AGRICULTURAL CHEMICAL USAGE 2003

Barley

Released: June 2004

WASHINGTON AGRICULTURAL STATISTICS SERVICE

U.S. Department of Agriculture
Washington Agricultural Statistics Service
P.O. Box 609, Olympia, WA 98507

Barley Highlights

Chemical Usage

Nitrogen was applied to 93 percent of the 2003 barley planted acreage in the following Program States: California, Idaho, Minnesota, Montana, North Dakota, Pennsylvania, South Dakota, Utah, Washington, Wisconsin, and Wyoming. Nitrogen applications ranged from 37 percent of the acres treated in Wisconsin to 99 percent in Washington. Barley growers used an average of 1.4 applications per acre while applying 40 pounds of nitrogen per treatment. This computes to a crop year rate per acre of 60 pounds. In the Program States, 79 percent of the acres of barley planted received a phosphate application, while potash was applied to 29 percent of the acreage planted to barley.

Herbicides were applied to 93 percent of the barley planted acreage in 2003. MCPA was the most widely applied herbicide with 45 percent of the planted acreage being treated. It was applied at a rate of 0.32 pounds per acre. The next three most widely applied herbicides applied to barley, namely 2,4-D, bromoxynil, and fenoxaprop, were applied to 30, 29, and 28 percent, respectively, of the planted barley acreage.

In 2003, 3 percent of the barley planted acreage was treated with insecticides. The insecticides applied to barley were all put on less than one percent of the planted acres; therefore, no area applied values were published. Based on total pounds applied, methyl parathion at 9,000 pounds, was the most widely used insecticide on barley acres planted in the Program States. Fungicides were applied to 7 percent of the barley planted acreage in the States in the survey program.

Pest Management Practices

Producers reported a high percent of farms (88 percent) scouting for pests on barley. Scouting for weeds, diseases, and insects was done most often by the operator, partner, or a family member. Rotating crops to control pests and weather monitoring were the next two most common practices reported by 58 and 34 percent of farms respectively.

BARLEY: CHEMICAL APPLICATIONS, TOTAL ACREAGE & PERCENTAGE RECEIVING APPLICATIONS, MAJOR STATES & TOTAL, 2003

State	Planted Acreage	Area Receiving Fertilizer 1/			Area Receiving Pesticide 2/			
		Nitrogen	Phosphate	Potash	Herbicide	Insecticide	Fungicide	Other
	2003	2003	2003	2003	2003	2003	2003	2003
	1,000 Acres	---------Percent----------			---------Percent---------			
CA 3/	100	72	32	2	67			
ID 3/	750	91	58	25	94	3		5
MN	190	91	87	66	89	8	39	
MT 3/	1,100	92	88	52	93	2		
ND	2,050	98	91	20	98	4	11	
PA	75	69	39	40	32			
SD 3/	75	82	78	13	86			
UT 3/	45	58	14	0	75			
WA 3/	**320**	**99**	**58**	**8**	**94**			
WI	55	37	36	44	21			
WY	90	78	60	22	83	10		
Total	**4,850**	**93**	**79**	**29**	**93**	**3**	**7**	**1**

1/ Refers to acres receiving one or more applications of a specific ingredient.
2/ Refers to acres reported as receiving one or more applications of a specific pesticide class.
3/ Insufficient reports to publish data for one or more of the fertilizer or pesticide classes.
Source: "Agricultural and Chemical Usage - 2003 Field Crops Summary": National Agricultural Statistics Service, USDA.

BARLEY: AGRICULTURAL CHEMICAL APPLICATIONS, WASHINGTON, 2003 1/

Agricultural Chemicals 2/	Area Applied 3/	Applications	Rate Per Application	Rate Per Crop Year	Total Applied
	2003	2003	2003	2003	2003
	Percent	Number	Pounds Per Acre		Million Pounds
Fertilizers:					
Nitrogen	99	1.3	51	71	22.5
Phosphate	58	1.0	13	14	2.5
Potash	8	1.0	19	21	0.5
	Percent	Number	Pounds Per Acre		1,000 Pounds
Herbicides:					
2, 4-D	34	1.0	0.43	0.46	50
Bromoxynil	17	1.0	0.31	0.33	18
Carfentrazone-ethyl	6	1.0	0.008	0.008	**
Chlorsulfuron	3	1.0	0.008	0.008	**
Fenoxaprop	2	1.2	0.08	0.10	1
Glyphosate	36	1.0	0.44	0.46	53
MCPA	42	1.0	0.52	0.54	73
MCPA, dimethyl. salt	4	1.0	0.63	0.63	7
Metsulfuron-methyl	22	1.0	0.004	0.004	**
Thifensulfuron	31	1.0	0.01	0.01	1
Tralkoxydim	6	1.0	0.19	0.19	4
Triallate	33	1.0	1.22	1.27	133
Tribenuron-methyl	24	1.0	0.005	0.005	**

