



Quick Identification Tips for Turfgrasses Commonly Grown in Kentucky

Gregg Munshaw and Travis Shaddox, Plant and Soil Sciences

Species of both warm- and cool-season turfgrasses are grown in Kentucky. Identification of these grasses is critical for implementation of proper management practices. Grass identification is commonly performed by observing specific parts of the plant. For a review of the parts of the grass plant, see AGR-216: *Turfgrasses of Kentucky*.

The objective of this Extension publication is to provide concise identification tips to properly identify Kentucky turfgrasses. In general, cool-season grasses either have ligules too small to see, or membranous ligules and warm-season grasses (bermudagrass, zoysiagrass) have hairy ligules and hairs around the base of the leaf.



Figure 1. The Kentucky bluegrass leaf showing “train tracks” up the middle of the leaf and the boat shaped tip (top) and a perennial ryegrass leaf showing the veiny leaf (bottom).

Kentucky Bluegrass

What to look for: Boat-shaped leaf tip, folded veneration (how the leaf emerges from the bud), ligule (structure at the base of the leaf) too small to see, deep grooves on either side of the mid-vein, giving it a double mid-vein or ‘train tracks’ appearance, rhizomes below ground, dark green color, fine/medium texture.

What you might confuse it with: Perennial ryegrass.

How to quickly differentiate: Kentucky bluegrass has ‘train tracks’ up middle of leaf, while perennial ryegrass has a single prominent mid-vein and corduroy-like veins on the leaf (Figure 1). Also, perennial ryegrass has a purple color near the base of the plant and Kentucky bluegrass does not (Figure 2).



Figure 2. The purple coloration at the base of the ryegrasses and fescues (perennial ryegrass pictured).

Perennial Ryegrass

What to look for: Folded veneration, waxy leaf surface causes it to look shiny in the light, purple color at base of stem, ligule too small to see (Figure 2).

What you might confuse it with: Kentucky bluegrass

How to quickly differentiate: Perennial ryegrass lacks the “train track” appearance in the middle of the leaf of Kentucky bluegrass (see Figure 1).



Figure 3. The base of the tall fescue leaf showing the small hairs on the collar and serrated edge of the leaf blade (left) and the large clasping auricles of annual ryegrass (right).

Tall Fescue

What to look for: Leaves with prominent, coarse veins, stiff blades, ligule too small to see, rolled vernation (easy to see), serrated leaf edge (hard to see but easy to feel by rubbing the leaf edge against your lip), and small hairs at the base of the leaf (collar edges) (Figure 3).

What you might confuse it with: Zoysiagrass or annual ryegrass.

How to quickly differentiate: Zoysiagrass is hairy, tall fescue is not. Annual ryegrass leaves are soft and tend to flop down, tall fescue leaves are stiff. Annual ryegrass has a clasping auricle, tall fescue auricles are very short. Annual ryegrass leaves are very shiny, especially on the underside.



Figure 4. The fine fescue leaf (top) and a pine needle (bottom).

Fine Fescues

What to look for: Needle-like leaves, folded in half, purple color at base of stem.

What you might confuse it with: It doesn't look like any of the other turfgrasses grown in Kentucky, it somewhat resembles pine needles (Figure 4).



Figure 5. The creeping bentgrass stem and leaf showing veiny leaf and large membranous ligule (left) and large membranous ligule and “train tracks” on leaf of annual bluegrass (right).

Creeping Bentgrass

What to look for: Rolled vernation (can be difficult to see), veiny leaves, leaves soft to the touch, blue-green leaf color, sharp pointed leaf tip, large membranous ligule, small stolons (Figure 5).

What you might confuse it with: Annual bluegrass, nimblewill

How to quickly differentiate it: Annual bluegrass has a boat shaped leaf tip, often has wrinkles on leaves, and has the “train tracks” in the center of each leaf. Nimblewill has hairs around the collar and a short, jagged membranous ligule, while creeping bentgrass has a large membranous ligule and there is an absence of hairs around the collar.

