 1998. On August 29, harvest had begun in Texas on the earliest fields. The tri-state area crop condition was rated mostly fair to good.

**Cotton:** Upland harvested acreage is 25 percent above last year, with Louisiana increasing 30,000 acres from August 1. Condition of the cotton crop has deteriorated since last month in most of the cotton-producing States. Dry soils and above normal temperatures have stressed dryland cotton. American-Pima harvested acreage is also unchanged from August, at 316,200, but up 35 percent from 1998.

Texas cotton has experienced above normal temperatures, promoting rapid development. For the week ending August 29, 29 percent of the cotton acreage was showing open bolls. This compares to 26 percent for the 5-year average. However, these high temperatures have resulted in some boll drop, especially in dryland areas. During the month of August, Texas cotton has shown a slight decline in overall condition. On August 29, 37 percent of the acreage was rated as good to excellent which compares to 45 percent on August 1. Harvest continues in the Coastal Bend and Upper Coast. The Rio Grande Valley had harvested almost all of their cotton prior to Hurricane Bret. The Objective Yield survey data indicates Texas' fruit counts rank ninth in the last ten years. Oklahoma's production is unchanged from last month. The overall condition of their cotton crop has improved, but some dryland cotton is exhibiting signs of drought stress.

The Delta States (Arkansas, Louisiana, Mississippi, Missouri, and Tennessee) experienced a slight decline in the condition of their cotton during the month of August. Dry conditions continue to affect the region and reduce the potential yield. Arkansas rated 59 percent of their acreage as good to excellent, 11 percent lower than on August 1. Mississippi showed very similar results, rating 58 percent of the cotton as good to excellent, also 11 percent below last month's rating. Missouri and Louisiana rated 38 and 32 percent, respectively, in the good to excellent categories. For Missouri, this was 1 percent lower than last month, but Louisiana's rating was down 38 percent. Tennessee rated only 20 percent of their cotton acreage as good to excellent, a 28 percent decrease from August 1. While the condition deteriorated, warm weather has resulted in accelerated maturity of the crop and the shedding of some small bolls. Boll opening was ahead of average in all of the Delta States. On August 29, Arkansas was 42 percent open, 20 points ahead of the 5-year average. Louisiana had bolls open on 63 percent of the acreage, compared to 54 percent on average. Mississippi had 80 percent of their acreage showing open bolls, 31 percent ahead of average. Cotton Objective Yield data show Arkansas' count of large boll count as the ninth lowest in the last ten years. Mississippi's large boll count ranks seventh for the same time period. Louisiana's total fruit count ranks ninth since 1990.

Unusually cool weather persisted in California and Arizona early in August, resulting in slow development of the cotton crop. By mid-to-late August, beneficial warmth promoted development, but fields with open bolls continued to lag behind the 5-year average. California reported only 5 percent of their cotton acreage having open bolls on August 29, 23 percent behind normal. Arizona showed a similar results, with only 39 percent of the acreage having open bolls. This compares to 66 percent on average. Despite the delay, there is not widespread concern about the crop growing to maturity. At the end of August, California's cotton continues to be rated 90 percent good to excellent. Arizona rated 45 percent in these categories and an additional 45 percent as fair. Data from the Objective Yield plots indicate the number of small bolls in California ranks second in the past ten years, while their large boll counts rank sixth during this time period.

In the Southeastern States (Alabama, Georgia, North Carolina, and South Carolina), the cotton crop condition declined due to hot and dry weather throughout most of the month. In late August, rains from Hurricane Dennis improved soil moisture conditions in isolated areas, but some fields were too mature to benefit from the moisture. Northern Alabama and the Carolinas did receive scattered showers during the middle of the month, but additional rain was still needed. All four of the States showed a decline in cotton condition during the month of August. South Carolina and Georgia each rated only 24 percent of their crop in the good to excellent categories. There were declines of 38 and 35 points, respectively, from August 1. Georgia rated 33 percent good to excellent, a 19 percent decrease from August 1. North Carolina showed the least decline, rating 57 percent of their cotton good to excellent, 14 points below last month. As was the case in the Delta States, the warm, sunny weather has promoted rapid advancement of this year's crop. After a slow start,

