



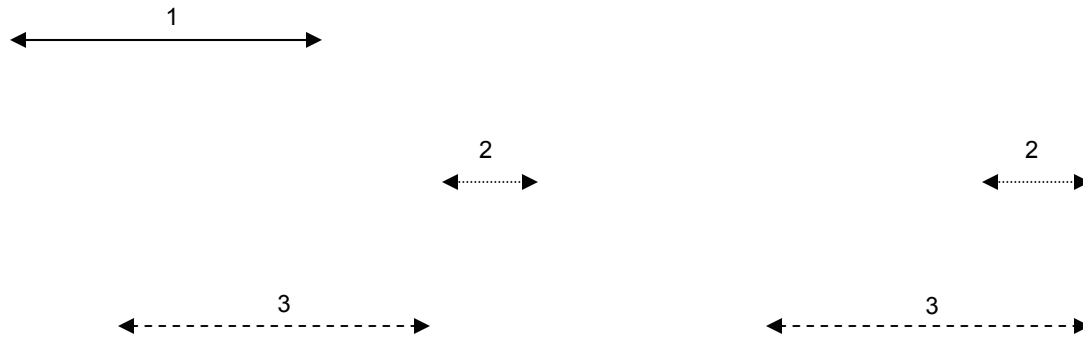
Foliage

Stems

Flowers

Flowers

Jan Feb March April May June July Aug Sept Oct Nov Dec



For More Information Visit:

<http://www.HawkeyeCWMA.org>

ALWAYS READ AND FOLLOW PESTICIDE LABELS.

Proper training for prescribed fires is highly recommended.

Basic training can be found online at <http://training.nwcg.gov/courses/s130.html> and <http://training.nwcg.gov/courses/s190.html>

Related Websites:

<http://www.iowadnr.com/forestry/invasive.html>
<http://plants.usda.gov>
www.invasivespecies.gov
www.nps.gov/plants/alien

Credits:

Photographs: Theodore Webster, USDA Agricultural Research Service; John Cardina, Ohio State University; Ohio State Weed Lab Archive, Ohio State University; John M. Randall, The Nature Conservancy; Richard Old, XID Services, Inc; Joseph M. DiTomaso, University of California– Davis; Bugwood.org ; Russ Kleinman, wnu.edu; Christopher Noll, wisplants.uwsp.edu; npwrc.usgs.gov

Brochure Created By: Karen Clauson

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The Hawkeye Cooperative Weed Management Area (HCWMA) is a collective group of county, state, and federal agencies, nonprofit organizations and community associations who have come together to combat the invasive species problem in Eastern Iowa. The HCWMA serves Benton, Cedar, Iowa, Johnson, Jones, Linn, and Louisa Counties and is open to all interested parties. The Term CWMA, or Cooperative Weed Management Area, refers to a local organization that integrates invasive species management resources across jurisdictional boundaries in order to benefit entire regions.

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All Hawkeye CWMA members (agencies, organizations, and individuals) are equal opportunity providers and employers.

Smooth Brome

Bromus inermis



A SERIOUS THREAT
 To
 Iowa's Prairies/Grasslands

Management Techniques

1. (Spring) Burn. A controlled burn in the spring will set back smooth brome and encourage the growth of native warm-season grasses. It may be necessary to burn for 3 consecutive years to adequately control non-native grasses. Do not do a spring burn if native cool-season grasses or sedges are present.
2. (June or November) Mow. Mow smooth brome in June or November to reduce the seed bank and favor warm-season grasses. Do not mow if desirable plant species are present.
3. (Spring or Fall) Herbicides. Apply herbicides when native grasses are dormant and the soil is unfrozen. Use only grass specific herbicides, such as sethoxydim. Follow the herbicide label for application rates.

What is Smooth Brome?

- A cool-season perennial grass.
- Native to Europe and eastern Asia.
- Was introduced as a forage for livestock and for erosion control on steep slopes.
- Found in prairies, roadsides, and meadows.



Smooth brome invading a prairie.

What does Smooth Brome Look Like?

Identifying traits: A cool-season grass that grows up to 3 feet high. The stem is round, smooth, and erect, and contains many flat, smooth leaves. Look for a W or M shape on leaves. Inflorescence bloom in June or July with purple-brown florets.

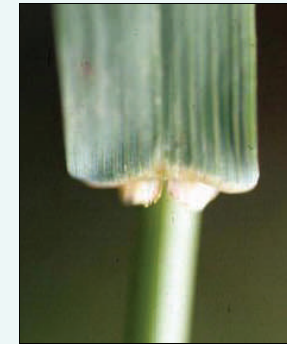
Inflorescence: Four to 10 branched spikes can be found at the top of the stems. Each spike contains 3 to 10 blunt tipped florets. Florets become purple-brown and erect with age. Bloom in June and July.

Seeds: Seeds are gold or tan in color and are very numerous. Seeds are spread by wind, water, birds, and mammals. Remain viable in the soil for up to 10 years.

Rhizomes: Another form of reproduction. Rhizomes are aggressive, dark colored, and spread underground. New stems arise from rhizomes.



Leaves: Leaves are smooth, flat, pointed, and have rough edges. A light green W or M-shaped mark can be found between the center and the tip of the leaf. The sheaths are round and smooth. The ligule is membranous and short.



Similar Species:

Kalm's brome (*Bromus kalmii*)



Woodland brome (*Bromus pubescens*)



Native Alternatives:

Sideoats Grama (*Bouteloua curtipendula*)-

Sideoats Grama is a native, perennial, cool-season grass. It grows in bunches of up to 2.5 feet high. It has adapted to grow in moist or rocky conditions. Sideoats can aid in soil erosion control and provide food for wildlife.



Little Bluestem (*Schizachyrium scoparium*) -

A native warm-season grass that grows up to 3 feet high. Leaves are blue-green during the summer and turn to a rusty color with white fluff in the fall. Is a valuable food source for many bird species and provides habitat for overwintering mammals. Is adapted to a wide range of soil conditions and helps control soil erosion.



Both Kalm's and Woodland brome are native species that can be confused with Smooth brome. However there are two main differences between the 3 species. Kalm's and Woodland brome both have longer and looser stems for their seed heads than Smooth brome. Also, both native species do not have underground rhizomes like Smooth brome does.



Smooth Brome

What is the threat to Iowa?

- Begins growing earlier in the season than native grasses.
- Forms dense patches that compete with native grasses for sun, water, nutrients.
- Spreads easily through seed and rhizome.
- Seeds remain viable in soil for up to 10 years.