

Seeding

A healthy stand of desirable grasses and forbs is essential to suppress medusahead and prevent its expansion. Perennial grasses should be seeded after the herbicide residue dissipates. Plant with a drill if the site is suitable at rates of 12-14 lb/acre pure live seed. If the terrain is too steep or rocky, broadcast seed at 20 lb/acre of pure live seed and cover with a drag, or run a band of sheep over the site to trample the seed into the soil. A narrow planting time frame exists in early spring in northern Utah when soils are dry enough for equipment, yet enough soil moisture remains for seeds to germinate and establish. Otherwise, late fall planting allows seeds to germinate when snow melts in early spring. Adapted species recommended for seeding in Northern Utah include:



Rhizomatous spreading grasses

Luna pubescent wheatgrass
Intermediate wheatgrass

Bunchgrasses

CDII crested wheatgrass
HyCrest crested wheatgrass

Shrubs and Forbs

Forage kochia
Alfalfa
Yellow sweet clover

Include native grasses, such as Western wheatgrass and Sherman big bluegrass, to add diversity to the stand. After grasses are established and broadleaf weeds controlled, seed alfalfa at 2 lb/acre of pure live seed and forage kochia at 1 lb/acre of pure live seed.

Grazing Management

Defer grazing until plants are firmly established and can't be uprooted. A grazing system should be implemented and include four kinds of grazing treatments to ensure sustainable, long-term com-petitive ability of desirable forage:

- 1) Graze early in some years, removing animals prior to the reproductive stage (bolting) while there is adequate soil moisture for regrowth.
- 2) Restrict grazing during bolting to small areas or subunits within the system by rotating use of an area during this critical stage of plant development.

- 3) Defer grazing until after seed ripe in some years.
- 4) Provide complete rest from grazing in some years. Use portable electric fencing to restrict animals to smaller areas or subunits within pastures that can be used quickly and evenly. Move animals regularly leaving 2-3 inches of stubble on grazed areas.



The tools are available to control medusahead and replace it with productive grasses and other forages. It will require coordination to develop a conservation plan with NRCS and arrange for cooperative help in burning and spraying. Seeding is crucial to establish a healthy plant community, and a grazing system is necessary to maintain it.

**For more information please contact:
Natural Resource Conservation Service
435-753-3871
or
Cache County Weed Department
435-716-8342**

CONTROL AND SEEDING TO PERENNIAL GRASSES



**PRODUCED BY
THE CACHE VALLEY
MEDUSAHEAD CRM**



Medusahead (*Taeniatherum caput-medusae* (L.) Nevski) is an invasive winter annual grass that has tremendous potential to spread, limit forage productivity, and reduce biological diversity on rangelands and pastures in the Intermountain West. Medusahead contains high concentrations of silica, which makes it unpalatable to livestock and wildlife and slow to decompose. Consequently, it builds up a thick layer of thatch and increases the threat of wildfires. Medusahead seeds germinate quicker and seedlings grow faster than desirable perennial grasses, making them strong competitors for soil water and nutrients. Given the threat of medusahead to rangelands and pastures, it is imperative to prevent existing infestations from expanding by implementing integrated control and rehabilitation measures.



Burning

Prescribed burning is recommended if the thatch layer is thick. Removing the thatch improves herbicide contact with the soil and prepares the land for seeding. County and city fire departments can assist in carrying out safe burns.

Tillage

If the site can be tilled, the best chance of success is to turn the soil over and bury the medusahead seed 4-6 inches deep where it can't emerge. This can be accomplished using a mold-board plow, an offset disc, or chisel plow in the fall followed by a disc and harrow in early spring.

Herbicide

Oust® is the most effective herbicide to kill germinating seeds of medusahead and other annual weeds. It is effective only when applied late in the fall, and its residue remains active in the soil for 12-18 months. The site cannot be seeded until the following fall or spring. On heavily infested areas with little other perennial grass, 1 oz/acre is recommended. Where perennial grasses remain,



lower rates may be applied to reduce injury to them. The label requires grazing to be restricted at least 12 months following application. Currently, Oust® can only be applied on state or federal lands, or private lands involved in coordinated control programs administered by federal or state agencies. The NRCS can assist in developing an integrated control and conservation plan, and county weed departments can assist in spraying the herbicide.

Plateau® herbicide may offer the advantage of seeding directly behind a fall application, or seeding the following spring. However, success has been variable. The current Plateau label recommends 8 to 12 oz/acre, but further research is required to determine the proper rate and season of application.

If conditions are right and herbicide application is timed properly, a combination of Roundup® at 0.5 to 1.5 lb/acre and Escort® at 0.25 oz/acre may provide control of medusahead and other annual weeds long enough to allow seeding and establishment of perennial grasses. These herbicides should be applied in the spring after the majority of medusahead has emerged, but while sufficient soil moisture is available for seeded perennial grasses to germinate and establish.

Post-establishment broadleaf weed control is critical for successful establishment of desirable perennial grasses. Escort® at 0.25 to 0.5 oz/acre is effective for control of most annual weeds, and is safe on the young seedlings of most perennial grasses. 2,4-D at 0.5 to 1 lb/acre suppresses field bindweed if applied in June during early flowering and again in fall after frost, without permanent injury to desirable grasses.