cotton development has now caught up or exceeded the 5-year average. As of August 29, Alabama reported 32 percent of the cotton acreage having open bolls, 10 percent above the 5-year average. North Carolina had 25 percent of its acreage with open bolls, 7 percent ahead of average. Georgia is 5 percent ahead of normal with 36 percent of the acreage having open bolls and South Carolina is on average with 17 percent of the cotton acres with open bolls. A small volume of cotton was reportedly harvested in Georgia. Harvesting is not expected to become widespread until later in September.

American-Pima production is forecast at 688,500 bales, up 56 percent from last year's output, and up 20,900 bales from August. The U.S. yield is forecast at 1,045 pounds per harvested acre, up 141 pounds from last year. California's production is up 20,000 bales from the August forecast, while Arizona's production is increased 900 bales. Although cool temperatures have slowed development, the crop continues to have good potential in both of these States. New Mexico and Texas production remained unchanged.

Ginnings totaled 561,000 running bales prior to September 1, compared with 523,000 running bales ginned prior to the same date last year and 358,700 running bales in 1998.

**Summer Potatoes:** The September forecast of 1999 summer potato production is 18.6 million cwt, 2 percent below a year ago and 2 percent below the July 1 forecast. Harvest area is estimated at 64,400 acres, down 5 percent from last year and slightly below two years ago. The average yield is forecast at 289 cwt per acre, 11 cwt above last year and 9 cwt above two years ago.

Yields are above last year in Alabama, California, Delaware, Illinois, Missouri, and New Mexico. Alabama and Missouri are record high, and Delaware tied a record high. Irrigation helped Delaware growers. Most areas got off to a late start in the spring and were then hit by hot, dry weather during the last of the growing season. Yields are down in Virginia, New Jersey, and Texas.

Harvest is virtually finished, although late in many areas. Late spring rains slowed early development in Colorado and Nebraska, but most fields caught up to normal as warmer weather prevailed. Harvest was also late in California and Delaware.

**Fall Potatoes, 1998 Final:** Production of 1998 fall potatoes is finalized at 433 million cwt, up 2 percent from a year earlier but 5 percent below the record high production of 1996. The 1998 crop is the second highest production on record. Farmers harvested 1.21 million acres of fall potatoes in 1998, up 2 percent from 1997 but 3 percent short of 1996. The average yield was 356 cwt per acre, down 1 cwt from 1997 and 8 cwt below 1996. Compared with annual estimates made last January, larger crops were registered in Nevada and Massachusetts. Idaho and Michigan crops were smaller.

**All Potatoes, 1998:** Final production of potatoes from all four seasons in 1998 totaled 476 million cwt, up 2 percent from a year earlier, but 5 percent below 1996. Area harvested is estimated at 1.39 million acres, up 3 percent from 1997 but 3 percent below 1996. Yield, averaging 343 cwt per acre, dropped 2 cwt from a year ago and was 7 cwt lower than two years ago. In 1998, winter production dropped 13 percent, spring slipped 5 percent, summer gained 4 percent, and fall potatoes increased 2 percent from the previous year.

**Tobacco:** U.S. all tobacco production for 1999 is forecast at 1.31 billion pounds, down 11 percent from 1998 and down 27 percent from 1997. Harvested acres are expected to total 661,110, also down 8 percent from 1998. Yields for 1999 are expected to average 1,984 pounds per acre, 77 pounds below a year ago. Tobacco growers in North Carolina watched yield prospects slip from a month ago levels due to dry conditions. Growers in Kentucky, the leading burley state, also watched yields deteriorate from last month due to dry conditions.

Flue-cured production is expected to total 700 million pounds, down 14 percent from 1998. Growers plan to harvest 316,000 acres in 1999, 14 percent below last year. Yield is expected to average 2,217 pounds per acre, down 41 pounds from last month but up 13 pounds from a year ago.

