

# POTATOES & SWEETPOTATOES



Statistical Reporting Service

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## ESTIMATED POTATO STOCKS

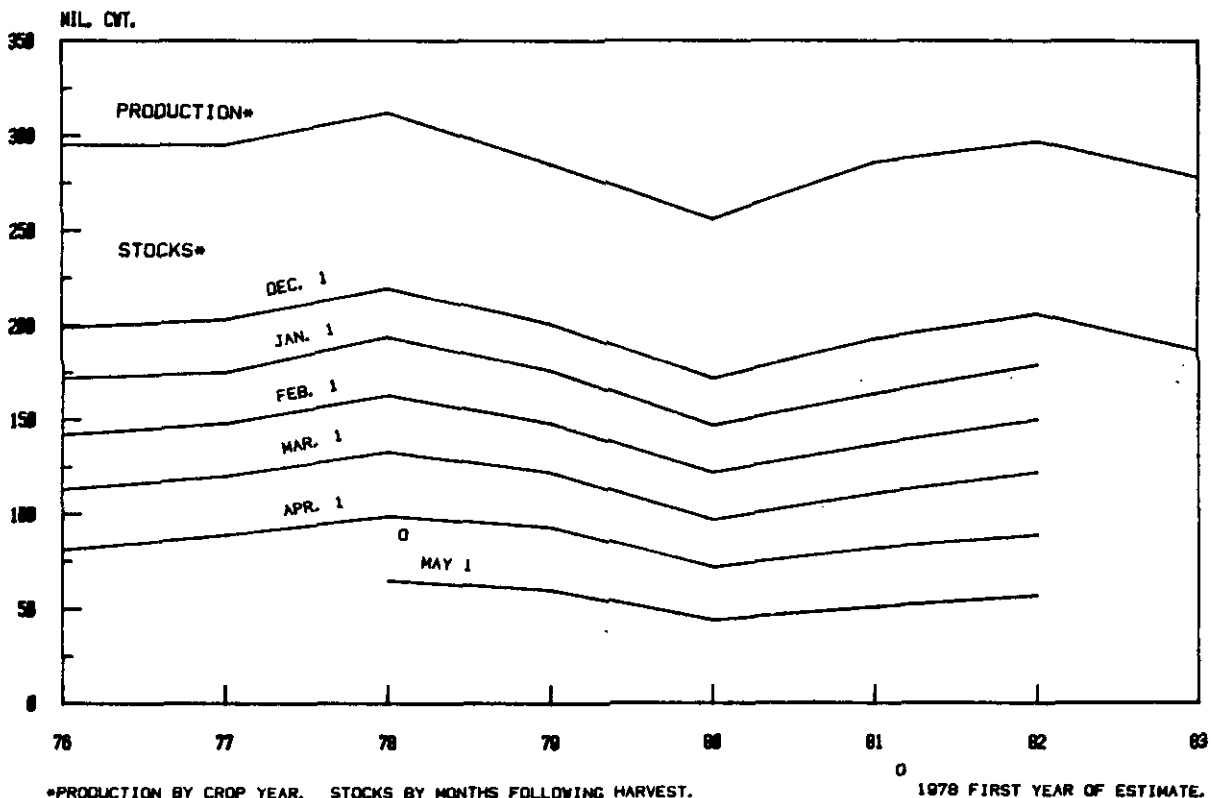
### POTATO STOCKS DOWN 9 PERCENT

December 1, 1983 potato stocks totaled an estimated 187 million cwt (8.49 million metric tons) for the 15 States in the Stocks Program. This is down 9 percent from last year and 3 percent below 1981. Of the total stocks in the 11 objective yield states, 72 percent were russets, 24 percent whites, and 4 percent reds.

In the three Eastern States, estimated holdings totaled 26.0 million cwt compared with 33.3 million cwt last year, a decline of 22 percent. Maine storages contained 18.1 million cwt, off 18 percent from last year; while New York and Pennsylvania potato stocks were down 34 and 26 respectively.

