

**A LITTLE BIT COUNTRY
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Revegetating Disturbed Grass Sites

Landowners and pipeline installers ask for information regarding the renovation of disturbed sites. Most questions refer to grass species and seeding rates. To respond, I must first ask if the grass growing in the surrounding area is native or of introduced cool-season species. If it is the latter, my response is relatively easy - plant crested wheatgrass or smooth brome grass.

However, if the site is native, the response is more difficult. Reintroducing native grasses is not a simple exercise as one might assume. The first challenge is having an awareness of the natural plant community. Certain native species grow well in some areas and not so well in other sites. Much depends on soil type, rainfall, land slope, salinity and the soil's ability to hold water. As a rule, short grasses do best on high prairie zones while tall grasses are best in the low prairie zones where there is more moisture.

For the sake of plant diversity and better all-season grass growth, most recommended native grass mixtures include a combination of cool season and warm season species. Cool season grasses begin annual growth in early spring, grow rapidly through early summer and usually become dormant during the hottest, driest portion of summer. There may be a second flush of growth in late summer and early fall. Cool season grasses tend to dominate the semi-arid regions of the Great Plains such as northwest North Dakota and northeast Montana.

Warm season grasses begin growth in late spring. Production continues throughout the summer, especially from July to mid-September. They respond best when there is abundant moisture. This year was a prime example. The unusually high level of rainfall received during May and June promoted greater visibility of switch grass, Indiangrass, blue and sideoats gramas and sand reed.

Some of the cool-season native grasses commonly found on our range sites are needle and thread, western wheatgrass, and green needlegrass.

Because range sites (zones) in any give pasture can vary greatly it is not practical to perfectly match a seed mixture for each range site, I suggest a seed mixture which can be considered a middle of the road approach. Cool season grasses in the mix are western wheatgrass (2.0), green needlegrass (2.5), and slender wheatgrass (0.5). Warm season grasses included are little bluestem (1.0), switchgrass (2.0) and sideoats grama (1.5). The number in parenthesis represents pounds per acre.

Most grass species in North Dakota are seeded at the rate of 25 to 30 seeds per square foot. The lower tendency is to plant them in native range sites. I caution this because there is a tendency for these species to overtake the adjacent range sites, especially during times of drought and heavy grazing. Many cattlemen who depend on native pastures are beginning to ask for a selective control measure which will eliminate crested wheatgrass in such situations. Crested wheatgrass is a wonderful grass in the spring but too much of it can reduce productivity of a ranch operation. By late June, it becomes unpalatable to cows.

Native grass stands, while not easy to establish, can provide exceptional habitat for a diversity of wildlife, as well as palatable pasture rates are generally recommended in the western part of the state or on drier sites. Seed size between species can vary as well as seed quality and seedling vigor. A recommended total seeding rate is around 9.0 pounds pure live seeds per acre for a drill planting. Rates for seed broadcasted and harrowed must be increased, at least by 50 percent. Because seed of native grasses can cost twice or more of introduced cool season grasses, planting is almost always done with a drill.

Although seed of domestic cool season grasses such as crested wheatgrass and smooth brome grass tend to establish quicker and are less costly, native grasses are more productive throughout highly variable grazing seasons, generation after generation.