

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Ragweed Impact on Pasture Production

For those who suffer from seasonal allergies, ragweed can be one of the biggest challenges of fall. Many times, pasture managers get concerned about the presence of this native plant in their pastures. Work conducted at the Kansas State University Agricultural Research Center in Hays by Keith Harmony and other researchers has shown that we might need to look differently at this plant.

Western ragweed is one of the most common native forbs found throughout Kansas rangelands. It is a perennial plant that can form dense colonies from the growth of lateral creeping rootstalks. Western ragweed is used by wildlife for cover and food. The high protein content of its seed makes the plant a valuable staple of bobwhite quail and other grassland birds. Cattle also graze on the native forb. In a long-term grazing trial, cattle utilized up to 50% of the western ragweed produced in moderately stocked pastures. In the trial, more western ragweed was found in lightly stocked pastures than those more heavily stocked.

A grazing trial was conducted on short to midgrass native pastures at the Hays research center to determine if controlling western ragweed could improve animal gains. Four pastures were treated with dicamba shortly after animal stocking in all pastures. The treatment significantly reduced western ragweed density in the sprayed pastures by mid-season of that year as compared to unsprayed pastures.

Nevertheless, almost no ragweed was left in sprayed pastures at the end of the season because plants that initially survived the treatment died by late season. In October, at the end of the season, available ragweed yield and ragweed as a percentage of total dry matter available was greater in unsprayed pastures. However, the ragweed in the unsprayed pastures did not affect grass yield, as the available yield (1,976 lbs./acre) and total yield (2,135 lbs./acre) were not different between treated pastures and untreated pastures. Animal gains between sprayed and unsprayed pastures also were the same throughout the grazing season, with gains averaging 211 lbs./hd.

Grass yield, total pasture yield and animal gains again were similar between sprayed and unsprayed pasture in later studies. The nutritive value of western ragweed and grass also was directly compared in the unsprayed pastures at both mid-season and late season. Western ragweed had greater crude protein (CP) and total digestible nutrient (TDN) content than the harvested grass at all periods in both years (CP 11.7% and TDN 67.2% vs. 7.2% and 47.2%, for western ragweed vs. grass, respectively).

Producers often view western ragweed as a weedy forb, but this study showed ragweed did not affect grass yield, total pasture yield or animal gain. Past research in Kansas has shown that western ragweed needs to be 35% or more of the dry matter composition in a pasture stand to reduce grass growth. The sight of western ragweed may be undesirable to many folks, but it is a natural and native component in Kansas rangelands that provides benefits to wildlife and has the potential to be a higher quality forage for late-season cattle diets.