Burley production is expected to total 536 million pounds, 8 percent below a year ago. Yield is expected to average 1,754 pounds per acre, a decline of 134 pounds from the previous forecast and down 142 pounds from 1998. Burley tobacco growers plan to harvest 305,700 acres, slightly below a year ago. Kentucky's acreage, at 215,000, is expected to be the same as last year but yield declined 150 pounds from last month. Tennessee's dark fired tobacco yields dropped as much as 200 pounds from last month while burley declined 150 pounds from the previous forecast. Yields are highly variable due to drought severity and planting date. Early tobacco has fared well, whereas late tobacco looks poor. Black shank has been a problem throughout the State.

**Florida Citrus:** Florida's citrus belt received adequate to surplus precipitation during the month of August. Several growers on the lower east coast and the west coast had frequent, heavy downpours with occasional flooding and erosion. A few groves on the high sand hills, however, received only variable to light rainfall and required periodic irrigation. There is an abundance of new growth on trees of all ages in all areas. New crop fruit is making very good progress. Two packing houses have packed new crop, early bloom Navels. There are several fresh fruit houses also testing grapefruit for early harvest. Caretakers have been very active cutting cover crops and applying herbicides. Growers are also applying summer sprays and fertilizers between rain showers. Dead trees and abandoned groves are being pushed and burned. New trees have been reset in the larger groves.

**California Citrus:** During the month of August, new crop navel oranges were maturing well. Sizes were slightly below the average of the last 12 non-freeze years. Growers in southern California continued to harvest Valencia oranges and lemons.

**Sugarbeets:** Production is forecast at record high 33.6 million tons, 3 percent above the previous record in 1998. Growers in the 12 sugarbeet-producing States expect to harvest 1,525,500 acres, 5 percent more than last year and the highest since 1,540,500 acres were harvested in 1969. The yield is forecast at 22.0 tons per acre, 0.5 ton below 1998.

Seasonal temperatures and adequate moisture supplies promoted healthy development in most of the Great Plains. A few fields in Colorado were damaged by hail and excessive moisture. Some fields in North Dakota and Minnesota were also hampered by excessive soil moisture. The California beet crop is forecast at a record high, as cooler-than-normal summer weather boosted yield prospects. Increasing moisture shortages stressed some fields in Michigan.

**Sugarcane:** Production is forecast at a record high 37.1 million tons, 7 percent above the previous record of 34.7 million tons set last year. U.S. sugarcane growers intend to harvest a record high 987,500 acres for sugar and seed during the 1999 crop year, 4 percent more than last year's final harvested acres. The record high acreage is due to a 30,000 acre expansion in Louisiana and a 9,000 acre increase in Florida. The expansion in Louisiana is due to increased use of a new high-yielding variety that can be harvested mechanically even if it is severely lodged. Yield is forecast at 37.5 tons per acre, 0.9 ton above 1998. A record high yield is forecast for Louisiana due to ideal growing conditions, a high yielding sugarcane hybrid, and increased utilization of a more efficient harvester. Warm weather and frequent rains promoted rapid growth in Florida.

**Papayas:** Hawaii's fresh papaya output is estimated at 3.50 million pounds for August, 8 percent higher than July and 26 percent higher than a year ago. Area devoted to papaya production totaled 3,515 acres in August, 1 percent higher than July but 4 percent lower than August 1998. August weather conditions were variable with a mix of sunshine and showers. Soil moisture levels were low in some orchards early in the month, but

were replenished by the end of August. Harvesting of the transgenic Rainbow variety, which is resistant to the papaya ringspot virus, was increasing as more fields mature.

**California Fruits and Nuts:** Fresh use grape harvesting was active in the San Joaquin Valley during August. Major varieties that were picked included Thompson Seedless, Red Globe, and Flame Seedless. By the end of August, raisin grapes were being dried and wine grape harvesting was underway. Stone fruit harvesting made good progress during the month and began to wind down by September 1. The Bartlett pear harvest was wrapping up by late August and good quality was reported. Asian and other pear harvests were also active. Early variety apple picking gained momentum. Almond growers began harvest of early varieties by late August. Walnut trees were treated for codling moths. Olives were maturing well. Central Valley growers were planting strawberries.

