



# 2006 Winter Wheat Chemical Usage Release

National  
Agricultural  
Statistics  
Service

Washington Field Office

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## OVERVIEW

This report continues the series of annual Field Crops Summaries issued by the National Agricultural Statistics Service (NASS) containing on-farm agricultural chemical use statistics. The data presented in this report are part of a continuing data series on chemical use. The data were compiled from two surveys, the Agricultural Resources Management Survey (ARMS) and Conservation Effects Assessment Project (CEAP). Data collection occurred primarily during the months of September to December of 2006. **Thanks to all farmers who responded to this important survey.**

NASS is responsible for collecting on-farm agricultural chemical use information to support the evaluation of water quality and food safety issues. The Economic Research Service (ERS) conducts research on the impact of alternative pesticide regulations, policies, and practices.

The National report includes farm use of fertilizers and pesticides during 2006 on soybeans, durum wheat, other spring wheat, and winter wheat. Producers of soybeans, durum wheat, other spring wheat, and winter wheat were last surveyed using both ARMS and CEAP surveys in 2004. Data presented in this publication are for winter wheat only. Chemical usage information for other states and crops are available in the National report. The use of trade names in this publication is for information only and should not be construed as a recommendation by NASS.

### Winter Wheat: Fertilizer Use, Pesticide Applications, Total Acreage & Percentage Receiving Applications, Major States & Total, 2004 & 2006

State	Planted Acreage		Area Receiving Fertilizer 1/								Area Receiving Pesticide 2/					
			Nitrogen		Phosphate		Potash		Sulfur 3/		Herbicide		Insecticide		Fungicide	
	2004	2006	2004	2006	2004	2006	2004	2006	2004	2006	2004	2006	2004	2006	2004	2006
	1,000 Acres		-----Percent-----								-----Percent-----					
CO	2,300	2,150	59	54	31	36	5		4	54	54					
ID	750	750	89	93	62	66	31	16	63	94	84	1	-	-	5	
IL	920	930	98	93	85	76	77	76	3	35	46	-	-	9	6	
KS	10,000	9,800	90	88	62	66	6	8	5	38	53	-	-	-		
MI	660	660	97	98	71	74	77	85	37	50	71	11	3	11	23	
MO	1,050	1,000	97	97	84	73	86	74	12	35	28	8	12	-	6	
MT	1,900	1,950	92	87	83	84	21	31	12	95	92	-	-	-	-	
NE	1,850	1,800	73	75	42	57	3	4	13	51	56	-		-	4	
OH	920	990	100	98	95	84	90	82	23	29	44	-	-	-	-	
OK	6,200	5,700	92	89	62	65	13	8	-	34	20	24	7	-		
OR	820	760	96	95	11	12	6	10	48	98	87	3	-	3	3	
SD	1,650	1,450	77	82	58	57	7	15	12	66	74	-	-	13	21	
TX	6,300	5,550	64	44	35	29	9	8	11	19	22	7	4	-		
WA	1,800	1,850	97	99	24	36	3	10	71	88	94	-	-	4	2	
<b>Total</b>	<b>37,120</b>	<b>35,340</b>	<b>84</b>	<b>80</b>	<b>55</b>	<b>57</b>	<b>16</b>	<b>17</b>	<b>14</b>	<b>45</b>	<b>49</b>	<b>7</b>	<b>3</b>	<b>2</b>	<b>2</b>	

1/ Refers to acres receiving one or more applications of a specific ingredient.  
 2/ Refers to acres receiving one or more applications of a specific pesticide class.  
 3/ Sulfur was not reported in the 2004 Field Chemical Usage Survey.  
 - Insufficient reports to publish data for this fertilizer ingredient or pesticide class.

