

# AGRICULTURAL CHEMICAL USAGE 2002

## WINTER WHEAT

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Washington Agricultural Statistics Service  
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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.

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 2002 on corn, soybeans, durum, other spring, and winter wheat. 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, 2000 & 2002

State	Harvested Acreage		Area Receiving Fertilizer 1/						Area Receiving Pesticide 2/					
			Nitrogen		Phosphate		Potash		Herbicide		Insecticide		Fungicide	
	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002
	1,000 Acres		-----Percent-----						-----Percent-----					
AR	1,180	3/	92	3/	28	3/	28	3/	41	3/	-	3/	-	3/
CO	2,500	1,650	87	64	14	31	-	**	23	12	-	-	-	-
ID	780	3/	90	3/	54	3/	13	3/	89	3/	4	3/	-	3/
IL	950	650	98	96	82	76	78	74	44	39	-	-	-	-
KS	9,800	8,100	94	91	65	64	6	8	31	32	8	7	-	-
KY	670	3/	80	3/	62	3/	60	3/	51	3/	8	3/	6	3/
MO	1,050	760	96	97	76	75	84	74	51	12	-	-	2	-
MT	1,500	750	82	88	77	81	43	46	91	80	-	-	-	-
NE	1,750	1,520	90	79	68	45	-	4	26	49	-	-	-	-
NC	720	3/	88	3/	48	3/	56	3/	65	3/	19	3/	-	3/
OH	1,120	810	94	98	81	89	82	88	18	31	-	-	-	-
OK	6,100	3,500	97	92	62	59	5	4	25	36	-	32	-	-
OR	750	3/	99	3/	11	3/	7	3/	99	3/	-	3/	13	3/
SD	1,350	3/	91	3/	61	3/	12	3/	56	3/	-	3/	-	3/
TX	6,000	2,700	55	62	35	28	14	7	12	34	1	21	-	-
WA	1,850	1,750	100	99	30	39	6	11	95	87	-	-	-	3
<b>Total</b>	<b>38,070</b>	<b>22,190</b>	<b>87</b>	<b>86</b>	<b>54</b>	<b>55</b>	<b>17</b>	<b>15</b>	<b>37</b>	<b>38</b>	<b>4</b>	<b>11</b>	<b>1</b>	<b>**</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/ State was not surveyed in 2002.  
 - Insufficient reports to publish data for this fertilizer ingredient or pesticide class.  
 \*\* Applied on less than one percent of acres.

## SURVEY

Data for winter wheat were obtained from the Field Crop Chemical Use Survey (FCCUS). The samples for FCCUS were drawn via the Objective Yield Survey (OYS). The OYS samples were drawn from the NASS Area Sampling Frame. The Area Sampling frame covers the entire continental US, thus accounting for 100% of all land in farms in the targeted states. Large screening samples were drawn, and acreage was screened to determine the presence of the crops of interest. From this subpopulation, individual acres of the targeted commodity were sampled for OYS. In FCCUS, data were collected for the field that contained the OYS sampled acre(s). A large field was more likely to be selected than a small field. FCCUS data for the field were only collected once, even if a field contained multiple OYS samples. If an operation had multiple fields selected, then only one field was used. The operator of the sampled field was personally interviewed to obtain information on chemical applications made to the selected field.

The 2002 survey included 10 major winter wheat producing states. The 2002 survey accounted for 75 percent of the U.S. acreage. A total of 1,006 reports were summarized across the 10 states for the 2002 survey.

## TERMS AND DEFINITIONS

**Agricultural chemicals** refer to the active ingredients in fertilizers and pesticides. **Fertilizer** refers to applications of the primary nutrients, nitrogen, phosphate, and potash. As defined by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), **pesticides** include any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. The four classes of pesticides presented in this report and the pests targeted are: **herbicides** - weeds, **insecticides** - insects, **fungicides** - fungi, and **other chemicals** - other forms of life. Miticides and nematocides are included as insecticides while soil fumigants, growth regulators, defoliants, and desiccants are included as other chemicals.

