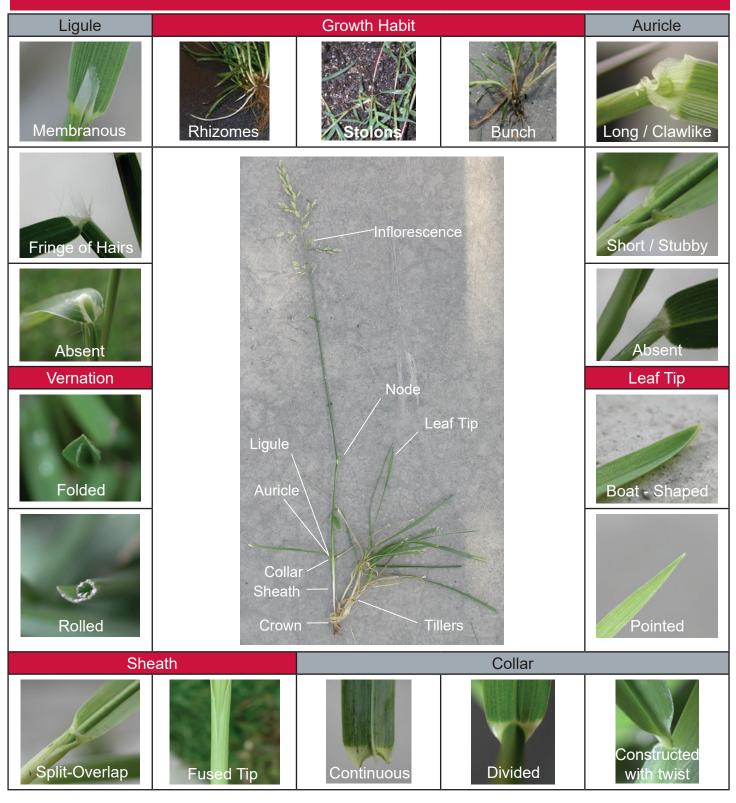
Grass Identification

Dave Gardner, Dept. of Horticulture and Crop Science, The Ohio State University



Identification Key to Turfgrass Species

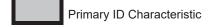
Both couplets or triplets should be read before deciding where to proceed. The key includes common turfgrass, plus some lesser-used species that are often misidentified in the field.

- 1. Ligule not a fringe of hairs
 - ¹ →2. Folded vernation
 - →3. Boat shaped leaf tip
 - →4. Ligule short or absent
 - →5. Rhizomatous, leaf blade with translucent midrib = Kentucky bluegrass (*Poa pratensis*)
 - →4. Ligule present
 - →5. Ligule prominent, sheaths slightly compressed, bunch type = Annual bluegrass (*Poa annua*)
 - →5. Ligule abrupt, sheath strongly compressed = Canada bluegrass (*Poa compressa*)
 - →5. Ligule 4 6 mm, stoloniferous, fused sheath resembles onion skin = Rough bluegrass (*Poa trivialis*)
 - →3. Pointed leaf tip
 - →4. Very fine leaves, bunch type = *Festuca spp.* fine fescues
 - →4. Very fine leaves, rhizomatous = Creeping red fescue (*Festuca rubra*)
 - →4. Leaves shiny on back, bunch type, red pigment at sheath base =Perennial ryegrass (*Lolium perenne*)
 - →2. Rolled vernation
 - →3. Auricle present
 - →4. Long, claw-like auricle, bunch type = Annual ryegrass (*Lolium multiflorum*)
 - →4. Narrow auricle, leaf blade 2-5 mm, pubescent upper leaf =Fairway wheatgrass (*Agropyron cristatum*)
 - →3. Auricle difficult to detect or absent
 - →4. Ligule short or absent
 - →5. Distinct collar, bunch type, prominent venation = Tall Fescue (*Festuca arundinacea*)
 - →5. Liqule evenly truncate, blades rough along edges, bunch type =Colonial bentgrass (Agrostis capillaris)
 - **4** Ligule prominent
 - →5. Stoloniferous, light green color = Creeping bentgrass (*Agrostis stolonifera*)
 - →5. Rhizomatous, prominent venation = Redtop bentgrass (*Agrostis alba*)
 - →5. Swollen base (Haplocorm) = Turf timothy (*Phleum pratense*)
- 1. Ligule a membrane with a fringe of hairs
 - →2. Margins ciliate toward base, thick stolons = Bahiagrass (*Paspalum notatum*)
 - →2. Fine-textured, less aggressive stolons = Seashore paspalum (*Paspalum vaginatum*)
- 1. Ligule a fringe of hairs
 - ¹ →2. Rolled vernation
 - →3. Light green leaf, surface pubescent on both sides = Buffalograss (*Buchloe dactyloides*)
 - →3. Continuous collar, evenly spaced internodes = Zoysiagrass (*Zoysia japonica*)
 - →2. Folded vernation
 - →3. Unevenly spaced internodes, vernation may be rolled, thin collar = Bermudagrass (*Cynodon dactylon*)
 - →3. Evenly spaced internodes
 - →4. Collar constricted with 90 deg. twist = St. Augustinegrass (Stenotaphrum secundatum)
 - →4. Collar lacks 90 deg. twist
 - →5. Hairs on lower 1cm of leaf edge, cottony ligule = Centipedegrass (*Eremochloa ophiuroides*)
 - →5. Pubescent sheath, smooth leaf blade = Kikuyugrass (*Pennisetum clandestinum*)

