POTATO STOCKS

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POTATO STOCKS DOWN SIX PERCENT FROM YEAR EARLIER

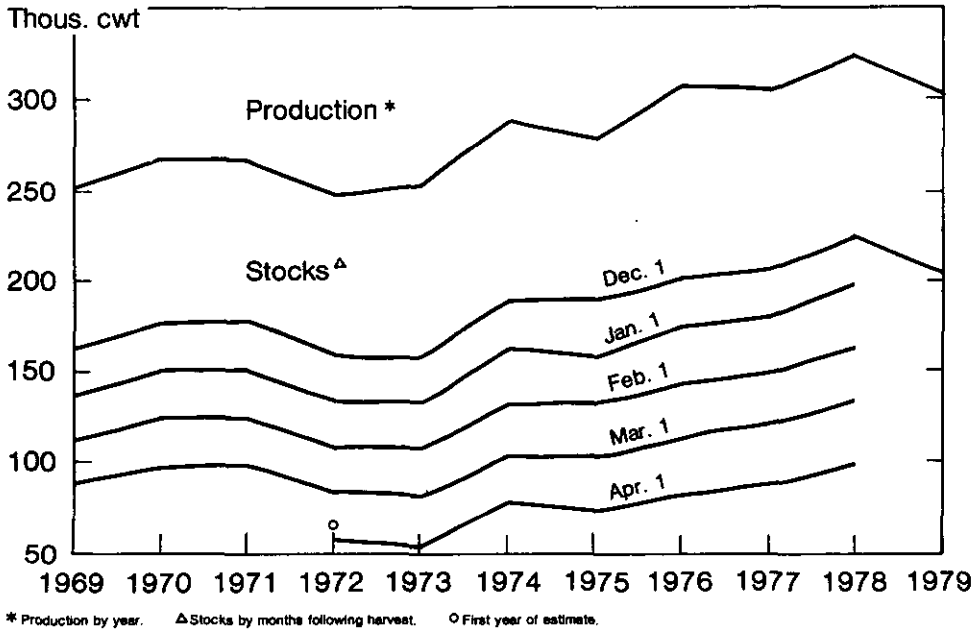
An estimated 209 million cwt of potatoes were in storage in the fall producing areas on December 1, 1979. This was a 6 percent reduction from December 1, 1978 but 1 percent more than the comparable 1977 total.

The regional breakdown is as follows: The seven Eastern States had 35.8 million cwt in storage, 14 percent more than a year ago and 3 percent above the 1977 total. Stocks in Maine were 22 percent greater than last year. The eight Central States had stocks totaling 41.3 million cwt, down 15 percent from 1978 and 9 percent less than the 1977 total. North Dakota stocks were 26 percent less than a year earlier. In the eight Western States, potato stocks equaled 132 million cwt, an 8 percent reduction from 1978 but 4 percent greater than 1977. Idaho stocks dropped 12 percent from 1978 while Oregon and Washington totals declined 5 percent and 4 percent, respectively.

(Comments continued on page 10)

Effective with this issue, December Potato Stocks includes the acreage, yield, and production estimates and the objective yield survey data formerly published in the December Crop Production report.
See pages 5-10 for these data.

Fall Potatoes: Production and Stocks



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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.

TABLE 1. FALL POTATOES: PRODUCTION, DECEMBER 1, JANUARY 1, FEBRUARY 1, MARCH 1, APRIL 1, AND MAY 1 TOTAL STOCKS, CROPS OF 1969-79 IN THE FALL STATES

YEAR	PRODUCTION	TOTAL STOCKS					
		DEC 1	FOLLOWING YEAR				
			JAN 1	FEB 1	MAR 1	APR 1	MAY 1
	1,000 CWT						
1969	252,561	162,800	138,140	111,510	87,620		
1970	267,827	175,145	150,030	122,230	96,780		
1971 1/	266,707	176,390	151,435	124,375	98,485		
1972	249,320	158,565	134,420	107,310	83,380	58,250	
1973	254,379	157,837	133,665	106,615	81,165	55,870	
1974	289,342	187,935	163,095	133,425	104,116	75,905	
1975	278,391	185,965	159,140	131,685	104,050	77,640	
1976	307,427	201,980	174,775	143,925	114,140	81,875	
1977	307,064	206,690	178,205	149,690	120,970	89,205	
1978	323,498	223,290	196,080	164,666	133,247	99,808	65,116
1979	301,628	209,180					