(Comments continued on page 7)

### FALL POTATOES: PRODUCTION AND STOCKS (FOR 15 STATES ESTIMATING POTATO STOCKS)



\*\*\*\*\*  
 \*NOTE: Stocks are defined as the quantity remaining in storage for all purposes \*  
 \* and uses, including shrinkage and waste and other losses that occur after \*  
 \* the date of each report. Sales of fall potatoes for all purposes generally\*  
 \* account for about 90 percent of the total fall production. Shrinkage and \*  
 \* loss and home use account for the remaining 10 percent. \*  
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TABLE 1. FALL POTATOES: DECEMBER 1, JANUARY 1, FEBRUARY 1, MARCH 1, APRIL 1,  
 AND MAY 1 TOTAL STOCKS, AND COMPARABLE PRODUCTION FOR 15 STATES ESTIMATING POTATO STOCKS

CROP YEAR	PRODUCTION	DEC 1	JAN 1	FEB 1	MAR 1	APR 1	MAY 1
1,000 CWT							
1973	247,686	154,890	131,600	105,360	80,460	55,465	
1974	278,679	183,850	160,100	131,480	102,963	75,217	
1975	266,422	181,720	156,220	129,710	102,850	70,970	
1976	294,978	198,630	172,230	142,030	112,830	81,130	
1977	295,421	202,550	175,300	147,930	119,850	88,680	
1978	311,981	219,850	193,520	162,980	132,570	99,250	64,830
1979	285,060	200,820	176,020	147,910	121,720	92,550	59,535
1980	255,691	171,730	146,610	121,565	97,280	72,460	44,446
1981	286,245	192,810	163,180	137,120	111,280	81,870	50,660
1982	296,657	206,175	173,500	144,950	116,500	84,845	52,904
1983	277,769	187,100					

TABLE 2. POTATOES USED FOR PROCESSING 1/, EIGHT STATES, 1982 AND 1983 CROPS

STATE	STORAGE SEASON	TO DEC 1	TO JAN 1	TO FEB 1	TO MAR 1	TO APR 1	TO MAY 1	ENTIRE SEASON
IDAHO AND MALHEUR CO., OREG	1982-83 1983-84	14,330 15,755	18,645	23,395	28,535	34,480	39,715	53,395
MAINE 2/	1982-83 1983-84	1,915 1,120	2,800	3,640	4,400	5,230	6,010	7,450
WASH AND OTHER AREAS, OREG	1982-83 1983-84	16,840 16,245	20,130	23,685	27,870	32,100	36,365	45,500
OTHER STATES 3/ 4/	1982-83 1983-84	5,655 4,305	7,135	8,625	10,220	12,170	13,820	16,405
TOTAL 4/	1982-83 1983-84	38,740 37,425	48,710	59,345	71,025	83,980	95,910	122,750

1/ TOTAL QUANTITY RECEIVED AND USED FOR PROCESSING REGARDLESS OF THE STATE IN WHICH THE POTATOES WERE PRODUCED. DOES NOT INCLUDE QUANTITIES USED FOR POTATO CHIPS IN MAINE, MICH, MINN, N DAK OR WIS.  
 2/ INCLUDES MAINE GROWN POTATOES ONLY. 3/ MICH, MINN, N DAK AND WIS. 4/ 1982-83 REVISED.

TABLE 3. POTATOES: PRODUCTION AND TOTAL STOCKS OF FALL POTATOES HELD BY GROWERS, PROCESSORS, AND LOCAL DEALERS ON DECEMBER 1, 1982 AND DECEMBER 1, 1983

STATE	CROP OF 1982			CROP OF 1983		
	PRODUCTION	TOTAL STOCKS	DEC 1 STOCKS AS % OF PRODUCTION	PRODUCTION	TOTAL STOCKS	DEC 1 STOCKS AS % OF PRODUCTION
	1,000 CWT	PERCENT		1,000 CWT	PERCENT	
CALIF	7,585	5,400	71	7,790	5,000	64
COLO	12,825	9,550	74	13,200	9,600	73
IDAHO	91,710	69,000	75	83,590	59,500	71
MAINE	27,030	22,000	81	22,090	18,100	82
MICH	8,085	6,400	79	7,425	5,500	74
MINN	11,520	9,000	78	10,313	8,500	82
MONT	1,924	1,875	97	1,800	1,700	94
NEBR	2,147	1,700	79	2,025	1,450	72
N Y - L I	4,995	2,500	50	4,075	1,550	38
- UPSTATE	7,020	4,200	60	5,635	2,900	51
N DAK	17,250	13,400	78	20,460	15,000	73
OHIO	2,328	750	32	1,886	700	37
OREG	21,105	15,100	72	20,710	14,000	68
PA	5,758	4,600	80	4,300	3,400	79
WASH	52,800	29,200	55	53,560	29,200	55
WIS	22,575	11,500	51	18,910	11,000	58
15 STATE TOTAL	296,657	206,175	69	277,769	187,100	67

