

Medusahead

THE STATE OF THE WEED

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General Management Prescriptions for Medusahead

BURNING

- Must be dry enough to carry fire
- Must be early enough that seeds have not dropped from the head
- Fire is not great at controlling seeds on the soil surface
 - *Advantages*
 - Nearly eliminates medusahead plants
 - Does not harm clover, filaree, or perennial grasses
 - *Disadvantages*
 - Grazing is very limited the next year due to very low forage production
 - May be three years before normal production returns
 - Most desirable annual grasses are also lost
 - Slender/wild oat is the exception
 - Often by the time forage production returns to normal, so does the medusahead cover

HERBICIDE

In general, timing is VERY IMPORTANT. If you use a pre-emergent after any seedlings have germinated, it's too late. If you use a post-emergent after seed production is started, you are too late.

Aminopyralid (Milestone)

- Aminopyralid before germination
 - Effective, but expensive—\$2.85/ounce @ 14 oz
 - A study at Red Bluff suggests that this approach lasts about 4 yrs
 - The second year after use, hard seeded clover and filaree returned
- Aminopyralid in the spring
 - Still being tested
 - Spray when plants are in the boot, but ABSOLUTELY BEFORE HEADING OUT!
 - Low rates are acceptable (2-4 oz/acre)
 - Does not kill plants, but prevents seed production

Glyphosate (Roundup)

- Lower doses (16 oz/acre) better than higher doses (32 oz/acre)
- Use late in the season
- Short-term effect

GRAZING

- Best if it occurs when Medusahead is in the 'boot stage' (i.e. just about to produce a seedhead)

- If heavy rain after grazing, Medusahead could recover, so graze again if possible
- Livestock tends to avoid Medusahead, and supplementation is not effective
- However, adding nitrogen increases grazing on Medusahead (at rates as low as 30 lbs/acre)

MOWING

- Similar effects as grazing, but can occur after seed production, but prior to seed maturation (i.e. if the seedhead is green, you might still get good control)
- At least two mowing events should occur within a single season to knock back the seed production of Medusahead individuals that escaped the first mowing event.

SEEDING

- Must be preceded by weed control such as burning, grazing, or herbicide
- Weed control must also follow seeding
- Tilling soil prior to seeding can increase establishment
- Match seeded species to soil and climate
- Choose a competitive species (like Wheatgrass and Ryegrass)

OVERALL

- Integrated pest management (IPM) approaches appear to work the best. This means using several different types of control methods within a single year or across years.
- Control of any invasive species is very context dependent. However, in general, we have found that two general approaches work relatively well for control:
 - Burn in YEAR 1 (to reduce seed production and get rid of thatch); till and seed with desired species in YEAR 2; follow up as needed with grazing/burning/herbicide in YEAR 3 and beyond
 - Spray with roundup late in the season (~\$4/acre) and then seed in the fall of YEAR 1; follow up as needed with grazing/burning/herbicide in YEAR 2 and beyond
- Single treatment applications will fail for long-term control
- Treating patches of medusahead cover is important for reducing spread (i.e. if you have medusahead on your property but do not see it as 'problematic', control it anyway)

USEFUL INFORMATION

- Medusahead Management Guide for the Western States publication (free download): http://wric.ucdavis.edu/publications/MedusaheadManagementGuide_pub_2014.pdf
- California Invasive Plant Council (Cal-IPC): <http://www.cal-ipc.org/>
- UC Integrated Pest Management Program: <http://www.ipm.ucdavis.edu/index.html>
- Invasive Plant News: <http://techlinenews.com/>
- Research Gate (good place to find free access to academic research papers): <https://www.researchgate.net>
- USDA: <http://www.invasivespeciesinfo.gov/plants/medusahead.shtml>