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# Alabama Forestry Commission's Cogongrass Control Recommendations

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Top growth of cogongrass is easy to kill or eliminate, while it is the underground stems or rhizomes that are more difficult to control and must be the target of eradication-control treatments. Each sharp rhizome tip can initiate a shoot and new rhizomes when top growth is eliminated by mowing, herbicide, or burning. Mowing and burning can be used to clear thatch and debris before other treatment begin, while burning can result in aggressive cogongrass resprouting, kill desirable plants and open adjoining lands for cogongrass invasion.

The difficulty of cogongrass control varies according to the depth and density of the rhizome mat. Young infestations are usually easier to control than older well-established infestations with intertwining rhizome mats greater than 5 inches in depth. Centers of infestations will have deeper mats and will be harder to kill (the bull's eye effect), while rhizomes extending past the edges will emerge if the soil above is not treated (the halo effect).

## Tillage Eradication for Pastures and Crop Areas

For newer patches, tillage can eliminate cogongrass from an area if continued during the course of a growing season. Tillage may not be an option on many sites such as steep slopes, established tree plantings, or around dwellings.

1. The initial tillage should begin in the spring (March through May) with an implement that inverts the soil to a depth of at least 6 inches and below the rhizome mat. **An option:** After multiple tillage passes, plant a Roundup-resistant crop will permit oversprays of Roundup (glyphosate) herbicides at labeled rates during the growing season to eliminate sprouting cogongrass.
2. Perform additional tillage with a disk harrow or other appropriate implement every 6 to 8 weeks. It is important to clean all equipment on site to prevent the spread by rhizomes. Dry periods during the summer will aid in the control of cogongrass.
3. The area can be planted to a fall cover crop and then followed the next season with perennial or annual grass or broadleaf crops.

## Dearl Sander's LSU Current Recommendations for Cogongrass in Pastures Are:

- Prepare a complete fall seedbed, utilizing a finishing tool with sweeps if possible to deposit crowns and rhizomes at the soil's surface.
- Plant ryegrass at a minimum of 30 lbs/acre alone or in combination with other winter forages.
- Do not overgraze the ryegrass in the infested areas.
- Allow the ryegrass in infested areas to naturally senesce, allowing full season competition before removal.
- Spray all fencerows and noncrop areas with glyphosate alone or in combination with sulfometuron (Oust, etc.) or imazapyr (Arsenal, etc.) where allowed.
- Practice good sanitation to prevent re-infestation.

## Herbicide Eradication or Control

More treatments and the use of imazapyr herbicides will be required for old infestations with rhizome mats that fill the friable surface soils.

**Only two active ingredients are consistently effective on cogongrass at this time:**

- glyphosate (as in Accord, Roundup<sup>a</sup>, Glypro, Accord<sup>b</sup>, etc) and
- imazapyr (as in Arsenal, Arsenal AC, and Chopper Gen 2, etc.),

Glyphosate has no soil residual activity but can injury nontarget plants when sprayed. Imazapyr has both soil and foliar activity and can injury or kill sensitive nontarget plants either sprayed or with roots in the treatment area, or when planted too soon after treatment. Many herbicides have these ingredients and are sold as "brand name (original manufacturer)" and "generic" herbicides (see Table 1).

### **Herbicide Prescriptions that can be applied to new shoots at least 1 foot tall and then up to a month before frost.**

*For New Infestations and areas where no soil active herbicides can be used:*

**Glyphosate with 41% active ingredient (stated on the label)**

- 4 quarts applied in a 15-25 gal mix per acre (or 4-7% mix) or 15-27 ounces per 3-gal mix. Plus surfactant (see below).

**Glyphosate with 50+% active ingredient (stated on the label)**

- 7 pints applied in a 15-25 gal mix per acre (or 3.5-6% mix) or 10-15 ounces per 3-gal mix. Plus surfactant (see below).

*For Old Infestations and areas where soil active herbicides can be used for quicker control:*

**Imazapyr with 22% active ingredient and Glyphosate with 41% active ingredient**

- 3 pints imazapyr plus 1 gallon glyphosate in a 15-25 gal mix per acre (or 1.5-2.5 % imazapyr plus 4-7% glyphosate) or 6-10 ounces imazapyr plus 15-27 ounces glyphosate per 3-gal mix. Plus surfactant (see below).

**Imazapyr with 43% active ingredient and Glyphosate with 41% active ingredient**

- 1.5 pints imazapyr plus 1 gallon glyphosate in a 15-25 gal mix per acre (0.75-1.25% imazapyr plus 4-7% glyphosate) or 3-5 ounces imazapyr plus 15-27 ounces glyphosate per 3-gal mix. Plus surfactant (see below).

