

Florida Turfgrass Identification¹

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Proper turfgrass identification is required before considering any lawn maintenance practices. Each of the different grasses used for Florida lawns have different management. Without accurate identification, mismanagement could occur, leading to undesirable results. Turfgrass identification can be challenging due to the lack of inflorescence or seedheads at certain times in their life cycle or due to being mowed off. Thus, other plant characteristics are used to help with turfgrass identification. This publication is intended for Florida lawn and landscape enthusiasts and landscape maintenance professions to help them identify different Florida turfgrasses. Some useful characteristics are found below and in Figure 1. Additionally, Figures 2–4 include a turfgrass identification key based on morphological characteristics. Lastly, another useful way to identify turfgrass is from the seedheads, which can be found in Figure 5.

- Vernation — How new leaf blades emerge from the sheath.
- Leaf blade — Upper part of the grass leaf.
- Leaf tip — Shape of the leaf tip.
- Sheath — Lower part of the grass leaf that connects to the node.
- Collar — Location of where the sheath and blade come together.

- Ligule — Structure at the junction of the leaf sheath and blade.
- Auricle — Appendages that grow from the collar.
- Seedhead — Also called inflorescence; the flower head at the end of the stem.
- Growth habit — How a plant develops new plants or spreads. Turfgrasses used for Florida lawns typically spread laterally via stolons (aboveground stems) and/or rhizomes (belowground stems).

PARTS OF A GRASS

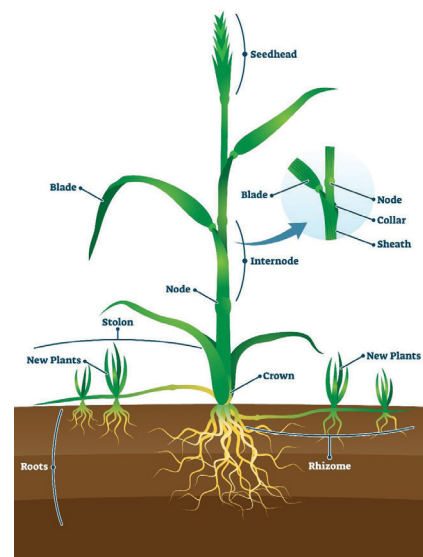


Figure 1. Parts of a grass plant.
Credits: VectorMine – adobe.stock.com

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Examine the Vernation:



Folded

- St. Augustinegrass
- Centipedegrass
- Bermudagrass
- Seashore Paspalum



Rolled

- Zoysiagrass
- Bahiagrass

Figure 2. Turfgrass identification key based on morphological characteristics.

Credits: Kevin Kenworthy, UF/IFAS

Folded Vernation, Examine the ligule:



Membranous

- Centipedegrass
 - Membranous with cottony hairs
 - Stolons only
- Seashore Paspalum
 - Membranous with a fringe of hairs
 - Rhizomes and Stolons



Fringe of Hairs

- St. Augustinegrass
 - Stolons only
 - Constricted collar with a twist
- Bermudagrass
 - Rhizomes and Stolons

Figure 3. Turfgrass identification key based on morphological characteristics.

Credits: Kevin Kenworthy, UF/IFAS

Rolled Vernation, Examine the ligule:



Membranous

- Bahiagrass
 - Membranous with a fringe of hairs
 - Stout, Fleshy Rhizomes (can be above ground)



Fringe of Hairs / Hairy

- Zoysiagrass
 - Rhizomes and Stolons
 - Extra sheath (brown) material at nodes

Figure 4. Turfgrass identification key based on morphological characteristics.

Credits: Kevin Kenworthy, UF/IFAS

Bahiagrass (*Paspalum notatum* Flugge)

Bahiagrass (Figure 6) is viewed as a low-maintenance turfgrass that does well with limited water and fertilizer inputs. It forms an extensive, deep root system, and it is not prone to forming excessive thatch. However, it does produce tall seedheads, and it forms a relatively open turf canopy (Figure 6). Bahiagrass can be identified from the characteristics in Table 1. For more information on bahiagrass, refer to ENH6, “Bahiagrass for Florida Lawns” (<https://edis.ifas.ufl.edu/LH006>).

