

Bulbous Bluegrass Spreading Everywhere!

“Bulbous bluegrass is spreading everywhere,” stated Powder River Extension Agent Mary Rumph. Rumph described the invader as a thin stemmed, wiry grass that cures early and is often found in areas vegetated by downy brome.

“Bulbous bluegrass is displacing crested wheatgrass and even native grasses,” said Rumph. “I noticed it in two to three feet continuous corridors along the highway and in large areas in pasture lands. It forms a monoculture and is recognizable by large brown patches in both native and tame pastures.” Early detection is important, added Rumph, as it is difficult to control.

Identification: Bulbous bluegrass (*Poa bulbosa*) is a relatively small, shallow-rooted, cool season perennial bunchgrass native to Eurasia and northern Africa. Because it grows new roots each season and has a relatively short life span, it is sometimes described as an annual with “perennial tendencies.” The name of this grass arises from bulblets that form on the panicle; the bulblets have a dark purple base. In addition, stems are thickened and bulblike at the base. Leaves are mostly basal and have a membranous ligule. Bulbous bluegrass ranges in height from 8-24”. Bulbous bluegrass was accidentally introduced to North America, but once discovered in Oregon in the early 1900s, its potential for a pasture and turf grass has been repeatedly researched.

Impacts: Bulbous bluegrass produces very little biomass for grazing, and its palatability is confined to early to mid-spring before the grass dries out. The bulblets, however, contain high levels of starch and fat that are sought after by a variety of birds and small mammals. Bulbous bluegrass competes with more desirable vegetation in range sites. It can also invade crop and hay fields.

Spread: Bulblets provide the primary means of reproduction (asexual). Bulblets can germinate immediately without a period of dormancy; viability is believed to be relatively short (2 years). Bulblets can be moved via livestock, wildlife, infested hay, vehicles, and caching by small mammals. Interestingly, in its native range bulbous bluegrass primarily reproduces sexually by seed.

Management: Disturbance promotes bulbous bluegrass, so prevention and containment activities should focus on maintaining desirable competitive vegetation and avoiding overgrazing and other disturbances. Hand pulling and digging will work, but it is difficult to remove all of the basal bulbs. Mowing is not considered to be effective and may even proliferate the problem by scattering bulblets. Intensive early season grazing for several growing seasons can reduce bulbous bluegrass infestations. The effects of fire on bulbous bluegrass are not well known, but the plant can be top-killed by fire and the survival of bulblets will depend on their location at the time of the fire (i.e., on the plant, at the soil surface, or buried) and fire intensity. Several herbicides are labeled for bulbous bluegrass control in range and pasture. They include herbicides that contain the active ingredient glyphosate, rimsulfuron, sulfometuron methyl, or sulfosulfuron. In general, glyphosate should be applied early spring, and the other active ingredients can be applied post-emergent from fall to early spring.

A local producer had success controlling the invasive grass by replanting dryland alfalfa and grass fields using glyphosate, a non-selective herbicide, followed by tillage and replanting alfalfa, crested and intermediate wheatgrasses. The first year following the replanting, there was no sign of the bulbous bluegrass. This spring, there are occasional plants scattered in the field. His expectation is that in ten years, he'll have to do the same thing to control it; basically, starting over.