

Cogongrass, a Threat to the Mississippi Delta...and beyond !



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History

Cogongrass is a non-native, aggressive, perennial grass that is considered the world's seventh worst weed. This pest has invaded all continents except Antarctica. Cogongrass was first introduced into the Southern United States in 1911 as contaminated packing material in Mobile County, Alabama. Soon thereafter, it was introduced intentionally in Florida and Mississippi as a potential for livestock forage and for erosion control. It was determined to be unacceptable as forage and too invasive to release for soil stabilization. Without effective herbicides in the early twentieth century, cogongrass began to spread from its points of entry.

Identification

Cogongrass produces numerous leaves and grows up to 50 inches tall. Recently established cogongrass usually produces circular stands that become dense with age. Even though the thick stands of cogongrass leaves are impressive, up to eighty percent of the plant's biomass is under the soil surface. Tangled masses of scaly rhizomes along with the thick foliage choke out other vegetation. Cogongrass differs from many of our other closely related grass species by flowering early in the season, soon after emergence (March to May). Occasionally, cogongrass will flower again during the growing season following mowing, tillage, burning, or an early fall frost. The flowers occur on top of a stem and are easily identified by the silky white hairs attached to the seed creating the appearance of a feathery white plume. Cogongrass leaves possess a midrib that is closer to one side of the leaf margin than the other. These leaves are highly flammable and burn rapidly. High fire temperatures produced by burning cogongrass eliminates native species and results in large stands of cogongrass over time.



Small, but not innocuous!



Distribution

Cogongrass is a major threat to agriculture, forest, right-of-ways, and natural areas in the Southeastern United States. Over the past decade, this invasive grass has moved north in Mississippi. In 1979 cogongrass was known from 19 Mississippi counties. At least one infestation of cogongrass has now been detected in 75% of the counties in Mississippi. Until recently, only two cogongrass sites were known from the Delta Region. Both of these were very small infestations, one a contaminant of ornamental shrubs planted at a highway intersection in Indianola and the other a small patch in the median of highway 82 just below the Loess Bluffs in Carroll County. These two cogongrass populations were eradicated several years ago.

Late July of 2006, a large cogongrass infestation was discovered in Holmes County, Mississippi. This discovery was important because it was from the Mississippi-Yazoo Delta Region and it is one of the first reports of cogongrass in a hardwood plantation. Subsequent surveys have yielded sites in Carroll and Leflore counties along upper tributaries of the Yazoo River, in cottonwood plantations, in oak-ash plantings, along roadsides and on and inside the levee of Abiaca Creek and

its tributaries. These infestations are poised to threaten additional natural communities and agricultural land. The largest of these cogongrass infestations are only a few miles from three National Wildlife Refuges. Unless these cogongrass populations are eradicated, additional spread is inevitable.



Cogongrass sites in Holmes, Carroll, and Leflore counties, Mississippi



Large, dense stand



Map of Mississippi showing counties in red where at least one infestation of cogongrass has been detected as of June 2007.

Regulations

Cogongrass is a Federal Noxious Weed. It is now unlawful to move cogongrass plants and seeds across state lines. Unfortunately, until recently, cogongrass cultivars with reddish leaves were sold as an ornamental grass by the names 'Japanese Bloodgrass' or 'Red Baron' bloodgrass. In 2004, cogongrass was listed as a noxious weed in the Mississippi Noxious Weed Law. Therefore, the sale of any form of cogongrass is illegal in Mississippi.



Ornamental cogongrass in garden setting and in the warm Delta where the red pigment doesn't always persist.

Control

Cogongrass is a very difficult plant to control. Currently there is no one single treatment that will eliminate cogongrass. Repetitive tillage will eventually eliminate established cogongrass stands, but bare soil provides a suitable environment for cogongrass seedlings to establish. Mowing and burning cogongrass only make this weed grow and spread rapidly. Herbicide control recommendations include the use of glyphosate and/or imazapyr. Both of these herbicides are non-selective, killing other plant species. Imazapyr provides residual control not only on the cogongrass but other plants; however, some legume species can be planted in imazapyr-sprayed areas to provide ground cover until the herbicide dissipates. Follow-up treatments of both herbicides are usually required to provide excellent control or eradication. Cleaning machinery, vehicles, equipment, clothing and other personal items after use in infested areas to avoid spread of seeds and rhizomes is extremely important in preventing additional spread of this bad weed.



>75% biomass < ground