RELIABILITY OF DECEMBER 1 PRODUCTION AND STOCKS ESTIMATES

To assist users in evaluating the reliability of production and stocks estimates in this report, the "Root Mean Square Error", a statistical measure based on past performance, is shown below. This is computed by expressing the deviations between the December 1 estimates and the final estimates as a percent of the final estimates and averaging the squared percentage deviations for the 1963-82 twenty year period; the square root of this average becomes statistically the "Root Mean Square Error". Probability statements can be made concerning expected errors in the current estimates relative to the final estimates, assuming that factors affecting this year's estimates are not different from those of recent years. For example, the "Root Mean Square Error" for the December 1 stocks estimate is 2.0 percent. This means that the chances are 2 out of 3 that the current estimate of 187 million cwt will not be above or below the final estimate by more than 2.0 percent or approximately 3.7 million cwt. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 3.5 percent or approximately 6.5 million cwt.

Also shown below is the 10-year (1973-82) record of the differences between the December 1 production and stocks estimates and the final estimates. Using stocks again as an example, changes between the December 1 estimate and the final estimate during the 10 years have averaged 3.53 million cwt, ranging from 0.52 million to 6.25 million cwt. During this 10-year period, the December 1 estimate has been below the final estimate 9 out of 10 years for both production and stocks.

RELIABILITY OF DECEMBER 1 FALL POTATO ESTIMATES

CROP AND ESTIMATE	ROOT MEAN SQUARE ERROR			TEN YEAR RECORD OF DIFFERENCE BETWEEN DEC 1 AND FINAL ESTIMATE				
	90% CONFIDENCE LEVEL			QUANTITY	NUMBER OF YEARS			
	PERCENT	PERCENT	QUANTITY	AVERAGE	SMALLEST	LARGEST	BELOW FINAL	ABOVE FINAL
FALL POTATO STOCKS	2.0	3.5	6.55	3.53	.52	6.25	9	1
FALL POTATO PRODUCTION	1.5	2.6	7.49	3.91	1.63	6.47	9	1

TABLE 4. FALL POTATOES: STOCKS BY TYPE AS PERCENT OF TOTAL STOCKS, DECEMBER 1, 1983, 11 MAJOR STATES

STATE	POTATO TYPES			
	REDS	WHITES	RUSSETS	TOTAL
	PERCENT			
COLO	11	1/	89	100
IDAHO			1/ 2/100	100
MAINE		81	19	100
MICH 4/				
MINN	19	48	33	100
N Y		2/ 3/100		100
N DAK	23	68	9	100
OREG			1/ 2/100	100
PA		2/100		100
WASH			1/ 2/100	100
WIS	5	28	67	100
11 STATE TOTAL:	4	24	72	100

- 1/ INCLUDES SMALL QUANTITIES OF WHITES, LESS THAN 5 PERCENT OF TOTAL.  
 2/ INCLUDES SMALL QUANTITIES OF REDS, LESS THAN 5 PERCENT OF TOTAL.  
 3/ INCLUDES SMALL AMOUNT OF RUSSETS, LESS THAN 5 PERCENT OF TOTAL.  
 4/ NOT PUBLISHED TO AVOID DISCLOSURE OF INDIVIDUAL OPERATIONS.

#### 1983 POTATO OBJECTIVE YIELD SURVEY

The Statistical Reporting Service conducted potato objective yield surveys in the 11 major fall producing States in 1983. Sample plots were located in potato fields that were selected on a random basis using a scientifically designed sampling procedure. Field workers recorded counts and measurements from these fields just prior to and immediately after harvest.

The sample data from the objective yield surveys shown in tables 5 and 6 are presented to provide current information about the crop and are not official estimates.

TABLE 5: POTATOES: HARVEST LOSS BY TYPE OF POTATOES, 1982-83 1/

STATE AND YEAR	ROUND REDS	ROUND WHITES	RUSSETS	ALL TYPES
CWT PER ACRE				
COLO 1982	42	2/	31	30
1983	33	2/	32	32
IDAHO 1982	2/		44	44
1983	2/		28	28
MAINE 1982	2/	24	32	26
1983	2/	16	23	18
MICH 1982		20	24	20
1983	2/	13	27	18
MINN 1982	25	38	23	30
1983	26	30	38	32
N Y 1982	2/	16		17
1983	2/	20		20
N DAK 1982	38	35	25	33
1983	18	22	32	22
OREG 1982		2/	22	22
1983		2/	17	17
PA 1982	2/	24		21
1983		15		15
WASH 1982			22	22
1983			13	13
WIS 1982	21	23	21	21
1983	16	15	22	20

1/ POTATOES LEFT IN THE FIELD AT TIME OF HARVEST. 2/ INSUFFICIENT SAMPLE SIZE.