Turfgrass ID: seed heads

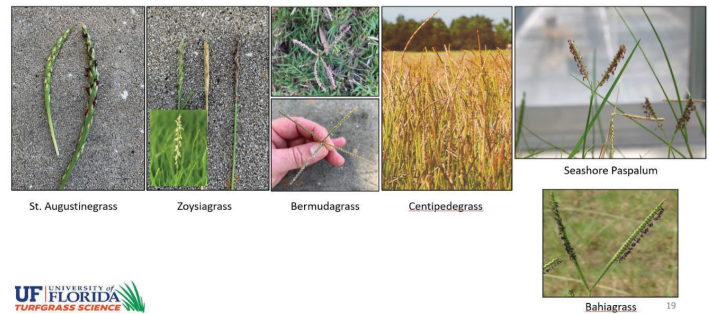


Figure 5. Turfgrass identification based on seedheads.

Credits: Kevin Kenworthy, UF/IFAS



Figure 6. Bahiagrass.

Credits: Natasha Restuccia, UF/IFAS



Figure 7. Bahiagrass rolled vernation.

Credits: Kevin Kenworthy, UF/IFAS



Figure 8. Bahiagrass ligule: membranous with a fringe of hairs.
Credits: Kevin Kenworthy, UF/IFAS

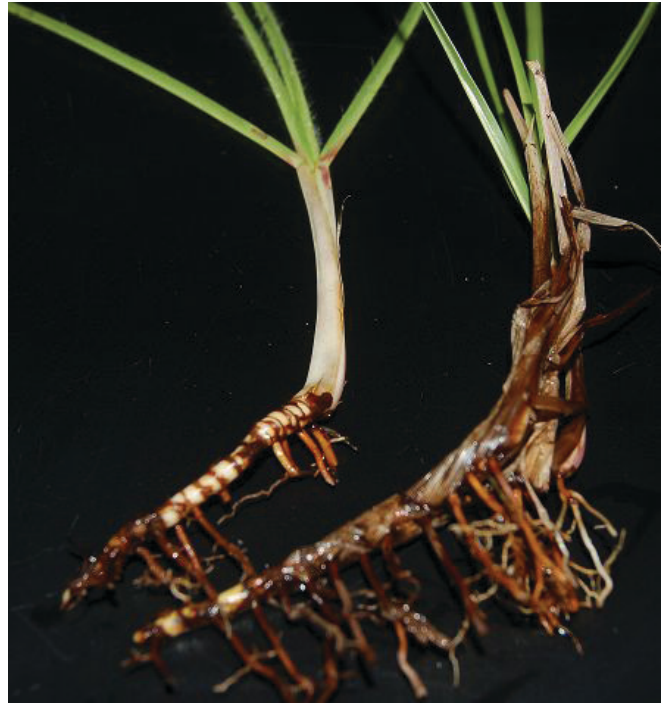


Figure 10. Bahiagrass thick, fleshy rhizome.
Credits: Kevin Kenworthy, UF/IFAS



Figure 9. Bahiagrass "Y-shaped" seedheads.
Credits: Kevin Kenworthy, UF/IFAS



Figure 11. Bermudagrass.
Credits: Natasha Restuccia, UF/IFAS

Bermudagrass (*Cynodon* spp.)

Bermudagrass (Figure 11) is viewed as a high-maintenance turfgrass, and generally, it requires greater input levels compared to other Florida lawn grasses. It produces a vigorous, dense turf when managed properly. However, it can have poor tolerance to many pests, and it has poor cold and shade tolerance. Additionally, excessive thatch buildup is common due to its aggressive growth. Bermudagrass can be identified from characteristics in Table 2. For more information on bermudagrass, refer to ENH19, "Bermudagrass for Florida Lawns" (<https://edis.ifas.ufl.edu/LH007>).

Centipedegrass (*Eremochloa ophiuroides* [Munro] Hack.)

Centipedegrass (Figure 16) is viewed as a low-maintenance, slow-growing turfgrass that has low fertility requirements and grows well in acidic soils. It grows close to the ground and has a lighter green color than other Florida lawn grasses. Mismanagement, especially overfertilizing with nitrogen, can increase pest problems and reduce cold tolerance. Centipedegrass can be identified from the characteristics in Table 3. For more information on centipedegrass, refer to ENH8, "Centipedegrass for Florida Lawns" (<https://edis.ifas.ufl.edu/LH009>).

