

Itchgrass [*Rottboellia cochinchinensis* (Lour.) W.D. Clayton]

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



Fig. 2. Itchgrass sheath showing stiff hairs.



Fig. 3. Itchgrass inflorescence.

Introduction

Problems Caused

Itchgrass [*Rottboellia cochinchinensis* (Lour.) W.D. Clayton] is a non-native, annual grass that was introduced at Miami, Florida in the 1920's. It is a federal noxious weed, and is listed as a state noxious weed in twelve states including Alabama, Arkansas, Louisiana, and Mississippi. It has been a serious weed in Louisiana for many years. Itchgrass is a profusely tillering grass (Poaceae or Gramineae) that can be very competitive in row crops, pastures, and along roadsides (Figure 1). It is spread primarily by seed and new populations continue to be found.

Regulations

Itchgrass is regulated as a Federal Noxious weed. It is also regulated as a Noxious weed in Arkansas, Florida, Mississippi, and Texas. It is a Class A Noxious Weed in Alabama, North Carolina and Vermont. It is a Quarantine pest in California and Oregon. It is Prohibited in Massachusetts and a Prohibited Noxious Weed in Minnesota. In South Carolina, it is regulated as a Plant Pest.

Description

Vegetative Growth

Some texts indicate potentially four species of *Rottboellia* L.f., but through recent taxonomic revision that number is probably closer to 2 or 3. Itchgrass can reach 10 ft 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'. Leaves are flat, around 1 inch wide tapering 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 pedicellate (stalked) and sterile, the other is sessile and fertile. Each is attached to a thickened rachis. The fertile, sessile spikelet is oblong and around ¼-inch in length. 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. Seed break off as they mature, but require a 5 to 6 month after-ripening period for germination to occur. Seed may retain viability in the soil for up to 4 years.

Dispersal

Since itchgrass often frequents highway right-of-ways, the most probable mechanism of dispersal is transportation, such as vehicles and mowers. It may also occur in other managed habitats, such as pastures and row crops.

Spread By

Primarily spread by human activity.

Habitat

Itchgrass is a problem in row crops, especially grass crops, pastures and roadsides (Figure 1). The spread of itchgrass along roadsides indicates dissemination may be associated with highway right of way vegetation management practices, such as mowing.

Distribution

US

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 had 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.

Mid-South

In the Mid-South, it has been reported in all states except Tennessee.

Control Methods

Biological

Some biological control agents have been investigated, but they are not currently in widespread use.

Chemical

Several herbicides can be used for itchgrass preemergence and postemergence control (Table 1). Preemergence herbicide options include clomazone and pendimethalin. Postemergence herbicide options include asulam, glyphosate, MSMA, nicosulfuron, glufosinate, clethodim, fluazifop, quizalofop, and sethoxydim. Refer to Table 1 for more information regarding 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. Precautions should be taken to avoid the stiff hairs which may irritate or pierce the skin.

Physical

None.

Method	Herbicide	Rate Per acre or spot treatment
Preemergence		
clomazone	Command 3ME	32 to 43 oz
pendimethalin	Pendulum, 3.3EC, Prowl 3.3EC	19 to 58 oz
Postemergence		
asulam	Asulox	128 oz
glyphosate	Several	32 oz of 3 lb ae per gallon formulation
MSMA	MSMA	32 oz
nicosulfuron	Accent	0.67 oz
glufosinate	Liberty	28 to 34 oz
clethodim	Select, Prism, Envoy	6 to 16 oz or 0.5% 12 to 32 oz or 1%
Fluazifop	Fusilade	6 to 12 oz or 0.5%
quizalofop	Assure II	5 to 10 oz or 0.75%
sethoxydim	Poast, Poast Plus	12 to 40 oz or 1% 24 to 36 oz or 1.5%

Table 1. Chemical control tactics for itchgrass.

References

NAPPO. 2003. *Roettboellia cochinchinensis* (Lour.) Clayton. NAPPO-PRA Grains Panel Pest Fact Sheet, June, 2003. <http://www.nappon.org/PRA-sheets/Roettboelliacochinchinensis.pdf>
USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 5 September 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

More Information

Itchgrass has been given various botanical names, including *Aegilops exaltata* L., *Manisuris exaltata* (L.) Kuntze, and *Roettboellia exaltata* (L.) L.f. Grasses in the genus *Manisuris* also occurs in the Mid-south region and may be confused with itchgrass. Unlike *Manisuris*, itchgrass is an annual and has prominent stiff hairs on the sheath. *Hackelochloa granularis* (L.) Kuntze is an annual with stiff sheath hairs, but unlike itchgrass the fertile spikelet is spherical and strongly pitted on the surface.

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