# Interseeding Forage Kochia Into Established CRP Land

*Project Participants: Jeffery Banks and Ron Harper*

**Summary:** Ron Harper of Levan, UT has found that forage kochia is a good source of winter feed for cattle and a wide variety of wildlife and birds. This research focused on establishing forage kochia in existing stands of grass. Harper and Jeff Banks, Juab County Extension Agent, tested two levels of interseeding forage kochia on established CRP land. In the spring of 2006, they established a 114-acre demonstration plot area with 20 plots. Each plot was 47 feet wide by one mile long and separated by strips of grass to reduce wind and water erosion. A 47-foot chisel plow (one pass with the plow/plot) was used to thin grass by 25% in 10 of the

plots. The remaining 10 plots were thinned by 50% (two passes with the plow/plot). On January 2, 2007, the plots were aerial seeded with 2.2 lbs/acre of bulk seed planted on top of 5-6 inches of snow. Throughout the growing season, the area received less than 50% of normal precipitation. Despite the lack of precipitation, forage kochia successfully established in both treatments. Plots with two passes contained more forage kochia that plots with one pass.

**Objectives**

1. Establish and demonstrate the results of interseeding forage kochia in existing CRP land.
2. Present the details of the plot as part of the training received on forage kochia during the USU Nephi Dryland Field Day.

**Methods**: On September 14 and 18, 2006, 20 plots were established. Each plot was 47 feet wide by one mile long. Photo (above) from google earth shows the study layout. Ten of the plots included one pass with a 47-foot chisel plow to thin the existing CRP stand to by 25%. The remaining 10 plots included two passes with the plow to thin the stand to about 50%. Points were used on the chisel plow, but no sweeps were used. On January 2, all the plots were planted by plane. We planted 2.2 lbs/acre of bulk seed. The area was covered with 5-6 inches of snow. The sky was clear and the temperature was in the low 30s. There was good seed distribution on top of the snow.

**Results**: Since the January seeding, the project area experienced a serious drought, approximately 50% of normal precipitation during the growing season. Despite the lack of precipitation, forage kochia successfully established in both treatments. Plots with two passes contained more forage kochia that plots with one pass.

More data on forage kochia nutritional value is coming soon.

**Outreach**: On July 26, 2007, USU hosted the Nephi Experiment Station Dryland field day. As part of the program, Dr. Blair Waldron, USDA-ARS presented a section on forage kochia. In addition to his presentation, we also discussed the purpose, details, and results of this project. Forty-nine people including producers and agency employees from throughout the state attended the field day and received training on forage kochia.


**Producer Adoption and Reactions:** Since the establishment of the plots, producers in the area have become more interested in forage kochia. Several producers have contacted Darrell Johnson and Jeff banks for more information. Items such as seeding, rates, costs, timing, and other areas were discussed. Some of the producers want to watch the test plots mature over the next few years before deciding what course of action to follow.

**Recommendations:** The original project was to include seeding by drilling and using a harrow and imprinter after the aerial planting. Because of snow cover at the time of planting, we used aerial seeding with no additional ground work. Since kochia seed is not normally available until mid-December, we recommend producers only consider aerial seeding unless they are in an area that receives very little snow in the early winter.

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