



# AGRICULTURAL CHEMICAL USE

WHEAT 2009

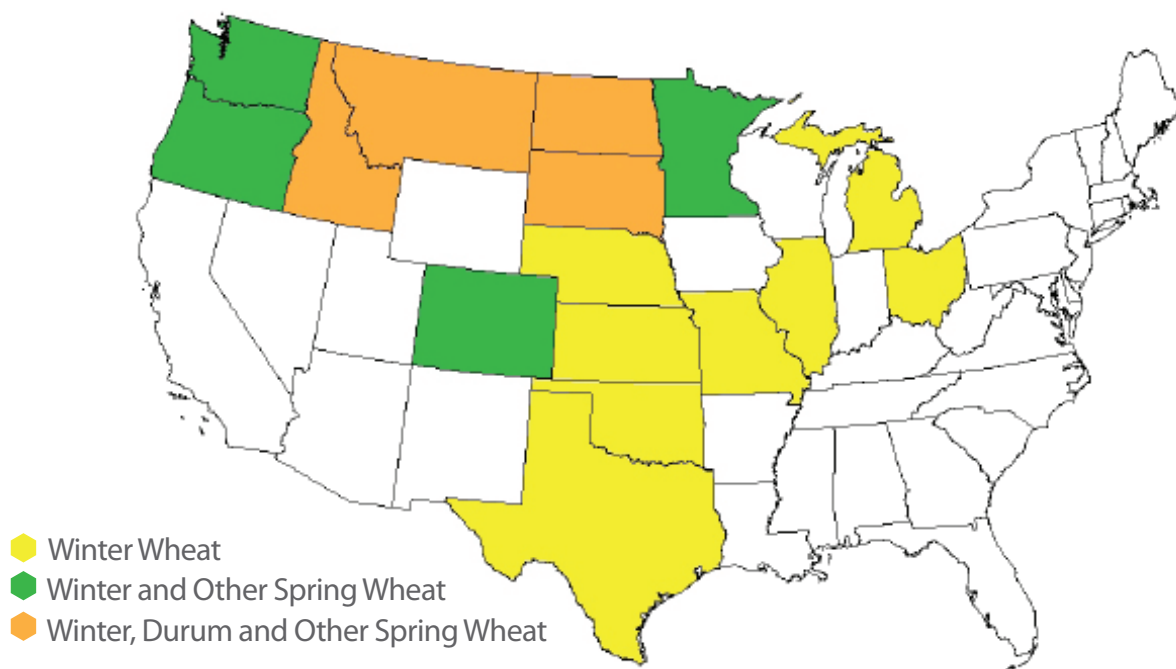
## Overview

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 2009, NASS collected data about chemical use and pest management on acres of conventional and organic durum wheat, other spring wheat and winter wheat that were planted for the 2009 crop year. These data were collected

as part of the Agricultural Resource Management Survey, and results were based on 2,399 individual responses from producers in 16 program states: Colorado, Idaho, Illinois, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas and Washington. These states accounted for 89 percent of the wheat acres planted nationwide in the 2009 crop year, including 88 percent of the durum acres, 99 percent of the other spring wheat acres and 86 percent of the winter wheat acres.

Agricultural Chemical Use Wheat Program States  
by Type of Wheat, 2009



United States Department of Agriculture  
National Agricultural Statistics Service

[www.nass.usda.gov](http://www.nass.usda.gov)

## Pesticides

In the 16 states surveyed, a total of 80 separate pesticide active ingredients were used on acres planted to winter wheat, 68 active ingredients were used on other spring wheat acres, and 47 were used on durum wheat acres. Herbicides were the most widely used of the three pesticide classes, applied to all of the durum wheat acres, nearly all of the other spring wheat acres and 60 percent of the winter wheat acres planted. Fungicides were applied to 36 percent of the acres planted to other spring wheat, 23 percent of the acres planted to durum wheat and 7 percent of acres planted to winter wheat. The use of insecticides was far less common. They were applied to 6 percent or less of the planted acreage for each wheat type.

