

# THE WEEDY BROMES

recognizing them  
at an early stage

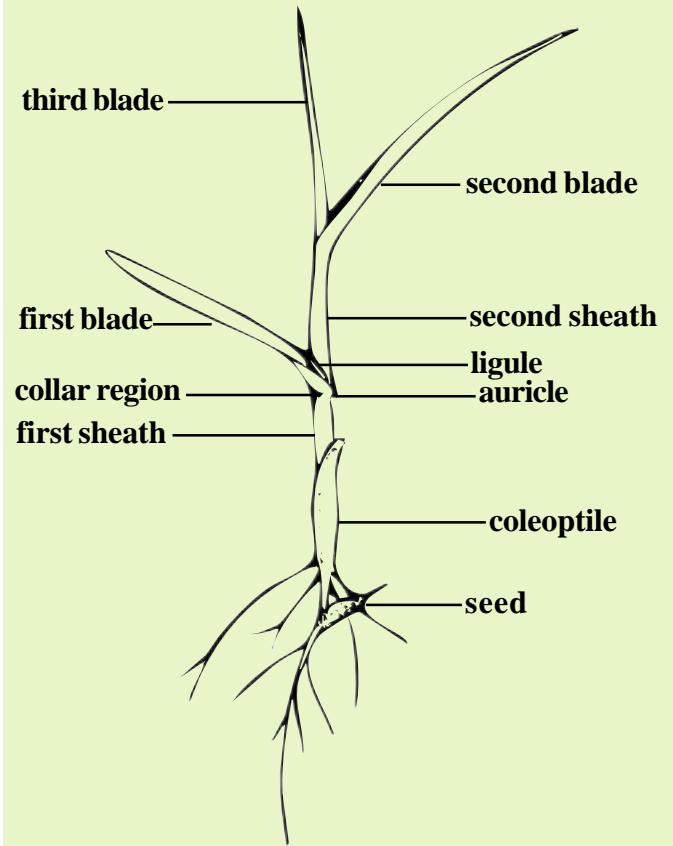
Several species of brome grass  
can be troublesome in Kansas.

Like winter wheat, the annual bromes  
are cool-season grasses.

At early stages  
they may be confused with wheat.

Annual bromes are  
also similar to smooth brome,  
the perennial that is widely planted for forage.

The different species of brome  
are distinctive when the heads appear,  
but easily confused before that time.



Identifying the weedy bromes from above-ground parts at an early stage is difficult, but with a hand lens it is possible to observe some characteristic features. The type of ligule, the kind of edge on the leaf blade, and the distribution of hairs are the most distinctive features.

**Scientific names:**

Cheat, *Bromus secalinus* L.

Downy brome, *Bromus tectorum* L.

Japanese brome, *Bromus japonicus* Thunb. ex Murr.

Smooth brome, *Bromus inermis* Lyess., subsp. *inermis*, cv. "Achenbach"

Wheat, *Triticum aestivum* L., cv. "Arkan"

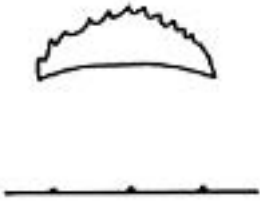
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**Ligule (10x)**  
**Blade edge (10x)**

**Upper leaf surface  
with ligule  
(About 3.6x)**

**Clues for  
identification**

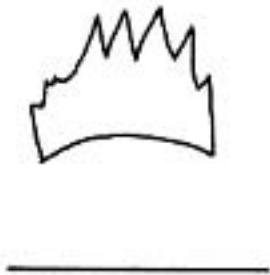
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## Cheat

Sheath margins fused  
Ligule 0.6 mm long, toothed  
Blade edge nearly smooth  
Sheath hairs 1.0 mm long  
Blade hairs 0.4-1.0 mm long



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## Downy brome

Sheath margins fused  
Ligule 1.2 mm long, ragged  
Blade edge smooth  
Sheath hairs 0.6 mm long  
Blade hairs 0.6 mm long  
Blade surfaces distinctly velvety to the touch



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## Japanese brome

Sheath margins fused  
Ligule 0.6 mm long, ragged  
Blade edge smooth  
Sheath hairs 0.6-0.8 mm long  
Blade hairs similar, but denser on the lower surface

**Clues for identification**

**Upper leaf surface with ligule (About 3.6x)**

**Ligule (10x)  
Blade edge (10x)**

**Smooth brome**

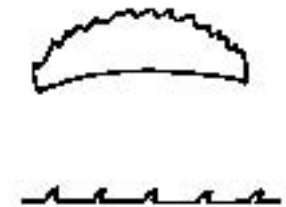
Sheath margins fused

Ligule 0.6 mm long, toothed

Blade edge minutely barbed; barbs visible only with magnification, but may be evident to the touch

First and second leaves usually moderately hairy; third and later leaves vary greatly in hairiness from one plant to another

Hairs on later leaves 0.1-0.4 mm long



**Wheat**

Sheath margins overlapping, not fused

Ligule 0.8 mm long, toothed

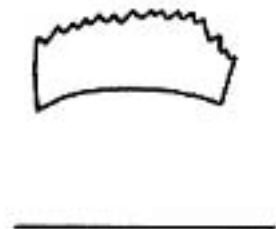
Blade edge smooth

Sheath nearly hairless, but margins of the collar have long, bent hairs

Small auricles usually present

Leaf surfaces somewhat shiny, with only tiny hairs

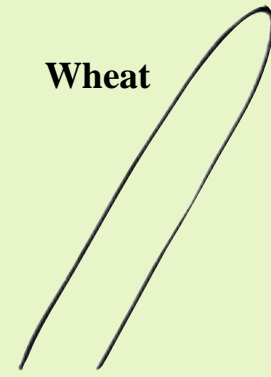
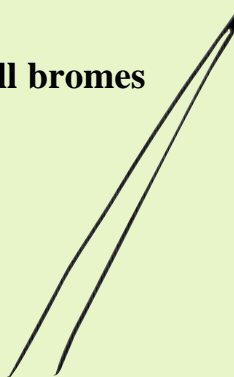
Blades more erect and stiffer than in the bromes



**Leaf tips (about 2x)**

All bromes

Wheat



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### Identification at the seedling state

Seedling grasses still have remnants of the seeds attached to their roots. The most reliable way of identifying seedlings in the first month of growth is to pull the seedling up gently, rinse the roots, and examine what remains of the seed. Despite depletion of the endosperm and some decay of the outer parts, sprouted seeds look much like the fresh seeds.

Seeds and seedlings shown at about 3.6x



**Cheat**



**Downy Brome**



**Japanese Brome**



**Smooth Brome**



**Wheat**

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**Kansas State University Agricultural Experiment Station and Cooperative Extension Service**

L-814

May 1990

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