**Active ingredient** refers to the mechanism of action in pesticides which kills or controls the target pests. Usage data are reported by pesticide product and are converted to an amount of active ingredient. A single method of conversion has been chosen for active ingredients having more than one way of being converted. For example, in this report, copper compounds are expressed in their metallic copper equivalent, and others such as 2,4-D and glyphosate are expressed in their acid equivalent.

**Trade name** is a trademark name given to a specific formulation of a pesticide product. A formulation contains a specific concentration of the active ingredient, carrier materials, and other ingredients such as emulsifiers and wetting agents. Some formulations as in the case of pre-mixes, can contain more than one active ingredient. **Common name** is an officially recognized name for an active ingredient. This reports shows active ingredient by common name.

**Application rates** refer to the average number of pounds of fertilizer primary nutrient or pesticide active ingredient applied to an acre of land. **Rate per application** is the average number of pounds applied per acre in one application. **Rate per crop year** is the average number of pounds applied per acre counting multiple applications. **Number of applications** is the average number of times a treated acre received a specific primary nutrient or active ingredient.

**Area applied** represents the percentage of crop acres receiving one or more applications of a specific primary nutrient or active ingredient. This report does not contain acre treatments. However, **acre treatments** can be calculated by multiplying the acres harvested, by the percent of area applied and the average number of applications. **Crop year** refers to the period immediately following harvest of the previous crop through harvest of the current crop.

# WINTER WHEAT: AGRICULTURAL CHEMICAL APPLICATIONS, WASHINGTON, 2000-2002 1/

Agricultural Fertilizers & Chemicals	Area Applied 3/		Applications		Rate Per Application		Rate Per Crop Year		Total Applied	
	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002
<b>Fertilizers:</b>	Percent		Number		Pounds Per Acre				Million Pounds	
Nitrogen	100	99	1.3	1.3	46	53	60	73	111.7	126.5
Phosphate	30	39	1.1	1.0	16	17	19	18	10.2	12.3
Potash	6	11	1.0	1.0	12	18	13	18	1.3	3.5
<b>Herbicides: 2/</b>	Percent		Number		Pounds Per Acre				1,000 Pounds	
2, 4-D	40	33	1.0	1.1	0.50	0.49	0.51	0.55	371	318
Bromoxynil	14	22	1.0	1.0	0.22	0.20	0.22	0.22	58	83
Chlorsulfuron	13	7	1.0	1.0	0.01	0.01	0.01	0.01	3	2
Dicamba	3	-	1.0	-	0.16	-	0.16	-	8	-
Glyphosate	24	11	1.0	1.3	0.39	0.47	0.42	0.65	186	127
MCPA	24	35	1.0	1.0	0.34	0.28	0.34	0.29	150	179
Metribuzin	10	12	1.0	1.0	0.23	0.17	0.23	0.17	42	38
Metsulfuron-methyl	20	20	1.0	1.0	0.003	0.005	0.003	0.005	1	2
Prosulfuron	-	8	-	1.0	-	0.01	-	0.01	-	2
Sulfosulfuron	24	27	1.0	1.0	0.004	0.03	0.004	0.03	2	14
Thifensulfuron	14	25	1.0	1.1	0.01	0.01	0.01	0.01	3	5
Triasulfuron	5	4	1.0	1.0	0.007	0.02	0.007	0.02	1	1
Tribenuron-methyl	13	24	1.0	1.1	0.005	0.005	0.005	0.005	1	2

- Insufficient reports to publish state level usage estimates.

