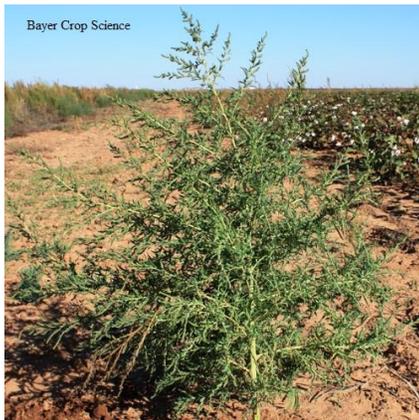




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### KOCHIA MANAGEMENT TIPS

Kochia, a member of the Goosefoot family, is a rounded, usually soft-hairy, much branched annual that grows one to six feet tall. It typically forms pyramid or coned shaped bushes. The flowers are inconspicuous, found in the upper axils of the leaves, and form short, dense, bracted spikes. Reproduction is only by seed. Seeds are scattered as mature plants break off at ground level and tumble along with the wind. Kochia is well adapted to dry environments, and is commonly found in dryland agriculture fields, overgrazed rangeland and waste areas. Kochia competes with crops by stealing valuable moisture from cropland, reducing crop yields.



**Management must be planned over several consecutive growing seasons at a site and should focus on preventing seed production and dispersal. The area should be monitored for new growth until the seed bank is depleted and any new plants that emerge from seeds should be controlled appropriately.**

## Effective control measures for the management of kochia include:

1. **Mechanical (mowing & hand pulling):** Mowing before plants flower can reduce seed production. Hand pulling can be effective on small patches of young plants.

**Herbicide: Always follow directions on the label. The label is the law!** Calibrate your equipment to ensure that you are adding the proper amount of herbicide to your tank. The following herbicides are commonly used to control kochia. *For the most effective control, apply herbicides in the seedling to very young plant growth stage.*

### Mixing rates in small backpack or hand sprayers are as follows:

Clarity:	1 oz herbicide to 1 gallon of water (seedlings/young plants).
Vista XRT:	2.5 teaspoons herbicide to 1 gallon of water (seedlings/young plants). (Use of methylated or ethylated seed oil as well as tank mixing with 2,4-D Ester will improve performance).
Glyphosate:	1 – 2 oz herbicide to 1 gallon of water (seedlings/young plants). Glyphosate will kill grasses as well as forbs.

### Rates in large sprayers are as follows:

Clarity:	1 quart herbicide per acre (seedlings/young plants).
Vista XRT:	12 oz herbicide per acre (seedlings/young plants). (Use of methylated or ethylated seed oil as well as tank mixing with 2,4-D Ester will improve performance).
Glyphosate:	1 – 2 quarts herbicide per acre (seedlings/young plants). Glyphosate will kill grasses as well as forbs.

**NOTE:** Adding a surfactant to your tank mix may enhance the performance of your herbicide and is required for certain herbicides (read the label). Add 0.5 - 1 oz per gallon of water for backpack sprayers or 1 – 2 pints per 100 gallons for large sprayers.

2. **Cultural (tilling & revegetation):** Tilling can be effective for controlling young seedling plants, but may also stimulate more germination. Planting and maintaining desirable, competitive species will help slow the spread of kochia.
3. **Integrated management:** Management of kochia is more effective when more than one strategy is used.