Bermudagrass

What to look for: Hairy ligule, often hairs on leaf as well, folded vernation (somewhat difficult to see), no mid-vein on leaf, prominent stolons and rhizomes, seedhead resembles fingers on a hand.

What you might confuse it with: Nimblewill and zoysiagrass.

How to quickly differentiate it: Both nimblewill and zoysiagrass have rolled vernation. Nimblewill and zoysiagrass may be found in some shady areas whereas bermudagrass will not. Nimblewill has stolons only, bermudagrass and zoysiagrass have stolons and rhizomes. Bermudagrass seedhead has several “fingers,” zoysiagrass and nimblewill both have single spike-looking seedheads. Nimblewill has a short membranous ligule, zoysiagrass and bermudagrass have hairy ligules. New stems develop at 90-degree angles off of stolons and rhizomes in zoysiagrass, while they are at a 45-degree angle with bermudagrass. All three species are warm-season perennials that turn straw brown after the first hard frost in the fall.

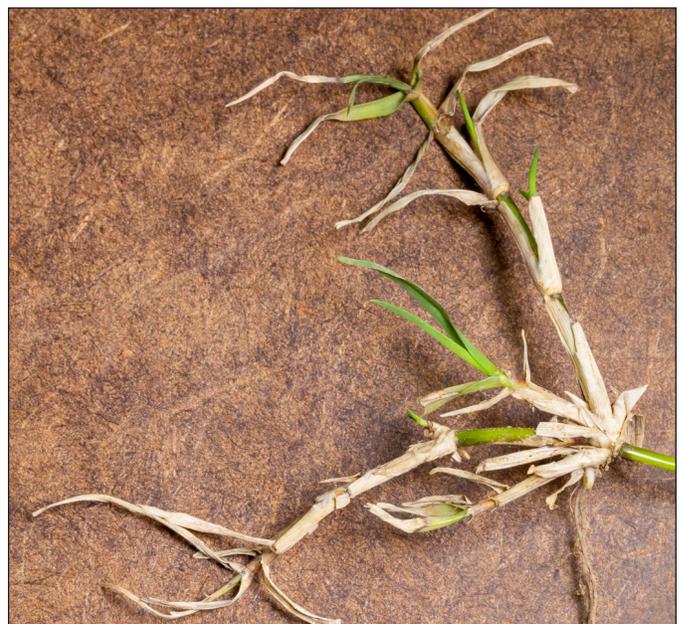


Figure 6. Stolons of zoysiagrass (top) showing the right angle branching of shoots and bermudagrass (bottom) showing branching at a 45-degree angle.

Zoysiagrass

What to look for: Rolled vernation, stolons and rhizomes with a spear-like tip, hairy ligule as well as a hairy collar region, steeple-like leaf tips, right angle branching off stolons and rhizomes.

What you might confuse it with: See Bermudagrass and Tall fescue, above.

Crabgrass

What to look for: Rolled vernation, large membranous ligule, hairs around collar, seedhead looks like spiked branches. Large crabgrass can be distinguished from smooth crabgrass as it has hairs on stems and leaves and roots form at the nodes.

What you might confuse it with: Dallisgrass and goosegrass.

How to quickly differentiate it: Dallisgrass and crabgrass have a long membranous ligule, the goosegrass ligule is membranous but short. Goosegrass has a very flat (compressed) stem, while crabgrass and dallisgrass may only have a slightly flat stem. Dallisgrass and crabgrass have rolled vernation, goosegrass is folded. Goosegrass has a silvery base to the leaves, and tends to grow in a prostrate manner. The goosegrass seedhead resembles a bird's foot and the dallisgrass seedhead can quickly grow tall and usually has three large branched spikes with black flowers on the underside of the seedhead (Figure 7). Crabgrass and goosegrass are both annual plants and survive only from seed germinating each spring (early for crabgrass, later for goosegrass), dallisgrass is a perennial that will persist through vegetative structures as well as germinating seed. All three tend to form loose clumps in turf but will grow taller more quickly than the desirable turf species.



Figure 7. The goosegrass seedhead showing its resemblance to a bird's foot (top) and the ligule and leaf hairs on smooth crabgrass (bottom).

Photos by Joe Omielan