TABLE 6: POTATOES: AVERAGE NUMBER OF HILLS PER ACRE, BY TYPE, 1982-83 1/

STATE AND YEAR	ROUND REDS		ROUND WHITES		RUSSETS	
	NUMBER OF SAMPLES	AV. NO. OF HILLS PER ACRE	NUMBER OF SAMPLES	AV. NO. OF HILLS PER ACRE	NUMBER OF SAMPLES	AV. NO. OF HILLS PER ACRE
COLO 1982	7	12,537	2/	2/	74	12,157
1983	8	12,606	2/	2/	73	12,165
IDAHO 1982	2/	2/			334	12,760
1983	2/	2/	11	13,055	307	12,731
MAINE 1982	2/	2/	130	13,352	59	9,765
1983	2/	2/	124	12,566	47	8,743
MICH 1982			66	12,094	34	10,526
1983	3	13,497	54	12,231	29	11,480
MINN 1982	35	9,625	60	9,423	50	10,255
1983	25	11,207	64	10,171	44	10,480
N Y 1982	6	15,592	126	14,219	2/	2/
1983	2/	2/	146	13,340		
N DAK 1982	34	9,431	101	9,384	31	10,563
1983	47	10,793	112	10,078	17	9,868
OREG 1982	2/	2/	5	13,182	134	13,470
1983			2/	2/	142	14,443
PA 1982	2/	2/	85	12,422		
1983			91	12,507		
WASH 1982			4	14,491	170	14,194
1983	2/	2/	3	13,426	171	14,428
WIS 1982	10	12,762	38	13,150	82	10,933
1983	16	12,387	29	12,396	87	10,990

1/ BASED ON COUNTS FROM OBJECTIVE YIELD MEASUREMENTS. 2/ INSUFFICIENT SAMPLE SIZE.

TABLE 7. FALL POTATOES: AREA PLANTED

STATE	1981	1982	1983
1,000 ACRES			
CALIF	18.7	18.5	19.0
COLO	40.5	45.5	44.5
CONN	1.8	1.8	1.4
IDAHO-SW (10 COUNTIES)	24.0	25.0	25.0
-OTHER CO.	311.0	320.0	310.0
IND	3.3	3.4	3.2
MAINE	106.0	107.0	95.0
MASS	3.3	3.5	3.1
MICH	32.0	35.0	35.0
MINN	73.0	71.0	70.5
MONT	7.5	7.5	7.3
NEBR	8.0	8.2	7.6
NEV	12.0	13.0	12.0
N Y - LONG ISLAND	18.5	18.8	16.5
- UPSTATE	26.5	28.0	25.5
N DAK	119.0	122.0	128.0
OHIO	9.8	10.0	9.5
OREG - MALHEUR CO.	10.3	10.7	9.2
- OTHER CO.	44.7	42.8	40.0
PA	22.0	24.0	22.0
R I	3.2	3.0	2.8
S DAK	5.5	11.0	15.5
UTAH	5.9	5.8	5.5
VT	.7	.6	.6
WASH	108.0	110.0	103.0
WIS	55.0	66.0	63.0
WYO	5.5	5.3	5.4
TOTAL	1,075.7	1,117.4	1,080.1

