Additional Resources:

Oregon State University Extension, Pacific Northwest’s Least Wanted List: Invasive Weed Identification and Management (EC 1563)

USDA NRCS Plant Materials website: https://plants.usda.gov

Ecologically Based Invasive Plant Management: website, manuals, and information at http://www.ebipm.org/


References:


Invasive annual grasses are a threat to the Great Basin desert ecosystem. They compromise habitat diversity for important wildlife species such as the greater sage-grouse. They shorten the grazing season for livestock, and do not provide as much consistent forage biomass and quality as perennial native bunchgrasses. They tend to be much smaller, have less overall leaf area, and capitalize on early season moisture. One annual grass, medusahead, can reduce livestock carrying capacity by 50 to 80 percent.
Herbicide Time of pre-emergent in fall through post-emergent applications in spring are most effective. Check product label and consult your county or BLM weed specialist.

Depending on product, pre-emergent applications in fall through post-emergent spring are most effective. Check product label and consult your county or BLM weed specialist.

**Invasive Grasses of the Great Basin**

Control

**Used Herbicides**

- Bromacil
- Glyphosate
- Imazapic
- Rimsulfuron
- Sulfometuron
- Sulfosulfuron

**Nonchemical Control**

- Perennial grass establishment
- Early season grazing with adequate stocking rate
- Hoeing of young plants before seedling emergence
- Mowing can reduce seed set
- Seed burial by tilling
- Perennial grass establishment
- Removing thatch layer by raking, prescribed burning, or tillage where possible, followed by reseeding

**Grazing Suitability**

- Mid-spring
- Livestock will graze before it flowers
- May be grazed in winter with high silica (6.4% AIA)
- Seedhead awns can irritate eyes or create abscesses in late summer. Can be grazed in winter for targeted protein supplementation.

**Habitat Types**

- Soils that are warmer, areas that are wet in spring, and dry out fall through spring, and dry out
- Clay-dominated soils, shallow and gravelly
- Disturbed sites over a variety of soil types
- Clay-dominated soils
- Areas that are wet in spring, and dry out

**Seed Dispersal**

- Time of Germination/Emergence/Establishment

- Germination: mostly fall, although some can germinate in winter through spring depending on site and old ventenata litter level on site
- Emergence: depending on site and old ventenata litter level on site
- Establishment: By seeds, less than 6 feet away from parent plant. Mature seeds are dispersed from July–October. Seeds can persist 2 years in the field.

- Fall, following moisture accumulation
- Early fall if moisture is available, or in spring
- Establishment: prolific. Seed can be soil banked over time. Seeds can persist up to 5 years in the field.

- Fall, following moisture accumulation
- Early fall through spring, depending on moisture conditions and thatch layer
- Establishment: By seeds, less than 6 feet away from parent plant. Mature seeds are dispersed from July–October. Seeds can persist 2 years in the field.

- Fall, following moisture accumulation
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**Name**

- *Taeniatherum caput-medusae*
- *Bromus tectorum*
- *Bromus inermis*
- *Bromus rubens*
- *Bromus hordeaceus*
- *Bromus carinatus*
- *Bromus diandrus*
- *Bromus unioloides*
- *Bromus inermis*
- *Bromus carinatus*
- *Bromus diandrus*
- *Bromus unioloides*

**Resistant**

- *Bromus tectorum*
- *Bromus inermis*
- *Bromus carinatus*
- *Bromus diandrus*
- *Bromus unioloides*

**Resistance has occurred in Group 1 and 2 herbicides in the Pacific Northwest.**

- *Bromus tectorum*
- *Bromus inermis*
- *Bromus carinatus*
- *Bromus diandrus*
- *Bromus unioloides*

**Check with your local BLM office on specific formulations and local restrictions.**

For more detailed information, contact your local Extension agent, weed management specialist, or county weed master.
**Downy Brome (Cheatgrass) (Bromus tectorum)**

Leaves are wide and soft to the touch, with small hairs on both sides.

The sharp awn on the mature seedhead is straight and long.

Japanese brome (Bromus japonicus) is a look-alike to cheatgrass. However, once seedheads develop, the awns are shorter and can have a bend in them. Once they dry, they often bend out at right angles. Japanese brome can also become weedy, like cheatgrass.

Flowering heads droop down as they mature with seeds.

**Medusahead (Taeniatherum caput-medusae)**

Medusahead with developing seedheads. Note the coarse, prominent awns.

Leaves are very narrow with fine short hairs on the surface and leaf margins. Roots are very shallow. The plant can often have a characteristic yellow-green color.

An invaded site on the sagebrush steppe. Dry medusahead plants have a dull buff color. Litter accumulation from previous years' growth is common and breaks down slowly.

Foxtail (Hordeum jubatum) may also appear similar, but the leaves are quite large compared with medusahead. It also matures much earlier in spring, and it inhabits different sites such as waste places, old corrals, and holding areas.

Squirreltail (Elymus elomoides), at first glance, may look like medusahead when its seeds are developed, but the awns are not as sharp, and the heads may droop. Also, squirreltail is a perennial bunchgrass, not an annual. Leaves are much wider than medusahead.
Ventenata (North Africa Wire Grass) (*Ventenata dubia*)

During its vegetative stage, *Ventenata* has a long ligule and dark node. It frequently has a lime green color during its early growth.

A *Ventenata* invaded meadow. The seedhead on *Ventenata* has a distinctively bent awn.

*Ventenata* can be confused with annual hairgrass (**Deschampsia danthonioides**) that also has an open panicle and appears very rigid when dried. The heads do not nod like cheatgrass.

*Ventenata* has an open panicle and appears very rigid when dried. The heads do not nod like cheatgrass.

A dominated site can accumulate litter, which has been found to self-perpetuate *Ventenata*.

*Ventenata* has an open panicle and appears very rigid when dried. The heads do not nod like cheatgrass.

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