

Torpedograss

Panicum repens (L.) Poaceae

INTRODUCTION

Torpedograss is one of the most serious weeds in Florida. It grows in or near shallow waters forming monocultures where it can quickly displace native vegetation. It can also be found in more upland situations and is a frequent problem in sod production. Native to Africa and/or Asia, it was introduced to the United States before 1876, primarily through seed used for forage crops. In the early 1900's the United States Department of Agriculture imported and distributed torpedograss seed for planting in pasturelands, providing forage for cattle. Torpedograss has not yet been listed on the Federal or State Noxious Weed List.

DESCRIPTION

Torpedograss is in the family Poaceae, including grasses such as cogongrass and bermudagrass. It is called torpedograss because of its sharply pointed or torpedo-like growing tips. Torpedograss can grow up to 3 feet tall, with hairy leaf sheaths and hair on the upper margins of the leaves. Leaf blades are stiff, linear, flat or folded; the surface often with a waxy or whitish coating. Torpedograss has a panicle-type inflorescence, 3-9 inches long. The spread of torpedograss is limited to rhizomes either by rhizome expansion or fragmentation. Seed does not germinate well under Florida conditions.

IMPACT

By 1992, torpedograss had taken over 70% of Florida's public waters. The largest infestations can be found in Lake Okeechobee where it displaces close to 7,000 acres of native marsh. Torpedograss management costs approximately \$2 million a year in flood control systems. In Florida, torpedograss is also a major problem for the citrus and golf course industries. The denseness of the mats may impede water flow in ditches and canals and restrict recreational use of shoreline areas of lakes and ponds.

MANAGEMENT

Preventative: Preventive control can be accomplished by preventing the spread and fragmentation of rhizomes. This can be very difficult because if even a tiny fragment of rhizome is left in an area, it will reestablish itself. Control of infestations near waterways will prevent long-range spread via water and this should be a priority. If mowing or tillage is used, care must be taken to prevent transport of rhizome or stolon fragments.

Cultural: Weeds such as torpedograss generally invade open or disturbed areas – following a burn, clearing mowing, etc., so these areas are particularly vulnerable to invasion. Therefore, a healthy ecosystem with good species diversity will help to deter infestation.

Mechanical: Mechanical control is only moderately effective for torpedograss control. Continuous tillage will provide good control, but is often impractical in many natural areas. A single tillage operation may help to enhance herbicidal effectiveness, but disking alone may increase infestation levels through rhizome fragmentation. Mowing is only marginally effective.

Biological: There are limited agents being studied for biological control of torpedograss, although Dr. Charudattan at the University of Florida has been evaluating a species of fungus. Torpedograss is very palatable for cows and goats, and grazing may be integrated in an overall management scheme.

Chemical: Glyphosate has been the most effective herbicide used to control torpedograss. A 2 to 3% solution of glyphosate (Roundup, etc.) is very effective. Imazapyr (Arsenal, Chopper, Habitat) is also very effective at 0.5 to 1% solution. Be sure to include a non-ionic surfactant at 0.25% (10 mLs or 2 teaspoons per gallon of spray solution). These herbicides are systemic (move throughout plant tissue) so care must be exercised to minimize off-target damage. In addition, imazapyr has soil activity, so care must be exercised around sensitive species such as oaks (*Quercus* spp.). Torpedograss is most difficult to control when partially submersed in water. Regardless of habitat conditions, multiple resprays may be required for complete control.

REFERENCES:

Brecke, B.J., J.B. Unruh, and J.A. Dusky. 2001. Torpedograss (*Panicum repens*) Control with Quinclorac in Bermudagrass (*Cynodon dactylon* × *C. transvaalensis*) Turf. *Weed Technology*: Vol. 15, No. 4, pp. 732–736.

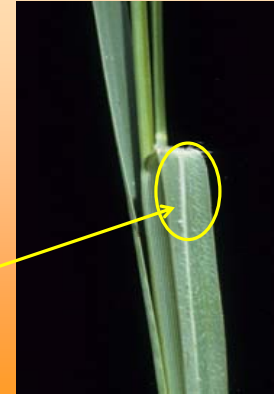
Mature Plant

- Perennial grass, roots on shore and will extend several feet out into shallow water
- Will grow up thru the water column
- Forms dense monoculture along shoreline of lakes and ponds



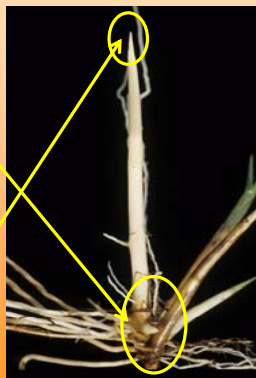
Leaves

- Leaf blades are 2 to 4 inches long, ¼ inch wide, stiff and folded
- Bluish green color
- Hairy on upper leaf surface



Rhizome

- Rhizomes arise from swollen crown tissue (knuckles)
- Rhizomes are very extensive, can comprise over 90% of total plant biomass
- Sharp, torpedo-like tips



Panicle

- Up to 9 inches long, numerous branches
- Reported poor seed viability

