

Management & Control Methods

Mechanical- Tillage will control existing medusahead plants and can be used to break up deep thatch layers. But, it can increase potential for soil erosion and loss of soil moisture. Mowing is not an effective control strategy for medusahead.

Biological- Biological control of medusahead does not appear to be a potential management option in the near future.

Chemical- Herbicides are a good tool for managing medusahead populations and often improve the success of other control methods such as tillage, burning, or re-vegetation. Check with your Agriculture Department to determine the herbicides that work best for your situation.

Grazing- Cattle and sheep will graze medusahead early in the season before seeds set, however medusahead's low palatability prevents grazing from being an effective control option.

Fire- Burning can help remove medusahead's dense thatch layer. When medusahead seeds are in the soft dough stage, a slow, hot fire can reduce medusahead plant density up to 90% the following year.



Re-vegetation- Establishing a healthy, desirable plant community must follow medusahead control to prevent re-invasion. Seeding in late fall or early spring with a rangeland drill provides the best chance of re-vegetation success in arid, dry land situations.

For More Information:

- Plumas-Sierra County Department of Agriculture (530) 283-6365
Website: www.countyofplumas.com
- California Invasive Plant Council
Website: www.cal-ipc.org

Photos, and text provided by:

- California Department of Food and Agriculture, Integrated Pest Control Branch
- Hilken, Thomas O & Richard F. Miller. 1980 Medusahead. Oregon State Univ.,
- Randall John M. Rice, Barry R, / The Nature Conservancy
- University of California Cooperative Extension-Plumas Sierra Counties
- USDA-NRCS, High Sierra Resource Conservation and Development Area
- Whitson, Tom, et al. 1991 Weeds of the West. University of Wyoming
- Photos By: DiTomaso, Joseph, Dewey, Steven, Schock, Clint

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Medusahead

AKA: *Taeniatherum caput-medusa*



**Plumas-Sierra
Counties
Dept. of Agriculture**

**We Control and Eradicate
Invasive Weeds**

(530) 283-6365



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History

Medusahead is an annual grass native to Eurasia. A low-value forage species for livestock and wildlife, it has been estimated that the carrying capacity of rangeland for domestic livestock has been reduced by 75% after medusahead invasion.

Distribution

Medusahead has spread throughout the annual dominated ranges of northern and central California.

Imposters

Sometimes confused with foxtail barley or squirrel-tail. Medusahead can be singled out by its spike, and seed head that does not break apart as seeds mature. Individual awned-florets fall away, leaving twisted awns that will hold all winter.



Medusahead

Twisted awns or beards are good characteristics of medusahead.



Squirreltail

Has open spikes and long, minutely barbed awns.



Foxtail barley
Produces pale green, bushy, open spikes.

What does medusahead look like and where does it grow?

Habitat: Medusahead inhabits disturbed sites, grassland, openings in chaparral, oak woodlands, and rangelands. It tends to grow best on clay soils where deep soil moisture is available late in the growing season. However medusahead can also be a problem on sandy soil in many areas of California.

Growth: Medusahead is a winter annual. Medusahead matures 2-4 weeks later than downy brome and other winter annual grasses. The yellowish-green sheen of dense stands is highly visible after other annual grasses turn brown. The stems are wiry and slender and contain a few short narrow leaves. Medusahead tissues have a high silica content and low palatability except during the early growth stages. The high silica content also makes the medusahead litter of dead stems slow to decompose.



Roots: Medusahead quickly develops a fibrous root system allowing it to extract available soil moisture deep in the soil profile.

Seeds: Reproduces by seed. Seeds disperse locally with wind, water, and by clinging to the feet and fur of animals. Germination is typically rapid and occurs under a broad temperature range. Most seeds germinate in fall after the first rain, but some seeds remain dormant or germinate in winter or spring.



What can you do?

- ✓ Recognize medusahead. Understand the lifecycle so you can manage accordingly. Effective tools applied at the wrong time can aggravate the situation.
- ✓ Prescribed burning, specialized cultivation, and plant competition are effective non-chemical tools for managing medusahead.
- ✓ If you choose to use chemical control, work with the Agriculture Department to apply the right chemical at the correct rate, time and stage of growth and satisfy legal requirements.
- ✓ Drive on established roads and trails so as not to transport weed seed from infested areas.
- ✓ Remove weed seeds from vehicle and bicycle tires as well as shoes, clothing & animals.
- ✓ If you see a few plants, pull them. Pulled plants should be burned or tightly bagged prior to disposal. Do not put them in your compost.
- ✓ Maintain good vegetative cover of land to minimize infestation of noxious weeds.
- ✓ Feed weed-free forages to livestock to avoid unintentionally contaminating an area.
- ✓ If a weed-infested area is found, inform the landowner or manager so they can take steps to control the weeds (or notify the Agriculture Department).
- ✓ If you would like help in designing your personal weed strategy, please contact the Agriculture Department or Cooperative Extension.
- ✓ As with most things, diligent persistence and hard work reaps the greatest rewards.