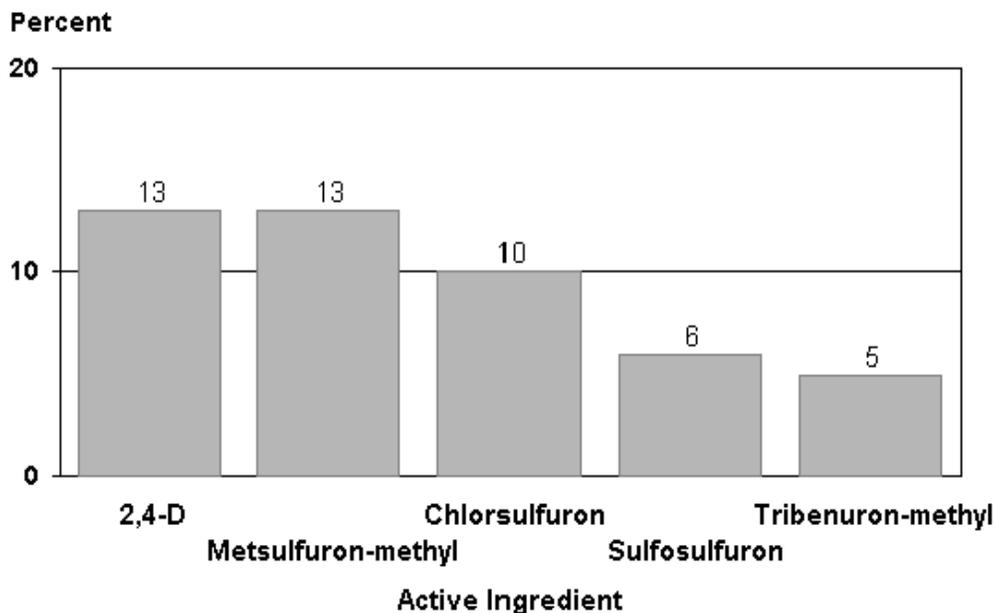
1/ Planted acres in 2000 for Washington were 1.85 million acres and in 2002 there were 1.75 million planted acres.

2/ Insufficient reports in 2000 to publish data for the following chemicals: Herbicides: Carfentrazone-ethyl, Diclofop-methyl, Diuron, Fenoxaprop-P-ethyl, Fluroxypyr, Imazamethabenz, Picloram, Prosulfuron, Tralkoxydim, Triallate. Insecticides: Chlorpyrifos, Dimethoate, Lambda-cyhalothrin. Fungicides: Propiconazole. Insufficient reports in 2002 to publish data for the following chemicals: Herbicides: Acetic acid, Atrazine, Carfentrazone-ethyl, Clopyralid, Dicamba, Diclofop-methyl, Difenzoquat, Fenoxaprop, Flucarbazone-sodium, Fluroxypyr, Fluroxypyr 1-methyl, Imazamethabenz, Triallate. Insecticides: Dimethoate. Fungicides: Mancozeb, Propiconazole, Thiophanate-methyl, Trifloxystrobin.

3/ Refers to acres receiving one or more applications of a specific agricultural chemical.

Note: Data may not multiply across due to rounding. Source: "2002 Field Crops Summary" and Agricultural Chemical Usage Survey. National Agricultural Statistics Service, USDA.

## Winter Wheat: Percent of Acres Treated Top 5 Active Ingredients for 2002



Surveyed states are CO, IL, KS, MO, MT, NE, OH, OK, TX, and WA

## 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	Agasco, Amine, Banvel + 2,4-D, Barrage, Class, Clean Crop, Curtail, Dacamine etc.
H	bromoxynil	Bromox/MCPA, Bronate, Buctril, Moxy + Atrazine
H	chlorsulfuron	Finesse, Glean
H	dicamba	Banvel, Celebrity, Clarity, Fallow Master, NorthStar, Rave, Weedmaster, etc.
H	glyphosate	Accord, Backdraft, Buccaneer, Clear-Out, Gly Star, Cornerstone, Extreme, Honcho, etc.
H	MCPA	Agasco, Bromox, Bronate, Cheyenne, Class, Curtail, MCP Ester, MCP Amine, etc.
H	metribuzin	Axiom, Boundary, Canopy, Domain, Lexone, Sencor, Turbo
H	metsulfuron-methyl	Ally, Canvas, Finesse
H	prosulfuron	Exceed, Peak, Spirit
H	sulfosulfuron	Maverick
H	triasulfuron	Amber, Rave
H	tribenuron-methyl	Ally Extra, Canvas, Express, Harmony, Cheyenne
H	thifensulfuron	Ally, Basis, Canvas, Harmony, Pinnacle, Reliance, Synchrony, Cheyenne

## Winter Wheat: Number of Usable Reports, 2002

