

## Crabgrass

### The Problem

One of the world's most recognized weeds, crabgrass (*Digitaria* spp.) is a light-green to bluish-green-colored summer annual that invades just about every turfgrass situation. Several *Digitaria* species occur including: tropical crabgrass (*D. bicornis*); smooth crabgrass (*D. ischaemum*); India crabgrass (*D. longiflora*); southern crabgrass (*D. ciliaris*); large crabgrass (*D. sanguinalis*); and blanket crabgrass (*D. serotina*). Generally, crabgrasses are tufted, or prostrate to spreading summer annuals with branched stems that root at the lower nodes and can grow up to 3 feet tall if left unmowed. Leaf blades are often longer than 2 inches (5 cm.), usually hairy on both surfaces with tall, visible toothed, membranous ligule at the base of pointed leaves. The leaf vernation is rolled and often the leaf sheaths have dense hairs. The main form of reproduction is from seed, with some spreading from stolons. Crabgrass can tolerate poor growing conditions, but is found in nearly every soil type and crop. An important distinction of blanket and India crabgrass is their ability to form extensive mats due to their creeping stolons.

### What To Look For

Crabgrass grows in light-green to bluish-colored clumps which germinate in early spring, often corresponding with other flowering plants such as forsythia, redbuds and pears. One plant is capable of producing 150,000 seeds yearly, and seeds can remain viable for at least three years in soil. Crabgrass has a high light requirement for optimum germination, thus, healthy, thick turf often discourages its invasion. Crabgrass generally germinates in early spring when soil temperatures at 4-inch depth are 53-55°F for three consecutive days, and grows until a killing frost occurs. In areas without frost, it can act as a short-term perennial. Seedheads form a digitate shape where the branches arise from a common point, resembling the upward extending fingers of a hand.

Herbicide resistance has been reported with the dinitroaniline herbicides and fenoxaprop-ethyl, but only in isolated instances. Rotating between herbicides with different modes of action is the best means of preventing, or at least delaying, resistance occurrence.

### The Solution

#### Preemergence Solutions

Crabgrass control begins with an application of a preemergence herbicide applied in late-winter/early spring prior to 4" soil temperatures reaching 50°F. A key Envu solution for preemergence control in warm-season turf is Specticle® FLO. Control has been excellent with Specticle, but should be used only on well-established turf that isn't affected by nematode damage, spring dead spot disease, insufficient establishment, winter-kill, shaded turf, etc.

#### Postemergence Solutions

For postemergence control, Tribute® Total can be used in bermudagrass and zoysiagrass. Typically, best results occur on smaller plants. Other postemergence herbicides in bermudagrass and zoysiagrass golf turf include Acclaim® Accelerate. On cool-season turf, Acclaim Extra, Acclaim Accelerate, Terradex™ Crabgrass & Broadleaf, or Acuvist™ are highly effective options. In sites with traditionally heavy populations, both preemergence and postemergence products are typically required for sufficient control.

## Envu Options for Crabgrass Control

Solution	Turf type	Application Notes (refer to herbicide label for specific instructions)
Specticle® FLO	Warm-season	In addition to crabgrass, Specticle controls other annual grassy and broadleaf weeds, plus annual forms of sedges. Specticle should be applied late winter/early spring prior to crabgrass germination. One application typically provides season-long control, however split applications should be considered in sub-tropical and tropical areas where crabgrass germination occurs over a much longer period. Please see zone recommendations for more information on rates and proper timings for Specticle applications.
Tribute® Total	Warm-season	For use on bermudagrass and zoysiagrass turf only. Tribute Total, when applied at 3.2 oz./acre with a spray adjuvant, will control large crabgrass ( <i>Digitaria sanguinalis</i> ) and smooth crabgrass ( <i>Digitaria ischaemum</i> ) in well-established bermudagrass and zoysiagrass when the application is made from emergence to the two tiller stage. Make a second application if necessary, approximately 4-6 weeks later. Where crabgrass is in multi-tillered stages, multiple applications may be needed to achieve optimum results.
Acclaim® Extra	Zoysia or cool-season	For use on cool-season turf or zoysiagrass only. Apply only to zoysiagrass for postemergence control of crabgrass as well as goosegrass. Use lower rates on smaller weeds, higher rates on larger weeds. See label for specific rate information depending on weed size. Repeat applications may be required.
Acclaim® Accelerate	Warm- or cool-season	Controls crabgrass, foxtails and other summer annuals in warm- or cool-season turf, as well as torpedograss and a number of broadleaf weeds. Can be used over new seedlings or sprigs (refer to label). Effective over the full range of crabgrass stages and include methylated seed oil for maximum control, repeat applications may be required for maximum control.
Acuvis™	Primarily cool-season but also many warm-season species	Labeled for over 300 annual or perennial grassy or broadleaf weeds. Can be used on new seedlings. Refer to label for use on specific turf species and do not use on creeping bentgrass or annual bluegrass where they are desired turf.
Terradex™ Crabgrass & Broadleaf	Cool-season	Controls over 190 weeds with postemergence application, including crabgrass and broadleaf weeds. Most effective on young or larger crabgrass, but may be less effective on intermediate (2-4 tiller crabgrass) where repeat applications will likely be needed. Combine with a preemergence herbicide to provide residual control of crabgrass.



Larger crabgrass plant in bermudagrass turf.  
(Dr. Bert McCarty, Clemson University)



Certain crabgrass species, such as blanket and tropical, form stolons which can develop into extensive mats.  
(Dr. Bert McCarty, Clemson University)



Typical crabgrass seedhead. Seedhead branches from a central point and points upward, resembling the fingers of a hand.  
(Dr. Bert McCarty, Clemson University)