## Herbicides

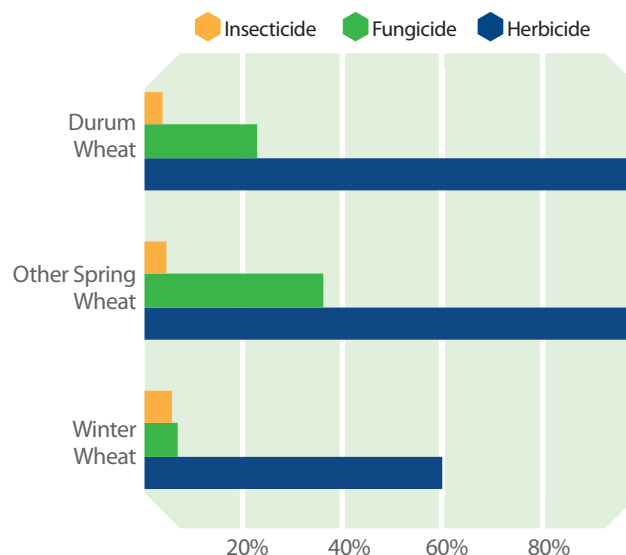
Herbicide active ingredients, which comprised the most widely used pesticide class, ranked highest in both percentage of planted acres treated and total amount applied for all three wheat types.

Glyphosate isopropylamine salt, though not always applied to the largest percentage of planted acres, was consistently applied in the greatest total amount. Per wheat type, the total amount of glyphosate isopropylamine salt used was over 3 times the amount of the second most applied active ingredient.

## Top Herbicides Used, by Percent Acres Treated, 2009 Program States

Active Ingredient		Acres Treated	Rate Per Crop Year	Total Applied
		%	Lbs/Acre	Lbs
Durum Wheat	Glyphosate isopropylamine salt	69	0.589	909,000
	Bromoxynil octanoic acid ester	59	0.188	248,000
	Fenoxaprop-p ethyl ester	43	0.059	57,000
Other Spring Wheat	Bromoxynil octanoic acid ester	43	0.193	1,098,000
	Glyphosate isopropylamine salt	42	0.718	3,976,000
	Fenoxaprop-p ethyl ester	32	0.059	251,000
Winter Wheat	Glyphosate isopropylamine salt	28	1.160	11,838,000
	2,4-D, 2-ethylhexyl ester	18	0.551	3,626,000
	Metsulfuron-methyl	16	0.003	15,000

## Pesticides: Percent of Planted Acres Treated, 2009 Program States



## Fungicides

Propiconazole was the most widely applied fungicide, used on 22 percent of acres planted to other spring wheat, 17 percent of durum wheat and 4 percent of winter wheat. Tebuconazole was the next most common fungicide, applied to 12 percent of other spring wheat acres, 8 percent of durum wheat and 1 percent of the winter wheat.

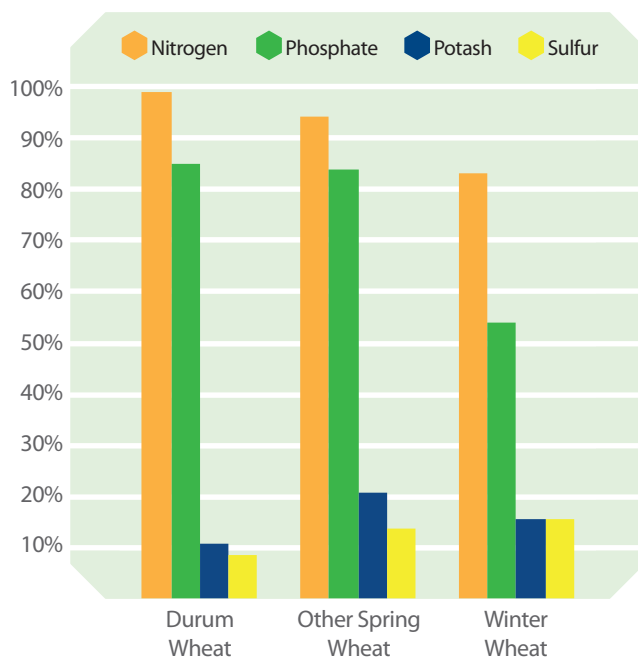
## Insecticides

Chlorpyrifos, the only insecticide used to a significant extent on wheat planted acreage, was applied to 3 percent of the durum and winter wheat acres and 2 percent of other spring wheat acres.