**Hazelnuts:** Hazelnut production in Oregon and Washington is forecast at 38,000 tons for 1999. This would be almost two and one-half times larger than last year's crop but 19 percent less than the 1997 record production. Oregon is expected to account for 37,700 tons and Washington the remaining 300 tons.

Pollination was generally good during January and February despite wetter than normal conditions. Crop progress is now about 10 to 14 days behind normal. Except for delayed maturity, the cool, wet spring which extended into early summer has not affected the crop. Eastern Filbert Blight continues to limit potential production in infested orchards.

The results of the hazelnut objective yield survey showed the number of nuts picked per tree was up 178 percent from last year but down 23 percent from 1997. The percentage of good nuts was off three percentage points from 1998 and about two percentage points from 1997. The average dry weight of the good nuts was one-third gram lower than last year but one-tenth gram higher than in 1997. The average size was much smaller than in 1998 but nearly the same as 1997. Brown stained nuts amounted to just 0.9 percent of the sample, the lowest percentage since 1991.

**Walnuts:** The 1999 California walnut production is forecast at a record 280,000 tons, up 23 percent from the 1998 production of 227,000 tons. The September forecast is based upon the Walnut Objective Measurement Survey conducted August 1 through August 22, 1999.

Survey data indicated an average nut set of 1,709, up 21 percent from last year's average of 1,407. The Hartley nut set was up 54 percent; Serr, down 39 percent; Franquette, up 86 percent; and Chandler, up 18 percent from 1998. Percent of sound kernels in-shell was a record high 97.9 percent Statewide. In-shell weight per nut was 23.0 grams, while the average in-shell suture measurement was 32.2 millimeters. The average length in-shell was 39.4 millimeters.

Due to a cool spring, the crop is about two weeks behind normal. The early and mid-season varieties are expected to be about average, while late variety production is expected to be larger than last year. Quality is expected to be excellent, with very little damage.

**Pistachios:** California pistachio production is forecast at 110 million pounds, 41 percent below last year's record production. This forecast is based upon an objective measurement survey completed August 27, 1999.

The estimated average number of clusters per tree was 591. The estimated total number of filled nuts per tree was 4,630 as compared with 9,542 in 1998. The average number of nuts per cluster, including both filled and blank, was 11.1 nuts per cluster. The percent of nuts filled was 70.4 percent. The average in-hull weight per nut including blanks was 2.82 grams, compared to 2.86 grams last year. The in-hull cross suture measurement was 15.29 millimeters, compared to 15.05 millimeters in 1998. Average kernel weight in 1999 was 0.928 grams. The average suture was 10.16 millimeters, average cross suture 9.78 millimeters, and kernel length was 16.72 millimeters.

Due to the later than usual spring, the crop is approximately two to three weeks behind normal.

## Reliability of September 1 Crop Production Forecast

**Survey Procedures:** Objective yield and farm operator surveys were conducted between August 25 and September 4 to gather information on expected yield as of September 1. The objective yield surveys for wheat, corn, soybeans, and cotton were conducted in the major producing States that usually account for about 75 percent of the U.S. production. Randomly selected plots were re-visited to make current counts. The counts made within each sample plot depend on the crop and the maturity of that crop. In all cases, number of plants are recorded along with other measurements that provide information to forecast the number of heads, ears, pods, or bolls and their weight. The counts are used with similar data from previous years to develop a projected biological yield. The 5-year average harvesting loss is subtracted to obtain a net yield. The plots are revisited each month until crop maturity when the fruit is harvested and weighed. After the farm operator has harvested the sample field, another plot is sampled to obtain current year harvesting loss.