**Imazapyr with 22% active ingredient and Glyphosate with 50+% active ingredient**

- 3 pints imazapyr plus 7 pints glyphosate in a 15-25 gal mix per acre (or 1.5-2.5 % imazapyr plus 3.5-6% glyphosate) or 6-10 ounces imazapyr plus 10-15 ounces glyphosate per 3-gal mix. Plus surfactant (see below).

**Imazapyr with 43% active ingredient and Glyphosate with 50+% active ingredient**

- 1.5 pints imazapyr plus 6 pints glyphosate in a 15-25 gal mix per acre (0.75-1.25% imazapyr plus 3.5-6% glyphosate) or 3-5 ounces imazapyr plus 10-15 ounces glyphosate per 3-gal mix. Plus surfactant (see below).

**Spray the entire infestation and 10 feet past the edges for imazapyr to reach extending rhizomes**

**Plus add 0.5% surfactant (2 ounces per 3 gal, 10 ounces per 15 gal, and 16 ounces per 25 gal).**

## The Rehabilitation Phase

Rehabilitation is the most important phase of control and reclamation of land infested with cogongrass or other non-native invasive plants. The rehabilitation phase requires establishment or release of fast growing native or non-invasive plants that can out-compete and outlast any surviving cogongrass plants while stabilizing and protecting the soil. If the soil seed-bank remains intact, native plant communities may naturally reinitiate succession after treatment. Light seeded native species are usually present in the seed-bank while heavier seeded plants will gradually be deposited on a site by birds and other animals. It is often necessary to establish fast growing tree and shrub species like loblolly pine, waxmyrtle and yaupon after initial treatments to shade out surviving cogongrass. Reestablishing native and non-invasive grasses can also be seeded on roadsides and pastures to assist control. Grazing by livestock can also suppress young cogongrass growth. Constant surveillance, treatment of new unwanted arrivals, and finally, rehabilitation following control are critical to preventing reinfestation on a specific site.

**Table 1. Herbicide products with imazapyr and glyphosate active ingredients.**

Active Ingredient by surfactant and concentration	Herbicide Name <sup>1</sup>	Company
<b><u>Imazapyr</u></b>		
<b><u>No Surfactant</u></b>		
4 lb/gal - 43.3%	Arsenal AC	BASF
4 lb/gal - 42.9%	Imazapyr 4 SL	Vegetation Management LLC
4 lb/gal - 43.3%	Imazapyr E-Pro 4 - Forestry	Etigra Llc
4 lb/gal - 43.3%	Polaris™ AC Herbicide	Nufarm Turf & Specialty
2 lb/gal - 22.6%	Arsenal Herbicide	BASF
2 lb/gal - 22.6%	Habitat (aquatic)	BASF
2 lb/gal - 22.6%	Imazapyr 2 SL	Vegetation Management LLC
2 lb/gal - 23.4%	Imazapyr E-Pro 2 VM & Aquatic	Etigra Llc
2 lb/gal - 22.6%	Imazapyr E-Pro 2E Site Prep/Basal	Etigra Llc
2 lb/gal - 22.6%	Polaris™ AQ Herbicide (aquatic)	Nufarm Turf & Specialty
2 lb/gal - 22.6%	Polaris™ SP Herbicide	Nufarm Turf & Specialty
2 lb/gal - 22.6%	Stalker Herbicide	BASF
<b><u>Surfactant</u></b>		
2 lb/gal - 22.6%	Chopper	BASF
2 lb/gal - 21.8%	Chopper Gen2	BASF
2 lb/gal - 22.6%	Polaris™ RR Herbicide	Nufarm Turf & Specialty
<b><u>Glyphosate</u></b>		
<b><u>No Surfactant</u></b>		
5.4 lb/gal - 53.6%	Accord XRT	Dow AgroSciences LLC
5.4 lb/gal - 53.8%	Accord® Concentrate	Dow AgroSciences LLC
5.8 lb/gal - 53.8%	Aquamaster (aquatic)	Monsanto Company
5.8 lb/gal - 53.8%	Aquaneat Herbicide (aquatic)	Nufarm Turf & Specialty
5.4 lb/gal - 53.8%	Cinco	UAP – Loveland Products, Inc.
5.4 lb/gal - 53.8%	Foresters® Non-Selective Herbicide	Nufarm Turf and Specialty-
5.4 lb/gal - 53.8%	Rodeo (aquatic)	Dow AgroSciences LLC
5 lb/gal - 52.3%	Touchdown Hitech	Syngenta Crop Protection, Inc. Riverdale Chemical Co.
4 lb/gal - 41%	Alecto 41 UL	Ritter Chemical LLC

