

Cheatgrass *Bromus tectorum*

Common Names: cheatgrass, brome, downy brome, drooping brome, thatch brome, brongrass, military grass, downy chess, early chess, soft chess, wild oats

Native Range: Europe, the northern rim of Africa, and southwestern Asia.

Description A winter annual in the grass family (Poaceae), bearing many finely hairy, drooping, yellowish-green, bristly spikelets in a loose, much-branched, terminal cluster. It forms small tufts (20-60 cm tall), from a fine fibrous root system. Stems are erect and slender. Leaf blades are flat (1-19 cm long and 1-5 mm wide) and pubescent. Ligules are membranous, truncate, and lacerate (0.9-3.5 mm long). Lower sheaths are pubescent, and upper sheaths are glabrous. The inflorescence is a dense, drooping panicle (4-21 cm long) and is pale green to purplish in color. Branches are thin, flexuous, and pubescent. Spikelets are four- to seven-flowered (11-24 mm long and 3-6 mm wide) and pubescent or villous. Glumes are unequal. The first glume is subulate, one-nerved (4.5-7.5 mm long and 1 mm wide), and the second is three-nerved (7-11 mm long and wider than the first). Lemmas are bifid, lanceolate (9-12 mm long), pubescent, and awned. Awns are slender (7-17 mm long) and straight. Paleas are shorter than the lemma. Lemma pubescence, phenology, winter hardiness, height and openness of the panicle are highly variable. Cheatgrass reproduces by seed that germinates in the fall, over winters as a seedling, then flowers in the spring. Consult botanical manuals to confirm the identifications.



Habitat: It grows on rangelands, pastures, prairies, fields, waste areas, eroded sites, and roadsides. It exists in many climatic areas but primarily in the 150-560 mm precipitation zone. It will grow in almost any type of soil, however, is most commonly found on coarse textured soils on B and C horizons of eroded areas and areas low in nitrogen with soil temperatures between 2.0-3.5°C and 15°C. Litter promotes germination and establishment of seedlings.



Distribution: Cheatgrass occurs throughout most of the U.S., Canada, Greenland, and northern Mexico. It is on state noxious weed lists for 43 states in the U.S. It tends to be most invasive in areas receiving 12 to 22 inches (300-560 mm) of annual precipitation.

Environmental Concern: Many of the ecosystems that cheatgrass has invaded are seriously altered, and no longer support the vegetation of the potential natural community. Cheatgrass can maintain dominance for many years on sites where native vegetation has been eliminated or severely reduced by grazing, cultivation, or fire. At maturity the spikelets break apart; the sharp-pointed, bristly sections can injure grazing animals by working into the nose, ears, mouth, or eyes. Spikelets can also cling to hikers' clothing.



Control and Management: An important consideration in controlling this species is that the seeds have the potential to remain viable in the seed bank for 2 to 5 years. Fire, mowing, grazing, tillage, and interseeding of competitive native plants have all been shown to reduce populations.

Herbicides active on Cheatgrass in various crops include Hoelon (diclofop), Kerb (pronamide), Nortron (ethofumesate), AAtrex (atrazine), Princep (simazine), Amizol (amitrole), Arsenal (imazapyr), Hyvar (bromacil), Oust (sulfometuron methyl), Cyclone (paraquat), and Roundup (glyphosate).

Biological control is limited. Rabbits and mice will feed extensively on this species as do migratory grasshoppers (*Melanoplus sanguinipes*). It is often infected with a head smut (*Ustilago bulleta* Berk.) that, when severe, may reduce seed yield. Some research has been conducted on pink snow mold (*Fusarium nivale*) as a biological control agent, but information has yet to be released.

References: www.npwr.usgs.gov/resource/othrdata/exoticab/scotbrot.htm, <http://plants.usda.gov>, <http://enature.com/fieldguide>, www.fs.fed.us/database, http://www.sci.sdsu.edu/plants/sdpls/plants/Bromus_tectorum.html