Turfgrass Identification Characteristics

Species	Growth Habit	Vernation	Ligule	Auricle	Leaf Blade	Other ID Characteristics	
Creeping bentgrass	Stolons	Rolled	Membranous, 1 - 2 mm	Absent	Pointed tip	Narrow collar. Leaf blade has prominent veination	
Colonial bentgrass	Bunch-type or short rhizomes and stolons	Rolled	Membranous, 0.4 – 1 mm	Absent	Pointed tip	Leaf blade rough along edges. Leaf blade has prominent veination	
Tall fescue	Bunch-type	Rolled	Short to Long	Short, blunt	Rigid, course	Leaf blade has prominent veination. Broad, continuous collar	
Creeping red fescue	Rhizomes	Folded	Membranous, very small	Absent	Very Narrow	Sheaths wider than blades	
Hard fescue	Bunch-type	Folded	Membranous, very small	Absent	Very Narrow	Sheaths wider than blades	
Perennial ryegrass	Bunch-type	Folded	Short, membranous	Small, or absent	Pointed tip, shiny backside		
Annual ryegrass	Bunch-type	Rolled	Short, membranous	Claw- like	Pointed tip, shiny backside	Course leaf texture. Prominent veination.	
Kentucky bluegrass	Rhizomes	Folded	Short, membranous	Absent	Boat- shaped tip	Narrow collar. Prominent mid-vein	
Rough bluegrass	Stolons	Folded	4-6 mm, membranous	Absent	Boat- shaped tip	Sheath has onion-skin appearance	
Annual bluegrass	Bunch-type	Folded	Membranous	Absent	Boat- shaped tip		
Buffalograss	Stolons	Rolled	Fringe of hairs	Absent	Light green	Leaf is pubescent on upper and lower surface	
Bermudagrass	Rhizomes, stolons	Folded	Fringe of hairs	Absent		Stolons have uneven internodes	
Zoysiagrass	Stolons	Rolled	Fringe of hairs	Absent		Broad, continuous collar	
Bahiagrass	Thick stolons	Rolled or folded	Membranous	Absent	Margin is ciliate toward base		
Seashore paspalum	Stolons	Rolled or folded	Membrane with fringe of hairs	Absent			
Kikuyugrass	Rhizomes, stolons	Folded			Smooth		
St. Augustinegrass	Stolons	Folded	Fringe of hairs	Absent	Blunt tip, constricted collar	Leaves with 90° twist	
Centipedegrass	Stolons	Folded	Membranous, with hairs, cottony	Absent	Glabrous underside	Broad collar.	

