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Bamboo (*Phyllostachys* spp.)

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Origin:

Bamboo species have nearly a worldwide distribution, with Europe and Antarctica the only continents that do not have native bamboo species. Taxonomically, bamboo is classified in the grass family (*Poacea*) and is represented by more than 1,000 species and 91 genera. Taken together, bamboo is recognized as the fastest-growing woody, evergreen, perennial plant.

Description:

Depending on the species and growing climate, bamboo can grow from 6 inches to more than 25 feet tall. Bamboo leaves are longer than they are wide, have pointed ends and are arranged singly along the leaf stem. Culms (or stems) can reach diameters of more than 8 inches. The hollow stems have distinctive swellings encircling the entire stem. Bamboo species rarely flower, so division and spread occur primarily through expansion of rhizomes (underground stems). Some bamboo species live more than 100 years between flowerings, and then die following seed production. Flower appearance varies between species, ranging from purple panicles similar to Johnsongrass (*Sorghum halepense*) to spikelets similar to bermudagrass (*Cynodon dactylon*). (4)

While bamboos tend to be famous for their aggressive habits, not all bamboos are considered invasive. Some plant forms are bunch types, while others are running types. Bunch types spread gradually from the center just like any other bunch grass and are therefore easily managed. Running bamboos are considered the most invasive form, as their rhizomes can run between 20 to 30 feet underground before sprouting.



There are three species of bamboos native to North America: rivercane (*Arundinaria gigantea*), hill cane (*A. appalachiana*) and switch cane (*A. tecta*). Younger stems of native bamboos can be distinguished from invasive bamboos, as stems on native species have a flat side (like a D in cross-section). (4)

Habitat:

Bamboos have been documented to grow in a variety of climates ranging from dry mountain-sides to jungles, but they generally prefer moist conditions. Our native bamboos both grow in or near wetlands.

Environmental Impact:

Invasive bamboo species spread rapidly and create a dense thicket, crowding out native species. Many bamboo species produce allelopathic compounds (natural herbicides), which prevent other plant species from living in the understory of a bamboo thicket. (3) In turn, understory plant loss can result in erosion. In addition, North American wildlife species do not eat bamboo. Because bamboo can out-compete native vegetation, rhizomatous bamboos can negatively impact wildlife forage and diversity.



Control methods:

Small infestations of bamboo can be dug up successfully, but persistence is needed, because any root fragment left in the ground will re-sprout. Low-growing bamboo can also be mowed repeatedly to exhaust the root system. This strategy is successful unless the rhizomes spread beyond the mowed area. Cutting the culms and brushing the cut surface or injecting the stem with a systemic herbicide such as imazapyr or glyphosate can be an effective chemical control option. Foliar sprays produce mixed control results but have been successful in suppressing, if not eradicating, the bamboo. Where the bamboo stand is not in close proximity to desirable vegetation, glyphosate can be applied to foliage as a 3 fl oz a.i./gal spray solution or imazapyr as a 1 percent spray solution.

To summarize, the best way to keep bamboo from spreading into natural areas is either not to plant it in your yard, or to plant only clumping bamboo species. Below are some clumping bamboo species that do well in Tennessee:

Fargesia rufa 'Green Panda'– can grow 6-8 feet tall by 8 feet in diameter at maturity. This evergreen species is cold-hardy to -15 degrees F, and is a great all-around cultivar.

Fargesia robusta – 'Green Screen' can grow 15-18 feet at maturity, providing a great option for privacy screening. This cultivar is sun-tolerant and cold-hardy to -10 degrees F. It tolerates summertime heat as far south as USDA Plant Hardiness Zone 9.

Fargesia murieliae – 'New Umbrella' is a smaller clumping form that grows 2 feet tall and wide at maturity. In autumn, older leaves may yellow. This cultivar is cold-hardy to -20 degrees F.

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