



## Cheatgrass Identification and Management

### Background Information

#### **History and Impacts**

Cheatgrass, (*Bromus tectorum*) is also known as downy brome. Originally from the Mediterranean region, it is widely distributed throughout the United States and has been reported to be the dominant species on more than 100 million acres of the intermountain west. Cheatgrass can maintain dominance for many years on sites where native vegetation has been eliminated or severely reduced by grazing, cultivation or fire. Not only does cheatgrass reduce crop quality and yield, it creates serious fire hazards after it matures in late spring. Although cheatgrass is palatable as spring and fall forage before emergence of seed heads, mature plants decline in forage quality and can injure livestock by causing infection in the eyes or mouth. The mature seeds readily penetrate clothing and are frequently a problem in dogs ears and noses.

#### **Habitat**

Cheatgrass is found in both disturbed and undisturbed sites. Cheatgrass can grow in almost any soil type and readily adapts to varying precipitation. The largest infestations are usually found in overgrazed range and pasture, abandoned fields, eroded sites and waste areas. The greatest competitive advantage following a fire goes to cheatgrass because the native shrubs and perennial grasses cannot recover as quickly allowing cheatgrass to establish a monoculture.

#### **Identification**

Cheatgrass plants grow from 6 to 24 inches tall, depending on available soil moisture, fertility, and plant competition. The leaves are bright green and hairy for a short time in early spring. It has a nodding seed head with many finely hairy drooping spikelets. As it matures the seed heads and foliage often become reddish and then progress to a light tan.

#### **Reproduction and Spread**

Annual plants such as cheatgrass, grow from a seed, then flower, set seed and die every year. Cheatgrass is considered a winter annual plant because it usually germinates in the fall and grows rapidly until cold temperatures arrive. Germination may occur in spring as well depending on conditions. The awns stick to the clothing of humans and the hair and fur of animals, which is one way cheatgrass disperses its seeds. Cheatgrass is a prolific seed producer. Seeds typically do not remain viable for more than two or three years. Roots are fibrous, relatively shallow, and grow many hairs which enable the plants to extract soil water very effectively.

## **Control Information**

### **Integrated Pest Management**

The preferred approach for weed control is Integrated Pest Management (IPM). IPM involves selecting from a range of manual, mechanical, chemical, cultural and biological control methods to match the management requirements of a specific site. Management will require dedication over a number of years. Plan to revisit the site to control plants that have survived or sprout after initial control efforts. Persistence is necessary.

Control practices should be selected to minimize soil disturbance or efforts should be taken to mitigate or reduce impacts of disturbance. Minimizing disturbance also avoids creating more opportunities for germination of weed seeds. Whenever possible, control should be done before plants are flowering to prevent seed production.

### **Early Detection and Prevention**

Early detection and prevention is the key to weed control. Watch for cheatgrass near known infestations. Survey the area for early and often. Cheatgrass is easiest to find once it matures but by then control options are limited so learn to identify the plant in its seedling stage. Monitor roadsides, waste and disturbed areas, pastures, rangeland, and trails for new infestations. Small infestations and individual plants can be effectively hand-pulled or dug up. Uprooting one plant can prevent many new seedlings.

Prevent plants from spreading away from existing populations by washing tools and boots and clean vehicles, equipment and animals that have been in infested areas. Off-road vehicles create disturbances and carry weeds. Clean off-road equipment and avoid driving in infested areas. Communicate weed control needs with neighbors and persons working in infested areas, awareness will increase prevention.

### **Manual**

For small infestations of cheatgrass, hand pulling or hoeing before seeds are produced will reduce but may not completely eliminate the infestation. Several consecutive years of hand removal may be required to reduce seed bank reserves.

### **Mechanical**

Mowing, grazing and tilling have limited success reducing cheatgrass populations. Timing is critical in using any of these strategies. Long lasting control also requires a combination of chemical, manual and cultural controls.

### **Cultural**

Establishment of selected, aggressive grasses can be an effective cultural control of cheatgrass. Good grazing management will stimulate grass growth and keep pastures healthy. Healthy pastures may be more resistant to cheatgrass invasion. Bare spots caused by overgrazing are prime habitat for weed infestations.

## **Chemical**

Precautions: Herbicides should only be applied at the rates and for the site conditions and/or land usage specified on the label of the product being used. Follow all label directions, the label is the law. Follow label directions for any additional personal protection equipment needed.

### Panoramic 2 SL

Apply pre- or post emergent in early fall at a rate of 6 – 12 Oz/acre. Use a methylated seed oil surfactant (MSO) surfactant at 0.32 oz/gal or 1 qt/100gal water. The 12 oz rate of Panoramc 2SL may cause injury to some cool season grasses.

### Glyphosate (Roundup) (Non-selective herbicide)

Apply in fall or early spring at a rate of 4 –5 qts./acre or 4 –5 oz/gal water. Add a non-ionic surfactant at a rate of 0.32oz/gal water or 1 qt/100 gal water. Use caution when applying near grasses or other desirable vegetation. Roundup will possibly kill surrounding vegetation.

## **Biological**

Biological control is limited. There is no long term biocontrol agent available.



If you have any questions, please contact Deschutes County at 541-322-7117 or visit our website at [www.deschutes.org/weeds](http://www.deschutes.org/weeds)