

# POTATO STOCKS AND PRODUCTION



Economics and Statistics Service

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## POTATO STOCKS DOWN 15 PERCENT FROM YEAR EARLIER

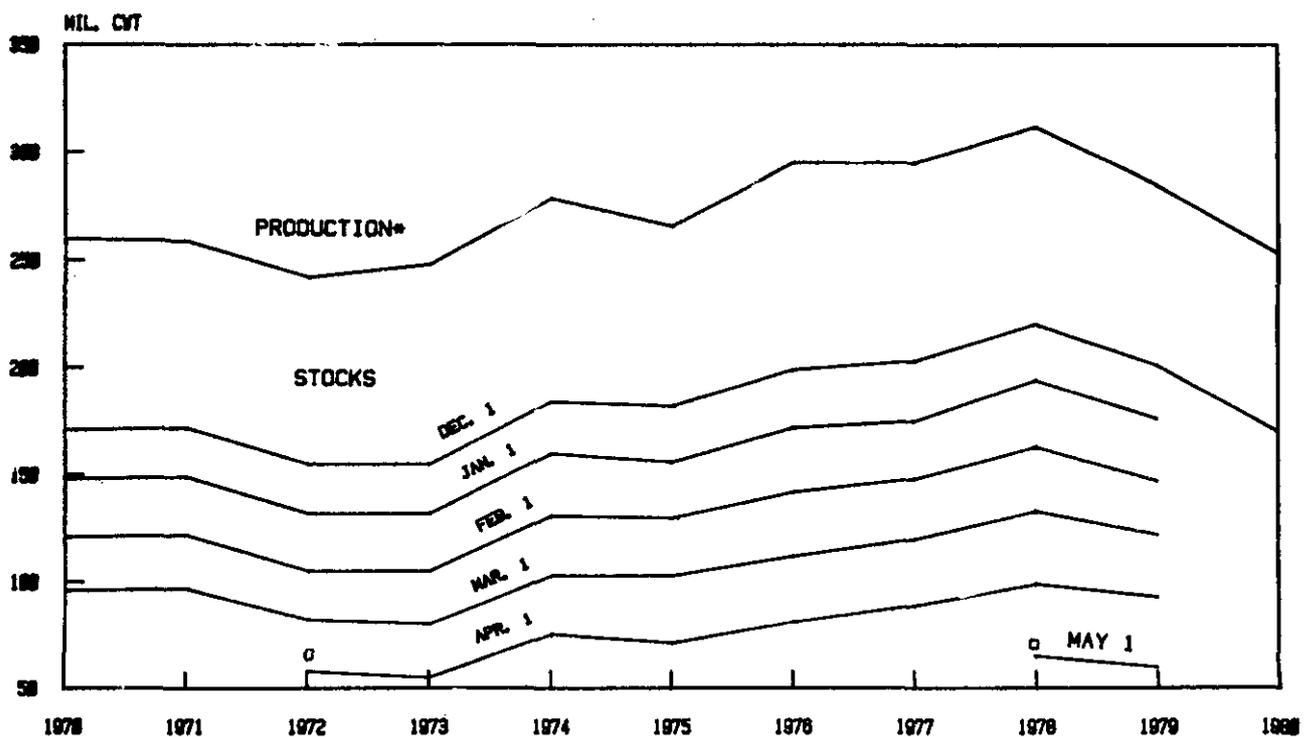
Potato stocks as of December 1, 1980 are estimated at 169.8 million cwt in the 15 major States (See Table 3, page 3 for list of States), according to the Crop Reporting Board. This is 15 percent less than December 1, 1979 and 23 percent below the comparable 1978 total. Total stocks for the 15 States are the smallest since 1973.

The regional breakdown is as follows: The three Eastern States had 26.8 million cwt in storage, 21 percent less than December 1 a year ago and 12 percent below 1978. Maine stocks are down 19 percent from last year.

(Comments continued on page 7)

Effective with this issue, stocks estimates for eight States were discontinued. States discontinued were Connecticut, Massachusetts, Rhode Island, Vermont, Indiana, South Dakota, Utah and Wyoming. These eight States accounted for only 1.9 percent of last year's December 1 stocks. The potato stocks quality survey for the Red River Valley has also been discontinued because of a reduction of funds.

## FALL POTATOES: PRODUCTION AND STOCKS



SEE FOOTNOTE 1, TABLE 1. \*PRODUCTION BY CROP YEAR. \*STOCKS BY MONTHS FOLLOWING HARVEST. <sup>o</sup> FIRST YEAR OF ESTIMATE.