FALL POTATOES: AREA HARVESTED, YIELD AND PRODUCTION

STATE	AREA HARVESTED			YIELD			PRODUCTION		
	1981	1982	1983	1981	1982	1983	1981	1982	1983
	1,000 ACRES			CWT			1,000 CWT		
CALIF	18.7	18.5	19.0	370	410	410	6,919	7,585	7,790
COLO	40.0	45.0	44.0	290	285	300	11,600	12,825	13,200
CONN	1.8	1.8	1.4	270	235	190	486	423	266
IDAHO-SW (10 COUNTIES)	24.0	25.0	25.0	335	340	335	8,040	8,500	8,375
-OTHER AREAS	306.0	314.0	307.0	250	265	245	76,500	83,210	75,215
IND	3.0	3.3	3.0	205	280	200	615	924	600
MAINE	104.0	106.0	94.0	255	255	235	26,520	27,030	22,090
MASS	3.3	3.5	3.1	225	210	190	743	735	589
MICH	30.0	33.0	33.0	235	245	225	7,050	8,085	7,425
MINN	70.0	64.0	62.5	190	180	165	13,300	11,520	10,313
MONT	7.4	7.4	7.2	235	260	250	1,739	1,924	1,800
NEBR	7.9	8.1	7.5	285	265	270	2,252	2,147	2,025
NEV	12.0	13.0	12.0	290	315	310	3,480	4,095	3,720
N Y - LONG ISLAND	18.5	18.5	16.3	290	270	250	5,365	4,995	4,075
- UPSTATE	25.0	27.0	24.5	275	260	230	6,875	7,020	5,635
N DAK	115.0	115.0	124.0	175	150	165	20,125	17,250	20,460
OHIO	9.0	9.5	9.2	210	245	205	1,890	2,328	1,886
OREG - MALHEUR	10.0	10.5	9.0	345	370	370	3,450	3,885	3,330
- OTHER AREAS	44.0	42.0	39.5	415	410	440	18,260	17,220	17,380
PA	21.0	23.5	21.5	250	245	200	5,250	5,758	4,300
R I	3.2	3.0	2.8	260	240	230	832	720	644
S DAK	5.4	10.0	15.4	130	155	135	702	1,550	2,079
UTAH	5.8	5.8	5.4	220	225	230	1,276	1,305	1,242
VT	.7	.6	.6	220	215	220	154	129	132
WASH	108.0	110.0	103.0	490	480	520	52,920	52,800	53,560
WIS	53.5	64.5	62.0	340	350	305	18,190	22,575	18,910
WYO	5.3	5.2	5.3	200	190	180	1,060	988	954
U S	1,052.5	1,087.7	1,057.2	281	283	272	295,593	307,526	287,995

The six Central States stored 42.2 million cwt of potatoes on December 1, 1983, down 1 percent from last year. North Dakota stocks at 15.0 million cwt were up 12 percent; while each of the other 5 Central States were down from last year.

Storage in the six Western States contained 119 million cwt, down 9 percent from last year and 2 percent from 1981. Idaho stocks were set at 59.5 million cwt, off 14 percent from last year in the wake of heavy fall shipments. Oregon sheds held 14.0 million cwt of tubers, 7 percent below last year; Washington stocks at 29.2 million cwt remained unchanged.

Disappearance so far this season totaled 90.7 million cwt, slightly above last season, but 3 percent short of 2 years ago. This includes 13.8 million cwt of potatoes dumped during grading, fed on farms where produced, discarded without grading, and lost to shrinkage (moisture loss).

Processing to December 1 totaled 37.4 million cwt in the eight major processing States, 3 percent below last-year's pace.

#### FALL PRODUCTION DOWN 6 PERCENT

Production of fall potatoes in the U.S. is estimated at 288 million cwt (13.1 million metric tons), down 6 percent from last year and 3 percent below two years ago. Harvested area totaled 1.06 million acres (428 thousand hectares), down 3 percent from last year but fractionally above 1981. The average yield of 272 cwt per acre fell 11 cwt from last year's level and 9 cwt below 1981. The production estimate is 2 percent below the October 1 forecast.

In the seven Eastern States, production is estimated at 37.7 million cwt, down 19 percent from last year and 18 percent less than 1981. Area harvested totaled 164 thousand acres, a drop of 11 percent from 1982. Average yield per acre of 230 cwt fell 25 cwt from last year. Maine production is placed at 22.1 million cwt, down 18 percent from last year. New York farmers harvested 9.7 million cwt, a drop of 19 percent; while Pennsylvania output of 4.3 million cwt was down 25 percent.

Production in the eight Central States totaled 63.7 million cwt, down 4 percent from last year and 1 percent under 1981. Harvested area of 317 thousand acres gained 3 percent, but average yields of 201 cwt per acre fell 15 cwt from last year. Production in North and South Dakota was up 19 and 34 percent respectively. Declines were registered for the other 6 Central States including Wisconsin, down 16 percent; Minnesota, down 10 percent; and Michigan, down 8 percent.

In the nine Western States production totaled 187 million cwt, down 4 percent from last year but 1 percent above 1981. Idaho production fell 9 percent to 83.6 million cwt. Both acreage and yield were down from last year. Oregon output at 20.7 million cwt was off 2 percent. Washington growers obtained record high yields and produced 53.6 million cwt, up 1 percent from last year. Production was up 3 percent in both Colorado and California.

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