1/ 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 1978 AND 1979 CROP 2/

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	1978-79	15,720	21,215	26,055	31,130	37,095	43,305	61,290
	1979-80	14,040						
MAINE 3/	1978-79	2,280	2,800	3,670	4,390	5,355	6,205	8,140
	1979-80	1,980						
WASH AND OTHER AREAS, OREG	1978-79	15,075	18,380	22,230	26,035	30,125	34,770	44,295
	1979-80	13,510						
OTHER STATES 4/	1978-79	2,625	3,520	4,420	5,290	6,255	7,155	10,540
	1979-80	2,625						
TOTAL	1978-79	35,700	45,915	56,375	66,845	78,830	91,435	124,265
	1979-80	32,155						

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/ 1978-79 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, 1978 AND DECEMBER 1, 1979

STATE	CROP OF 1978			CROP OF 1979		
	PRODUCTION	TOTAL STOCKS DEC 1, 1978	DEC 1 STOCKS AS % OF PRODUCTION	PRODUCTION	TOTAL STOCKS DEC 1, 1979	DEC 1 STOCKS AS % OF PRODUCTION
	1,000 CWT		PERCENT	1,000 CWT		PERCENT
CALIF	6,055	4,000	66	6,364	4,150	65
COLO	11,275	8,300	74	11,455	8,150	71
CONN	437	345		418	315	
IDAHO	100,310	78,000	78	88,200	68,500	78
IND	936	275	29	1,071	305	28
MAINE	25,960	19,700	76	28,750	24,000	83
MASS	810	440	54	748	530	71
MICH	8,500	5,900	69	8,000	5,200	65
MINN	14,910	12,000	80	12,920	10,500	81
MONT	2,088	1,900	91	1,800	1,650	92
NEBR	1,800	1,300	72	1,482	1,200	81
N Y - L I	6,175	3,000	49	6,431	3,300	51
- UPSTATE	6,500	3,300	51	6,463	3,900	60
N DAK	22,400	17,000	76	18,240	12,500	69
OHIO	2,215	950	43	2,400	1,250	52
OREG	28,488	17,700	62	25,310	16,900	67
PA	6,250	4,500	72	6,000	3,700	62
R I	984	1/		897	1/	
S DAK	1,190	870	73	1,203	870	72
UTAH	1,127	800	71	1,300	1,050	81
VT	176	120	68	147	90	61
WASH	50,685	32,000	63	48,925	30,800	63
WIS	17,325	10,100	58	17,010	9,450	56
WYO	1,462	790	54	1,144	870	76
23 STATE TOTAL 2/	318,058	223,290	70	296,678	209,180	71

1/ R I INCLUDED IN CONN. 2/ EXLCUDING NEV FOR WHICH NO STOCKS ESTIMATES ARE MADE. NEV 1978 PRODUCTION 5,440,000 CWT AND 1979 PRODUCTION 4,950,000 CWT.

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 1959-78 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 1.9 percent. This means that the chances are 2 out of 3 that the current estimate of 209 million cwt will not be above or below the final estimate by more than 1.9 percent or approximately 4.0 million cwt. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 3.3 percent or approximately 6.9 million cwt.

Also shown below is the 10-year (1969-78) 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 3.31 million cwt, ranging from 0.55 million to 6.54 million cwt. During this 10-year period the December 1 estimate has been below the final estimate every year.