## Winter Wheat: Agricultural Chemical Applications, Washington, 2004-2006 1/

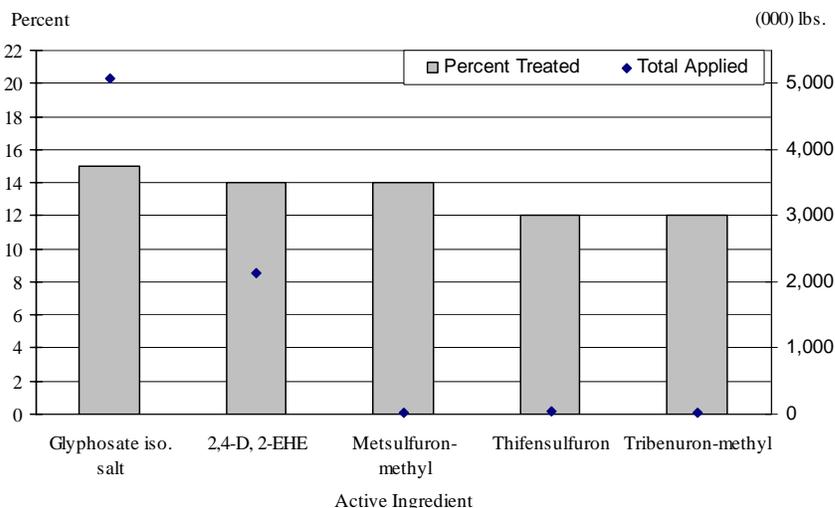
Agricultural Fertilizers & Chemicals	Area Applied 3/		Applications		Rate Per Application		Rate Per Crop Year		Total Applied	
	2004	2006	2004	2006	2004	2006	2004	2006	2004	2006
<b>Fertilizers:</b>	<b>Percent</b>		<b>Number</b>		<b>Pounds Per Acre</b>				<b>Million Pounds</b>	
Nitrogen	97	99	1.5	1.3	61	57	93	77	161.2	140.8
Phosphate	24	36	1.6	1.0	18	17	27	18	11.6	12.0
Potash	3	10	1.6	1.1	17	17	28	19	1.4	3.5
Sulfur	-	71	-	1.2	-	12	-	14	-	18.0
<b>Herbicides: 2/</b>	<b>Percent</b>		<b>Number</b>		<b>Pounds Per Acre</b>				<b>1,000 Pounds</b>	
2, 4-D	32	-	1.0	-	0.46	-	0.47	-	267	-
2,4-D, 2-EHE	-	33	-	1.0	-	0.469	-	0.481	-	296
2,4-D, Dimeth. salt	2	14	1.0	1.0	0.38	0.539	0.38	0.539	14	135
2,4-DP, Dimeth. salt	13	-	1.0	-	0.42	-	0.42	-	97	-
Bromoxynil	13	-	1.0	-	0.32	-	0.32	-	75	-
Bromoxynil heptanoat	-	4	-	1.0	-	0.283	-	0.283	-	23
Bromoxynil octanoate	-	23	-	1.0	-	0.263	-	0.263	-	113
Chlorsulfuron	6	-	1.0	-	0.01	-	0.01	-	1	-
Clodinafop-propargil	3	2	1.0	1.0	0.05	0.028	0.05	0.028	3	1
Dicamba	8	-	1.0	-	0.15	-	0.15	-	22	-
Fluroxypyr	-	2	-	1.0	-	0.146	-	0.146	-	4
Glyphosate	21	-	1.2	-	0.44	-	0.52	-	200	-
Glyphosate iso. salt	-	12	-	1.6	-	0.466	-	0.729	-	162
Imazamox	6	7	1.0	1.0	0.03	0.039	0.03	0.039	3	5
MCPA	19	-	1.0	-	0.40	-	0.40	-	135	-
MCPA, 2-ethylhexyl	-	31	-	1.0	-	0.304	-	0.306	-	174
MCPA, dimethyl. salt	-	4	-	1.0	-	0.372	-	0.372	-	26
Mesosulfuron-Methyl	-	20	-	1.0	-	0.007	-	0.007	-	3
Metsulfuron-methyl	30	10	1.0	1.0	0.002	0.003	0.002	0.003	1	1
Propoxycarbazone-sod	-	18	-	1.0	-	0.014	-	0.014	-	5
Prosulfuron	2	4	1.0	1.0	0.02	0.011	0.02	0.011	1	1
Sulfosulfuron	12	11	1.1	1.0	0.03	0.029	0.03	0.029	6	6
Thifensulfuron	32	18	1.0	1.0	0.008	0.012	0.008	0.012	5	4
Triasulfuron	5	8	1.0	1.0	0.02	0.018	0.02	0.018	2	3
Tribenuron-methyl	29	17	1.0	1.0	0.004	0.005	0.004	0.005	2	1
<b>Fungicides:</b>										
Propiconazole	4	2	1.0	1.1	0.10	0.094	0.10	0.104	7	4

- Insufficient reports to publish state level usage estimates.

1/ Planted acres in 2004 for Washington were 1.80 million acres and in 2006 there were 1.85 million planted acres.

