Giant Reed


June


July


December


June


August

Giant Reed 4008

Arundo donax L. **ARDO4**

Plant. Giant reed grass, cornlike stems, thicket forming in distinct clumps to 20 feet (6 m) in height, with gray-green and hairless stems, long-lanceolate leaves alternately jutting from stems and drooping at the ends, and large plumelike terminal panicles. Seed infertile. Spreading from tuberous rhizomes. Dried grass remaining standing in winter and spring.

Stem. Somewhat succulent and fibrous, with round cross section to 1 inch (2.5 cm). Solid jointed every 1 to 8 inches (2.5 to 20 cm) and covered by overlapping leaf sheaths. Gray to yellowish green. Initially white pithed and becoming hollow between joints. Old stems sometimes persistent into the following summer.

Leaves. Alternate, cornlike, long lanceolate with both surfaces hairless, and clasping stem with conspicuous whitish base. Eighteen to thirty inches (45 to 76 cm) long and 1 to 4 inches (2.5 to 10 cm) wide near base. Margins and ligule membranous (about 1 mm). Midvein whitish near base becoming inconspicuous towards tip. Veins parallel. Sheaths overlapping, hairless, and semiglossy.

Flowers. August to September. Terminal erect dense plumes of whorled stemmed flowers to 36 inches (1 m) long. Husks hairy, membranous with several veins, and greenish to whitish to purplish.

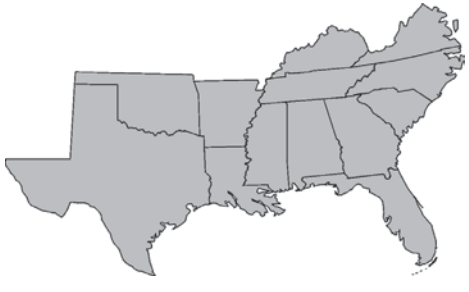
Seeds. October to March. Dense terminal plume, spindle-shaped, densely hairy. Grain never appears.

Ecology. Occurs mainly on upland sites as scattered dense clumps along roadsides and forest margins, migrating from old home plantings by displaced rhizome fragments. Persistent infestations by dense branching tuberous rhizome growth. Probable spread by movement of stem parts in soil or by road shoulder grading. Plants believed to be sterile and not producing viable seeds.

Resembles golden bamboo, *Phyllostachys aurea* Carr. ex A.& C. Rivière, another large grasslike plant that is woody in character. **Closely resembles** common reed, *Phragmites australis* (Cav.) Trin. ex Steud., which has similar large hairy seed heads, but not erect and fanned in a loose plume, and which occurs mainly near swamps, marshes, and wet habitats.

History and use. Introduced from western Asia, northern Africa, and southern Europe in the early 1800s. Ornamental.

States with suspected infestations are shown in gray.



Tall Fescue

T. Bodner

T. Bodner

T. Bodner

Tall Fescue 4051

Lolium arundinaceum (Schreb.) S.J. Darbyshire **LOAR10**
Synonyms: *Festuca arundinacea* Shreb., *F. elatior* L., meadow fescue, Kentucky 31 fescue, *Schedonorus phoenix* (Scop.) Holub

Plant. Erect, tufted cool-season perennial grass 2 to 4 feet (60 to 120 cm) in height, green in winter and spring, during which it is the most common green bunchgrass. Dark-green leaves appearing in late winter, usually flowering in spring (infrequently in late summer). Semidormant during heat of summer, with whitish seedstalks persisting. Growth resuming in fall and continuing into early winter.

Stem. Moderately stout, unbranched, hairless with round cross section and one to three swollen light-green nodes widely spaced near the base.

Leaves. Mostly basal and a few alternate, flat and long-lanceolate, 4 to 18 inches (10 to 45 cm) long and 0.1 to 0.3 inch (3 to 8 mm) wide. Whitish to yellow-green flared collars, with collar backs often at an angle to the stem. Blades smooth to rough, with one to two leaves along the stem becoming smaller upward. Midvein not apparent. Ligule a tiny white membrane.