4 lb/gal - 41%	Buccaneer	TENKOZ, Inc.
4 lb/gal - 41%	Buccaneer Herbicide	TENKOZ, Inc
4 lb/gal - 41%	Buccaneer Herbicide Plus	TENKOZ, Inc
4 lb/gal - 41%	Cornerstone	Agrilience LLC
4 lb/gal - 41%	Credit®	Nufarm Americas, Inc.
4 lb/gal - 41%	FarmSaver Glyphosate 4	MANA - Makhteshim Agan of
4 lb/gal - 41%	Gly Star Original	Albaugh, Inc./Agri Star
4 lb/gal - 41%	Gly-4 Plus	Universal Crop Protection
		Alliance LLC
4 lb/gal - 41%	Glyfos Herbicide	Cheminova, Inc.
4 lb/gal - 41%	Glyphogan Herbicide	MANA - Makhteshim Agan
		of North America, Inc.
4 lb/gal - 41%	Glyphomax	Dow AgroSciences LLC
4 lb/gal - 41%	Glyphosate 4	Vegetation Management LLC
		North America, Inc.
4 lb/gal - 41%	Glyphosate 41%	Helm Agro US, Inc.
4 lb/gal - 41%	GlyphosateT&O	FarmSaver.com / Quali-Pro
4 lb/gal - 41%	Honcho Herbicide	Monsanto Company
4 lb/gal - 41%	Honcho Plus	Monsanto Company

Table1. Continued

Active Ingredient by surfactant and concentration	Herbicide Name <sup>1</sup>	Company
<b><u>Glyphosate</u></b>		
<b><i>No Surfactant</i></b>		
4 lb/gal - 41%	Mirage Herbicide	UAP – Loveland Products, Inc.
4 lb/gal - 41%	Rattler Herbicide	Helena Chemical Company
4 lb/gal - 41%	Rattler Plus	Helena Chemical Company
4 lb/gal - 41%	Razor®	Nufarm Turf and Specialty- Riverdale Chemical Co.
4 lb/gal - 41%	Roundup Original	Monsanto Company
3.5 lb/gal - 36.5%	Touchdown Total	Syngenta Crop Protection, Inc.
3.64 lb/gal - 37.5%	Credit® Duo	Nufarm Americas, Inc.
3 lb/gal - 28.3%	Touchdown Herbicide	Syngenta Crop Protection, Inc.
<b><i>Surfactant</i></b>		
5.5 lb/gal - 48.7%	Roundup Original Max	Monsanto Company
5.4 lb/gal - 53.6%	Durango	Dow AgroSciences LLC
5.4 lb/gal - 53.6%	Glyphomax XRT	Dow AgroSciences LLC
5 lb/gal - 50.2%	Roundup Pro Concentrate	Monsanto Company
4 lb/gal - 41%	Accord® SP	Dow AgroSciences LLC
4 lb/gal - 41%	Alecto 41HL	Ritter Chemical LLC
4 lb/gal - 41%	Alecto 41S	Ritter Chemical LLC
4 lb/gal - 41%	Cornerstone Plus	Agrilience LLC
4 lb/gal - 41%	Credit® Extra	Nufarm Americas, Inc.
4 lb/gal - 41%	Gly Star Plus	Albaugh, Inc./Agri Star
4 lb/gal - 41%	Gly Star Pro	Albaugh, Inc./Agri Star
4 lb/gal - 41%	Glyfos X-Tra Herbicide	Cheminova, Inc.
4 lb/gal - 41%	Glyphomax Plus	Dow AgroSciences LLC
4 lb/gal - 41%	Glyphosate 41 Plus	Crop Smart LLC
4 lb/gal - 41%	Glyphosate Pro™ 4	PROKoZ, Inc.

4 lb/gal - 41%	Glyphosate Pro II	PROKoZ, Inc.
4 lb/gal - 41%	Makaze Herbicide	UAP – Loveland Products, Inc.
4 lb/gal - 41%	Ranger Pro	Monsanto Company
4 lb/gal - 41%	Rascal® Plus 41% Glyphosate	AgriLiance LLC
4 lb/gal - 41%	Razor® Pro	Nufarm Turf and Specialty- Riverdale Chemical Co.
4 lb/gal - 41%	Roundup Pro	Monsanto Company

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<sup>1</sup> All herbicides listed are labeled for one or more of the following sites designations: aquatic, industrial or noncrop that allows use on or in forestry, right of ways, habitat restoration and management, fence rows, wildlife food plots, roadsides, parks, recreational and residential areas. Read and thoroughly understand the herbicide label and its prohibitions before and during use.