



Wisconsin Ag News – Chemical Use

Barley: Fall 2019

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Cooperating with Wisconsin Department of Agriculture, Trade and Consumer Protection

May 8, 2020

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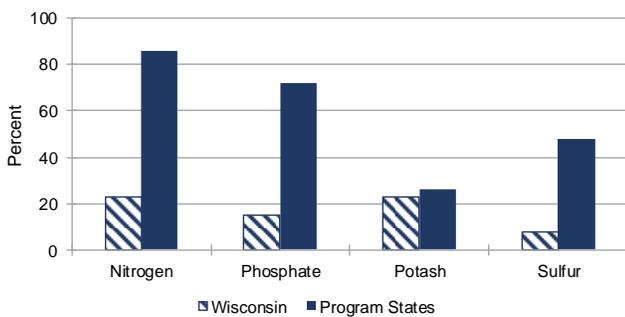
The National Agricultural Statistics Service (NASS) Agricultural Chemical Use Program is the U.S. Department of Agriculture’s official source of statistics about on-farm and post-harvest fertilizer and pesticide use and pest management practices.

In the fall of 2019, NASS collected data for the 2019 crop year, the one-year period beginning after the 2018 harvest and ending after the 2019 harvest, about chemical use and pest management practices used on Barley production. The data was collected as part of the Agricultural Resource Management Survey (ARMS) and the results are presented here.

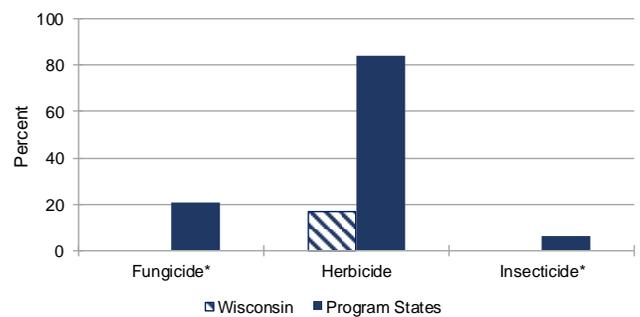
Fertilizer Use: Of the three primary macronutrients, nitrogen (N) and potash (K) were the most widely used on Barley. Wisconsin farmers applied nitrogen and potash to 23 percent of planted acres at an average rate of 50 and 82 pounds per acre per year, respectively. Macronutrient phosphate (P) was applied at an average rate of 37 pounds per acre per year. The secondary macronutrient, sulfur (S), was applied to 8 percent of acres planted to Barley.

Pesticide Use: Herbicide active ingredients were applied to 17 percent of the Barley acres planted in Wisconsin. 2,4-D 2-Ethylhexyl ester was applied to 5 percent of the planted acres, at an average yearly rate of 0.382 pounds per acre.

Fertilizers, Barley Planted Acres Treated Wisconsin and Program States - 2019



Pesticides, Barley Planted Acres Treated Wisconsin and Program States: 2019



* Withheld to avoid disclosing data for individual operations.

Fertilizer Use On Barley – Wisconsin and Program States: 2019

Active ingredient	Wisconsin			Program states ¹		
	Planted acres treated (percent)	Yearly rate (lbs per acre)	Total applied (1,000 lbs)	Planted acres treated (percent)	Yearly rate (lbs per acre)	Total applied (1,000 lbs)
Nitrogen	23	50	300	86	67	150,300
Phosphate	15	37	100	72	33	60,800
Potash	23	82	500	26	22	15,100
Sulfur	8	11	(Z)	48	13	15,700

(Z) Less than half the rounding unit.

