

# Vegetative Identification Key for Turfgrasses and Grassy Weeds

**A.** Leaf vernation folded

**B.** Small, claw-like usually auricles present; ligule a very short membrane; *blades dull above, with distinct ribbing/veination, glossy-shiny below; base of sheaths glossy, usually reddish/purple in color.* Bunch grass.

**Perennial ryegrass (*Lolium perenne*)**

**BB.** Auricles absent

**C.** Creeping stolons present

**D.** Ligule a fringe of hairs; leaf blades 1.5-3 mm wide, with a sharply-pointed leaf tip; scaly rhizomes and flat stolons present. *Vernation may appear to be "rolled".*

**Bermudagrass (*Cynodon dactylon*)**

**DD.** Ligule tall, white membrane

**E.** Leaf blades usually light, apple-green color, parallel-sided, leaf blade may have a wrinkled band; may spread (perennial biotypes) by weak to strong stolons, while annual biotypes display distinct bunch-type growth. Flowers often present.

**Annual bluegrass (*Poa annua*)**

**EE.** Ligule a tall membrane; narrow blades light yellow-green, rough, glossy, with a pointed leaf tip; thin stolons present.

**Rough bluegrass (*Poa trivialis*)**

**CC.** Stolons usually absent (rhizomes may be present; short, thin, or weak stolons may be present)

**D.** Blades very narrow, somewhat stiff, bristlelike; prominent veins on upper surface

**E.** Rhizomes present, forming dense sod; stems red, glossy at base; ligule medium short; blades smooth; forms thatchy turf

**Red fescue (*Festuca rubra* var. *rubra*)**

**EE.** Rhizomes absent, forming spreading tufts; forms thatchy turf

**F.** Leaves bluish-green, 0.5-1.0 mm wide; stems erect, green or pink-tinged at base; ligule very short

**Sheep fescue (*Festuca ovina*)**

**FF.** Leaves bright green, 1-2 mm wide; stems red at base; sheath closed nearly to top

**Chewings fescue (*Festuca rubra* var. *commutata*)**

**DD.** Blades wider (greater than 2 mm), NOT bristle-like; veins inconspicuous

**E.** Blades smooth, with distinct mid-rib (*actually with transparent lines on either side of midrib*)

**F.** Rhizomes usually absent

**G.** Ligule tall and white; leaves usually light apple-green, parallel-sided leaf blades, *often with wrinkles or bumps on part of the leaf*; may spread (perennial biotypes) by weak to strong stolon growth, but annual biotypes display distinct bunch-type growth. Flowers often present.

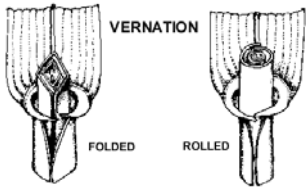
**Annual bluegrass (*Poa annua*)**

**FF.** Rhizomes present, forming a sod

**G.** Blades sharply pointed, bluish-green in color; sheaths strongly flattened; rhizomes sparsely branched. Forms thin sod when mowed.

**Canada bluegrass (*Poa compressa*)**

**GG.** Blades parallel sided, not sharply pointed; forms dense sod



BLADE CROSS SECTIONS



BLADE CROSS SECTIONS



H. Ligule short, very blunt membrane; rhizomes multi-branched; leaves soft, with distinct midrib. Often thatchy.

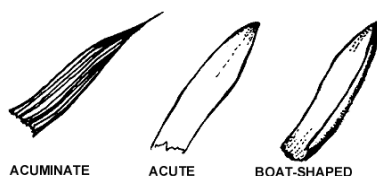
**Kentucky bluegrass (*Poa pratensis*)**

EE. Blades without distinct midrib (or without 2 bright lines on either side of the midrib); don't form an attractive or dense turf

F. Blades parallel sided without a pointed tip; prostrate growth habit; stems flattened on the ground on mowed turf; leaf sheaths shiny, as if waxed; annual that dies with the first hard fall frost

**Goosegrass (*Eleusine indica*)**

**LEAF BLADE TIPS**



FF. Blades with pointy tip; upright growth habit; perennial

G. Ligule conspicuous, tall, white membrane; blades 4-10 mm wide, light green, often V-shaped. Forms clumps in mowed turf.

**Orchardgrass (*Dactylis glomerata*)**

GG. Ligule a fringe of hairs; blades 2-4 mm wide, gray-green, pointed. Sheaths and leaves stiff, bristle-like. Aggressive, sharply pointed rhizomes. May form an attractive, dense turf.

**Inland saltgrass (*Distichlis spicata*)**

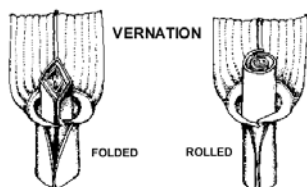
AA. Leaf vernation rolled

B. Auricles often present

C. Sheaths often reddish or purple at base; blades glossy below, distinctly ribbed above. Distinct rhizomes NOT present (very short, stubby rhizomes may be present)

D. Margins of blades smooth; auricles long, clawlike; ligule short, blunt membrane; bunch grass. Coarse grass that doesn't mow cleanly; leaves and stems shred.

**Italian or Annual ryegrass (*Lolium multiflorum*)**



DD. Margins of blades rough/toothed; auricle short; ligule a short, very blunt membrane; bunch grasses.

E. Short to long auricles usually present; blades flat, roughly ribbed above. Forms unsightly clumps in lawn; leaves shred when mowed.

**Meadow fescue (*Festuca pratensis*)**

EE. Auricles, when present, very small; base of leaf sheath often purplish-red in color. Turf types form attractive turf. Weedy types form unsightly clumps in lawn.