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 1/

YEAR	PRODUCTION	DEC 1	JAN 1	FEB 1	MAR 1	APR 1	MAY 1
		1,000 CWT					
1970	259,977	171,600	147,550	120,650	95,850		
1971 2/	258,613	172,550	148,600	122,350	97,000		
1972	242,390	155,190	132,050	105,240	82,260	57,710	
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	64,810
1979	285,060	200,820	176,020	147,910	121,720	92,550	59,535
1980	253,883	169,780					

1/ SEE TABLE 3 FOR LIST OF 15 STATES.

2/ BEGINNING WITH 1971, LATE SUMMER PRODUCTION FOR N Y - L I , WIS AND WASH HAS BEEN CLASSIFIED AS FALL.

TABLE 2. POTATOES USED FOR PROCESSING 1/ SEVEN STATES 1979 2/ AND 1980 CROPS

STATE	STORAGE SEASON	TO DEC 1	TO JAN 1	TO FEB 1	TO MAR 1	TO APR 1	TO MAY 1	ENTIRE SEASON
		1,000 CWT						
IDAHO, AND MALHEUR CO., OREG	1979-80	14,220	18,690	23,970	28,840	34,440	39,930	55,600
	1980-81	14,460						
MAINE 3/	1979-80	2,010	2,655	3,470	4,245	5,200	6,200	7,965
	1980-81	2,190						
WASH AND OTHER AREAS, OREG	1979-80	13,510	16,995	20,725	24,915	29,395	33,360	43,295
	1980-81	14,610						
OTHER STATES 4/	1979-80	2,660	3,405	4,260	5,100	6,055	6,880	8,785
	1980-81	2,305						
TOTAL	1979-80	32,400	41,745	52,425	63,100	75,090	86,370	115,645
	1980-81	33,565						

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 OR MINN.

2/ REVISED.

3/ INCLUDES MAINE GROWN POTATOES ONLY.

4/ MICH, MINN AND N DAK.

TABLE 3. POTATOES: PRODUCTION AND TOTAL STOCKS OF FALL POTATOES HELD BY GROWERS, PROCESSORS, AND LOCAL DEALERS ON DECEMBER 1, 1979 AND DECEMBER 1, 1980

STATE	CROP OF 1979			CROP OF 1980		
	PRODUCTION	TOTAL STOCKS	:DEC 1 STOCKS: AS % OF :DEC 1, 1979 : PRODUCTION :	PRODUCTION	TOTAL STOCKS	:DEC 1 STOCKS AS % OF :DEC 1, 1980 : PRODUCTION
	1,000 CWT		PERCENT	1,000 CWT		PERCENT
CALIF	6,364	4,200	66	6,438	4,200	65
COLO	11,455	8,200	72	10,950	7,550	69
IDAHO	85,050	65,000	76	78,455	58,000	74
MAINE	27,685	23,300	84	24,960	18,900	76
MICH	8,000	5,400	68	7,403	4,500	61
MINN	12,920	10,500	81	9,920	8,400	85
MONT	1,800	1,720	96	1,725	1,630	94
NEBR	1,482	1,100	74	1,876	1,350	72
N Y - L I	6,431	3,300	51	4,418	1,450	33
- UPSTATE	6,463	3,200	50	6,250	3,100	50
N DAK	18,240	12,500	69	15,680	10,700	68
OHIO	2,400	1,250	52	1,948	500	26
OREG	25,310	16,900	67	19,745	13,300	67
PA	6,000	4,200	70	4,180	3,300	79
WASH	48,450	30,600	63	43,935	24,300	55
WIS	17,010	9,450	56	16,000	8,600	54
15 STATE TOTAL	285,060	200,820	70	253,883	169,780	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 1960-79 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 170 million cwt will not be above or below the final estimate by more than 2.0 percent or approximately 3.4 million cwt. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 3.4 percent or approximately 5.8 million cwt.

Also shown below is the 10-year (1970-79) 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 3.20 million cwt, ranging from 0.55 million to 6.56 million cwt. During this 10-year period the December 1 estimate has been below the final estimate 9 out of 10 years.

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				
	PERCENT	PERCENT	QUANTITY	AVERAGE	SMALLEST	LARGEST	BELOW	ABOVE
	MILLION CWT	MILLION CWT	MILLION CWT	MILLION CWT	MILLION CWT	MILLION CWT	FINAL	FINAL
FALL POTATO STOCKS	2.0	3.4	5.77	3.20	0.55	6.56	9	1
FALL POTATO PRODUCTION	1.4	2.4	6.35	3.79	1.63	6.47	9	1

TABLE 4. FALL POTATOES: STOCKS BY TYPE AS PERCENT OF TOTAL STOCKS, DECEMBER 1, 1980,  
11 MAJOR STATES

STATE	POTATO TYPES			
	REDS	WHITES	RUSSETS	TOTAL
	PERCENT			
COLO	10		1/90	100
IDAHO			1/ 2/100	100
MAINE		2/76	24	100
MICH 4/				
MINN	24	47	29	100
N Y		2/ 3/100		100
N DAK	29	58	13	100
OREG			1/ 2/100	100
PA		2/100		100
WASH			1/ 2/100	100
WIS	10	25	65	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.

