

THE WEEDY BROMES

recognizing them
at an early stage

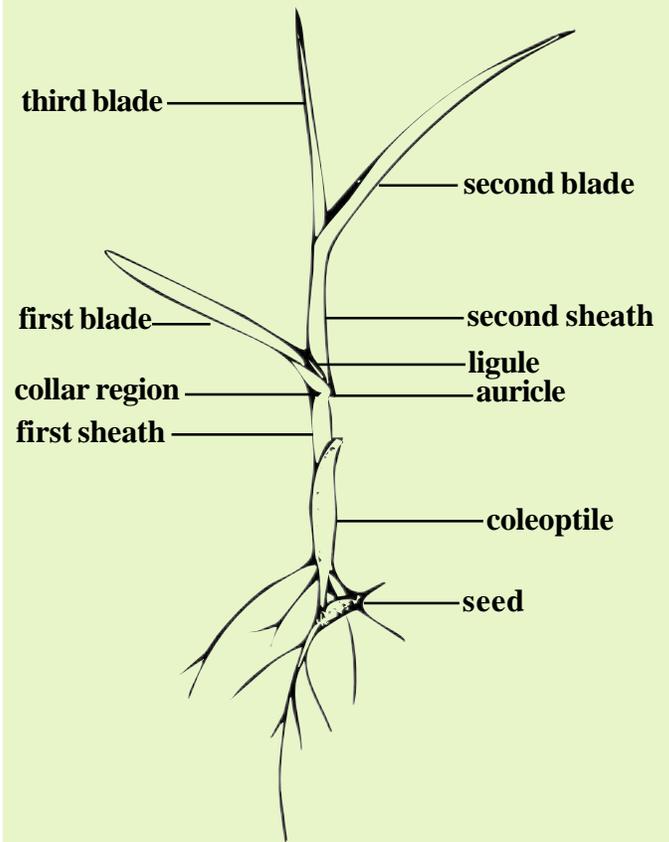
Several species of brome grass
can be troublesome in Kansas.

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"

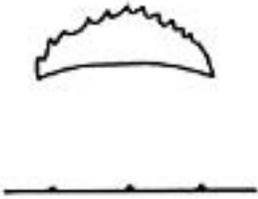
Wheat, *Triticum aestivum* L., cv. "Arkan"

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Ligule (10x)
Blade edge (10x)

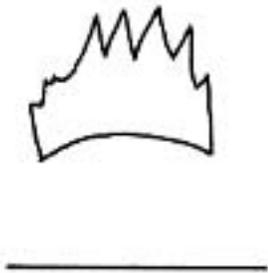
**Upper leaf surface
with ligule
(About 3.6x)**

**Clues for
identification**



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



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



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

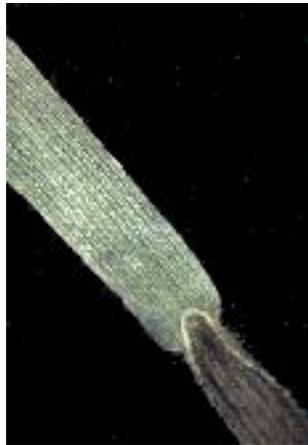
Clues for identification

Upper leaf surface with ligule (About 3.6x)

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

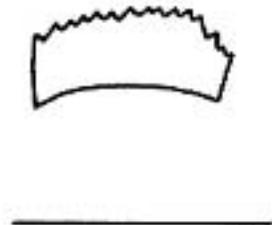
Smooth brome

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

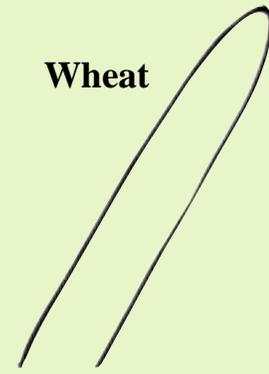
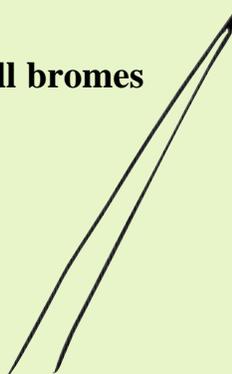
Sheath margins overlapping, not fused
Ligule 0.8 mm long, toothed
Blade edge smooth
Sheath nearly hairless, but margins of the collar have long, bent hairs
Small auricles usually present
Leaf surfaces somewhat shiny, with only tiny hairs
Blades more erect and stiffer than in the bromes



Leaf tips (about 2x)

All bromes

Wheat



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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