



# Kochia

*Kochia scoparia*

Kochia is an annual forb growing from 2 to 5 feet tall beginning in late spring. Stems are erect, much-branched and leafy. Leaves, arranged alternately on the stems, turn bright red with age.

Interest in the plant as a feed source has been high because it can produce the same amount of forage per acre as alfalfa with half the water; hence, the plant is often called “poor man’s alfalfa.”

## Distribution and habitat

An annual plant originating in Eurasia, kochia was introduced into America in the early 1900s. Its appearance was first recorded in Texas during the late 1940s.

Found throughout most of the United States, it occurs locally on disturbed sites and in old fields. Regions: 2, 7, 8, 9, 10.

## Toxic agent

The plant contains a number of agents that could contribute to its toxicity: oxalates, alkaloids, saponins, nitrate and sulfate. Oxalates bind calcium, and a rapid drop in blood calcium levels can cause sudden death.

The saponins may damage the liver in some animals, causing photosensitization. Other cases may develop polioencephalomalacia, possibly because of the high sulfate.

## Livestock signs

Several potential syndromes from kochia poisonings include (see Animal Conditions for specific signs):

- Polioencephalomalacia (“polio”)
- Oxalate poisoning
- Photosensitization
- Liver damage
- Nitrate poisoning

## Integrated management strategies

Two treatments have been used with varying degrees of success to counteract oxalate poisoning from kochia: injecting calcium gluconate intravenously; and feeding dicalcium phosphate free-choice at 25 percent of the usual salt ration. The latter treatment is often used as a preventive measure when cattle or sheep are grazing pastures heavily infested with kochia.

Use caution when cattle grazing kochia are allowed access to water high in salt. Some ranchers lowered toxicity problems by feeding free-choice hay straw to their animals. Treat polio cases with vitamin B<sub>1</sub> (thiamine).

In general, do not graze cattle on kochia for more than about 60 days. Despite its drawbacks, kochia can sometimes be considered a valuable forage.