**Tall fescue (*Festuca arundinacea*)**

CC. Distinct rhizomes often present; sheaths generally not reddish at base; blades not glossy below

D. Conspicuous rhizomes present

**pilose:** with soft, straight hairs; fuzzy.

E. Blades flat, pointed, soft; may be sparsely *pilose* above. Sheaths often fuzzy early in the year, but not later. Blue-green color. Forms thin, large patches in turf. Aggressive, perennial weed that greens up early in the spring.

**Quackgrass (*Agropyron repens*)**

**Glaucous:** having a whitish or bluish, waxy covering or "bloom".

EE. Blades flat, *glaucous*, blue-green, margins sharply toothed or barbed

**Western wheatgrass (*Agropyron smithii*)**

DD. Rhizomes absent or short

E. Auricles long, clawlike; forms poor, thin turf, often becoming clumpy in appearance. Greens up early in the spring.

**Crested wheatgrass (*Agropyron cristatum*)**

**BB. Auricles absent**

C. Sheaths ("stem") round in cross-section (not noticeably flattened in cross-section)

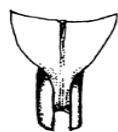
D. Collar hairy, at least at base or on margins

E. Sheaths not hairy (or sparingly hairy)

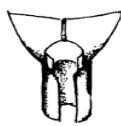
F. Strongly stoloniferous

G. Blades 2-4 mm wide; strongly *stoloniferous*; *ligule a fringe of hairs*; leaf edge smooth

**Zoysiagrass (*Zoysia japonica*)**



Ligule absent



Membranous ligule



Fringe of hairs

FF. Rhizomes short, stout, scaly; blades 1-2 mm wide, soft; collar broad with hairy margins; leaves generally NOT hairy

**Blue grama (*Bouteloua gracilis*)**

FFF. Blades 1.5-3 mm wide, flat, sharply pointed tip; scaly rhizomes and flat stolons present. *Vernation may appear to be "folded"*.

**Bermudagrass (*Cynodon dactylon*)**

**LEAF BLADE TIPS**



ACUMINATE



ACUTE



BOAT-SHAPED

EE. Sheaths and blades hairy

F. Rhizomes present

**Sideoats grama (*Bouteloua curtipendula*)**

FF. Rhizomes not present

**Downy brome (*Bromus tectorum*)**

DD. Collar not hairy (although leaves and sheaths may be hairy)

E. Rhizomes and/or stolons present; perennial

F. Ligule a fringe of hairs

G. Rhizomes present; blades smooth; bright green color

**Korean zoysiagrass (*Zoysia tenuifolia*)**

GG. Rhizomes absent; stolons well-developed; blades sparsely to heavily pilose, 1-3 mm wide, curly, gray-green or blue-green color

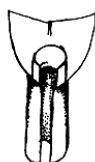
**Buffalograss (*Buchloe dactyloides*)**

FF. Ligule membranous (not a fringe of hairs)

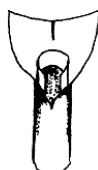
G. *Sheath closed to near top*; ligule blunt; blades smooth; *rhizomes present*. Wide, coarse leaves.

**Smooth brome (*Bromus inermis*)**

**SHEATH MARGINS**



SPLIT



CLOSED



SPLIT-OVERLAPPING

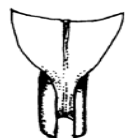
GG. Sheaths split with overlapping margins; blades flat with prominent veins on upper surface, acuminate/pointed leaf tip

H. Stolons absent or weak, forming tufts or bunches

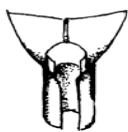
I. Blades 3-4 mm wide; ligule long; short rhizomes present

**Redtop (*Agrostis alba*)**

II. Blades 1-3 mm wide; ligule medium short

**Colonial bentgrass (*Agrostis tenuis*)****HH.** Stolons well developed, not forming tufts**I.** Blades short, narrow, 1 mm wide; ligule short**Velvet bentgrass (*Agrostis canina*)****II.** Blades 2-3 mm wide; ligule conspicuous, white, 1-3 mm tall; stolons quite long. Forms dense, thatchy patches in lawns.**Creeping bentgrass (*Agrostis palustris*)****EE.** Rhizomes absent, plants have bunch-type growth habit; annual or perennial**F.** Sheaths white with pink veins, smooth; annual**Chess (*Bromus secalinus*)****FF.** Sheaths without pink veins, open**G.** Base of culms bulbous; ligule long, notched near front on each side; perennial**Timothy (*Phleum pratense*)**

Ligule absent



Membranous ligule



Fringe of hairs

**GG.** Base of culms not bulbous; annual; grows flat on ground when mowed, sometimes rooting at lower nodes**H.** Sheaths hairy, pilose; purplish; blades hairy below**Large (hairy) crabgrass (*Digitaria sanguinalis*)****HH.** Sheaths smooth, purplish; blades smooth below**Smooth (small) crabgrass (*Digitaria ischaemum*)****CC.** Sheaths (“stems”) flattened in cross-section; bunch grasses that form circular “mats” when mowed; annuals which die with first hard frost in the fall; no rhizomes**D.** Sheaths smooth**F.** Ligule absent**Barnyardgrass (*Echinochloa crusgalli*)****FF.** Ligule present, a fringe of hairs; sheath keeled**Yellow foxtail (*Setaria glauca*)****DD.** Sheaths hairy; ligule a fringe of hairs; rhizomes absent**E.** Sheaths hairy; blades flat**Green foxtail (*Setaria viridis*)****EE.** Sheaths smooth; blades flat**Stinkgrass (*Eragrostis cilianensis*)**