



Medusahead

Taeniatherum caput-medusae (Aka medusahead wildrye)



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Overview:

Medusahead is an annual grass native to the Mediterranean region of Europe. It was introduced to the US late in the late 1800s, but didn't spread rapidly until the 1950's.¹ It is a cool season annual which germinates in autumn, late winter or early spring, and reproduces by seed only. In milder climates the roots and leaves grow through the winter - roots can reach 100 cm.¹ The plants bloom by early summer and seeds remain in the mature flowering spike until late summer/early fall. Seeds develop long awns 3-10 cm.⁴ Plants are self-pollinating.

Medusahead establishes and dominates on sites where the native vegetation has been eliminated or severely reduced by overgrazing, cultivation, or frequent fires.¹ In the intermountain west of the U.S. Medusahead is strongly associated with cheatgrass/downy brome, with the former displacing the latter in similar habitats.⁴

Medusahead litter decomposes more slowly than that of other plants, is easily ignited and burns readily, and in time results in a more

frequent fire regime where non-native annual grasses dominate - frequent fire destroys the shrub component of plant communities.¹ Mature Medusahead can be confused with foxtail, however the Medusahead seed head does not break apart as seeds mature.³

Habitat:

Medusahead grows in climates with mild to cold winters and hot summers, with 250-1000 mm of annual precipitation¹. Fall, winter, and spring moisture is necessary for seed germination. It needs fine textured soils with some moisture holding capacity, such as high clay content or sites which receive runoff², but its deep roots can exploit moisture in soil profile.¹

Identification:

Stems: Culms are decumbent to erect growing 25 - 50 cm tall from a branching base. Sheaths are glabrous, the ligules 0.2-0.5 mm long,² and auricles are very short/inconspicuous.²

Leaves: The leaf blades are 1 to 2.5 mm wide,⁴ 3 - 6 cm long, and glabrous to minutely hairy.²

Flowers: Flowering spikes are 1-5 cm⁴ and spikelets are in twos.² The glumes have an awn up to 3cm.⁴ The lemmas are narrow, 6-8 mm long, scabrous (rough-textured) and prolonged into a flattened awn 3-7 cm long. Awns are straight when green, becoming twisted and erratically spread after drying.²

Prevention:

Maintaining range and pasture in good condition is the best barrier to invasion by Medusahead - invasions are common on ranges in poor condition. The awns of mature seed heads can attach to clothing/fur to facilitate long distance dispersal.

Control:

Grazing: Heavy grazing during early growth of Medusahead can assist in control, but livestock must be removed before seed production.² Livestock avoid Medusahead when more palatable forage is available resulting

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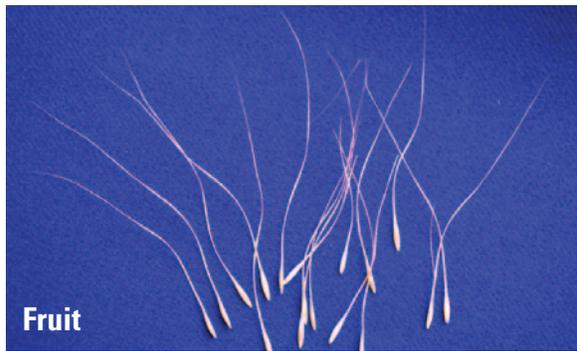
Medusahead (Continued)

in an increase the Medusahead seedbank.¹ Plants in seed are avoided as the awns cause mouth injuries. Invasive plants should never be considered as forage.

Mechanical: Spring plowing of young plants can give good control.¹ Mowing before seed set can be effective in reducing infestations.³ Burning mature Medusahead can destroy large amounts of seed.¹

Chemical: Currently no selective herbicides are registered for use on Medusahead. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: Currently there are no biological control agents available for Medusahead. The USDA currently has an ongoing research project to search for possible agents in the Mediterranean.⁵



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REFERENCES

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- 2 T. Maurer, M. Russo, A. Godell. Global Invasive Species Team. The Nature Conservancy
- 3 California Invasive Plant Council. www.cal-ipc.org
- 4 Hitchcock and Cronquist. 1973. *Flora of the Pacific Northwest*. page 637.
- 5 U.S. Department of Agriculture, Agricultural Research Service. Research Project: Discovery and Evaluation of Biological Control Agents of Medusahead Rye and Other Important Weeds of Western U.S. Rangelands www.ars.usda.gov