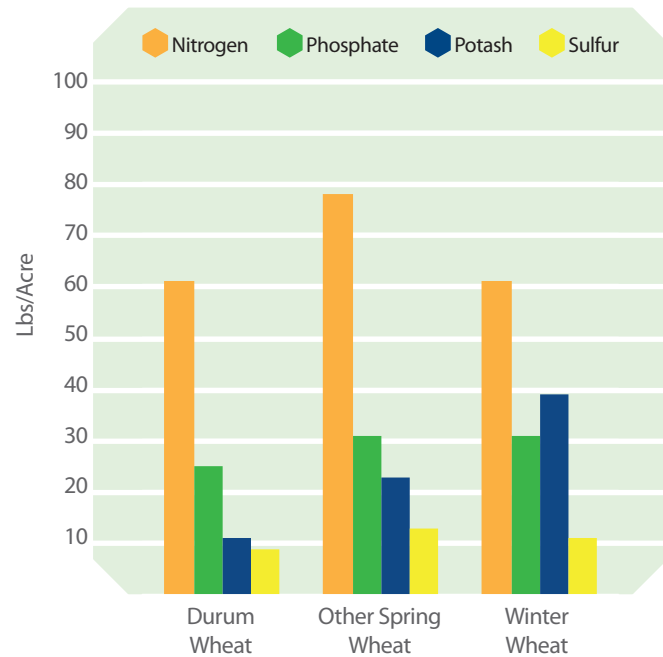
## Fertilizers

Nitrogen, the most widely used fertilizer ingredient, was used on nearly all acres planted to durum and other spring wheat, while phosphate was applied to more than 80 percent of those acres. Nitrogen was applied to 83 percent of the winter wheat acres, while phosphate was applied to 54 percent. Potash and sulfur were used less extensively.

**Fertilizers: Percent of Planted Acres Treated, 2009 Program States**



**Fertilizers: Rate per Crop Year, 2009 Program States**



## Pest Management Practices

Wheat growers reported using several management practices to aid in the deterrence of pests through prevention, avoidance, monitoring and suppression.

### Top Pest Management Practices by Percent of Planted Acres, 2009 Program States

Top Practice		Durum Wheat	Other Spring Wheat	Winter Wheat
Prevention	No-till or minimum till used	91%	65%	55%
Avoidance	Rotated crops during past 3 years	73%	68%	36%
Monitoring	Scouted for weeds (deliberately, or by general observations while performing routine tasks)	97%	97%	84%
Suppression	Ground covers, mulches, or other physical barriers maintained	60%	55%	39%

### For More Information

The 2009 agricultural chemical use data for wheat were published May 19, 2010 and are available through the Quick Stats database on the NASS Web site: [www.nass.usda.gov](http://www.nass.usda.gov).

To access the database directly, go to '[quickstats.nass.usda.gov](http://quickstats.nass.usda.gov)' and under 'Sector,' select 'Environmental.'

For assistance call the Agricultural Statistics Hotline at (800) 727-9540.

NASS will publish additional data from the Agricultural Chemical Use Program through 2011, including:

- Fruits, 2009 Crop Year - July 28, 2010
- Nursery and Floriculture, 2009 Crop Year - January 2011
- Post-harvest Wheat, 2010 Marketing Year - March 2011
- Corn, Organic Corn, Upland Cotton and Fall Potatoes, 2010 Crop Year - May 2011
- Vegetables, 2010 Crop Year - July 2011

