

Management of *Taeniatherum caput-medusae* (medusahead)



Lewis and Clark County Noxious
Weed Control District
3402 Cooney Dr Helena | MT 59602

Montana Priority 1A Noxious Weed

Plant Description

Taeniatherum caput-medusae, medusahead, is a winter annual grass. Medusahead stems, which grow up to 60 cm tall, typically produce a single spike: bracts and spikelets, although sometimes they will produce multiple. The spikes have long-awned spikelets: glumes and florets. Medusahead starts as a yellowish green color and matures at least 2-4 weeks later in the season than other annual grasses. The leaf surfaces are covered with soft, short hairs. Medusahead only reproduces by seed. The seeds have small silica barbs that allow them to disperse by animals, clothing, and machinery. Seeds also disperse by wind and water, and remain viable after being ingested by animals.

Mechanical Control

Hand removal of new infestations can provide effective control. Mow in the late-season from the boot through early flower stage to suppress populations; the boot stage occurs when the developing seed head is enclosed within the leaf sheath but has not yet emerged. Mowing after seed set may disperse seed and is not recommended. Tillage can be effective if conducted prior to seed set.

Biological Control

There is currently no available biocontrol agent for this species. Grazing can reduce infestations but will not fully eliminate populations.

Cultural Control

Livestock typically avoid consuming medusahead because of the high silica content. Controlled burns in high elevation, cool winter climates, do not provide the same level of control as in low elevation, warm winter climates. Revegetation is important. Introduce desirable species, especially in areas with disturbance. Plant competition prevents the invasion of new and existing unwanted vegetation.



Recommended Treatment Timeline

Control Type	Spring	Summer	Fall
Mechanical	Hand pull, bag and dispose, Mow before seeds set, Till	Hand pull, bag and dispose, Mow before seeds set, Till	Hand pull, bag and dispose, Mow before seeds set, Till
Biological	None available		
Cultural	Revegetation		Revegetation
Chemical	Foliar spray (Glyphosate)	Foliar spray (Indaziflam)	Foliar spray (Imazapic)

Chemical Control

Follow the directions on herbicide labels, the label is the law. Calibrate equipment for accurate application. Commonly used herbicides are listed below, order of listing is not reflective of efficacy or recommendation.

Personal protective equipment must be worn when applying herbicides. Only apply herbicides in appropriate weather conditions.^a

Use appropriate surfactants as listed in the product label.^a

^aRead and follow all instructions in the label of the herbicide.

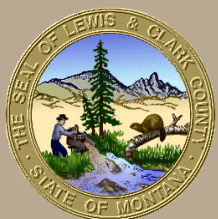
Chemical Control Table							
Use Site	Herbicide (Active Ingredient - Trademark)	Pre-emergent or Soil Residual Activity	Post-emergent (Foliar Applied)	Large Sprayer Rate per Acre	Spot Treatment Rate for Every 1 Gallon of Water	Restricted Entry Interval (Hours)	Application Notes and Environmental Advisories*
Non-Cropland, ROW, Grazed Areas	Indaziflam - Esplanade 200 SC	yes	no	3.5 - 5 oz	Consult label	12	Apply in the fall with sufficient precipitation following the application to activate the herbicide. Persistent in soil for multiple years.
Rangeland, CRP Lands, Natural Areas	Indaziflam, Rimsulfuron -Rejuvra	yes	no	3.5 - 5 oz	Consult label	12	Apply in the fall with sufficient precipitation following the application to activate the herbicide. Persistent in the soil for multiple years.
Pastures, Rangeland, Non-Cropland	Imazapic - Plateau	no	yes	4 - 12 oz	Consult label	12	Apply in the fall. Early spring applications can damage perennial species.
Ornamentals	Glyphosate -Roundup ProMax ^b	no	yes	0.75 - 1 pt or 1 - 2 qt (Roundup ProMax ^b)	Calibration necessary	4	Use first rate for early season selective control in shrubland or perennial systems. Use second rate for late season, nonselective control. Apply before seeds are produced.

^bLewis and Clark County Noxious Weed Control Division does not endorse any trademarks or commercial names listed above.

This table summarizes selected registered use sites and is not intended to represent all approved uses. Pesticide applicability, use sites, and restrictions vary by product and formulation. Applicators must consult and follow the most current product label, which takes precedence over this document.

References

- BASF Corporation. (2023). *Plateau*. U.S. Environmental Protection Agency Registration No. 241-365.
- Bayer CropScience. (2020). *Roundup ProMax*. U.S. Environmental Protection Agency Registration No. 524-579.
- Ditomaso, J. M., Kyser, G. B., Oneto, S. R., Wilson, R. G., Orloff, S. B., Anderson, L. W., Wright, S. D., Roncoroni, J. A., Miller, T. L., Prather, T. S., Ransom, C. V., Kenneth George Beck, Duncan, C. A., Wilson, K. A., J Jeremiah Mann, Department, Davis., & Weed, Davis. (2013). *Weed control in natural areas in the Western United States*. University Of California Weed Research And Information Center. 62719-259.
- Envu. *Esplanade 200 SC*. U.S. Environmental Protection Agency Registration No. 101563-144.
- Envu. *Rejuvra*. U.S. Environmental Protection Agency Registration No. 101563-208.
- Medusahead — *Taeniatherum caput-medusae*. Montana Field Guide. Montana Natural Heritage Program. <https://FieldGuide.mt.gov/speciesDetail.aspx?elcode=PMPOA5Z010>



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