RELIABILITY OF DECEMBER 1 FALL POTATO ESTIMATES

CROP AND ESTIMATE	ROOT MEAN SQUARE ERROR			TEN YEAR RECORD OF DIFFERENCES BETWEEN DEC 1 AND FINAL ESTIMATE				
		90% CONFIDENCE LEVEL		QUANTITY			NUMBER OF YEARS	
	PERCENT	PERCENT	QUANTITY	AVERAGE	SMALLEST	LARGEST	BELOW FINAL	ABOVE FINAL
			MILLION CWT	MILLION CWT	MILLION CWT	MILLION CWT		
FALL POTATO STOCKS	1.9	3.3	6.90	3.31	0.55	6.54	10	0
FALL POTATO PRODUCTION	1.4	2.4	7.24	3.62	1.63	6.45	10	0

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

STATE	POTATO TYPES			
	REDS	WHITES	RUSSETS	TOTAL
	PERCENT			
COLO	12	8	80	100
IDAHO			1/ 2/100	100
MAINE		2/76	24	100
MICH 4/				
MINN	26	47	27	100
N Y		2/ 3/100		100
N DAK	32	55	13	100
OREG			1/ 2/100	100
PA		2/100		100
WASH			1/ 2/100	100
WIS	10	30	60	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 QUANTITIES OF RUSSETS, LESS THAN 5 PERCENT OF TOTAL.
4/ CANNOT BE PUBLISHED TO AVOID DISCLOSURE OF INDIVIDUAL OPERATIONS.

POTATO STOCKS QUALITY SURVEY
MINNESOTA AND NORTH DAKOTA (RED RIVER VALLEY)

The potato stocks quality information contained in this report is based on a survey conducted by the Economics, Statistics, and Cooperatives Service in the Red River Valley of North Dakota and Minnesota. Sample bags of potatoes selected on a random basis were placed in storages at harvest time. Subsequent reports will be issued each month during the 1979-80 storage season showing the cumulative average grade and weight loss for potatoes removed from storage at the time of shipment. At the request of the Red River Valley Potato Growers Association, samples were selected only for processing potatoes.

This report does not include information for Russet potatoes for the 1979-80 season as an insufficient number of samples had been recovered by December 1.

The cooperation of the many potato growers and storage operators who assisted on this project is greatly appreciated.

POTATO STOCKS QUALITY SURVEY, RED RIVER VALLEY, 1979-80, AVERAGE GRADE OF POTATOES

CROP	NO. 1 INCLUDING B'S		NO. 2		CULLS		NO. 1 B'S 1/		WEIGHT LOSS
	AT HARVEST	AFTER STORAGE 2/	AT HARVEST	AFTER STORAGE 2/	AT HARVEST	AFTER STORAGE 2/	AT HARVEST	AFTER STORAGE 2/	
	PERCENT								
SAMPLES RECOVERED BEFORE DECEMBER 1, 1979									
WHITE	82	70	8	12	10	18	4	3	3
RUSSET	78		7		15		6		
ALL SAMPLES 1978-79 STORAGE SEASON-FINAL 3/									
WHITE	88	76	6	10	6	14	6	6	6
RUSSET	81	70	11	16	8	14	2	5	4

1/ NO. 1 B'S ARE POTATOES THAT MEET THE U S NO. 1 GRADE BUT DO NOT MEET MINIMUM SIZE STANDARDS FOR THE AREA: RED AND WHITE VARIETIES - 1 1/2-2 1/4 INCHES IN DIAMETER AND RUSSET VARIETIES - UNDER 2 INCHES IN DIAMETER OR LESS THAN 4 OUNCES.
2/ DATA NOT AVAILABLE FOR THE 1979-80 SEASON. INSUFFICIENT NUMBER OF SAMPLES REMOVED FROM STORAGE PRIOR TO DECEMBER.
3/ MATCHED SAMPLES, QUALITY AT HARVEST COMPARED WITH QUALITY AFTER STORAGE FOR 1978-79 SEASON.