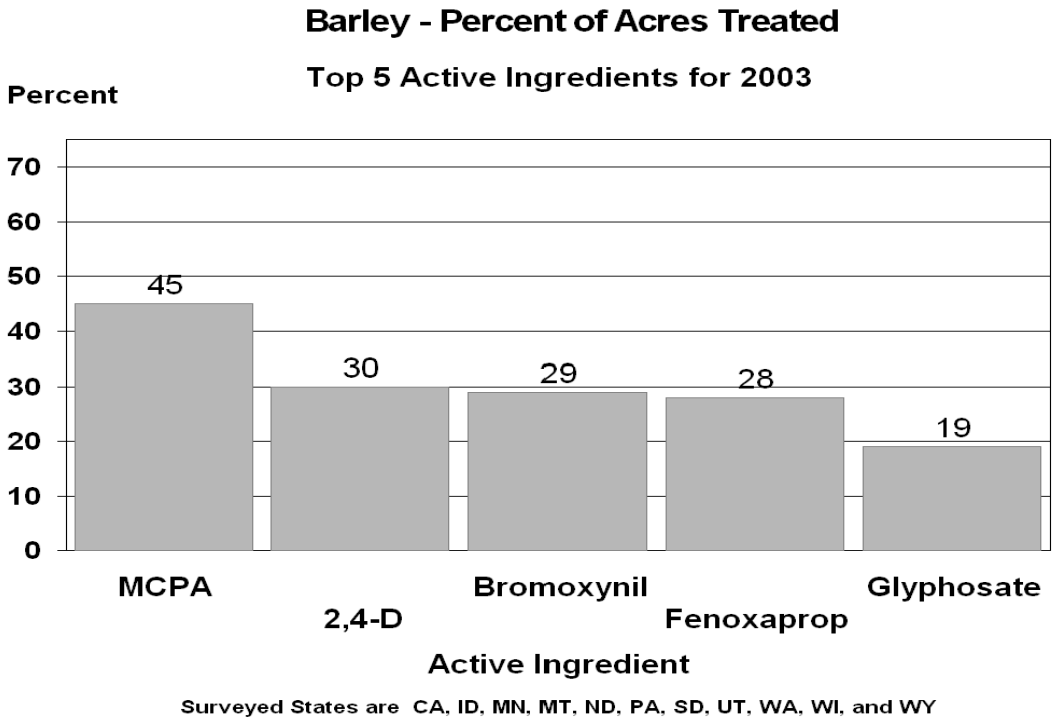
1/ Area planted in 2003 was 320,000 acres.

2/ Insufficient reports in 2003 to publish data for the following chemicals: Herbicides: 2,4-D, Dimeth. salt; 2,4-DP, Dimeth. salt; Acetic acid; Bromoxynil octanoate; Butoxy. ester 2,4-D; Clopyralid; Dicamba; Difenzoquat; Diuron; Fluroxypyr; Imazamethabenz; Paraquat; Picloram; Prosulfuron; Triasulfuron. Other Chemicals: Monocarbamide dihyd.

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

*** Total applied is less than 500 lbs. Note: Data may not multiply across due to rounding.*

Source: "Agricultural and Chemical Usage - 2003 Field Crops Summary": National Agricultural Statistics Service, USDA.

