

Identification of Grass Weeds in Florida Citrus¹

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Grass weeds commonly found in citrus can be identified by looking for specific characteristics of the plant. These specific characteristics can include, but are not limited to, the width of the leaf blade, presence or absence of hairs, growth habit, type of seed head, root system, and plant size. The entire leaf can be further divided into the sheath, ligule, and blade to also aid in identification. The sheath is the lower part of the leaf that fits around the stem. The projection at the base of the leaf blade is called a ligule. The ligule may be either a membrane or a fringe of hairs or a combination of both.

Additionally, the presence of other factors such as stolons (above ground stems) or rhizomes (under ground stems) can also be helpful in plant identification.

Grass seedlings have one leaf as they emerge from seed, whereas broadleaf plants have two. Leaves are generally narrow, grow upright, and have parallel veins in the leaf blade. Grasses usually grow and develop with a fibrous root system that lacks a central taproot. The stems are round and can be either hollow or solid.

Grasses are classified as either annuals or perennials. Annual plants will complete their life cycle in one year (12 months) or less. Perennials will live more than two years (24 months).

The following 12 grass plants are weeds commonly found in citrus groves and other disturbed and cultivated sites in the state of Florida. The characteristics discussed in this article should help you with identification. Please see Figure 13 for a line drawing of the parts of the leaf.

Guineagrass -- *Panicum maximum* (Fig. 1)

Season: annual or perennial

Stem:

height: to 16 feet

growth habit: densely tufted, sometimes bending, rooting at nodes

roots: fibrous

hairs: none to hairy

joints: smooth to usually hairy

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Figure 1. Guineagrass

Leaf:

sheath: usually hairy or smooth

ligule: small membrane, fringed with tiny hairs

blade: light green, flat, up to 1 3/4 inches in width and up to 30 inches long

Seed head: large, to 3 feet long with spreading branches, lowest branches always whorled

Seed: small, with fine wrinkles, 1/8 inch (2.7-3.7 mm) long

Propagation: reproduces by seeds and rarely by stolons

Comments: identified by the lowest seed head branches whorled and seeds with wrinkles

Narrowleaf Guineagrass -- *Panicum maximum* (Fig. 2)



Figure 2. Narrowleaf Guineagrass

Characteristics are similar to guineagrass except for the following:

Season: perennial

Stem:

height: to 5 feet, but can lean and climb through other vegetation reaching 20 feet or more

growth habit: bending, rooting, and branching at nodes

Leaf:

blade: to 1/2 inch in width

Propagated by: seeds and stolons

Comments: prolifically branching at nodes, can literally fill a citrus tree with branches and grow through and out of the top of the tree; identified by the same characteristics as guineagrass, but blade only 1/2 inch or less wide

Torpedograss -- *Panicum repens* (Fig. 3)

Season: perennial



Figure 3. Torpedograss

Stem:

height: 1-3 feet tall

growth habit: erect or leaning stems, grows horizontally by underground rhizomes which sprout stems from nodes, end of underground rhizome is white and sharply torpedo-shaped

roots: fibrous with rhizomes

hairs: none

joints: smooth

Leaf:

sheath: with or without hairs, sheath margin fringed with short hairs and with long hairs at top

ligule: tiny membrane fringed with tiny hairs

blade: narrow, 2-10 inches long, 1/16 to 1/4 inch wide, folded or flat, long soft hairs on upper surface

Seed head: stiff, branched and open, 3-9 inches long

Seed: 1/8 inch (2.2-3.1 mm) long, white, smooth

Propagated by: primarily by rhizomes, but seeds germinate easily

Comments: requires moisture to germinate, prefers wet areas; identified by white rhizomes, white seeds on stalks, and soft hairs on upper blade surface

Broadleaf Signalgrass -- *Urochloa platyphylla* (*Brachiaria platyphylla*) (Fig. 4)



Figure 4. Broadleaf signalgrass

Season: summer annual

Stem:

height: to 3 feet tall

growth habit: spreading, multi-branched, rooting at lower nodes

roots: fibrous

hairs: none

joints: hairy

Leaf:

- sheath:** hairs on margin and sometimes on sheath
- ligule:** tiny membrane with very short hairs
- blade:** to 6 inches long and to 1/2 inch wide