Flowers. March to June (to October). Loosely branched terminal panicles, 4 to 12 inches (10 to 30 cm) long, that are erect or nodding at tips, narrow then spreading in spring, and then narrow again in summer. Spindle-shaped clusters along branches. Branches shorter upward, with four to seven flowers per branch. Flowers greenish white and shiny becoming purplish. Spikelets hairless, ellipsoid with a pointed tip.

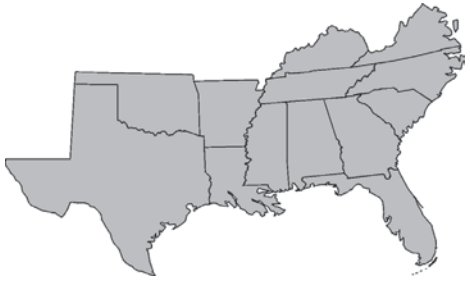
Seeds. May (to November). Husked grain, spindle-shaped, 0.1 to 0.2 inch (3 to 5 mm) long. Whitish straw-colored husks, usually tipped with a short hair.

Ecology. The predominant cool-season bunchgrass. Occurs as tufted clumps or small to extensive colonies along forest margins and right-of-ways, and widely escaped to invade new forest plantations, roads, openings, and high-elevation balds. Grows on wet to dry sites. Spreads by expanding rootcrowns and less by seeds. Replaces warm season grassland communities and prairies to the detriment of unique plants and birds. Certain varieties poisonous to livestock and wildlife by infecting them with an endophytic fungus.

Resembles other grasses, especially other fescues and ryegrasses (*Lolium* spp.) but distinguished by forming extensive colonies and infestations, growing green in late winter, and having long rounded stems with lower swollen nodes and whitish-flared collars at the base of leaves. Ryegrasses distinguished by producing alternate seed heads on opposite sides of seedstalks in spring.

History and use. Introduced from Europe in the early to mid-1800s. Recognized as a valuable forage grass in 1930s when the ecotype Kentucky 31 was discovered. Now widely distributed most everywhere in the World. Established widely for turf, forage, soil stabilization, and wildlife food plots.

States with suspected infestations are shown in gray.



Cogongrass

T. Bodner

C. Bryson

T. Bodner

Cogongrass 4055

Imperata cylindrica (L.) Beauv. **IMCY**
Synonyms: japgrass, bloodroot grass (red varieties), Red Barron (red varieties)

Plant. Aggressive, colony-forming dense perennial grass 1 to 6 feet (30 to 150 cm) in height, often leaning in mats when over 3 feet (90 cm) in height. Stemless tufts of long leaves, blades yellow green, with off-center midveins and silver-plumed flowers and seeds. Plants arising from branching sharp-tipped white-scaly rhizomes.

Stem. Upright to ascending, stout, not apparent, and hidden by overlapping leaf sheaths.

Leaves. Mainly arising from near the base, long lanceolate, 1 to 4 feet (30 to 120 cm) long and 0.5 to 1 inch (12 to 25 mm) wide, shorter upward. Overlapping sheaths, with outer sheaths often long hairy and hair tufts near the throat. Blades flat or cupped inward, bases narrowing, tips sharp and often drooping. Most often yellowish green. White midvein on upper surface slightly-to-mostly off center (varies in an area). Margins translucent and minutely serrated (rough). Ligule a fringed membrane to 0.04 inch (1.1 mm).

Flowers. February to May (or year-round in Florida). Terminal, silky spikelike panicle, 1 to 8 inches (2.5 to 20 cm) long and 0.2 to 1 inch (0.5 to 2.5 cm) wide, cylindrical and tightly branched on a reddish slender stalk. Spikelets paired, each 0.1 to 0.2 inch (3 to 6 mm) long, obscured by silky to silvery-white hairs to 0.07 inch (1.8 mm).

