

INVASIVE BULBOUS BLUEGRASS CHOKING DESIRABLE GRASSES

Jay Quintanilla

A little-known grass is disrupting ecosystems in the West. And its presence in northeast Wyoming is hurting the health of hayfields, pastures, and rangelands.

Bulbous bluegrass (*Poa bulbosa* L.) is similar to cheatgrass in terms of its period of active growth and lack of nutritive value for grazing species during most of the year; however, this plant reproduces vegetatively (through small live bulblets found where seed usually forms on many grasses), adding to the difficulty of control. Similar to cheatgrass, killing one plant is relatively easy, but controlling an established stand is difficult. This is a very competitive species in the late fall and early spring, which allows it to use water that would otherwise be used by more beneficial plant species.

Beginning in fall 2013, three ranchers in northern Campbell County implemented cultivation and grazing treatments on bulbous bluegrass in hayfields to determine if any of these techniques would reduce stands of cheatgrass. The project used five methods, including fall cultivation, spring cultivation, fall and spring cultivation, spring grazing, and fall cultivation with spring grazing. Control fields were also established where no treatment was implemented.

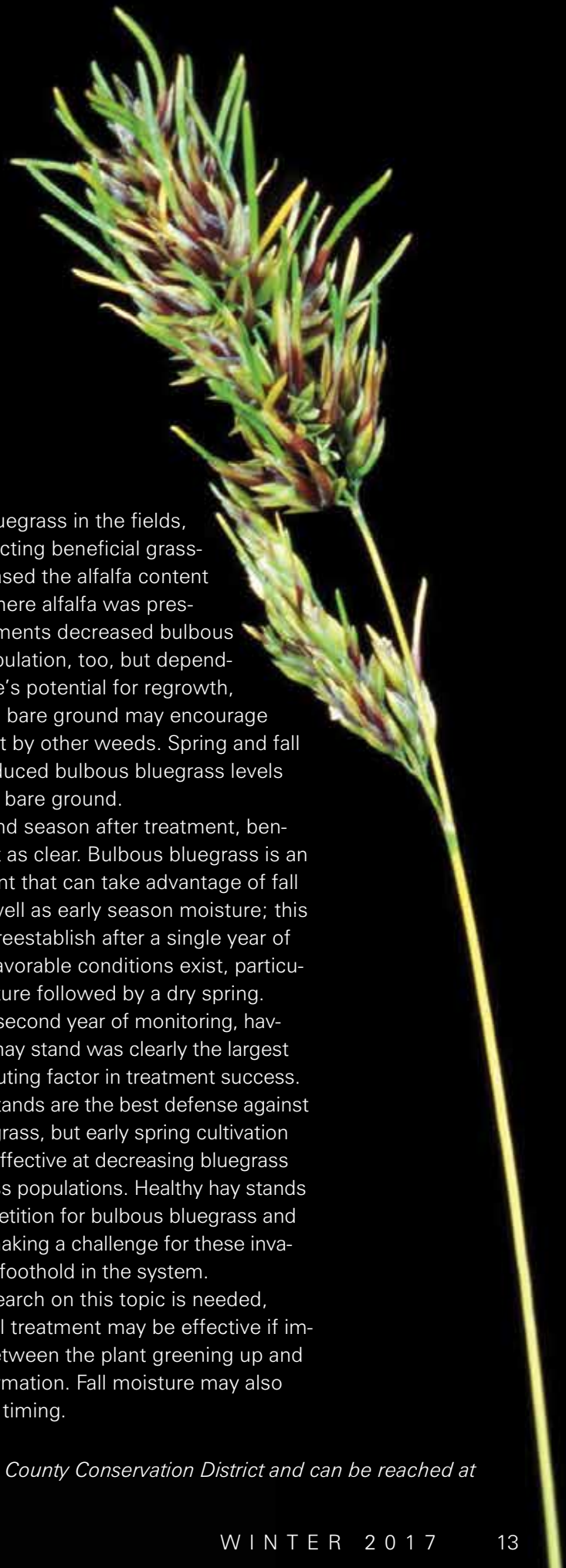
The growing season after treatment, plots from all three locations showed benefits from any type of treatment, whether grazing and/or cultivation. Spring cultivation with a moderately aggressive cultivator decreased the presence

of bulbous bluegrass in the fields, while not affecting beneficial grasses, and increased the alfalfa content of the field where alfalfa was present. Fall treatments decreased bulbous bluegrass population, too, but depending on the site's potential for regrowth, an increase in bare ground may encourage encroachment by other weeds. Spring and fall cultivation reduced bulbous bluegrass levels but increased bare ground.

The second season after treatment, benefits were not as clear. Bulbous bluegrass is an adaptable plant that can take advantage of fall moisture as well as early season moisture; this means it will reestablish after a single year of treatment if favorable conditions exist, particularly fall moisture followed by a dry spring.

After the second year of monitoring, having a healthy hay stand was clearly the largest single contributing factor in treatment success. Healthy hay stands are the best defense against bulbous bluegrass, but early spring cultivation may be very effective at decreasing bluegrass and cheatgrass populations. Healthy hay stands provide competition for bulbous bluegrass and cheatgrass, making a challenge for these invasives to get a foothold in the system.

More research on this topic is needed, as mechanical treatment may be effective if implemented between the plant greening up and seed head formation. Fall moisture may also influence this timing.



Jay Quintanilla is the water/range technician with the Campbell County Conservation District and can be reached at (307) 682-1824 or at cccd3@vvcn.com.