

Living With Fire

A Homeowner's Guide to Cheatgrass

**Jay Davison, Central/Northeast Area Plant and Soils Specialist
University of Nevada Cooperative Extension**

**Ed Smith, Western Area Natural Resources Specialist
University of Nevada Cooperative Extension**

Cheatgrass, also known as downy brome and bronco grass, is an annual grass native to Europe and Asia. We don't know how cheatgrass made it to North America, but it is now one of the most common plants in Nevada. Since its first recorded Nevada sighting in 1906, cheatgrass has come to dominate over 17 million acres in the Great Basin. It rapidly occupies areas that have been disturbed by fire, construction activities, poor grazing practices, off-road vehicle use, and other human activities. At times, it can also invade undisturbed areas.

Cheatgrass has a serious environmental impact on Nevada. It dries out very quickly, becoming extremely flammable. This increases the occurrence and intensity of fires in sagebrush areas. It out-competes Nevada's native plants for soil moisture, quickly becoming the dominant form of vegetation. Nevadans living, working, or recreating in cheatgrass country should learn to identify it, take care not to ignite it, and remove it from their properties.

What does cheatgrass look like?

Cheatgrass is an annual grass, meaning it sprouts, grows, produces seed, and dies within one growing season. It is known as a winter annual because its seed usually germinates in the early or late winter months, the plant grows in spring, and then it dies by early summer. During drought years, there may be very little cheatgrass produced. In above-average rainfall years, however, this grass grows tall and is abundant, sometimes exceeding 10,000 plants per square yard.

Cheatgrass can be several inches to more than 18 inches tall. Typically, it has a nodding seed head that resembles a shepherd's crook. There is often a tinge of red or purple in the leaves. The leaves are bright green and hairy for a short time in early spring.



Reprinted from NORTH AMERICAN WILDLAND PLANTS: A FIELD GUIDE by James Stubbendieck, Stephan L. Hatch, and L.M. Landholt by permission of the University of Nebraska Press. C 2003 by the Board of Regents of the University of Nebraska.

However, they quickly dry out and turn reddish-brown and eventually straw color as the summer progresses. The seeds are notorious for getting stuck in socks and dogs' ears.

Why is cheatgrass a concern to the homeowner?

Dry cheatgrass is probably the most easily ignitable vegetation on Nevada's rangelands. It can be readily ignited by discarded lit cigarettes, welding activities, ricocheting bullets, catalytic converters on vehicles, fireworks, or lightning. During years of above-average precipitation, a tremendous amount of cheatgrass can be present during fire season. If started on a windy day, a cheatgrass fire can produce flames in excess of 8 feet and travel 4½ mph. Dry cheatgrass can also serve as the kindling necessary to ignite hotter burning plants such as big sagebrush and pinyon pine, creating more intense wildfires.

If you are working or playing in cheatgrass country be extremely careful!

- ✓ Always have water and a shovel nearby
- ✓ Do not park your vehicle over dry cheatgrass
- ✓ Properly dispose of cigarettes and matches
- ✓ Instruct your children not to play with matches or fireworks
- ✓ Have a cell phone available to report fires

Why is cheatgrass a concern to homeowners?

A dense stand of cheatgrass growing within 30 feet of your home is a fire hazard. If cheatgrass is present near your home, remove it from at least the first 30 feet extending from your house and other buildings, preferably before it dries out. Use a lawn mower with a mulching blade or cut it with a weed eater, rake it up, and remove it.

How can homeowners eradicate cheatgrass?

To successfully eliminate cheatgrass, a homeowner should use an integrated management program. An effective integrated program includes: several control techniques, revegetation of the treated cheatgrass areas, and proper care of desirable vegetation around the home. Typically, the steps to long term control are:

- ✓ kill existing live plants
- ✓ prevent new cheatgrass plants from producing any seeds
- ✓ prevent seed germination and seedling growth from cheatgrass seeds already in the soil
- ✓ reseed cheatgrass control areas with desirable vegetation

What cheatgrass control strategies are available?

The cheatgrass control methods available to homeowners include: mechanical, biological, chemical, and burning. A homeowner should apply a combination of these techniques at the proper time over a one- to two-year period. The following tables provide cheatgrass control information for the various methods.

