

TIMELY INFORMATION

Agriculture & Natural Resources

COGONGRASS: FLOWERING AND SPRING CONTROL OPTIONS

What is the issue?

Cogongrass, one of the most significant invasive weeds in Alabama, will soon be flowering. This is important for two reasons. First, cogongrass is most noticeable when in bloom due to the fluffy white flowers and seed heads. With as many as 200 flower heads per square meter in a dense infestation, it can put on quite a display and is easy to spot - especially along roads, forest edges and in pastures. Second, to prevent seed production and dispersal, cogongrass should be treated after green-up but before flowering is completed.

What does cogongrass look like in the spring just before and during green-up?

Undisturbed patches have dense, dead swards of brown to tan colored leaves, with some still upright and others fallen over. The leaf width (up to 1 inch) and length (typically from 2-4 feet) combined with the stemless appearance and distinctive tan color make it stand out among other dormant grasses. Upon green-up, newly emerging green leaves will be mixed in with the dead leaves. The offset whitish midvein characteristic of mature leaves may not be as readily apparent in the young leaves, but the leaf margins are finely serrated. Additionally, dense patches of new growth are often lime green in color. If you are unsure, dig up the roots to check for the presence of the stiff, sharp- pointed rhizomes. An excellent identification guide with many pictures created by the Bugwood Network and USDA Forest Service is available online at: <http://www.cogongrass.org/cogongrassid.pdf>. The pdf file is 1.85 megabytes.

What do the flowers look like and how long do they last?

Cogongrass flower heads are cylindrical in shape, from two to eight inches long and 0.5 to 1 inch wide. The flower head is made up of several hundred tiny florets, each with the potential to produce a seed. When first opened, the flower is light-purple or tan in color but within a week or two becomes bright white and fluffy. This is because, similar to dandelion seeds, cogongrass seeds are equipped with silky white hairs that aid in wind dispersal. When mature, the seeds are easily blown from the stalk. From start to finish, the period of flowering to seed production generally lasts from 4-6 weeks. Bloom time varies in the state with southern populations blooming as early as February or March and northern populations blooming as late as June. Plants will occasionally bloom at other times of the year as well, after mowing, fire, herbicide applications, or other disturbances.

Can you tell me more about viable seed production?

Seed production is variable and dependent on cross pollination with other clones. In south Alabama where cogongrass is well established, seed production was found to be relatively high at some sites (up to 37% of florets produced seed) but low at others (zero to 1-2% of the florets produced seed). Further north, where infestations are more scattered, seed viability was consistently low (zero or <1-2%). Because cogongrass seed germination tends to be very high

(>90%), even low seed production rates must be taken seriously. For instance, low seed production of 1% in an infestation with 200 seed heads per square meter results in 200 viable seeds per square meter, or 809,400 viable seeds per acre. It is best to always assume that some of the cogongrass seed is viable and since you can't tell which florets contain viable seeds just by looking at them, all should be considered capable of spreading seed across the landscape.

How far do seed disperse?

Studies have found seed typically wind disperse less than 100 feet, although dispersal may be further during storm events. Movement with animals, humans, soil, and equipment are probably responsible for much more long distance dispersal. Any type of physical disturbance during and just after flowering may greatly increase spread.

What are my spring herbicide control options?

There are two herbicides that are useful for preventing seed production, glyphosate and imazapyr. For spring foliar spot treatments, apply glyphosate (use a formulation with a minimum of 41% active ingredient) at 2.5% v/v just after green-up or during early bloom. The broadcast rate equivalent is 2 qt/A in enough water to wet all foliage. It can be difficult to reach the foliage when heavy dead thatch is present so take measures to ensure contact. This treatment will control new top growth and prevent seed production, but regrowth is likely in late summer and retreatment will be necessary. Surfactant may or may not be required, depending on the product used so be sure to check the label.

The second option is a tank mix of imazapyr (0.5% v/v of a 2 lb ai/gal formulation) + glyphosate at 2% v/v). Imazapyr is primarily a forestry / noncrop herbicide that has considerable residual soil activity and cannot be safely used under desirable hardwoods. This treatment will provide good control throughout the summer but retreatment will be required, either in the fall or the following spring.

What about surfactants/additives?

Use the surfactant specified on the label of the specific product used. Non-ionic surfactants (NIS) work well with glyphosate formulations that need surfactant while NIS or methylated seed oils (MSO) are often useful with imazapyr depending on the formulation. With regard to Cogon-X, our current research indicates it does not improve control with glyphosate alone with spring applications. However, you will find many people who are happy with the results when they use it.

Can't I just tell my clientele to just go out and treat in March?

No. Spring green-up and flowering appears to vary considerably in the state. Thus spring preflower herbicide timing may occur between March and May, depending upon the geographic location (earlier in the southern counties, later as you move northward). Additionally, burned or mowed areas may green up and flower earlier than undisturbed areas.

What about grazing and mowing for seedhead suppression and control?

Intensive grazing and repeated mowing can suppress cogongrass. However, animals grazing or mowing during the bloom period can increase seed dispersal on equipment and on animals. Additionally, cogongrass can quickly recover once grazing or mowing is reduced.

What other resources are available for more information?

Go to www.cogongrass.org for additional news, fact sheets and identification information.

What about fall treatment options?

Expect another timely information sheet by July that will cover fall treatments.

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