The farm operator survey was conducted primarily by telephone with some use of mail and personal interviewers. Approximately 16,000 producers were interviewed during the survey period and asked questions about probable yield. These growers will be surveyed throughout the growing season to provide indications of average yields as the season progresses.

**Estimating Procedures:** National and State level objective yield and grower reported data were reviewed for reasonableness and consistency with historical estimates. The survey data were also reviewed considering weather patterns and crop progress compared to previous months and previous years. Each State Statistical Office submits their analysis of the current situation to the Agricultural Statistics Board (ASB). The ASB uses the survey data and the State analyses to prepare the published September 1 forecasts.

**Revision Policy:** The September 1 production forecast will not be revised; instead, a new forecast will be made each month throughout the growing season. End-of-season estimates are made after harvest. At the end of the marketing season, a balance sheet is calculated using carryover stocks, production, exports, millings, feeding, and ending stocks. Revisions are then made if the balance sheet relationships or other administrative data warrant changes. Harvested acres may be revised any time a production forecast is made if there is strong evidence that the intended harvested area has changed since the last estimate.

**Reliability:** To assist users in evaluating the reliability of the September 1 production forecast, the "Root Mean Square Error", a statistical measure based on past performance, is computed. This is done by expressing the deviation between the September 1 production forecast and the final estimate as a percentage of the final estimate, and averaging the squared percentage deviations for the 1979-1998 20-year period; the square root of the average becomes statistically the "Root Mean Square Error". Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

For example, the "Root Mean Square Error" for the September 1 corn for grain production forecast is 5.5 percent. This means that chances are 2 out of 3 that the current production forecast of 9.38 billion bushels will not be above or below the final estimate by more than 5.5 percent or approximately 516 million bushels. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 9.5 percent or approximately 891 million bushels.

Also shown in the following table is a 20-year record for selected crops of the differences between the September 1 forecast and the final estimate. Using corn again as an example, changes between the September 1 forecast and the final estimate during the last 20 years have averaged 310 million bushels, ranging from 10 million bushels to 891 million bushels. The September 1 has been below the final estimate 12 times and above 8 times. This does not imply that the September 1 corn forecast this year is likely to understate or overstate final production.

**Reliability of September 1 Crop Production Forecasts**

Crop	Unit	Root Mean Square Error		20-Year Record of Differences Between Forecast and Final Estimate				
		Percent	90 Percent Confidence Interval	Quantity			Years	
				Average	Smallest	Largest	Below Final	Above Final
				<i>Million</i>	<i>Million</i>	<i>Million</i>	<i>Number</i>	<i>Number</i>
Corn For Grain	Bu	5.5	9.5	310	10	891	12	8
Sorghum for Grain	Bu	7.3	12.6	32	1	115	12	8
Barley	Bu	3.8	6.8	12	0	38	7	13
All Wheat	Bu	1.5	2.5	28	2	97	8	12
Durum	Bu	5.8	9.9	4	0	12	9	11
Other Spring	Bu	3.7	6.4	14	1	62	10	10
Rice	Cwt	4.2	7.2	5	0	16	12	8
Soybeans for Beans	Bu	5.0	8.6	93	19	199	10	10
Cotton <sup>1</sup>	Bales	6.0	10.4	692	5	2,366	11	9

<sup>1</sup> Quantity is in thousands of bales.



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Jerry Ramirez - Soybeans, Minor Oilseeds	(202) 720-7369
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Steve Gunn - Apples, Cherries, Cranberries, Prunes, Plums	(202) 720-4488
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The next "Crop Production" report will be released at 8:30 a.m. ET on October 8, 1999.

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USDA to Hold Public Forum

October 18, 1999

Holiday Inn Mart Plaza

Chicago, Illinois

The National Agricultural Statistics Service will be organizing an open forum for Data Users. The purpose will be to provide updates on pending changes in the USDA statistical and information programs, and to seek comments and input from data users. Other agencies to be represented will include the Agricultural Marketing Service, the Economic Research Service, the Foreign Agricultural Service, and the World Agricultural Outlook Board.

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