Mechanical Methods to Control Cheatgrass

Control Technique	Application Season	Number of treatments	Remarks
Hand pulling	Spring & fall.	Repeat when new plants appear.	Effective in small areas only.
Disking/tilling (live plants)	Spring & fall (before seed heads turn purple).	Repeat when new plants appear.	Use disk, rototiller, spike tooth harrow, etc.
Disking/tilling (seeds)	Late spring.	One time before seeding with desirable species in the fall.	Bury seeds at least 3 inches deep to prevent germination.
Mowing	Not recommended as a long-term control technique.	Not applicable.	Seed can be produced on mowed plants.

Biological Methods to Control Cheatgrass

Control Technique	Application Season	Number of treatments	Remarks
Livestock grazing	Early spring when green, but prior to seed formation.	Graze two times, approximately three weeks apart. Repeat for at least two years.	Graze cheatgrass very heavily as soon as adequate forage is available.
Insects	Not applicable.	Not applicable.	No insects have been approved for use.
Disease organisms	Not applicable.	Not applicable.	No disease organisms have been approved for use.

Chemical Methods to Control Cheatgrass*

Chemical	Trade name**	Application timing	Remarks
Quizaflop	Assure II	Early spring when plants are less than 4 inches tall.	Consult label for rates.
Fluazifop-p-butyl	Fusilade 2000, DX	Before seed head is formed.	Consult label for rates.
Sethoxydim	Post, Post plus	Before seed head appears.	Consult label for rates.
Glyphosate	Roundup-ultra	Before seed formation.	Is non-selective, consult label.

Imazameth ammonium salt	Plateau	Fall or early spring.	For sale to governmental agencies only.
Trisulfuron	Amber	Early fall, before the cheatgrass emerges.	Can harm some desirable grasses, consult label.
Sulfosufuron	Maverick	Fall.	Long lasting, consult label for restrictions and rates.
Trifluralin	Treflan	Fall, before the cheatgrass emerges.	Check label for rates and application instructions.

*This table is not intended to be a complete list of suitable chemicals. The reader is strongly encouraged to read and understand the label directions for the selected herbicide before application. Some of the products are long lasting and can damage subsequent desirable vegetation planted after cheatgrass treatment. The label will provide the information necessary to make an informed decision.

**Brand names are provided for example purposes only. Other brands may also be licensed for use in Nevada. Information herein is offered with no discrimination. Listing a commercial product does not imply an endorsement by the authors, University of Nevada Cooperative Extension, or its personnel.

Burning Methods to Control Cheatgrass

Control Technique	Application Season	Number of Treatments	Remarks
Controlled Burning	Late spring and summer.	One treatment is recommended.	Controlled burns can be dangerous and may require a permit. Take necessary precautions and contact your local fire official prior to burning.

Should treated cheatgrass areas be replanted?

Regardless of the method used to control cheatgrass, revegetation following treatment is usually recommended. Without desirable vegetation occupying the treated area, cheatgrass will reestablish. Once desirable vegetation is established, it must be properly managed so that it remains healthy and competitive with the surrounding cheatgrass plants. For further guidance on revegetation areas previously dominated by cheatgrass, ask for University of Nevada Cooperative Extension Fact Sheet FS-97-32, *Greenstrips: Another Tool to Manage Wildfire*; and Fact Sheet FS-99-96, *Homeowners Guide To Planting Crested Wheatgrass*.


What is the environmental impact of cheatgrass?

For much of Nevada, cheatgrass can replace big sagebrush and native grasses as the dominant type of vegetation. This negatively impacts wildlife dependant upon native plants, increases soil erosion, and reduces water quality. You can learn about the environmental impact of cheatgrass by reading University of Nevada Cooperative Extension Fact Sheet FS-87-45, *Living With Cheatgrass in the Great Basin Annual Rangeland*.

Where can homeowners get more information about cheatgrass?

All of the fact sheets mentioned are available from the publications section of www.livingwithfire.info or www.unce.unr.edu. These fact sheets are also available from your local Cooperative Extension office. Technical expertise is available at most University of Nevada Cooperative Extension and USDA Natural Resources Conservation Service offices.

Source: University of Nevada Cooperative Extension Fact Sheet FS-05-29

 <p>UNIVERSITY OF NEVADA RENO COOPERATIVE EXTENSION <i>Bringing the University to You</i></p>	<p>The University of Nevada, Reno is an Equal Employment Opportunity/Affirmative Action employer and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and sexual orientation in any program or activity it operates. The University of Nevada employs only United States citizens and aliens lawfully authorized to work in the United States.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------