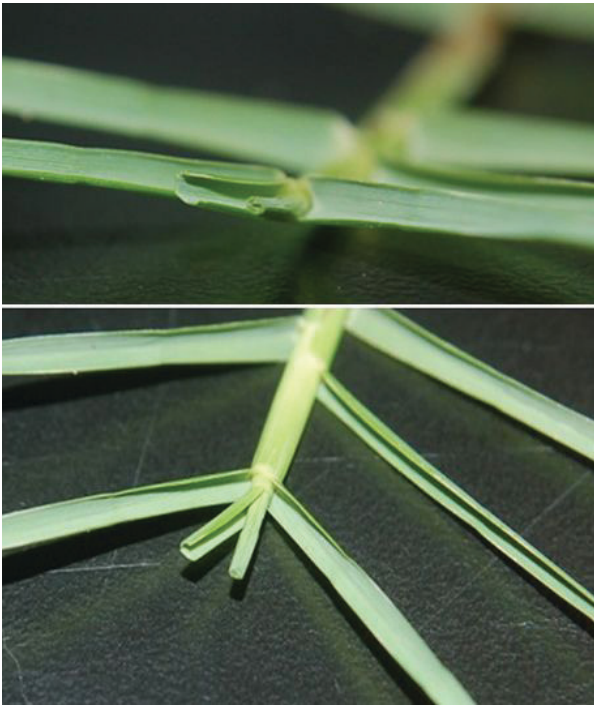


Figure 12. Bermudagrass folded vernation.
Credits: Kevin Kenworthy, UF/IFAS

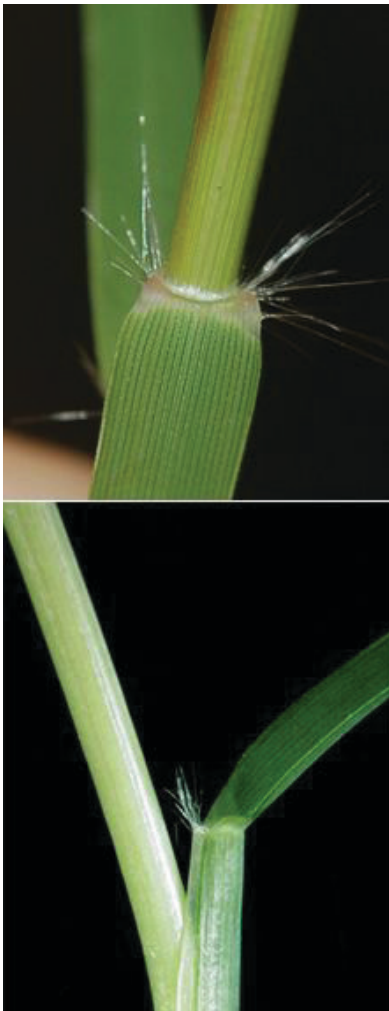


Figure 13. Bermudagrass ligule: fringe of hairs.
Credits: Kevin Kenworthy and Jason Kruse, UF/IFAS



Figure 14. Bermudagrass seedheads.
Credits: Pawel Petelewicz, UF/IFAS

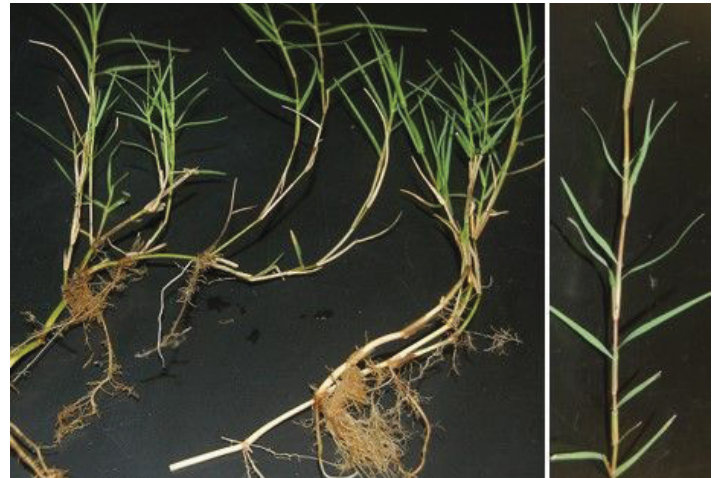


Figure 15. (Left) Bermudagrass rhizomes and stolons. (Right) Bermudagrass uneven leaf spacing.
Credits: Kevin Kenworthy, UF/IFAS

Seashore Paspalum (*Paspalum vaginatum* Swartz.)