Note: Several characteristics, in conjunction with the ID Key on the following page, should be used. When present, the inflorescence is the most reliable ID characteristic.



Annual Grass Weeds							
Species	Growth Habit	Vernation	Ligule	Auricle	Sheath	Lamina	Inflorescence
Annual Bluegrass Poa annua	Bunch type. May have stolons	Folded	Tall, membranous	Absent	Round, smooth, overlapping	Boat shaped leaf tip	Distinct panicle. Prolific.
Smooth Crabgrass Digitaria ischaemum	Bunch Type. Decumbent stems that root at nodes	Rolled	Tall, rounded, membranous	Absent	Compressed, smooth, may be tinged in purple	Wide, tapers to point. Slightly pubescent near ligule	Distinct spikelet with 2-6 branch- like fingers
Large Crabgrass Digitaria sanguinalis	Bunch Type. Decumbent stems that root at nodes	Rolled	Tall, jagged edges, membranous	Absent	Compressed, hairy	Wide, tapers to point. Glabrous to slightly pubescent	Distinct spikelet with 3-13 branch- like fingers
Barnyard Grass Echinochloa crusgalli	Bunch Type. Lower stems decumbent, upper ascending	Rolled	Absent	Absent	Glabrous, pyramidal shape. Green-purple color	Smooth, wide, soft, variable, pubescent	Distinct panicle
Goosegrass Eleusine indica	Bunch Type. Decumbent stems, upper stems can be ascending	Folded	Ciliate membrane	Absent	Smooth, loose, overlapping, very compressed	Smooth, tough	Distinct, coarse, spikelet with 2-10 branch- like fingers
Witchgrass Panicum capillare	Bunch Type	Rolled	Fringe of short hairs	Absent	Pubescent	Soft, flat, wide, with broad midrib. Densely pubescent	Distinct, very open, long, fine panicle
Yellow Foxtail Setaria pumila	Bunch Type. Erect or decumbent stems	Rolled	Fringe of short hairs	Absent	Pubescent at margins	Flat, wide, smooth. Margins are barbed	Distinct, dense cylindrical panicle



Perennial Grass Weeds							
Species	Growth Habit	Vernation	Ligule	Auricle	Sheath	Lamina	Inflorescence
Smooth Brome Bromus inermus	Strongly rhizomatous	Rolled	Short, membranous	Absent	Round, distinctly closed near top	Wide, blue- green color. Often with "Watermark"	Panicle
Orchard- grass Dactylis glomerata	Bunch Type	Folded	Distinct, long, membranous Often toothed	Absent	Compressed and closed at base	Wide, tapers to acute point. Furrowed at midrib	Panicle
Quackgrass Elytrigia repens	Erect stems. Strongly rhizomatous	Rolled	Short, membranous	Distinct, long, and clasping	Lower is pubescent, upper is hairy	Sharply pointed. Gray-green color, sparsely pubescent	Spike with 4-7 flattened spikelets
Nimblewill Muhlenbergia schreberi	Stoloniferous Roots at lower nodes	Folded	Short, membranous	Absent	Mostly glabrous, loose, open at stem	Short, flat, narrow, pointed	Slender panicle, often present, distinct
Field Paspalum Paspalum laeve	Rhizomatous	Rolled	Tall, membranous with hairs	Absent	Can be rough, hairy at base	Rough margins, with prominent white midrib	Spike with alternating spikelets
Timothy Phleum pratense	Bunch Type Lower internodes form haplocorm (enlarged bulb)	Rolled	Membranous	Absent	Round, smooth, overlapping	Long, flat, blue-green color, tapered, scabrous at margins	Dense Panicle
Rough Bluegrass Poa trivialis	Stoloniferous	Folded	Distinct, membranous	Absent	Round, distinctly closed near top. Senescing sheaths resemble onion skin	Boat shaped leaf tip	Panicle
Johnson- grass Sorghum halepense	Strongly rhizomatous	Rolled	Distinct, membranous, notched with hairs	Absent		Rough margins, with prominent white midrib	Large open Panicle, often purple