POTATO CHEMICAL USE

Fertilizer and Pesticides Applied to Fall Season Potatoes in 2001

Seven fall potato producing States were included in the 2001 survey: Idaho, Maine, Minnesota, North Dakota, Oregon, Washington, and Wisconsin. Nitrogen fertilizer was applied to 98 percent of the fall potato acreage in these States. The number of nitrogen applications in the seven States averaged 3.4 per acre, with a total of 184.4 million pounds applied. Phosphate was applied to 95 percent of the acres in the states surveyed with a total of 142.2 million pounds being applied. Potash was applied to 86 percent of the fall potato acreage.

Herbicides were applied to 82 percent of the fall potato acreage in 2001 in the seven States. Metribuzin was the most widely applied herbicide and it was used on 64 percent of the planted acreage, while Pendimethalin was applied to 28 percent of the planted acres. Insecticides were applied to 93 percent of the 2001 fall potato acreage. The two most common reported insecticides were Imidacloprid and Cyfluthrin which were applied to 41 and 22 percent of the fall potato acreage, respectively. Esfenvalerate and Phorate were both applied on 20 percent of the planted acres.

Fungicide treatments were applied to 85 percent of the fall potato acreage in the seven states. Chlorothalonil was used the most, as it was applied on 61 percent of the acreage, followed by Mancozeb on 51 percent of the fall potato acreage. Usage of other chemicals, primarily desiccants, varied widely among the seven states with an average of 61 percent of the fall potato acreage being treated. Diquat was the most commonly used "other chemical" in the seven States, and was applied to 31 percent of the planted area.

Chemical use estimates for fall potatoes are published every two years. The next report will be issued in May 2004.

Fall Potatoes: Fertilizer Use by State, 2001
Percent of Acres Treated and Total Amount Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Million Lbs.	Percent	Million Lbs.	Percent	Million Lbs.
ID	370	99	79.6	97	63.2	77	35.1
ME	62	98	11.0	98	11.4	98	11.8
MN	59	93	6.4	89	4.5	89	7.6
ND [1/]	118	1/	1/	1/	1/	1/	1/
OR [1/]	45	1/	1/	1/	1/	1/	1/
WA	160	97	37.6	92	33.0	92	37.4
WI	84	100	22.0	98	13.7	100	24.3
Total	898	98	184.4	95	142.2	86	135.6

[1/] Insufficient reports to publish data for one or more of the fertilizer classes.

Fall Potatoes: Fertilizer Use Maine, 1992 - 2001

YEAR	Planted Acreage	Percent of Acres Treated and Total Applied					
		Nitrogen		Phosphate		Potash	
	1,000 Acres	Percent	Million	Percent	Million	Percent	Million
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
2001	62	98	11.0	98	11.4	98	11.8

[1/] Starting in 1997, Chemical Use estimates for fall potatoes are published every two years.

Fall Potatoes: Pesticide Use, 2001
Percent of Acres Receiving Applications and Total Applied

State	Planted Acreage	Percent of Acres Treated and Total Applied							
		Herbicide		Insecticide [1/]		Fungicide		Other Chemical	
	1,000 Acres	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs	Percent	1,000 Lbs
ID	370	75	714	93	853	70	691	59	46,698
ME	62	92	28	88	13	98	530	97	405
MN	59	78	53	95	18	97	431	56	456
ND	118	[2/]	[2/]	[2/]	[2/]	[2/]	[2/]	[2/]	[2/]
OR	45	[2/]	[2/]	[2/]	[2/]	[2/]	[2/]	[2/]	[2/]
WA	160	92	290	95	647	91	1,108	78	14,470
WI	84	88	73	100	110	97	1,193	86	2,644
Total	898	82	1,359	93	1,862	85	5,196	61	65,935

[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, 2001 [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	0.71	0.71	4
Metribuzin	84	1.0	0.46	0.46	24
Rimsulfuron	5	1.0	0.02	0.02	[2/]
Insecticides:					
Imidacloprid	84	1.0	0.16	0.17	9
Methamidophos	7	1.1	0.62	0.71	3
Fungicides:					
Azoxystrobin	5	1.0	0.10	0.10	[2/]
Chlorothalonil	70	5.7	0.63	3.63	157
Cymoxanil	6	1.1	0.05	0.06	[2/]
Mancozeb	75	7.2	0.98	7.13	333
Maneb	9	4.6	0.84	3.93	22
Mefenoxam	6	1.5	0.11	0.17	1
Metalaxyl	21	1.3	0.19	0.26	3
Triphenyltin hydrox.	13	1.3	0.11	0.14	1
Other Chemicals:					
Diquat	97	1.9	0.25	0.48	29
Maleic hydrazide	20	1.0	1.38	1.38	17
Paraquat	5	1.0	0.40	0.40	1

[1/] Planted acres in 2001 for Maine were 62,000 acres.
[2/] Total applied is less than 1,000 lbs.