

**A LITTLE BIT COUNTRY
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Recommendations for Kochia Control

Kochia is one of the most troublesome weeds for crop growers. It is an exceptionally competitive weed and a few uncontrolled plants can cause severe yield losses. Most kochia have some resistance to ALS herbicides. Tank-mixing ALS herbicides with other effective broadleaf herbicides with differing modes of action are suggested to slow development of resistant kochia. Banvil/generics, Huskie, Starane and Widematch control ALS susceptible and resistant kochia. Bromate or generic equivalents or Aim give good control but kochia should be small and spray coverage adequate.

Surprisingly Tordon and Stinger are not effective on kochia and 2,4-D and MCPA no longer control kochia due to resistance from repeated use and near eradication of susceptible biotypes. Additionally, 2,4-D and MCPA do not translocate readily in kochia.

NDSU Weed Scientist, Dr. Rich Zollinger, tells us to treat plants when small, that is less than three inches tall. Kochia seed is short-lived in soil so two or three years of excellent control can greatly reduce kochia populations.

The dinetroaniline (DNA) herbicides do not give consistent kochia control; however, Sonalon may improve control. Flexstar or Reflex applied with MSO adjuvant in high water volumes of 20 gpa to small kochia may give good postemergence control.

Potential for Foxtail Problems

Weather to date looks like spring planting may be later than normal. Such would be favorable for two more troublesome weeds - green and yellow foxtail.

The foxtails are most competitive when small grains are seeded late and soil temperatures are warm for foxtail germination and rapid growth.

Making a decision on whether to control foxtail in small grains is not always easy. Research from NDSU and in Canada has shown that foxtail often will not decrease wheat and barley yields; however, heavy foxtail infestations can cause harvest problems (especially when straight

combining) can cause dockage at the elevator. Herbicide treatment for foxtail may not be warranted when foxtail infestations are light – less than 30 plants/sq. ft., and when foxtail emerges after the crop is in the three to four leaf stage. This is especially true for barley. Once the small grain is in the three to four leaf stage, it can usually out-compete emerging foxtail. Chemical control is warranted when the foxtail population is heavy (100 plants/sq. ft. or more). Foxtail also may contribute to moisture stress and cause greater yield loss under drought conditions. Foxtail emerging at the same time or before small grain is more competitive than when emerging after small grain.