FALL POTATOES 1/

STATE	AREA HARVESTED			YIELD			PRODUCTION		
	1978	1979	1980	1978	1979	1980	1978	1979	1980
	1,000 ACRES			CWT			1,000 CWT		
CALIF	17.3	17.2	17.4	350	370	370	6,055	6,364	6,438
COLO	41.0	39.5	36.5	275	290	300	11,275	11,455	10,950
CONN	2.5	2.1	1.8	205	220	225	513	462	405
IDAHO-10 SW CO	32.0	30.0	23.0	325	335	340	10,400	10,050	7,820
-OTHER CO	333.0	300.0	277.0	270	250	255	89,910	75,000	70,635
IND	3.9	4.2	3.3	240	255	220	936	1,071	726
MAINE	118.0	113.0	104.0	220	245	240	25,960	27,685	24,960
MASS	3.6	3.4	3.4	225	220	220	810	748	748
MICH	34.0	32.0	31.5	250	250	235	8,500	8,000	7,403
MINN	71.0	68.0	64.0	210	190	155	14,910	12,920	9,920
MONT	8.7	7.5	6.9	240	240	250	2,088	1,800	1,725
NEBR	7.2	5.7	6.7	250	260	280	1,800	1,482	1,876
NEV	17.0	15.0	13.0	320	330	340	5,440	4,950	4,420
N Y-LONG IS	23.3	21.8	18.8	265	295	235	6,175	6,431	4,418
-UPSTATE	25.0	23.5	25.0	260	275	250	6,500	6,463	6,250
N DAK	135.0	114.0	112.0	175	160	140	23,625	18,240	15,680
OHIO	10.3	10.0	9.5	215	240	205	2,215	2,400	1,948
OREG-MALHEUR CO	10.8	13.0	10.0	350	370	365	3,780	4,810	3,650
-OTHER CO	56.8	50.0	37.0	435	410	435	24,708	20,500	16,095
PA	25.0	24.0	22.0	250	250	190	6,250	6,000	4,180
R I	3.6	3.3	3.2	255	230	230	918	759	736
S DAK	7.0	6.5	6.7	170	185	160	1,190	1,203	1,072
UTAH	5.9	5.5	5.2	245	250	220	1,446	1,375	1,144
VT	.8	.7	.6	200	210	200	160	147	120
WASH	111.0	102.0	87.0	455	475	505	50,505	48,450	43,935
WIS	55.0	54.0	50.0	315	315	320	17,325	17,010	16,000
WYO	6.8	5.2	5.7	215	220	235	1,462	1,144	1,340
TOTAL	1,165.5	1,071.1	981.2	279	277	270	324,856	296,919	264,594

1/ 1979 REVISED.

TABLE 6. AREA PLANTED, FALL POTATOES

STATE	1978	1979 <sup>1/</sup>	1980
	1,000 ACRES		
CALIF	17.3	17.4	17.4
COLO	41.5	40.0	37.0
CONN	2.5	2.1	1.8
IDAHO - SW CO.	32.0	30.0	23.0
- OTHER CO.	338.0	305.0	282.0
IND	4.0	4.3	3.6
MAINE	119.0	116.0	108.0
MASS	3.6	3.5	3.4
MICH	35.0	33.0	32.5
MINN	73.0	70.0	65.0
MONT	8.8	7.5	7.0
NEBR	7.3	6.0	6.9
NEV	17.0	15.0	13.0
N Y - L I	23.5	22.0	19.0
- UPSTATE	26.0	25.5	26.0
N DAK	137.0	121.0	114.0
OHIO	10.7	10.4	10.0
OREG - MALHEUR CO.	11.0	13.5	10.5
- OTHER CO.	58.5	52.0	37.5
PA	26.0	25.0	23.0
R I	3.6	3.4	3.2
S DAK	7.5	7.3	7.3
UTAH	6.0	5.6	5.3
VT	.8	.7	.6
WASH	111.0	102.0	89.0
WIS	59.0	57.0	52.5
WYO	7.1	5.5	5.8
TOTAL	1,186.7	1,100.7	1,004.3

<sup>1/</sup> REVISED.