Seashore paspalum (Figure 21) is viewed as a higher-maintenance turfgrass that does well in areas with high salinity. It produces a dense, dark-green turf when managed properly. However, it is prone to excessive thatch buildup. It has poor cold and shade tolerance, but it can withstand extended periods of low light intensity. Seashore paspalum can be identified from the characteristics in Table 4.



Figure 16. Centipedegrass.
Credits: Chase McKeithen, UF/IFAS

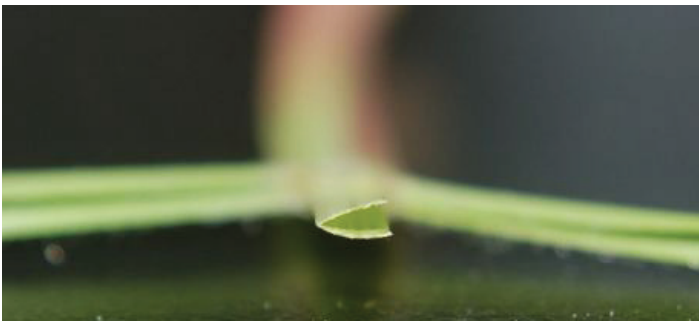


Figure 17. Centipedegrass folded vernation.
Credits: Kevin Kenworthy, UF/IFAS



Figure 18. Centipedegrass collar: constricted with broad blade and sheath and has hairs.
Credits: Kevin Kenworthy, UF/IFAS



Figure 19. Centipedegrass ligule: membranous with cottony hairs.
Credits: Kevin Kenworthy, UF/IFAS



Figure 20. Centipedegrass stolons.
Credits: Kevin Kenworthy, UF/IFAS

St. Augustinegrass (*Stenotaphrum secundatum* [Walt.] Kuntze)

St. Augustinegrass (Figure 25) is adapted to most soils and climatic regions in Florida. It produces a dense, green to blue-green turf. It has relatively good salt tolerance, and certain cultivars have better shade tolerance than other Florida lawn grasses. However, it can produce excessive thatch when mismanaged, and it has poor wear tolerance. St. Augustinegrass, which is the most distinct turfgrass species in Florida, can be identified from the characteristics in Table 5. For more information on St. Augustinegrass, refer to ENH5, “St. Augustinegrass for Florida Lawns” (<https://edis.ifas.ufl.edu/LH010>).



Figure 21. Seashore paspalum.
Credits: A.J. Lindsey, UF/IFAS



Figure 22. Seashore paspalum folded vernation.
Credits: Kevin Kenworthy, UF/IFAS



Figure 23. Seashore paspalum ligule: membranous with a fringe of hairs.
Credits: Kevin Kenworthy, UF/IFAS



Figure 24. (Top) Seashore paspalum rhizomes and stolons. (Bottom) Seashore paspalum even leaf spacing.
Credits: Kevin Kenworthy, UF/IFAS



Figure 25. St. Augustinegrass.
Credits: Natasha Restuccia, UF/IFAS

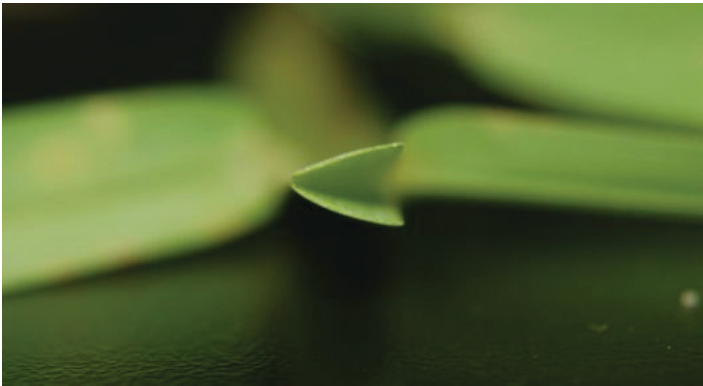


Figure 26. St. Augustinegrass folded vernation.
Credits: Kevin Kenworthy, UF/IFAS

