

Itchgrass



Figure 1. Itchgrass on a roadside in Mississippi showing its ability to obstruct visibility.



Figure 2. Itchgrass sheath showing stiff hairs.



Figure 3. Itchgrass inflorescence.

Itchgrass [*Rottboellia chochinchinensis* (Lour.) W.D. Clayton] is a nonnative, warm-season, annual grass that was introduced in Miami, Florida, in the 1920s. It is a federal noxious weed and is listed as a state noxious weed in 12 states including Mississippi, Arkansas, Florida, and Texas. Itchgrass is a profusely tillering grass that can be very competitive in row crops, pastures, and along roadsides (Figure 1). It is spread primarily by seed. Itchgrass germinates in summer, with new plants emerging for an extended period.

Description

Vegetative Growth

Some texts indicate potentially four species of *Rottboellia* L.f. but, through recent taxonomic revision, that number is probably closer to two or three. Itchgrass can reach 10 feet or more in height and tillers profusely. Itchgrass has short, stiff hairs on the sheaths (Figure 2), especially near the collar, which can puncture or irritate skin when handled; hence the name itchgrass. The flat leaves are around 1 inch wide, taper to a point, and have short hairs on the leaf surface.

Flowering

The inflorescence is a raceme (Figure 3) approximately 4 inches long, with spikelets in pairs and no awns. One of each spikelet is stalked and sterile; the other is stalkless and fertile. Each is attached to a thickened axis. The fertile, stalkless spikelet is oblong and around ¼ inch long. Plant growth is extremely rapid under good conditions, with seed production initiated 6 to 7 weeks after emergence. Seed production continues throughout the growing season. Seeds break off as they mature, but they require a 5- to 6-month after-ripening period for germination. Seeds may retain viability in the soil for up to 4 years.

Dispersal

Since itchgrass often frequents rights-of-way, the most probable mechanism of dispersal is movement on maintenance equipment, such as mowers. It may also occur in other managed habitats, such as pastures and row crops.

Habitat

Itchgrass is a problem weed in row crops, especially grass crops and pastures, and in railroad, highway, and other rights-of-way (Figure 1).

Distribution

The genus *Roettboellia* is not native to the United States. Itchgrass is native to the Old World tropics, probably India. It is now widespread in the tropics and subtropics worldwide. It was apparently introduced into the United States for potential forage in the 1920s. Since that time, it has been reported in Alabama, Arkansas, Florida, Georgia, Indiana, Louisiana, Mississippi, North Carolina, and Texas. Field studies indicate that itchgrass may grow and produce seed as far north as Minnesota. Despite efforts to map and monitor its spread, the full extent of its invasion is not clear.

Control Methods

There are no effective biological control methods; however, chemical and mechanical methods can be used to control itchgrass.

Chemical

Several herbicides can be used for itchgrass pre-emergence and post-emergence control (**Table 1**). Pre-emergence herbicide options include clomazone+diuron or metribuzin, and pendimethalin. Post-emergence herbicide options include asulam, glyphosate, nicosulfuron, glufosinate, clethodim, fluazifop, quizalofop, sethoxydim, sulfometuron, and trifloxysulfuron+asulam. See **Table 1** for trade names and rates.

Mechanical

Cultivation has been used to control itchgrass in row crops, although the addition of chemical controls may greatly enhance results in row-cropping systems. Small patches of itchgrass may be removed by hand. Take precautions to avoid the stiff hairs, which may irritate or pierce the skin.

Table 1. Chemical control tactics for itchgrass.

Method	Herbicide	Rate Per acre or spot treatment
Preemergence		
clomazone+diuron	Command 3ME+ Diuron, Direx, etc. 4L	32 to 43 oz/A+ 80 oz/A
metribuzin	Sencor, Metribuzin, etc. 4L	24 oz/A
pendimethalin	Pendulum 3.3EC, Prowl H2O, Prowl 3.3EC, etc.	19 to 58 oz/A
Postemergence		
asulam	Asulox, Asulam, etc.	128 oz/A
glyphosate	Roundup, etc.	32 oz/A of 3 lb ae/gal formulation
nicosulfuron	Accent	0.67 oz/A
glufosinate	Liberty, Finale, Lifeline, etc.	28 to 34 oz/A
clethodim	Select, Prism, Envoy	6 to 16 oz/A or 0.5% 12 to 32 oz/A or 1%
fluazifop	Fusilade II	6 to 12 oz/A or 0.5%
sethoxydim	Poast, Vantage, Poast Plus, Sethoxydim, etc.	12 to 40 oz/A or 1% 24 to 36 oz/A or 1.5%
sulfometuron	Oust, SMS, etc.	4 oz/A
trifloxysulfuron+asulam	Envoke, Monument+ Asulox, Asulam, etc.	0.2 oz/A+ 96 oz/A

References

- NAPPO. 2003. *Rottboellia cochinchinensis* (Lour.) Clayton. NAPPO-PRA Grains Panel Pest Fact Sheet, June, 2003. <http://www.nappon.org/PRA-sheets/Rottboelliacochinchinensis.pdf>
- USDA, NRCS. 2007. The PLANTS Database. National Plant Data Center, Baton Rouge, LA 70874-4490 USA. <http://plants.usda.gov>

Publication 3186 (POD-02-18)

By **John D. Byrd Jr.**, PhD, Extension/Research Professor, Plant and Soil Sciences; **Victor Maddox**, PhD, Senior Research Associate, Plant and Soil Sciences; and **Randy Westbrook**, PhD, former Invasive Species Specialist, U.S. Geological Survey.



Copyright 2018 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.

Produced by Agricultural Communications.

Mississippi State University is an equal opportunity institution. Discrimination in university employment, programs, or activities based on race, color, ethnicity, sex, pregnancy, religion, national origin, disability, age, sexual orientation, genetic information, status as a U.S. veteran, or any other status protected by applicable law is prohibited. Questions about equal opportunity programs or compliance should be directed to the Office of Compliance and Integrity, 56 Morgan Avenue, P.O. 6044, Mississippi State, MS 39762, (662) 325-5839.

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. GARY B. JACKSON, Director