1980 POTATO OBJECTIVE YIELD SURVEY

The Economics and Statistics Service conducted potato objective yield surveys in the 11 major fall producing States in 1980. 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 presented in the following tables are presented to provide current information about the crop and are not official estimates.

TABLE 7: POTATOES: HARVEST LOSS BY TYPE OF POTATOES, 1979-80 1/

STATE AND YEAR	ROUND REDS	ROUND WHITES	RUSSETS	ALL TYPES
	CWT PER ACRE			
COLO 1979	2/	2/	34	34
1980	2/	2/	35	35
IDAHO 1979		2/	33	34
1980		2/	38	38
MAINE 1979	2/	23	34	26
1980	2/	24	32	26
MICH 1979	2/	25	35	26
1980	2/	29	43	33
MINN 1979	19	38	46	36
1980	15	21	25	21
N Y 1979	2/	28		27
1980	2/	20		20
N DAK 1979	30	44	59	43
1980	26	24	35	26
OREG 1979		2/	41	41
1980		2/	29	28
PA 1979	2/	38		37
1980	2/	32		32
WASH 1979	2/	2/	29	29
1980	2/	2/	28	28
WIS 1979	2/	18	24	22
1980	2/	25	31	31

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

TABLE 8: POTATOES: AVERAGE NUMBER OF HILLS PER ACRE, BY TYPE, 1979-80 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 1979	6	12,565	2/		56	11,182
1980	8	12,144	2/		67	11,520
IDAHO 1979	2/	2/	2/	2/	327	12,665
1980	2/	2/	2/	2/	292	12,577
MAINE 1979	2/	2/	132	16,502	57	11,086
1980	2/	2/	126	16,014	55	10,783
MICH 1979	2/	2/	69	12,161	34	11,328
1980	2/	2/	73	12,223	31	11,489
MINN 1979	20	11,764	57	11,307	29	10,103
1980	26	10,736	68	10,119	36	9,910
N Y 1979	2/	2/	104	13,758		
1980	6	14,309	128	13,489		
N DAK 1979	43	10,031	99	10,213	23	9,769
1980	46	10,037	112	9,961	21	9,998
OREG 1979			2/	2/	129	13,793
1980			6	12,722	137	13,600
PA 1979	2/	2/	79	12,489		
1980	2/	2/	70	12,638		
WASH 1979	2/	2/	8	14,675	169	13,209
1980	2/	2/	13	13,213	149	13,798
WIS 1979	12	11,914	44	11,601	81	10,928
1980	16	13,141	30	13,161	73	10,683

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

The six Central States had stocks totaling 34.1 million cwt, 15 percent below last year and 28 percent less than December 1, 1978. Stocks in Minnesota are down 20 percent and North Dakota stocks down 14 percent from a year ago.

In the six Western States, potato stocks are estimated at 109 million cwt, 14 percent less than December 1, 1979 and 23 percent below 1978. Idaho stocks are down 11 percent while Washington and Oregon are both down 21 percent from a year earlier.

Disappearance of the 1980 crop in the 15 States totaled 84.1 million cwt, down slightly from the same period a year ago. This total includes 13.8 million cwt of potatoes that were lost as a result of dumping during grading, fed to livestock on potato farms, shrinkage (moisture loss) and discarded without grading.

The quantity of potatoes processed to December 1, 1980 in seven major processing States amounted to 33.6 million cwt, 4 percent above the same period last year.

#### FALL POTATO PRODUCTION DOWN 11 PERCENT

Production of fall potatoes in the U.S. (24 States) is estimated at 264.6 million cwt (12.0 million metric tons), down 11 percent from the 1979 crop but 1 percent above the October 1 forecast of 260.7 million cwt (11.8 million metric tons). Production for the 15 stocks States is 253.9 million cwt, down 11 percent from 1979.

The 1980 U.S. crop was harvested from 981 thousand acres (397 thousand hectares), 8 percent below 1979 and 16 percent below 1978. The average U.S. yield at 270 cwt is 7 cwt less than last year and 9 cwt below 1978.

In the seven Eastern States, production is estimated at 41.8 million cwt, 14 percent less than 1979. Average yield at 234 cwt per acre is 20 cwt below last year but equal to the 1978 yield. Harvested acreage totals 178,800 acres, down 7 percent from last year.

Production in the eight Central States is set at 54.6 million cwt, 12 percent less than last year and 23 percent below 1978. Average yield, at 193 cwt per acre, is 19 cwt below 1979 while harvested acreage at 283,700 acres is down 4 percent.

In the nine Western States, production is placed at 168.2 million cwt, down 10 percent from 1979 and 19 percent below 1978. Yield per acre is up 6 cwt from last year but harvested acreage at 518,700 acres is down 11 percent.

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