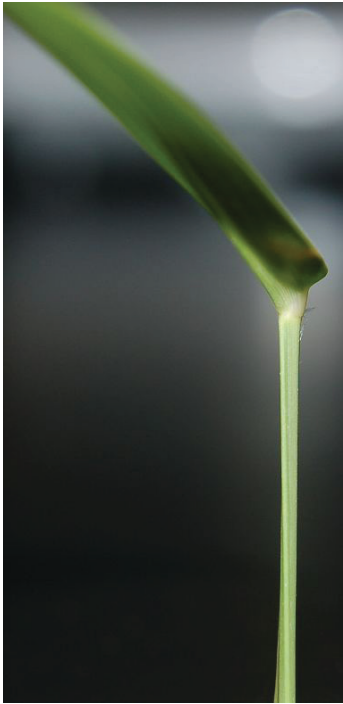


Figure 27. St. Augustinegrass collar: constricted with a twist.
Credits: Kevin Kenworthy, UF/IFAS



Figure 28. St. Augustinegrass ligule and collar.
Credits: Kevin Kenworthy and Jason Kruse, UF/IFAS

Zoysiagrass (*Zoysia* spp.)

Zoysiagrass (Figure 30) is adapted to a variety of soils and climatic regions in Florida; however, zoysiagrass maintenance is different from other Florida lawn grasses. Improper maintenance practices generally lead to undesirable turfgrass. Zoysiagrass produces a dense turf stand that is resistant to weed invasion when properly managed, and it has good salt, traffic, and shade tolerance. However, it can

produce excessive thatch when mismanaged. Zoysiagrass can be identified from the characteristics in Table 6. For more information on zoysiagrass, refer to ENH11, “Zoysiagrass for Florida Lawns” (<https://edis.ifas.ufl.edu/LH011>).



Figure 29. St. Augustinegrass stolons.
Credits: Kevin Kenworthy, UF/IFAS



Figure 30. Zoysiagrass.
Credits: Natasha Restuccia, UF/IFAS



Figure 31. Zoysiagrass rolled vernation.
Credits: Kevin Kenworthy, UF/IFAS



Figure 32. Zoysiagrass ligule: fringe of hairs.
Credits: Kevin Kenworthy and Jason Kruse, UF/IFAS



Figure 33. Zoysiagrass spikelets seedheads.
Credits: Alejandra Sierra, UF/IFAS



Figure 34. Zoysiagrass rhizomes and stolons.
Credits: Kevin Kenworthy, UF/IFAS

Table 1. Bahiagrass identification characteristics.

Characteristic	Description
Vernation	Rolled, but can appear folded (Figure 7)
Leaf blade	Medium to coarse textured
Leaf tip	Pointed
Sheath	Smooth or hairy; can be flattened
Collar	Divided
Ligule	Membranous with a fringe of hairs (Figure 8)
Auricle	Absent
Seedhead	“Y-shaped” (Figure 9)
Growth habit	Thick woody rhizomes, which can have a slight purple color towards the base of the plant (Figure 10)

Table 2. Bermudagrass identification characteristics.

Characteristic	Description
Vernation	Folded (Figure 12)
Leaf blade	Very fine to coarse textured (species and cultivar dependent)
Leaf tip	Pointed
Sheath	Smooth or with scattered/sparse hairs
Collar	Narrow
Ligule	Fringe of hairs (Figure 13)
Auricle	Absent
Seedhead	3–5 spikes (Figure 14)
Growth habit	Rhizomes and stolons with uneven/variable-length leaf spacing (Figure 15)

Table 3. Centipedegrass identification characteristics.

