

# Field Facts: Kochia

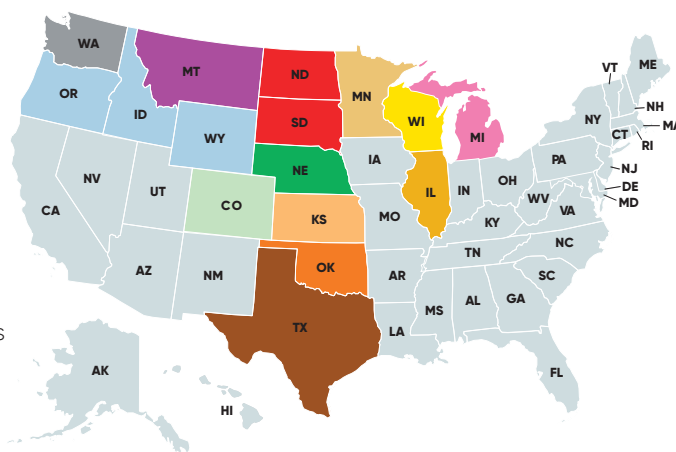
## Kochia can hurt both corn and soybean yield. Help customers control it this year.

Kochia is an early-emerging summer annual weed that causes headaches across the Midwest, northern Plains and Northwest each year. If left to flourish, the weed can cause up to 70% yield loss in row crops.<sup>1</sup> Controlling kochia early in the season is the best bet for protecting corn and soybeans.

- **Common names:** Kochia, fireweed, burning bush, mirabel, mock cypress
- **Scientific name:** *Kochia scoparia*
- **Cotyledons:** Lance- or linear-shaped, dull green and smooth
- **Leaf shape:** Lance- or linear-shaped, grayish green and flat with soft hairs
- **Stems:** Branched, round and purple to red in color with hairs
- **Flowers:** Green flowers with hairy bracts
- **Reproduction:** Monoecious (male and female attributes on one plant)

### Fast facts

- Kochia is an early-emerging summer annual weed. For example, it can appear as soon as February in Kansas.<sup>1</sup>
- Known for creating tumbleweeds, kochia is highly adaptable to hot, dry weather.
- Kochia plants can grow up to 6 feet tall with roots that can extend 15 feet into the soil.<sup>1</sup>
- A single adult kochia plant can produce up to 30,000 seeds.<sup>1</sup>
- Heavy infestations of kochia are known to cause as much as 70% yield loss in row crops. The plants also can interfere with harvest by getting tangled up in machinery.<sup>1</sup>
- Populations of kochia have been found with resistance to four herbicides: Group 2 (ALS inhibitors), Group 4 (synthetic auxins), Group 6 (photosystem II inhibitors) and Group 9 (EPSP synthase inhibitors).<sup>1</sup>
- According to The Internal Survey of Herbicide Resistant Weeds, herbicide-resistant kochia has been found in crops in 16 states. In addition, the weed has shown resistance to herbicides in non-crop areas like railways, roadsides and industrial sites in Indiana, Iowa, Indiana, New Mexico and Utah.



#### Crops With Resistant Kochia

- Corn, Cropland, Wheat, Cotton, Sorghum, Soybeans
- Corn, Wheat, Cereals
- Cropland, Wheat, Cereals
- Corn, Wheat, Sugar Beets
- Corn
- Corn, Soybean, Cropland, Wheat
- Wheat, Cereals
- Corn, Cropland, Wheat
- Corn, Wheat
- Cropland, Wheat
- Sugar Beets
- Corn, Soybean
- Wheat

### Control tips

- It's important to control kochia early in the season, because it's very difficult to control postemergence. That said, creating a strong weed control program approach with burndown, preemergence and postemergence herbicides that includes residual activity is key.
  - In corn, a burndown application with Starane® Ultra herbicide, followed by a preemergence application of SureStart® II herbicide and then a timely postemergence application of Resicore® herbicide can be effective at controlling kochia.
  - In soybeans, a burndown application with Elevore® herbicide, followed by a preemergence application of Kyber™ herbicide and then a timely postemergence application of DuPont™ EverpreX® herbicide can be effective at controlling kochia.
  - In Enlist E3® soybeans, a burndown application with Elevore® herbicide, followed by a preemergence application of Kyber™ herbicide and then a timely postemergence application of a tank mix of Enlist One® herbicide + Liberty® herbicide, the preferred glufosinate tank-mix partner with Enlist One can be effective at controlling kochia.
- Rotation between grass and broadleaf crops can help keep kochia at bay. Winter wheat is particularly good for suppressing the weed.<sup>1</sup>

<sup>1</sup>United Soybean Board. 2021. Kochia. <https://iwilltakeaction.com/weed/kochia>

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