2/ Insufficient reports in 2004 to publish data for the following chemicals: Herbicides: Acetic acid (2,4-D), Acifluorfen, Atrazine, Benfenin, Bromoxynil octanoate, Butoxy. ester 2,4-D, Clopyralid, Dicamba, Sodium salt, Diuron, Fenoxaprop, Flucarbazone-sodium, Fluroxypyr, Fluroxypyr 1-methyl, MCPA, Dimethyl. salt, Mesosulfuron-Methyl, Metribuzin, Oryzalin, Quinclorac, Tralkoxydim, Triallate. Insecticides: Dimethoate. Fungicides: Mancozeb, Pyraclostrobin, Tebuconazole, Thiophanate-methyl, Trifloxystrobin. Insufficient reports in 2006 to publish data for the following chemicals: Herbicides: 2,4-D, 2,4-D, BEE, 2,4-D, dieth salt, 2,4-D, isoprop. salt, Bromoxynil, Carfentrazone-ethyl, Clopyralid, Dicamba, dimet. salt, Dicamba, sodium salt, Fenoxaprop-p-ethyl, Flucarbazone-sodium, MCPA, Metribuzin. Insecticides: Dimethoate, Zeta-cypermethrin. Fungicides: Azoxystrobin. 3/ Refers to acres receiving one or more applications of a specific agricultural chemical. Note: Data may not multiply across due to rounding. Source: "2006 Field Crops Summary" and Agricultural Chemical Usage Survey. National Agricultural Statistics Service, USDA.

Winter Wheat-Percent of Acres Treated and Total Applied



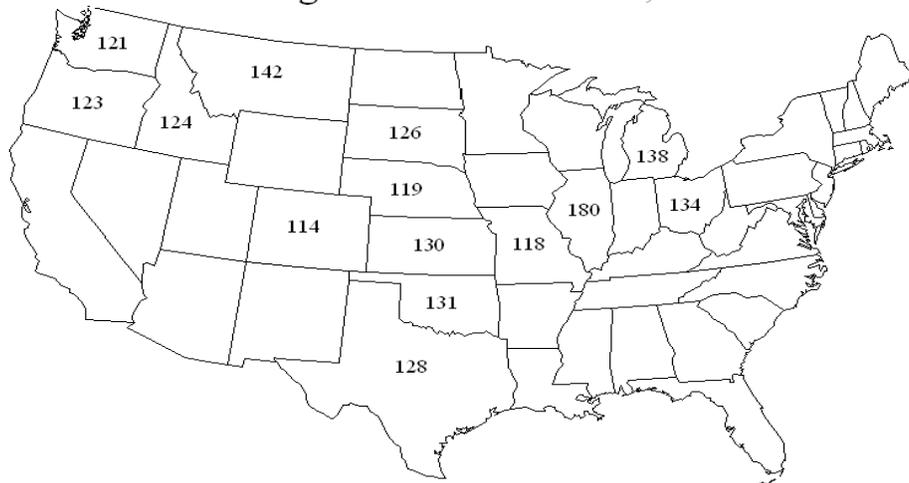
## TRADE NAMES, COMMON NAMES, AND CLASSES

The following is a list of common name, associated class, and trade name of active ingredients in this publication. The classes are herbicides (H), insecticides (I), fungicides (F), and other chemicals (O). This list is provided as an aid in reviewing pesticide data. Pre-mixes are not cataloged. The list is not complete for all pesticides used on field crops and NASS does not mean to imply use of any specific trade name. This is a list of those reported in Washington.