FALL POTATOES

STATE	AREA HARVESTED			YIELD			PRODUCTION		
	1977	1978	IND 1979	1977	1978	IND 1979	1977	1978	IND 1979
	1,000 ACRES			CWT			1,000 CWT		
CALIF	17.0	17.3	17.2	350	350	370	5,950	6,055	6,364
COLO	36.5	41.0	39.5	260	275	290	9,490	11,275	11,455
CONN	1.9	1.9	1.9	245	230	220	466	437	418
IDAHO-10 SW CO	30.0	32.0	30.0	300	325	340	9,000	10,400	10,200
-OTHER CO	330.0	333.0	300.0	240	270	260	79,200	89,910	78,000
IND	4.7	3.9	4.2	240	240	255	1,128	936	1,071
MAINE	118.0	118.0	115.0	240	220	250	28,320	25,960	28,750
MASS	3.7	3.6	3.4	240	225	220	888	810	748
MICH	32.0	34.0	32.0	275	250	250	8,800	8,500	8,000
MINN	72.0	71.0	68.0	180	210	190	12,960	14,910	12,920
MONT	8.4	8.7	7.5	240	240	240	2,016	2,088	1,800
NEBR	6.0	7.2	5.7	240	250	260	1,440	1,800	1,482
NEV	14.0	17.0	15.0	340	320	330	4,760	5,440	4,950
N H 1/	.3			235			71		
N Y-LONG IS	22.8	23.3	21.8	315	265	295	7,182	6,175	6,431
-UPSTATE	20.6	25.0	23.5	260	260	275	5,356	6,500	6,463
N DAK	135.0	128.0	114.0	160	175	160	21,600	22,400	18,240
OHIO	11.2	10.3	10.0	245	215	240	2,744	2,215	2,400
OREG-MALHEUR CO	10.0	10.8	13.0	355	350	370	3,550	3,780	4,810
-OTHER CO	50.0	56.8	50.0	440	435	410	22,000	24,708	20,500
PA	25.5	25.0	24.0	250	250	250	6,375	6,250	6,000
R I	4.1	4.1	3.9	230	240	230	943	984	897
S DAK	5.9	7.0	6.5	180	170	195	1,062	1,190	1,203
UTAH	5.9	4.6	5.2	240	245	250	1,416	1,127	1,300
VT	1.0	.8	.7	235	220	210	235	176	147
WASH	110.0	109.0	103.0	460	465	475	50,600	50,685	48,925
WIS	55.5	55.0	54.0	325	315	315	18,038	17,325	17,010
WYO	6.7	6.8	5.2	220	215	220	1,474	1,462	1,144
TOTAL	1,138.7	1,155.1	1,074.2	270	280	281	307,064	323,498	301,628

1/ ESTIMATES DISCONTINUED AFTER 1977 CROP.

AREA PLANTED, FALL POTATOES

STATE	1977	1978	1979
		1,000 ACRES	
CALIF	17.0	17.3	17.4
COLO	37.0	41.5	40.0
CONN	2.1	1.9	1.9
IDAHO - 10 SW CO	30.0	32.0	30.0
- OTHER CO	335.0	338.0	305.0
IND	4.8	4.0	4.3
MAINE	124.0	119.0	116.0
MASS	3.8	3.6	3.5
MICH	34.0	35.0	33.0
MINN	76.0	73.0	70.0
MONT	8.5	8.8	7.5
NEBR	6.2	7.3	6.0
NEV	14.0	17.0	15.0
N H 1/	.3		
N Y - LONG ISLAND	23.0	23.5	22.0
- UPSTATE	27.5	26.0	25.5
N DAK	137.0	130.0	121.0
OHIO	11.7	10.7	10.4
OREG - MALHEUR CO	10.1	11.0	13.5
- OTHER CO	50.2	58.5	52.0
PA	28.0	26.0	25.0
R I	4.1	4.1	4.0
S DAK	6.1	7.5	7.3
UTAH	6.0	4.7	5.3
VT	1.0	.8	.7
WASH	110.0	109.0	103.0
WIS	58.0	59.0	57.0
WYO	7.0	7.1	5.5
TOTAL	1,172.4	1,176.3	1,101.8

1/ ESTIMATES DISCONTINUED AFTER 1977 CROP.

