

Reintroducing Native Plants to the American West

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The Aberdeen Plant Materials Center (PMC) is working together with other government agencies to increase native plant diversity in crested wheatgrass monocultures. Since the early 1930s crested wheatgrass has been used in range seedings in the Intermountain West as a means to stabilize soils and sites after fires, improve forage production and compete against weeds such as cheatgrass. Crested wheatgrass, originally from Asia, has many outstanding characteristics that make it a valuable tool for revegetating low precipitation areas in the arid to semi-arid west. However, this species has historically been planted as a single species instead of as part of a seed mixture. This practice has led to the creation of millions of acres of crested wheatgrass monocultures covering broad expanses of western rangelands. In recent years land managers have begun to realize the importance of diverse plant communities for the health and stability of the ecosystem. The Aberdeen PMC is looking at ways to reduce crested wheatgrass dominance and to increase native plant diversity in these sites.

Rangeland specialists from Brigham Young University (Provo, UT) have developed a series of steps in what they call “assisted succession.” This is a means by which one can make a transition from annual weed monocultures to a healthy native plant community. First, they recommend capturing the site using crested wheatgrass and allowing the annual weed seed bank to be depleted. This may take several years to gain sufficient weed control. Second, reduce crested wheatgrass by mechanical and/or chemical means. Finally, reseed the site with a native seed mixture and then manage the site for a diverse long-term native plant community.

The current study investigates the most effective means of controlling crested wheatgrass with various chemical and/or mechanical treatments. Following the control treatments the test sites were seeded by Aberdeen PMC personnel. The seed mix of native species included bluebunch wheatgrass, Indian ricegrass, Wyoming big sagebrush, fourwing saltbush and others. The treated plots will be monitored for the return of crested wheatgrass and annual weeds as well as establishment of the seeded native plant species.

For more information regarding this study or other activities at the PMC, contact PMC Team Leader, Loren St. John at 208-397-4133.

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Aberdeen PMC crew seeding test plots in Utah fall 2005.