Pesticide Use On Barley – Wisconsin and Program States: 2019

Active ingredient	Wisconsin			Program states ¹		
	Planted acres treated (percent)	Yearly rate (lbs per acre)	Total applied (1,000 lbs)	Planted acres treated (percent)	Yearly rate (lbs per acre)	Total applied (1,000 lbs)
Fungicide:						
Total ²	(D)		(D)	21		81
Herbicide:						
2,4-D, 2-EHE	5	0.382	(Z)	11	0.358	104
Total ²	17		2	84		1,829
Insecticide:						
Total ²	(D)		(D)	6		5

¹ The 14 program states surveyed about Barley in the 2019 ARMS were Arizona, California, Colorado, Idaho, Minnesota, Montana, North Dakota, Oregon, Pennsylvania, South Dakota, Virginia, Washington, Wisconsin, and Wyoming.

² Total Fungicide, Herbicide, and Insecticide includes pesticides that are not listed in this table.

(D) Withheld to avoid disclosing data for individual operations.

(Z) Less than half the rounding unit.

Rotating crops during the past 3 years was the top **pest management practice** on **Barley** acreage.

Pest Management Practices, Barley – Wisconsin and Program States: 2019

	Wisconsin		Program states	
	% of area planted	% of operations	% of area planted	% of operations
Avoidance				
Crop or plant variety chosen for specific pest resistance	13	18	34	26
Planting locations planned to avoid cross infestation of pests	(Z)	2	23	17
Planting or harvesting dates adjusted	7	9	21	19
Rotated crops during past 3 years	87	76	77	68
Row spacing, plant density, or row directions adjusted	6	7	27	18
Monitoring				
Diagnostic laboratory services used for pest detection via soil or plant tissue analysis	2	2	8	6
Field mapping data used to assist decisions	3	1	18	11
Scouted-				
established process used	3	3	15	10
for pests due to a pest advisory warning	1	1	4	3
for pests due to a pest development model	0	0	8	5
for pests or beneficial organisms-not scouted	42	28	9	14
for pests or beneficial organism by conducting general observations while performing routine tasks	20	40	24	35
for pests or beneficial organism by deliberately going to the crop acres or growing areas	37	32	68	50
Scouted for diseases-				
by employee	30	40	70	59
by farm supply company or chemical dealer	6	16	3	3
by independent crop consultant or commercial scout	2	3	3	4
by operator, partner, or family member	5	1	14	13
by operator, partner, or family member	87	79	80	81
Scouted for insects & mites-				
by employee	40	38	69	56
by farm supply company or chemical dealer	5	17	3	3
by independent crop consultant or commercial scout	36	13	3	4
by operator, partner, or family member	4	1	14	13
by operator, partner, or family member	56	68	79	80
Scouted for weeds-				
by employee	42	64	87	80
by farm supply company or chemical dealer	5	10	2	2
by independent crop consultant or commercial scout	2	4	3	4
by operator, partner, or family member	3	1	13	11
by operator, partner, or family member	90	85	82	83
Weather data used to assist decisions	23	10	50	39
Written or electronic records kept to track pest activity	1	1	34	25
Prevention				
Beneficial insect or vertebrate habitat maintained	2	10	14	12
Crop residues removed or burned down	1	4	7	10
Equipment & implements cleaned after field work to reduce spread of pests	16	19	63	46
Field edges, ditches, or fence lines were chopped, sprayed, mowed, plowed, or burned	62	47	37	40
Field left fallow previous year to manage insects	0	0	6	4
Flamer used to kill weeds	0	0	1	2
No-till or minimum-till used	14	28	64	55
Plowed down crop residue using conventional tillage	20	27	25	29
Seed treated for insect or disease control after purchase	0	0	40	28
Water management practices used	3	2	11	11
Suppression				
Beneficial organisms applied or released	0	0	1	(Z)
Biological pesticides applied	0	0	2	2
Buffer strips or border rows maintained to isolate organic from non-organic crops	7	19	10	8
Floral lures, attractants, repellants, pheromone traps, or biological pest controls used	0	0	(Z)	1
Ground covers, mulches, or other physical barriers maintained	35	42	46	39
Pesticides with different mechanisms of action to keep pest from becoming resistant to pesticides	5	2	45	28
Scouting data compared to published information to assist decisions	6	3	24	16
Trap crop grown to manage insects	0	0	(Z)	1

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