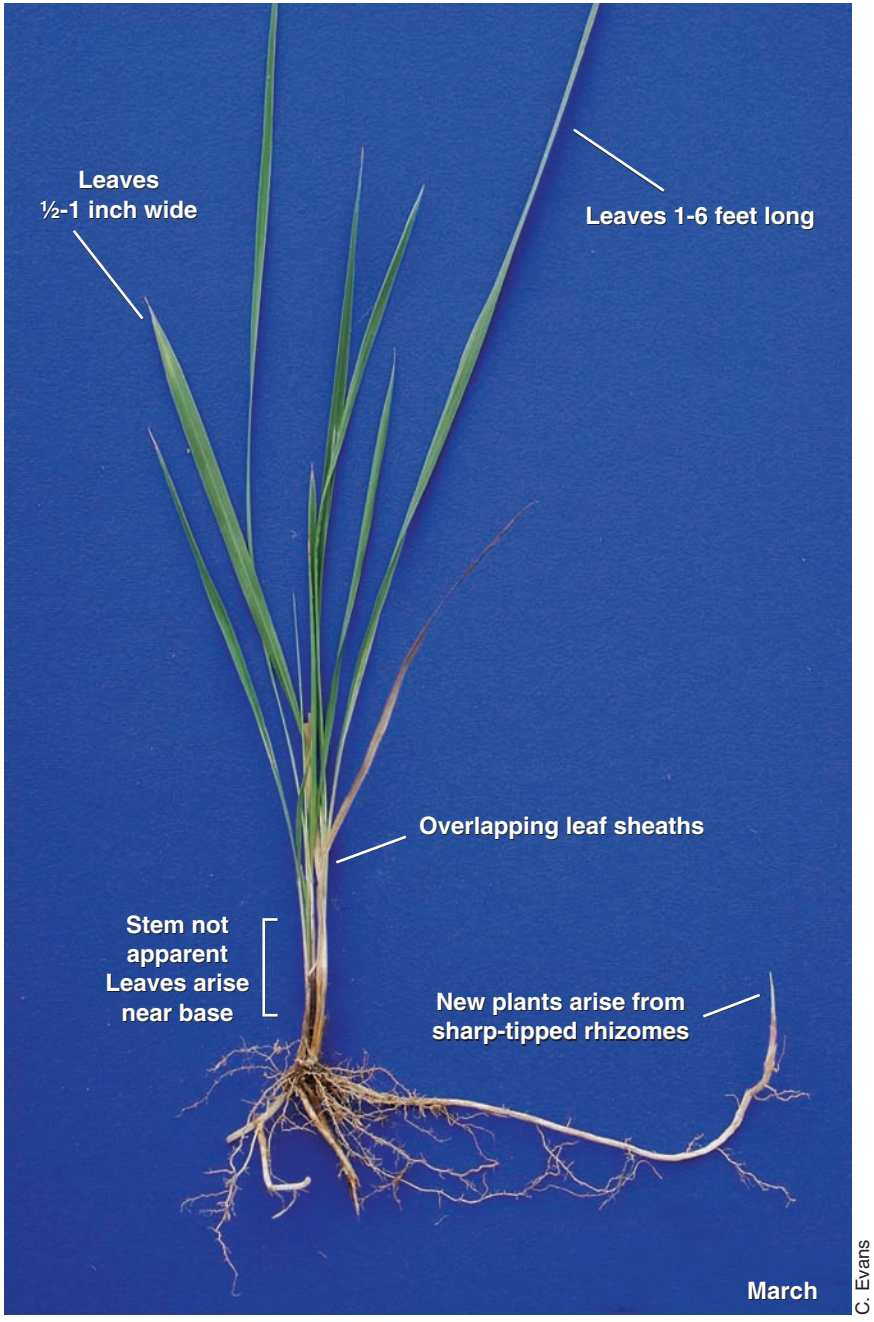
Seeds. May to June. Oblong brown grain, 0.04 to 0.05 inch (1 to 1.3 mm) long, released within silvery hairy husks for wind dispersal.