1979 POTATO OBJECTIVE YIELD SURVEY

The Economics, Statistics and Cooperatives Service conducted potato objective yield surveys in the 11 major fall producing States in 1979. 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 and the derived percentages from the objective yield surveys presented in the following tables are presented to provide current information about the crop and are not official estimates.

POTATOES: PERCENTAGE OF NET WEIGHT BY SIZE GROUPS, 1978-79 1/

TYPE, STATE AND YEAR		UNDER 1 1/2"	1 1/2"- UNDER 1 7/8"	1 7/8"- UNDER 2"	2"- UNDER 2 1/4"	2 1/4"- UNDER 2 1/2"	2 1/2"- UNDER 3 1/2"	3 1/2" AND OVER	TOTAL
		PERCENT							
ROUND RED:									
MINN	1978	*	1	4	10	15	66	4	100
	1979	*	2	3	10	15	66	4	100
N DAK	1978	*	2	3	8	13	62	12	100
	1979	*	*	2	6	10	71	11	100
ROUND WHITES:									
MAINE	1978	1	6	4	12	17	53	7	100
	1979	2	7	5	12	18	50	6	100
MICH	1978	*	4	3	11	12	56	14	100
	1979	1	5	4	11	17	54	8	100
MINN	1978	*	2	3	9	12	62	12	100
	1979	*	1	3	8	13	66	9	100
N Y	1978	1	4	3	9	14	53	16	100
	1979	1	5	3	11	14	54	12	100
N DAK	1978	*	2	2	7	11	65	13	100
	1979	*	*	1	7	10	64	18	100
PA	1978	*	4	3	11	15	56	11	100
	1979	1	4	3	11	15	56	10	100
WIS	1978	2	6	4	13	19	52	4	100
	1979	1	6	4	12	20	53	4	100

SEE FOOTNOTES ON PAGE 8.

CONTINUED

POTATOES: PERCENTAGE OF NET WEIGHT BY SIZE GROUPS, 1978-79 1/ CONTINUED

TYPE, STATE AND YEAR	UNDER 1 1/2"	1 1/2"- UNDER 1 7/8"	1 7/8"- UNDER 2" OR LESS THAN 4 OZ	UNDER 2" BUT OVER 4 OZ OR 2" AND OVER BUT LESS THAN 6 OZ.	6 OZ- UNDER 8 OZ	8 OZ- UNDER 10 OZ	10 OZ- UNDER 12 OZ	12 OZ- UNDER 14 OZ	14 OZ AND OVER	TOTAL
				PERCENT						
RUSSETS:										
COLO 1978:	1	8	6	32	20	14	8	4	7	100
1979:	1	7	13	30	20	12	7	3	7	100
IDAHO 1978:	1	9	8	27	17	12	9	6	11	100
1979:	*	6	7	27	19	14	10	6	11	100
MAINE 1978:	1	8	6	30	20	12	9	6	8	100
1979:	2	10	8	36	19	11	6	3	5	100
MICH 1978:	*	7	4	31	20	14	8	6	10	100
1979:	1	8	5	30	19	11	8	7	11	100
MINN 1978:	1	7	11	23	18	14	8	6	12	100
1979:	*	5	8	29	20	15	8	5	10	100
N DAK 1978:	2	8	10	27	17	20	7	5	4	100
1979:	*	1	3	34	19	14	12	8	9	100
OREG 1978:	1	5	5	24	19	14	10	7	15	100
1979:	*	1	12	19	18	14	11	8	17	100
WASH 1978:	*	5	6	23	18	14	10	8	16	100
1979:	*	1	13	19	17	15	11	7	17	100
WIS 1978:	1	11	8	34	19	12	6	4	5	100
1979:	1	10	7	34	19	13	8	4	4	100

1/ PERCENTAGES SHOWN ADJUSTED TO ALLOW FOR HARVESTING LOSS.
* LESS THAN 1/2 PERCENT.

