

FERTILIZER AND PESTICIDES APPLIED TO FALL SEASON POTATOES IN 1999

for the complete report see <http://usda.mannlib.cornell.edu/reports/nassr/other/pcu-bb/>

The agricultural chemical use estimates presented here refer to on-farm use of commercial fertilizers and pesticides on the fall potato crop for the 1999 crop year. Farm and ranch operators were enumerated late in the growing season or after the farm operator had indicated that planned applications were completed. Eleven fall potato states were surveyed: Colorado, Idaho, Indiana, Maine, Michigan, Minnesota, North Dakota, Oregon, Pennsylvania, Washington, Wisconsin.

Nitrogen fertilizer was applied to 100 percent of the fall potato acreage in Maine. The number of nitrogen applications averaged 1.1 per acre with a total of 11.5 million pounds applied. Phosphate and Potash were also applied to 100 percent of the planted acres in Maine. There were 12.3 million pounds of Phosphate and 12.4 million pounds of Potash applied to the fall potato acreage.

Herbicides were applied to 100 percent of the Maine potato acreage in 1999. Metribuzin was the most widely applied active ingredient and was used on 82 percent of the potato crop. Linuron and Rimsulfuron were each applied to 8 percent of the planted acres.

Insecticides were applied to 97 percent of Maine's 1999 fall potato acreage. National usage ranged from treatment on 100 percent of the acres in Michigan and Wisconsin to 76 percent of the acres in Colorado. The two most common active ingredients in Maine were Imidacloprid and Methamidophos which were applied to 90 and 19 percent of the fall potato acreage, respectively.

Fungicide treatments were applied to 95 percent of the total fall potato acreage. Maine treated 100 percent of the acreage, followed closely by Michigan and North Dakota with 99 percent each. Mancozeb was the most commonly used fungicide in Maine, as it was applied on 77 percent of the acreage, followed by Chlorothalonil on 72 percent of the fall potato acreage.

Usage of other chemicals, primarily desiccants, varied widely among the 11 States with an average of 45 percent of the fall potato acreage being treated. Diquat was the most commonly used active ingredient in Maine, as well as the other States surveyed, and was applied to 93 percent of Maine's planted area.

Chemical use estimates for fall potatoes are published every two years. The next report will be issued in May 2002.

Fall Potatoes: Fertilizer Use, Total Acreage, Percent of Acres Treated and Total Amount Applied, Eleven States Surveyed and Total, 1999

State	Planted Acreage	Percent of Acres Treated & Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Million	Percent	Million	Percent	Million
CO	77.2	98	14.6	95	13.3	74	5.6
ID	395	100	91.0	99	78.5	82	42.7
IN	5.2	100	0.6	100	0.5	100	0.5
ME	65	100	11.5	100	12.3	100	12.4
MI	48	100	10.1	98	6.6	100	10.0
MN	70	99	8.0	91	5.3	91	9.6
ND	121	99	15.4	98	10.9	83	9.2
OR	56	100	13.5	100	8.2	91	7.5
PA	14.5	97	2.2	97	1.8	97	2.0
WA	170	100	55.5	99	40.7	97	43.7
WI	86	100	20.8	100	12.0	99	20.4
Total	1,107.9	100	243.2	98	190.1	88	163.6

Fall Potatoes: Fertilizer Use, Total Acres, Maine, 1991 - 1999

YEAR	Planted Acreage	Percent of Acres Treated & Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Million	Percent	Million	Percent	Million
1991	81	100	---	100	---	100	---
1992	81	100	---	99	---	99	---
1993	81	100	---	99	---	98	---
1994	78	100	13.7	99	13.7	99	13.9
1995	78	99	13.7	99	13.9	99	14.3
1996	78	100	13.0	99	13.4	100	13.6
1997 ^{1/}	71	100	12.9	100	13.3	100	13.5
1999	65	100	11.5	100	12.3	100	12.4

^{1/} Starting in 1997, Chemical Use estimates for fall potatoes are published every two years.

**Fall Potatoes: Pesticide Use, Total Acreage,
Percent of Acres Receiving Applications and Total Applied,
Eleven States Surveyed and Total, 1999**

State	Planted Acreage 1,000 Acres	Percent of Acres Treated & Total Applied							
		Herbicide		Insecticide ^{1/}		Fungicide		Other Chemical	
		Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
CO	77.2	86	175	76	39	98	387	57	14,056
ID	395	92	953	92	1,066	92	1,502	56	53,358
IN	5.2	67	9	99	2	29	10	2/	2/
ME	65	100	25	97	29	100	553	24	89
MI	48	100	101	100	52	99	609	56	137
MN	70	86	82	91	54	93	577	16	2,103
ND	121	83	94	95	121	99	966	5	1,315
OR	56	100	129	89	183	97	314	65	7,489
PA	14.5	94	35	99	47	95	125	3	4
WA	170	98	360	99	810	97	1,206	75	19,377
WI	86	98	84	100	193	98	921	16	1,104
Total	1,107.9	93	2,047	93	2,596	95	7,170	45	99,032

^{1/} Total Applied excludes Bt's (*Bacillus thuringiensis*). Total BT quantities are not available because amounts of active ingredient are not comparable between products.

^{2/} Insufficient reports to publish data for one or more of the pesticide classes.

**Fall Potatoes: Agricultural Chemical Applications,
Maine, 1999 ^{1/}**

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1,000 Lbs
Herbicides:					
Linuron	8	1.0	0.51	0.53	3
Metribuzin	82	1.0	0.40	0.41	22
Rimsulfuron	8	1.1	0.02	0.02	**
Insecticides:					
Azinphos-methyl	3	1.3	0.29	0.40	1
Bt (<i>Bacillus thur.</i>)	*	3.3	2/	2/	2/
Carbaryl	1	2.7	0.77	2.10	2
Disulfoton	6	1.4	0.62	0.91	3
Endosulfan	4	1.1	0.59	0.67	2
Esfenvalerate	8	1.5	0.03	0.05	**
Imidacloprid	90	1.3	0.09	0.12	7
Methamidophos	19	1.7	0.61	1.08	13
Permethrin	8	1.5	0.10	0.16	1
Fungicides:					
Chlorothalonil	72	7.3	0.62	4.50	212
Copper hydroxide	30	2.1	0.37	0.80	16
Cymoxanil	3	2.7	0.12	0.32	1
Mancozeb	77	6.0	0.97	5.87	293
Maneb	5	6.4	0.95	6.14	18
Mefenoxam	19	1.9	0.12	0.23	3
Metalaxyl	4	2.1	0.20	0.41	1
Metiram	2	3.6	1.21	4.46	5
Triphenyltin hydrox.	26	2.2	0.12	0.26	4
Other Chemicals:					
Diquat	93	1.7	0.25	0.43	26
Endothall	3	1.0	0.48	0.48	1
Maleic hydrazide	16	1.0	1.29	1.29	14

* Area applied is less than one percent.

** Total applied is less than 1,000 lbs.

^{1/} Planted acres in 1999 for Maine were 65,000 acres.

^{2/} Rates and total applied are not available because amounts of active ingredients are not comparable between products.