Ecology. Grows in full sunlight to partial shade, and, thus, can invade a range of sites. Often in circular infestations with rapidly growing and branching rhizomes forming a dense mat to exclude most other vegetation. Aggressively invades right-of-ways, new forest plantations, open forests, old fields, and pastures. Absent in areas with frequent tillage. Colonizes by rhizomes and spreads by wind-dispersed seeds and promoted by burning. Highly flammable and a severe fire hazard, burning extremely hot especially in winter.

Resembles Johnsongrass, *Sorghum halepense* (L.) Pers.; purpletop, *Tridens flavus* (L.) A.S. Hitchc.; silver plumegrass, *Saccharum alopecuroidum* (L.) Nutt.; and sugarcane plumegrass, *S. giganteum* (Walt.) Pers.—all having a stem and none having an off-center midvein.

History and use. Introduced from Southeast Asia into Florida and southern Louisiana, southern Alabama, and southern Georgia in the early 1900s. Initially for soil stabilization. Expectations for improved forage unrealized. A Federal listed noxious weed.

States with suspected infestations are shown in gray.



C. Evans

Nepalese Browntop

T. Bodner

T. Bodner

T. Bodner

Nepalese Browntop 4080

Microstegium vimineum (Trin.) A. Camus **MIVI**
Synonyms: Japanese stilt grass, Mary's grass, basketgrass

Plant. Sprawling, annual grass, 0.5 to 3 feet (15 to 90 cm) in height. Flat short leaf blades, with off-center veins. Stems branching near the base and rooting at nodes to form dense and extensive infestations. Dried whitish-tan grass remains standing in winter.

Stem. Ascending to reclining, slender and wiry, up to 4 feet (120 cm) long, with alternate branching. Covered by overlapping sheaths with hairless nodes and internodes. Green to purple to brown. Aerial rootlets descend from lower nodes.

Leaves. Alternate (none basal) projecting out from stem, lanceolate to oblanceolate, 2 to 4 inches (5 to 10 cm) long and 0.07 to 0.6 inch (2 to 15 mm) wide. Blades flat, sparsely hairy on both surfaces and along margins. Midvein whitish and off center. Throat collar hairy. Ligule membranous with a hairy margin.

Flowers. July to October. Terminal, thin and spikelike raceme, to 3 inches (8 cm) long. Unbranched or with one to three lateral branches on an elongated wiry stem. Other thin racemes of self-pollinating flowers enclosed or slightly extending from lower leaf sheaths. Spikelets paired, with the outer stemmed and inner sessile.

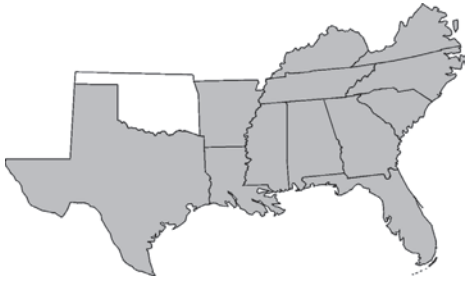
Seeds. July to December. Husked grain, seed head thin, grain ellipsoid, 0.1 inch (2.8 to 3 mm) long, with seedstalks partially remaining during winter.

Ecology. Flourishes on alluvial floodplains and streamsides, mostly colonizing flood-scoured banks, due to water dispersal of seed and flood tolerance. Also common at forest edges, roadsides, and trailsides, as well as damp fields, swamps, lawns, and along ditches. Occurs up to 4,000 feet (1200 m) elevation. Very shade tolerant. Consolidates occupation by prolific seeding, with each plant producing 100 to 1,000 seeds that can remain viable in the soil for 3 years. Spreads on trails and recreational areas by seeds hitchhiking on hikers' and visitors' shoes and clothes.

Resembles crabgrass, *Digitaria* spp., and nimblewill, *Muhlenbergia schreberi* J.F. Gmel., both having broad short leaves, but distinguished from Nepalese browntop by branching seed heads and stout stems. **Also resembles** whitegrass, *Leersia virginica* Willd., which is a perennial with flat, compressed seed heads.