Class	Common Name	Trade Name
H	2,4-D	Tiller EC, Unison
H	2,4-D, 2-EHE	2,4-D L.V.4 Ester (3.84 lbs/ g), 2,4-D LV4 (3.80 lbs/ g), 2,4-D LV6, 2,4-D Lo-V Este Agsco 400 (EC), Agsco B-4
H	2,4-D, dieth salt	Hi-Dep, Weedar 64A
H	2,4-DP, dimeth. salt	2,4-D Amine, 2,4-D Amine 4, 2,4-D Amine 6, Banvel + 2,4-D, Brash, Formula 40, Hi-Dep, Range Star, Rifle-D, Saber
H	bromoxynil	Buctril (2EC), Moxy 2E
H	bromoxynil heptanoat	Agsco B-4, Bison Advanced, Bronate Advanced, Buctril 4EC, Phino, WECO MAX
H	bromoxynil octanoate	Agsco B-4, Bison, Bison Advanced, Bromox/MCPA 2-2, Bronate (4EC), Bronate (Bronate Pro #2), Bronate Advanced
H	chlorsulfuron	Finesse, Glean FC (75DF)
H	clodinafop-propargil	Discover, Discover NG
H	dicamba	Banvel SGF (2EC), Oracle Dicamba Agricultural Herbicide, Outlaw (aka Bushwhacker)
H	fluroxypyr	Starane EC
H	glyphosate	Sequence, Touchdown CF, Touchdown Herbicide, Touchdown HiTech, Touchdown Total
H	glyphosate iso. salt	Alecto 41S, Backdraft, Buccaneer, Buccaneer Plus, ClearOut 41 Plus, Cornerstone, Credit, Credit Duo, Durango
H	imazamox	Beyond (Clearfied Crops), Raptor
H	MCPA	Dakota, Rhonox (EC), Tiller EC
H	MCPA, 2-ethylhexyl	Agsco MXL, Bison Advanced, Bromox/MCPA 2-2, Bronate (4EC), Bronate (Bronate Pro #2), Bronate Advanced
H	MCPA, dimethyl. salt	MCP Amine 4, Rhomene MCPA Amine
H	mesosulfuron-methyl	Olympus Flex (For Wheat), Osprey, Rimfire (For Use in Wheat)
H	metsulfuron-methyl	Ally Extra, Ally XP (60DF), Finesse, Metsulfuron 60ED AG, Purestand DF, Valuron 60DF
F	propiconazole	Bumper 41.8 EC, PropiMax EC, Quilt, Stratego, Tilt
H	propoxycarbazone-sod	Olympus 70% G, Olympus Flex (For Wheat), Rimfire (For Use in Wheat)
H	prosulfuron	Peak (WDG)
H	sulfosulfuron	Maverick
H	thifensulfuron	Affinity BroadSpec Herbicide, Affinity Tankmix, Ally Extra, Harmony Extra XP, Harmony GT XP, Synchrony STS
H	triasulfuron	Amber, Rave
H	tribenuron-methyl	Affinity BroadSpec Herbicide, Affinity Tankmix, Ally Extra, Canopy EX, Express XP (DF), Harmony Extra XP

### Winter Wheat 2006: Number of Usable Reports

14 Program States Total - 1,828



## Winter Wheat: Pest Management Practices, Washington and Program States, 2006

Practices	WA	Program States	WA	Program States
	<b>Percent of Acres Receiving</b>		<b>Percent of Farms Utilizing</b>	
<b>Prevention Practices:</b>				
No-till or minimum till used to manage pests	55	53	46	54
Plow down crop residue	47	43	52	39
Remove crop residue	12	11	15	13
Clean implements after fieldwork	72	58	75	49
Field edges/etc. chopped, mowed/etc.	58	43	61	40
Water management practices	4	3	6	2
<b>Avoidance Practices:</b>				
Adjust planting/harvesting dates	15	27	16	28
Rotate crops to control pests	78	64	84	68
Crop variety chosen for pest resistance	51	41	54	37
Planting locations planned to avoid pests	19	20	23	17
<b>Monitoring Practices:</b>				
Scouting by general observation	83	47	86	43
Deliberate scouting activities	14	37	12	37
Field was not scouted	3	16	1	20
Scouted for pests	19	10	25	8
Scouting due to pest advisory warning	7	5	11	6
Scouting due to pest development model	8	3	10	3
Scouted for weeds	96	80	98	75
Scouting for weeds was done by:				
Operator, partner, or family member	67	88	67	88
An Employee	*	1	1	1
Farm supply or chemical dealer	31	8	31	8
Indep. crop consultant or comm. scout	2	4	2	3
Scouted for insects and mites	80	64	77	58
Scouting for insects/mites was done by:				
Operator, partner, or family member	62	86	61	87
An Employee		1		2
Farm supply or chemical dealer	35	8	36	8
Indep. crop consultant or comm. scout	2	5	3	4
Scouted for diseases	82	62	82	56
Scouting for diseases was done by:				
Operator, partner, or family member	64	87	65	87
An Employee		1		2
Farm supply or chemical dealer	34	7	33	8
Indep. crop consultant or comm. scout	2	5	2	4
Records kept to track pests	47	16	53	13
Field mapping of weed problem	37	16	40	15
Soil/plant tissue analysis to detect pests	13	6	16	5
Weather monitoring	69	29	77	26
<b>Suppression Practices:</b>				
Scouting used to make decisions	27	12	26	11
Maintain ground cover or physical barriers	69	57	67	52
Adjust planting methods	10	19	12	17
Alternate pesticides with different MOA	65	16	65	12

\* Percentage is less than 0.5 percent.