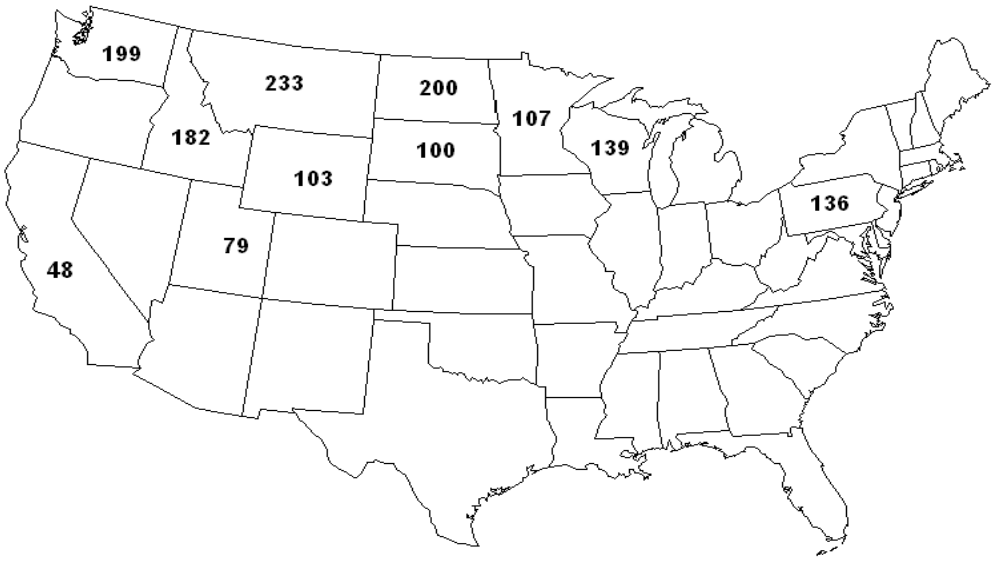


TRADE NAMES, COMMON NAMES, AND CLASSES

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.

Class	Common Name	Trade Name
H	2, 4-D	Agsco, Amine, Barrage, Class, DMA, Dacamine, Defy, Envy, Formula, Hi-Dep, Riverside, Salvo, Savage, Shotgun, Starane, Tiller, Turret, Weed Rhap, weedar, Weedmaster
H	bromoxynil	Brominal, Bromox/MCCPA, Bromoxynil, Bronate, Buctril, Buctril+Atrazine, Moxy+Atrazine, Rhino
H	carfentrazone-ethyl	Aim, Priority, Shark
H	chlorsulfuron	Finesse, Glean
H	fenoxaprop	Puma, Tiller
H	glyphosate	Bronco, Buccaneer, Clear-Out, Cornerstone, Credit, Engame, Expert, Fallow Master, Field Master, Gly Star, Glyfos, Glymix, Glyphomax, Glyphosate, Honcho, Landmaster, Mirage, RT Master, Rattler, Ready Master, Roundup
H	MCPA	Agsco, Bromox, Bronate, Chiptox, Curtail, Dagger, MCP Ester, MCP Amine, Rhino, Rhomene, Rhonox, Starane+Sword, Sword, Tiller, Weedone, Wildcard
H	metsulfuron-methyl	Ally, Finesse, Valuron
H	thifensulfuron	Ally, Basis, Harmony, Pinnacle, X-TRA Cheyenne
H	tralkoxydim	Achieve
H	triallate	Buckle, Far-Go
H	tribenuron-methyl	Ally Extra, Express, Harmony, X-TRA Cheyenne

Barley: Number of Usable Reports, 2003



Barley: Pest Management Practices, Washington and Program States, 2003

Practices	WA	Program States	WA	Program States
	Percent of Acres Receiving		Percent of Farms Utilizing	
Prevention Practices:				
No-till/minimum till used to manage pests	32	34	22	27
Remove or plow down crop residue	16	25	26	29
Clean implements after fieldwork	47	43	45	30
Field cultivated for weed control				
Field edges/etc. chopped, mowed/etc.	23	27	29	25
Water management practices	*	4	*	3
Avoidance Practices:				
Adjust planting/harvesting dates	8	7	5	7
Rotate crops to control pests	79	67	75	58
Planting locations planned to avoid pests	10	11	10	9
Grow trap crop to control insects				
Seed variety chosen for pest resistance	17	11	15	8
Monitoring Practices:				
Scouting by general observation	26	46	29	44
Deliberate scouting activities	68	49	67	44
Field was not scouted	7	5	4	12
Scouting due to pest advisory warning	1	4	2	8
Scouting due to pest development model	2	3	3	3
Scouted for weeds	93	94	96	87
Scouting for weeds was done by:				
Operator, partner, or family member	58	86	65	88
An employee	*	*	*	*
Farm supply or chemical dealer	39	7	34	6
Indep. crop consultant or comm. scout	3	6	*	6
Scouted for insects and mites	42	64	36	58
Scouting for insects/mites was done by:				
Operator, partner, or family member	50	84	64	89
An employee	1	1	*	*
Farm supply or chemical dealer	44	7	35	5
Indep. crop consultant or comm. scout	6	8	1	6
Scouted for diseases	56	63	51	53
Scouting for diseases was done by:				
Operator, partner, or family member	54	84	63	89
An employee	1	1	1	*
Farm supply or chemical dealer	42	7	36	5
Indep. crop consultant or comm. scout	4	9	1	6
Records kept to track pests	30	18	30	14
Field mapping of weed problem	8	8	11	6
Soil/plant tissue analysis to detect pests	4	3	2	2
Weather monitoring	63	44	69	34
Biological pest controls				
Suppression Practices:				
Biological pesticides	1	1	*	*
Beneficial organisms				
Scouting used to make decisions	17	12	15	9
Maintain ground cover or physical barriers	23	21	20	18
Adjust planting methods				
Alternate pesticides with different MOA	43	25	53	18

* *Less than 0.5 percent.*