History and use. Native to temperate and tropical Asia, and first identified near Knoxville, TN, around 1919. Ground cover with little wildlife food value.

States with suspected infestations are shown in gray.



T. Bodner

Chinese Silvergrass

Chinese Silvergrass 4085

Miscanthus sinensis Anderss. **MISI**

Plant. Tall, densely bunched, perennial grass, 5 to 10 feet (1.5 to 3 m) in height. Long-slender upright-to-arching leaves with whitish upper midveins. Many loosely plumed panicles in late summer turning silvery to pinkish in fall. Dried grass standing with some seed heads during winter, but seed viability spotty.

Stem. Upright-to-arching, originating in tufts from base and unbranched. Covered with overlapping leaf sheaths until stem appears with flower plume in late summer.

Leaves. Alternate, long linear, upright-to-arching (persisting and curly tipped when dried) to 40 inches (1 m) long and less than 0.8 inch (2 cm) wide. Blades green to variegated (light green striped) with whitish collars. Midvein white above and green ridged beneath. Tufted hairs at throat, sheath margins, and ligule, but otherwise hairless. Margins rough.

Flowers. August to November. Much branched and drooping terminal plumed panicles, 4 to 15 inches (10 to 38 cm) long and 2 to 8 inches (5 to 20 cm) wide. Silvery to pinkish, showiest in fall. Stalk appressed rough hairy.

Seeds. September to January. Grain hidden, husks membranous, yellowish brown to slightly reddish, sparsely hairy, with twisted tip.

Ecology. Forms extensive infestations by escaping from older ornamental plantings to roadsides, forest margins, and adjacent disturbed sites, especially after burning. Shade tolerant. Highly flammable and a fire hazard.

History and use. Introduced from eastern Asia. Still widely sold and increasingly planted as an ornamental. Several varieties imported and sold. Cultivars vary widely in fertility and percent of seed viability.


November

States with suspected infestations are shown in gray.

Bamboos

Golden bamboo shown in all images

Bamboos 4130

Golden bamboo, *Phyllostachys aurea* Carr. ex A.& C. Rivière **PHAU8**
and other invasive bamboos, *Phyllostachys* spp. and *Bambusa* spp.

Plant. Perennial infestation-forming bamboos, 16 to 40 feet (5 to 12 m) in height, with jointed cane stems and bushy tops of lanceolate leaves in fan clusters on grass-like stems, often golden green. Plants arising from branched rhizomes.

Stem. Solid jointed canes 1 to 6 inches (2.5 to 15 cm) in diameter. Hollow between joints. Golden to green to black. Branches wiry and grasslike from joints. Lower shoots and branches with loose papery sheaths that cover the ground when shed.

Leaves. Alternate, grasslike, often in fan clusters. Blades long and lanceolate, 3 to 10 inches (8 to 25 cm) long and 0.5 to 1.5 inches (1.3 to 4 cm) wide. Veins parallel. Often golden, sometimes green or variegated. Hairless except for large hairs at base of petiole, which shed with age. Sheaths encasing stem.

Flowers. Flowers very rarely.

Seeds. Seeds very rarely.

Ecology. Common around old homesites and now escaped. Colonize by rhizomes with infestations rapidly expanding after disturbance. General dieback periodically after flowering and seeding (about every 7 to 12 years) resulting in standing dead canes and new shoots.

Resemble switchcane, *Arundinaria gigantea* (Walt). Muhl., the only native bamboo-like cane in the South, distinguished by its lower height—usually only 6 to 8 feet (2 to 2.5 m)—and its persistent sheaths on the stem and absence of long opposite branches. **Also resemble** giant reed, *Arundo donax* L., also described in this book.

History and use. All native to Asia. Widely planted as ornamentals and for fishing poles.

States with suspected infestations are shown in gray.

Golden bamboo July