Seed head: up to 12 inches long with 2-6, 1-3 inch long branches

Seed: 3/16 inch (3.5-4.7 mm) long, smooth

Propagated by: seeds

Comments: identified by fibrous roots, hairy ligule, broad blades, smooth sheath, alternate branches in seed head, smooth seeds

Leaf:

- sheath:** stiff hairs, sheath margin usually fringed with hairs
- ligule:** tiny membrane with a fringe of hairs
- blade:** with scattered stiff hairs

Seed head: 2 to 7 alternate branches

Seed: 1/8 inch (3.3-3.8 mm) long, smooth

Propagated by: seeds and stolons

Comments: blade tips turn white after frost or cutting; identified by fibrous roots, rooting stems, hairy ligule, hairy sheath, hairy blade, alternate branches in seed head, smooth seeds, leaf tips often white

**Smallflowered Alexandergrass --
Urochloa subquadripara (*Brachiaria subquadripara*) (Fig. 5)**



Figure 5. Smallflowered Alexandergrass

Season: short-lived perennial

Stem:

- height:** to 2 feet tall
- growth habit:** erect to bending, rooting at nodes, with weak stolons
- roots:** fibrous
- hairs:** none
- joints:** smooth

Southern Sandbur -- *Cenchrus echinatus* (Fig. 6)



Figure 6. Southern Sandbur

Season: summer annual

Stem:**height:** 1/2 to 2 feet tall**growth habit:** erect or spreading, in clumps, rooting at lower nodes**roots:** fibrous**hairs:** none**joints:** smooth**Leaf:****sheath:** smooth, margin often hairy**ligule:** hairy ring**blade:** to 12 inches long and to 1/2 inch wide, sometimes hairy on upper surface**Seed head:** contains a spike of spiny burs which contain 2 to 3 seeds per bur, 5-22 burs per spikelet**Seed:** 1/4 inch (4.8-6.8 mm) long, smooth**Propagated by:** seed**Comments:** identified by spiny burs with flattened spines over most of the bur and a ring of round spines arranged in a crown around the base**Crowfootgrass -- *Dactyloctenium aegyptium* (Fig. 7)****Season:** summer annual**Stem:****height:** to 2 feet tall**growth habit:** upward bending, spreading and branching, forming a mat which may root at nodes**roots:** fibrous**hairs:** none**joints:** smooth**Leaf:****sheath:** lacking hairs**ligule:** membranous with a fringe of hairs**blade:** with or without hairs, blade margin with long ciliate hairs from base to almost tip**Seed head:** 1-7 short, finger-like thick spikes joined at the same point at tip of stem, branches with claw-like tips**Seed:** 1/8 inch (4.0 mm) long, 3-5 joined together**Figure 7.** Crowfootgrass**Propagated by:** seeds**Comments:** identified by fibrous roots, stiff hairs on blade margins, tip of seed head branches claw-like**Natalgrass -- *Melinis repens* (*Rhynchelytrum repens*) (Fig. 8)****Season:** short lived perennial**Stem:****height:** to 40 inches**growth habit:** erect or ascending, from clumps**roots:** fibrous**hairs:** none**joints:** smooth**Leaf:****sheath:** smooth or hairy**ligule:** tiny membrane, fringed with hairs**blade:** flat, to 7 inches long, to 1/4 inch wide, smooth to sandpapery to hairy**Seed head:** white at first but turns a showy red or purple, often fading to white again after maturity



Figure 8. Natalgrass

Seed: 3/16 inch (2.5-4.7 mm) long, hairy

Propagated by: seeds

Comments: identified by a clump with fibrous roots, hairy seed heads, with long reddish hairs on seeds

Bermudagrass -- *Cynodon dactylon* (Fig. 9)

Season: creeping perennial

Stem:

height: 4 to 36 inches tall

growth habit: spreading

roots: fibrous, rooting from nodes, stolons, and rhizomes

hairs: none

joints: flattened, hairless, bearing dead leaf sheaths at each joint

Leaf:

sheath: with or without hairs, sheath margin with long hairs at collar

ligule: membrane with a fringe of hairs

blade: with or without hairs on both surfaces, 1-7 inches long and 1/10-2/10 inch wide



Figure 9. Bermudagrass

Seed head: erect, with 3 to 9 finger-like branches 1-4 inches (3-10 cm) long, all at tip

Seed: flattened, 1/8 inch (2.0-3.2 mm) long, hairy

Propagated by: seed, surface-creeping stems (stolons), and rhizomes

Comments: used extensively for forage and turf; identified by rhizomes, stolons, narrow blades, erect hairs resembling cat's whiskers on margins of collar