POTATOES: HARVEST LOSS BY TYPE OF POTATOES, 1978-79 1/

STATE AND YEAR		ROUND REDS	ROUND WHITES	RUSSETS	ALL TYPES
		CWT PER ACRE			
COLO	1978	21	2/	21	21
	1979	2/	2/	34	34
IDAHO	1978			31	31
	1979		2/	33	34
MAINE	1978		23	27	24
	1979	2/	23	34	26
MICH	1978		28	35	32
	1979	2/	25	35	26
MINN	1978	22	28	35	32
	1979	19	38	46	36
N Y	1978	2/	27		27
	1979	2/	28		27
N DAK	1978	25	28	2/	29
	1979	30	44	59	43
OREG	1978	2/		31	31
	1979			41	41
PA	1978		30		30
	1979	2/	38		37
WASH	1978	2/	2/	35	35
	1979	2/	2/	29	29
WIS	1978	19	23	25	23
	1979	2/	18	24	22

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

POTATOES: AVERAGE NUMBER OF HILLS PER ACRE, BY TYPE, 1978-79 1/

STATE AND YEAR		ROUND REDS		ROUND WHITES		RUSSETS	
		NUMBER OF SAMPLES	AV. NO. HILLS PER ACRE	NUMBER OF SAMPLES	AV. NO. HILLS PER ACRE	NUMBER OF SAMPLES	AV. NO. HILLS PER ACRE
COLO	1978	9	12,750	5	12,508	53	11,877
	1979	6	12,565			56	11,182
IDAHO	1978					317	12,863
	1979	2/	2/	2/	2/	327	12,665
MAINE	1978			141	14,827	51	9,596
	1979	2/	2/	132	16,502	57	11,086
MICH	1978	2/	2/	62	12,243	36	11,201
	1979	2/	2/	69	12,161	34	11,328
MINN	1978	28	11,103	56	10,432	30	9,980
	1979	20	11,764	57	11,307	29	10,103
N Y	1978	2/	2/	117	12,452	2/	2/
	1979	2/	2/	104	13,758		
N DAK	1978	36	10,538	81	9,581	13	9,477
	1979	43	10,031	99	10,213	23	9,769
OREG	1978	2/	2/	2/	2/	137	13,913
	1979			2/	2/	129	13,793
PA	1978			83	12,240		
	1979	2/	2/	79	12,489		
WASH	1978	2/	2/	2/	2/	167	13,918
	1979	2/	2/	8	14,675	169	13,209
WIS	1978	17	13,254	47	12,707	78	10,831
	1979	12	11,914	44	11,601	81	10,928

1/ AVERAGE NUMBER OF HILLS PER ACRE BASED ON SAMPLE PLOTS SELECTED FOR OBJECTIVE YIELD MEASUREMENTS.
2/ INSUFFICIENT SAMPLE SIZE.

(Continued from page 1)

Disappearance of the 1979 crop to December 1 was 87.5 million cwt, a decrease of 8 percent from last year. This total includes 15.4 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 in the seven major States amounted to 32.2 million cwt, a 10 percent decline from last year.

FALL PRODUCTION DECLINES SEVEN PERCENT

Production of fall potatoes in the U.S. is estimated at 302 million cwt (13.7 million metric tons), slightly above the November 1 forecast but 7 percent below the 323 million cwt (14.7 million metric tons) produced in 1978. This year's crop was harvested from 1.07 million acres (435 thousand hectares), 7 percent below last year. Yields Nationally are estimated at a record 281 cwt, up 1 cwt per acre from last year and 11 cwt per acre above 1977.

In the seven Eastern States, production is set at 49.9 million cwt, 5 percent above the 47.3 million cwt harvested in 1978. The average yield is placed at a record 257 cwt per acre, up significantly from the 234 cwt per acre average in 1978.

Production in the eight Central States, at 62.3 million cwt, is 10 percent below the 69.3 million cwt produced last year. Yield per acre is placed at 212 cwt per acre, 7 cwt below 1978.

In the nine Western States, production is placed at 189 million cwt, 8 percent below the 207 million cwt produced during 1978. Harvested area is set at 586 thousand acres compared with 637 thousand acres harvested last year. The average yield at 324 cwt per acre is 1 cwt per acre below last year.