

Native Prairie Reestablishment on the Dakota Prairie Grasslands

2008 Accomplishments

The Dakota Prairie Grasslands manages 1,200,000 acres of tallgrass and mixed-grass prairie. Much of this area was homesteaded, plowed, and seeded to small grains in the late 19th and early 20th centuries. The Great Depression, combined with the infamous Dust Bowl, resulted in these lands reverting to federal ownership in the 1930s. To stop excessive soil loss on the reacquired lands, the then newly-established USDA Soil Conservation Service seeded vast acreages to crested wheatgrass, an exotic cool-season grass.

Crested wheatgrass stands create special challenges for today's grassland managers, especially where they are intermingled with native prairie. Livestock pastured in such allotments concentrate on, and thus overgraze, the more palatable native prairie plants. The best solution to this management problem is to replace the crested wheatgrass stands with native grasses and forbs.

In spring 2008, we initiated a 3-year cooperative study to determine how native prairie plants could be reestablished. We suppressed the crested wheatgrass with various treatments, including intensive grazing, herbicides, and burning. We are now monitoring the response of the inter-seeded native grasses and forbs.



Figure 1. Native prairie reestablishment test plot, seeded/herbicide treatment, 3 June 2008, Grand River National Grassland, Dakota Prairie Grasslands. Study site is along SD Highway 73, and thus is highly visible to public. Note portal sign in background.



Figure 2. Native prairie reestablishment test plot, seeded/herbicide+burn treatment, 25 August 2008, Grand River National Grassland, Dakota Prairie Grasslands. Note extant crested wheatgrass stand in upper left corner of photo compared to increased native plant diversity within the test plot.

Year awarded: Initial award in 2008

Project completion: 2010

Report number: 1 of 3

Expenditures (through 10/2008):

FY08 funding \$15,800 expend, 0 remaining

▪**Total funding \$15,800 expend, 0 remaining.**

Partners/contractors/coop: USDA Agricultural Research Service, Grand River Grazing Association.

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