Johnsongrass -- *Sorghum halepense* (Fig. 10)

Season: perennial

Stem:

height: 4-10 feet tall

growth habit: coarse, very leafy, erect, perennial, forming dense stands

roots: fibrous with thick rhizomes

hairs: none

joints: smooth



Figure 10. Johnsongrass

Leaf:

sheath: with a few hairs

ligule: prominent membranous ligule

blade: with prominent white midvein, hairs at the base of leaf blade, to 20 inches long and 1/4 to 1 inch wide

Seed head: large, open, often reddish to purple in color, 6-24 inches (15-60 cm) long

Seed: hairy, about 1/8-1/4 inch (3.8-6.3 mm) long

Propagation: reproduces by seeds and rhizomes, the rhizomes are scaly and sharp-pointed

Comments: identified by thick white rhizomes, a membranous ligule, large seed head, hairy seeds

Vaseygrass -- *Paspalum urvillei* (Fig. 11)

Season: perennial



Figure 11. Vaseygrass

Stem:

height: 2 to 9 feet tall

growth habit: erect, forming large clumps

roots: fibrous with very short rhizomes

hairs: none

joints: smooth

Leaf:

sheath: hairy to smooth

ligule: membranous to 3/4 inch (21.0 mm) long, pointed

blade: with tuft or fringe of long hairs at base just above ligule otherwise without other hairs

Seed head: erect, 4 to 30 spreading branches, spikelet paired

Seed: 3/16 inch (2.0-2.7 mm) long, hairy, flat on one side

Propagated by: seeds

Comments: identified by growing in clumps, membranous ligules, hairy seeds, a band of hairs at base of blade next to ligule, stiff hairs on sheaths at bottom of stem, sheaths smooth at top of stem

Goosegrass -- *Eleusine indica* (Fig. 12)



Figure 12. Goosegrass

Season: summer annual, or short lived perennial

Stem:

height: to 2 feet tall, stems somewhat flattened at base, forming a basal clump with radiating stems, usually nearly prostrate (low growing)

growth habit: erect to spreading with branched stems which occasionally root from nodes

roots: fibrous

hairs: none

joints: smooth

Leaf:

sheath - with hairs on margin and long hairs at margin of collar

ligule - membranous with a fringe of hairs

blade - to 15 inches long and 3/8 inch wide; upper surface smooth, or with scattered hairs

Seed head: 2 to 7 finger-like branches located at stem end, 1-6 inches long, all clustered at stem tip, usually with one branch on stem below tip

Seed: 1/8 inch (2.7-4.2 mm) long, smooth

Propagated by: seeds

Comments: especially common in compacted soils; prolific seed producer; identified by fibrous roots, usually flattened stems, clear/white sheath margins, seed head with 1 branch below tip

Vegetative Grass Parts

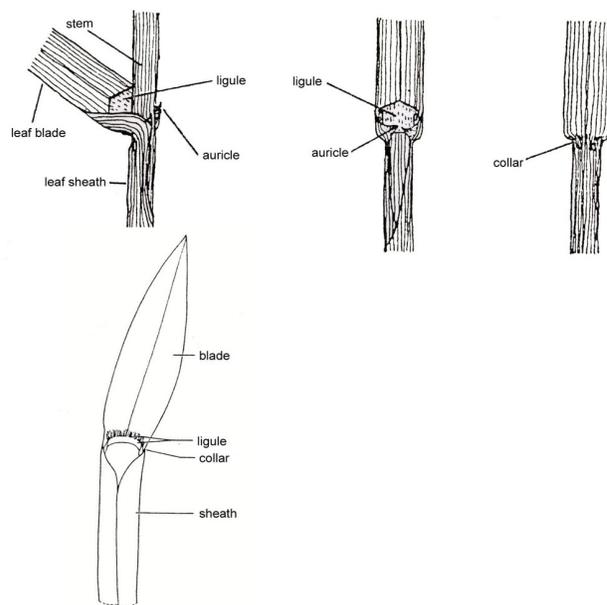


Figure 13. Vegetative grass parts. From: David W. Hall. 1982. Weeds in the Sunshine: Information for control of Florida weeds - Common weedy grass identification using vegetative characteristics. Univ. Fla., IFAS, Fla. Coop. Ext. Serv. A-82-8.