NASS *Highlights*

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2025 AGRICULTURAL CHEMICAL USE SURVEY

Cotton

Thirteen states. . .

. . . accounted for 97% of U.S. acres planted to cotton in 2025.

About the Survey

The Agricultural Chemical Use Program of USDA's National Agricultural Statistics Service (NASS) is the federal government's official source of statistics about on-farm and post-harvest commercial fertilizer and pesticide use and pest management practices. NASS conducts field crop agricultural chemical use surveys as part of the Agricultural Resource Management Survey. NASS conducted the cotton chemical use survey in the fall of 2025.

Access the Data

Access 2025 and earlier cotton chemical use data through the Quick Stats database (http://quickstats.nass.usda.gov).

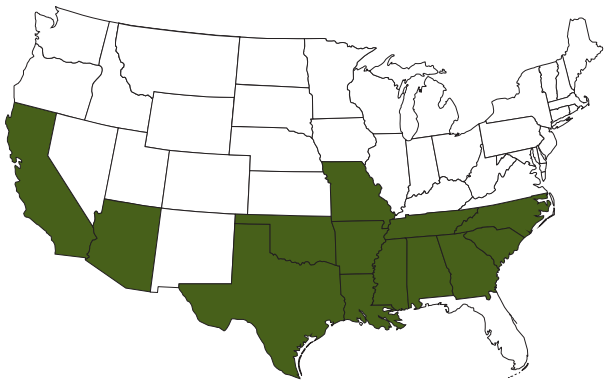
- In Program, select "Survey"
- In Sector, select "Environmental"
- In Group, select "Field Crops"
- In Commodity, select "Cotton"
- Select your category, data item, geographic level, and year

For pre-defined Quick Stats queries, go to http://bit.ly/AgChem and click "Data Tables" under the 2025 Cotton and Potatoes heading. For methodology information, go to http://bit.ly/AgChem and click "Methodology."

The 2025 Agricultural Chemical Use Survey of cotton producers collected data about fertilizer and pesticide use as well as pest management practices in growing cotton. NASS conducted the survey among cotton producers in thirteen states that accounted for 97% of the 9.3 million acres planted to cotton in the United States in 2025: Alabama, Arizona, Arkansas, California, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. (Fig. 1 and Table 4)

The data are for the 2025 crop year, the one-year period beginning after the 2024 harvest and ending after the 2025 harvest.

Fig. 1. States in the 2025 Cotton Chemical Use Survey



Fertilizer Use

Fertilizer refers to a soil-enriching input that contains one or more plant nutrients. For the 2025 crop year, farmers applied nitrogen to 58% of planted acres, at an average rate of 81 pounds per acre, for a total of 387.9 million pounds. They applied phosphate to 34% of planted acres, potash to 35%, and sulfur to 21% of planted acres. (Table 1)

Table 1. Fertilizer Applied to Cotton Planted Acres, 2025 Crop Year

	% of Acres with Nutrient [a]	Average Rate (lbs/acre/year)	Total Applied (mil lbs)
Nitrogen (N)	58	81	387.9
Phosphate (P_2O_5)	34	42	118.3
Potash (K_2O)	35	55	158.6
Sulfer (S)	21	13	23.1

[a] *Acres with multiple nutrients are counted in each category.*

Pesticide Use

The pesticide active ingredients used on cotton are classified in this report as herbicides (targeting weeds), insecticides (targeting insects), fungicides (targeting fungal disease), and other chemicals (targeting all other pests and other materials, including extraneous crop foliage). Herbicides were used most extensively, applied to 88% of planted acres. Other chemicals were applied to 54% of planted acres, insecticides to 39%. (Fig. 2)

Among herbicides, glyphosate isopropylamine salt was the most widely used active ingredient (applied to 55% of planted acres), followed by glufosinate-ammonium (35% of planted acres). Paraquat was applied to 30% of the planted acres. (Table 2)

Fig. 2. Pesticides Applied to Cotton Planted Acres, 2025 Crop Year
(% of planted acres)

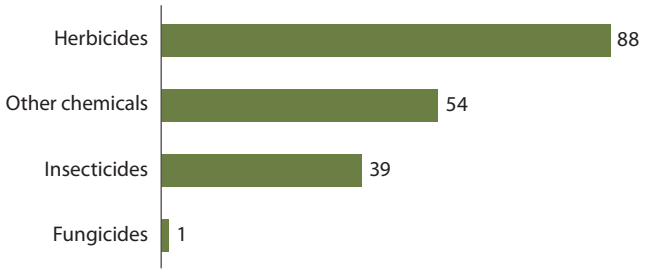


Table 2. Top Herbicides Applied to Cotton Planted Acres, 2025 Crop Year

Active Ingredient	% of Acres with Ingredient[a]	Average Rate (lbs/acre)	Total Applied (mil lbs)
Glyphosate isopropylamine salt	55	1.518[b]	6.9[b]
Glufosinate-ammonium	35	0.854	2.4
Paraquat	30	0.644	1.6
Diuron	21	0.390	0.7
Glyphosate potassium salt	21	1.798[b]	3.1[b]

[a] *Acres with multiple ingredients are counted in each category.*
[b] *Expressed in acid equivalent.*

Pest Management Practices

The survey asked growers to report on the practices they used to manage pests, defined as weeds, insects, or diseases. Cotton growers reported practices in four categories: prevention, avoidance, monitoring, and suppression (PAMS).

- *Prevention* practices involve actions to keep a pest population from infesting a crop or field.
- *Avoidance* practices use cultural measures to mitigate or eliminate the detrimental effects of pests.
- *Monitoring* practices observe or detect pests by systematic sampling, counting, or other forms of scouting.
- *Suppression* practices involve controlling or reducing existing pest populations to mitigate crop damage.

The most widely used prevention practice in growing cotton was cleaning equipment and implements after field work, used on 67% of planted acres. The top avoidance practice was choosing crop varieties for specific crop resistance (55%). Scouting for insects, weeds, and diseases was the most widely used monitoring practice (57%), and using pesticides with different mechanisms of action was the top suppression practice (37%). (Table 3)

Table 3. Top Practice in Pest Management Category, 2025
(% of cotton planted acres)

Prevention: Equipment and implements cleaned after completing field work to reduce spread of pests	67
Avoidance: Crop variety chosen for specific pest resistance	55
Monitoring: Scouted for insects, weeds, and diseases by deliberately going to the crop acres	57
Suppression: Used pesticides with different mechanisms of action	37

Table 4. U.S. and Surveyed States: Acres of Cotton Planted, 2025

U.S. Total	Thousands of Acres 9,282.5	% of U.S. 100
Texas	5,321	57.3
Georgia	835	9.0
Arkansas	520	5.6
Oklahoma	390	4.2
Missouri	355	3.8
Mississippi	330	3.6
Alabama	290	3.1
North Carolina	285	3.1
Tennessee	205	2.2
South Carolina	170	1.8
California	110	1.2
Arizona	103	1.1
Louisiana	90	1.0
Total, Surveyed States	**9,004**	**97.0**

Numbers may not add due to rounding.

USDA AGRICULTURE COUNTS

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