

KOCHIA

(*Kochia scoparia* L.)



KOCHIA

State Noxious Weed List: **No.**

Kochia, also referred to as fireweed, summer-cypress or Mexican firebush, is a member of the Chenopodiaceae or goosefoot family. Kochia is native to Eurasia and was introduced to the United States in the early 1900s as an ornamental. Kochia is palatable to livestock and has good forage quality when grazed early in the season. Kochia sometimes is referred to as tumbleweed.

Identification and growth:

Kochia is a taprooted annual forb that typically grows from 1 to 6 feet tall. Stems of the plant are erect and spreading, much branched from the base and usually soft-hairy, but occasionally smooth. Stems are usually yellowish-green to green and often turn red with maturity. Leaves of the plant are alternate, lance-shaped and 0.5 to 2 inches long and have fringed hairs on the margins. The upper surface of the leaf is usually smooth and the lower surface usually is covered with soft hairs. Kochia flowers are inconspicuous and greenish and form short, dense, terminal, bracted spikes. Flowering generally occurs from July to September.

Kochia reproduces only by seed with more than 14,000 seeds produced per plant. Seeds are oval or egg shaped, dull brown, slightly ribbed and dispersed in the fall when the plant becomes a tumbleweed. Seeds germinate in the spring and have little or no seedbank viability and either germinate or decay in one year.

Why is this plant a concern?

Although kochia has been grown as a drought-resistant forage and may have reclamation value on disturbed land, the plant is a serious cropland weed. Kochia is an exceptionally competitive weed and a few uncontrolled plants can cause severe yield losses. Kochia is highly adaptable and can be found on pasture, rangeland, road sides, ditch banks, wastelands and cultivated fields.

Kochia can contain high nitrate levels and is toxic if overgrazed. Nitrate poisoning in livestock causes bloat and photosensitization. Toxic substances identified within the plant include saponins, alkaloids, nitrates and oxalates. Kochia is a main contributor to fall hay fever sufferers.

How do I control this plant?

Chemical. Kochia has become resistant to several commonly used herbicides. ALS herbicides provide good kochia control unless resistant populations are present. Tank-mixing ALS herbicides with other broadleaf herbicides with differing modes of action is required to reduce the risk of resistant kochia becoming established. Starane (fluoxypryr) provides excellent control of ALS-, triazine- and dicamba-resistant kochia. Dicamba plus MCPA or bromoxynil plus MCPA will control small kochia plants. In many fields, 2,4-D and MCPA no longer control kochia due to repeated use and near eradication of susceptible kochia biotypes.

Mechanical. Early tillage in the spring provides good control when conducted during the seedling stage of the plant. Mowing kochia prior to flowering reduces seed production but may not kill the plant.

Biological. No biological agents or pathogens are available for this weed.