Characteristic	Description
Vernation	Folded (Figure 17)
Leaf blade	Medium textured; hairs on leaf margin
Leaf tip	Blunt, rounded
Sheath	Flattened
Collar	Constricted with a broad blade and sheath; has hairs (Figure 18)
Ligule	Membranous with cottony hairs (Figure 19)
Auricle	Absent
Seedhead	Spike (Figure 5)
Growth habit	Stolons only, no rhizomes (Figure 20)

Table 4. Seashore paspalum identification characteristics.

Characteristic	Description
Vernation	Folded (Figure 22)
Leaf blade	Very fine to coarse textured (cultivar dependent)
Leaf tip	Pointed
Sheath	Smooth or sparsely hairy
Collar	Narrow
Ligule	Membrane with fine hairs on upper edge (Figure 23)
Auricle	Absent
Seedhead	Fork with two branches (Figure 5)
Growth habit	Rhizomes and stolons with even leaf spacing (Figure 24)

Table 5. St. Augustinegrass identification characteristics.

Characteristic	Description
Vernation	Folded (Figure 26)
Leaf blade	Coarse textured
Leaf tip	Blunt, rounded
Sheath	Flattened, smooth
Collar	Constricted with twist and broad leaf blade and sheath (Figure 27)
Ligule	Few to fringe of hairs (Figure 28)
Auricle	Absent
Seedhead	Spike (Figure 5)
Growth habit	Stolons only, no rhizomes (Figure 29)

Table 6. Zoysiagrass identification characteristics.

Characteristic	Description
Vernation	Rolled (Figure 31)
Leaf blade	Very fine to coarse textured; can have fine hairs above; leaf blades are stiff
Leaf tip	Pointed
Sheath	Smooth
Collar	Broad to narrow (species dependent); some have long hairs
Ligule	Fringe of hairs (Figure 32)
Auricle	Absent
Seedhead	Spikelet (Figure 33)
Growth habit	Rhizomes and stolons; the internodes are generally more uniform compared to bermudagrass (Figure 34)

Table 7. Summary table of turfgrass identification characteristics.

Characteristic	Bahiagrass	Bermudagrass	Centipedegrass	Seashore paspalum	St. Augustinegrass	Zoysiagrass
Vernation	Rolled, but can appear folded (Figure 7)	Folded (Figure 12)	Folded (Figure 17)	Folded (Figure 22)	Folded (Figure 26)	Rolled (Figure 31)
Leaf blade	Medium to coarse textured	Very fine to coarse textured (species and cultivar dependent)	Medium textured; hairs on leaf margin	Very fine to coarse textured (cultivar dependent)	Coarse textured	Very fine to coarse textured; can have fine hairs above; leaf blades are stiff
Leaf tip	Pointed	Pointed	Blunt, rounded	Pointed	Blunt, rounded	Pointed
Sheath	Smooth or hairy; can be flattened	Smooth or with scattered/sparse hairs	Flattened	Smooth or sparsely hairy	Flattened, smooth	Smooth
Collar	Divided	Narrow	Constricted with broad blade and sheath; has hairs (Figure 18)	Narrow	Constricted with twist and broad leaf blade and sheath (Figure 27)	Broad to narrow (species dependent); some have long hairs
Ligule	Membranous with a fringe of hairs (Figure 8)	Fringe of hairs (Figure 13)	Membranous with cottony hairs (Figure 19)	Membrane with fine hairs on upper edge (Figure 23)	Few to fringe of hairs (Figure 28)	Fringe of hairs (Figure 32)
Auricle	Absent	Absent	Absent	Absent	Absent	Absent
Seedhead	"Y-shaped" (Figure 9)	3–5 spikes (Figure 14)	Spike (Figure 5)	Fork with two branches (Figure 5)	Spike (Figure 5)	Spikelet (Figure 33)
Growth habit	Thick woody rhizomes, which can have a slight purple color towards the base of the plant (Figure 10)	Rhizomes and stolons with uneven/variable-length leaf spacing (Figure 15)	Stolons only, no rhizomes (Figure 20)	Rhizomes and stolons with even leaf spacing (Figure 24)	Stolons only, no rhizomes (Figure 29)	Rhizomes and stolons; the internodes are generally more uniform compared to bermudagrass (Figure 34)