AGRICULTURAL CHEMICALS

CONSUMPTION OF FERTILIZER AND PLANT NUTRIENTS, North Dakota, 1997-2001

Year Ended June 30	Gross Tonnage				Nutrient Content			
	Mixed Fertilizer	Primary Nutrient Material	Secondary & Micro-Nutrients	Total 1/	N	Available P_2O_5	K_2O	Total 1/
	- - - - - - - - - Tons - - - - - - - - -							
1997	320,803	580,799	3,723	905,320	389,775	152,362	26,638	568,775
1998	344,420	611,693	6,635	962,738	386,965	163,111	25,699	575,775
1999	340,457	818,822	6,306	1,165,585	509,066	163,775	25,173	698,014
2000	407,281	846,338	7,043	1,260,663	514,899	196,738	30,558	742,195
2001	413,220	944,892	6,304	1,364,416	577,261	202,847	28,763	808,870

Source: The Association of American Plant Food Control Officials. 1/ Totals may not add due to rounding.

FERTILIZER USE ON SELECTED CROPS, North Dakota, 1997-2002

Years Surveyed	Planted Acres	Fields in Survey	Area Receiving			Application Rates per Crop Year			Total Applied		
			N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O
	1,000	Number	- - - Percent - - -			- - - Pounds Per Acre - - -			- - - Million Pounds - - -		
					OTHER SPRING WHEAT						
1997	8,800	92	99	92	24	72	31	20	621.8	248.3	43.8
1998	6,700	103	97	87	20	72	29	7	472.8	166.8	9.0
2000	6,800	99	97	83	12	76	30	16	501.8	170.1	13.3
2002	6,900	113	97	83	19	75	35	24	499.8	197.7	30.6
					DURUM WHEAT						
1997	2,750	118	95	77	8	66	24	20	170.9	48.7	4.1
1998	3,000	37	98	79	3	60	21	20	175.0	49.0	1.7
2000	3,250	117	86	66	5	62	22	14	173.8	47.6	2.1
2002	2,100	75	88	58	5	62	26	12	116.1	31.6	1.2
					POTATOES						
1997	125	47	100	96	80	134	98	77	16.7	11.7	7.7
1999	121	49	99	98	83	129	91	92	15.4	10.9	9.2
2001 1/	118										
					SUNFLOWER						
1999	1,700	209	96	40	1/	71	24	1/	116.9	16.4	1/
					CORN						
2000	1,080	94	98	80	29	98	45	28	103.0	38.8	8.7
2001	880	92	94	83	38	109	46	31	89.9	33.8	10.1
					SOYBEANS						
2000	1,900	96	46	41	1/	32	32	1/	27.8	25.3	1/
2002	2,670	107	64	59	11	26	32	12	44.1	50.5	3.3
					SUGARBEETS						
2000	258	152	94	92	38	72	54	29	17.4	12.7	2.8

Source: Agricultural Chemical Usage, USDA-NASS and ERS. 1/ Insufficient reports to publish data.

PESTICIDE USE ON SELECTED CROPS, North Dakota, 1997-2002

Years Surveyed	Area Receiving and Total Applied							
	Herbicides		Insecticides		Fungicides		Other Chemicals	
	Pct	1,000 Lbs	Pct	1,000 Lbs	Pct	1,000 Lbs	Pct	1,000 Lbs
				OTHER SPRING WHEAT				
1997	88	4,583						
1998	98	4,053	7	176	7	52		
2000	97	4,205						
2002	95	3,749			6	68		
				DURUM WHEAT				
1997	93	2,221	2	12				
1998	98	2,631						
2000	97	2,807						
2002	100	1,238						
				POTATOES				
1997	63	134	77	161	99	1,232	36	22
1999	83	94	95	121	99	966	5	1,315
2001 1/								
				SUNFLOWER				
1999 1/	99	1,801	22	12				
				CORN				
2000 1/	71	1,284						
2001 1/	90	745						
				SOYBEANS				
2000 1/	99	2,046						
2002 1/	100	3,350						
				SUGARBEETS				
2000 1/	100	169	81	416	96	153		

Source: Agricultural Chemical Usage, USDA-NASS and ERS. 1/ Insufficient reports to publish data for one or more of the pesticide classes.

AGRICULTURAL CHEMICALS

PESTICIDE APPLICATIONS ON SELECTED CROPS, North Dakota, 2002

Agricultural Chemical	Area Applied	Application Rates per Crop Year	Total Applied
	Pct	Lbs per Acre	1,000 Lbs
OTHER SPRING WHEAT, Herbicides			
2, 4-D	26	0.34	617
Bromoxynil	30	0.23	480
Clodinafop-propargil	7	0.04	19
Fenoxaprop	42	0.06	189
Fluroxypyr	7	0.07	31
Fluroxypyr 1-methylh	4	0.13	37
Glyphosate	16	0.56	628
MCPA	62	0.30	1,302
Thifensulfuron	13	0.01	11
Tribenuron-methyl	16	0.006	7
DURUM WHEAT, Herbicides			
2, 4-D	55	0.33	382
Bromoxynil	10	0.21	44
Clodinafop-propargil	12	0.05	12
Dicamba	21	0.05	22
Fenoxaprop	22	0.05	24
Fluroxypyr 1-methylh	6	0.14	18
Glyphosate	14	0.45	128
MCPA	36	0.36	273
Thifensulfuron	7	0.008	1
Tribenuron-methyl	18	0.006	2
Trifluralin	14	0.36	103
SOYBEANS, Herbicides			
Bentazon	24	1.48	939
Ethalfluralin	3	0.80	69
Glyphosate	50	0.90	1,202
Imazamox	10	0.03	8
Imazethapyr	15	0.04	17
Pendimethalin	11	1.24	367
Sethoxydim	25	0.36	240
Trifluralin	15	0.94	369

Source: Agricultural Chemical Usage, USDA-NASS and ERS.

PEST MANAGEMENT PRACTICES ON SELECTED CROPS, North Dakota, 2002

Practice	Acres Receiving Practice			Farms Utilizing Practice		
	Wheat		Soybeans	Wheat		Soybeans
	Other Spring	Durum		Other Spring	Durum	
	Pct of Acres			Pct of Farms		
Prevention Practices						
Tillage/etc to Manage Pests	63	29	27	48	23	33
Remove or Plow Down Crop Residue	45	31	40	32	29	35
Clean Implements After Fieldwork	67	67	55	74	55	50
Water Management Practices	14	3	1	10	2	2
Avoidance Practices						
Adjust Planting/Harvesting Dates	26	43	1	19	34	1
Rotate Crops to Control Pests	87	75	83	91	68	83
Alternate Planting Locations	45	35	15	51	29	21
Monitoring Practices						
Scouted for Pests	72	68	1/	57	71	1/
Records Kept to Track Pests	23	5	17	15	5	16
Field Mapping of Weed Problems	21	21	25	26	14	23
Soil Analysis to Detect Pests	3	4	1/	6	2	1/
Weather Monitoring	48	21	68	35	14	61
Suppression Practices						
Biotech varieties with herbicide resistance only 2/			61			
Scouting Used to Make Decisions	33	10	20	28	6	25
Maintain Ground Cover or Physical Barriers	30	16	10	28	11	13
Adjust Planting Methods	8	10	21	12	9	18
Alternate Pesticides	65	48	50	57	41	48

Source: Agricultural Chemical Usage, USDA-NASS and ERA. 1/ Less than 1 percent. 2/ Available for soybean percent of acres receiving practice only.