

Purpose

Document a standard process for managing and controlling the spread of Cogongrass.

Intended Users:

- Operations Division employees.
- Engineering Division employees.
- Public Works employees.
- Other stakeholders.

Prerequisites/Resources:

- Herbicide Suggestions Using an Integrated Approach to Cogongrass Infestations (Attachment A).
- Herbicide Suggestions for Small Infestations of Cogongrass (Attachment B).
- Herbicide Suggestions for Large Infestations of Cogongrass (Attachment C).
- Community Cost/Share Program Examples (Attachment D).
- Cogongrass Identification (Attachment E).

Related Documents

- [Pasco Cogongrass Management Plan for Roadsides](#) prepared by Dr. Whitney Elmore (September 2019).
- [Cogongrass \(*Imperata cylindrica*\) Biology, Ecology, and Management in Florida Grazing Lands](#); University of Florida (UF), Institute of Food and Agricultural Sciences (IFAS) Extension, 2018.
- [Cogongrass biology and management in the southeastern U.S.](#); University of Florida, Southern Regional Extension Forestry, 2018
- [Cogongrass Treatment Cost-Share Program](#), UF/IFAS Extension.
- [Florida Cogongrass Treatment Cos-Share Program](#), Florida Department of Agriculture and Consumer Services – Florida Forest Service.
- [Cogongrass Program](#), Alabama Forestry Commission.
- [Financial Relief for Landowners to Fight Cogongrass](#), Alabama Forestry Commission.
- [Website created in Alabama to educate and report cogongrass infestations.](#)

General

Currently, cogongrass is being sprayed in County-maintained ponds by the Public Works Aquatic Weed Control team during the course of their normal duties. However, control of cogongrass is difficult, time-consuming, and expensive, involving a combination of mechanical and chemical treatments. A dedicated team is needed to perform regular control/treatment measures to mitigate and eradicate the spread of cogongrass.

Procedures

1. The Operations Division's maintenance, landscaping, and grading crews and the Aquatic Weed Control Team (Engineering Division) shall collaborate on treating cogongrass as they encounter it in their normal duties.

- a. The Aquatic Weed Control Team shall notify Operations Division when they locate cogongrass outside of their treatment areas.
 - b. The Operations Division Manager and Engineering Division Manager shall be responsible for ensuring the maintenance supervisors and their crews receive education and training about recognizing and treating cogongrass.
 - c. The Operations Division Manager and Engineering Division Manager shall be responsible for coordinating with the Pasco County Extension Office, UF/IFAS to conduct cogongrass training.
2. The Operations Division maintenance supervisor shall ensure soil removed during maintenance projects shall be taken directly to the County landfill. In addition, Public Works maintenance crews shall practice the following whenever possible.
- a. Use Clean soil for drainage and ditch maintenance activities.
 - b. Use an integrated mechanical and chemical approach to treating cogongrass. See Attachment A, B, C for examples.
 - c. Use standardized chemical treatment such as imazapyr (Arsenal, Stalker, etc.) and glyphosate (Roundup, etc.), along with a rotation schedule to mitigate resistance to treatment.
 - d. Ensure the frequency and duration of the maintenance activities are based on the density the cogongrass and moisture level of the rhizomes.
 - e. Revegetate treated areas with native species (consult with the Pasco County Extension Office, UF/IFAS to verify and use a needed).
 - f. Monitor and track cogongrass clusters throughout the County.
 - g. Establish an equipment maintenance plan and site clean-up procedures to minimize spread of rhizomes from area to area.
 - h. Keep mowing equipment free of seed and rhizome fragments, which is critical to prevent further spread.
 - i. Avoid movement through or mowing cogongrass when it is in flower (seeding). Cogongrass flowers early in the growing season (spring), whereas most native grasses flower in summer or fall.
3. The Senior Project Manager (Operations Division) shall:
- a. Coordinate with the Contract/Specifications Coordinator (Administrative Division) to add specifications to an existing contract upon its renewal or begin a new bid proposal for contract services to provide management and control over the spread of cogongrass on County maintained rights-of-way, ponds, and center medians. The contract should state the following:

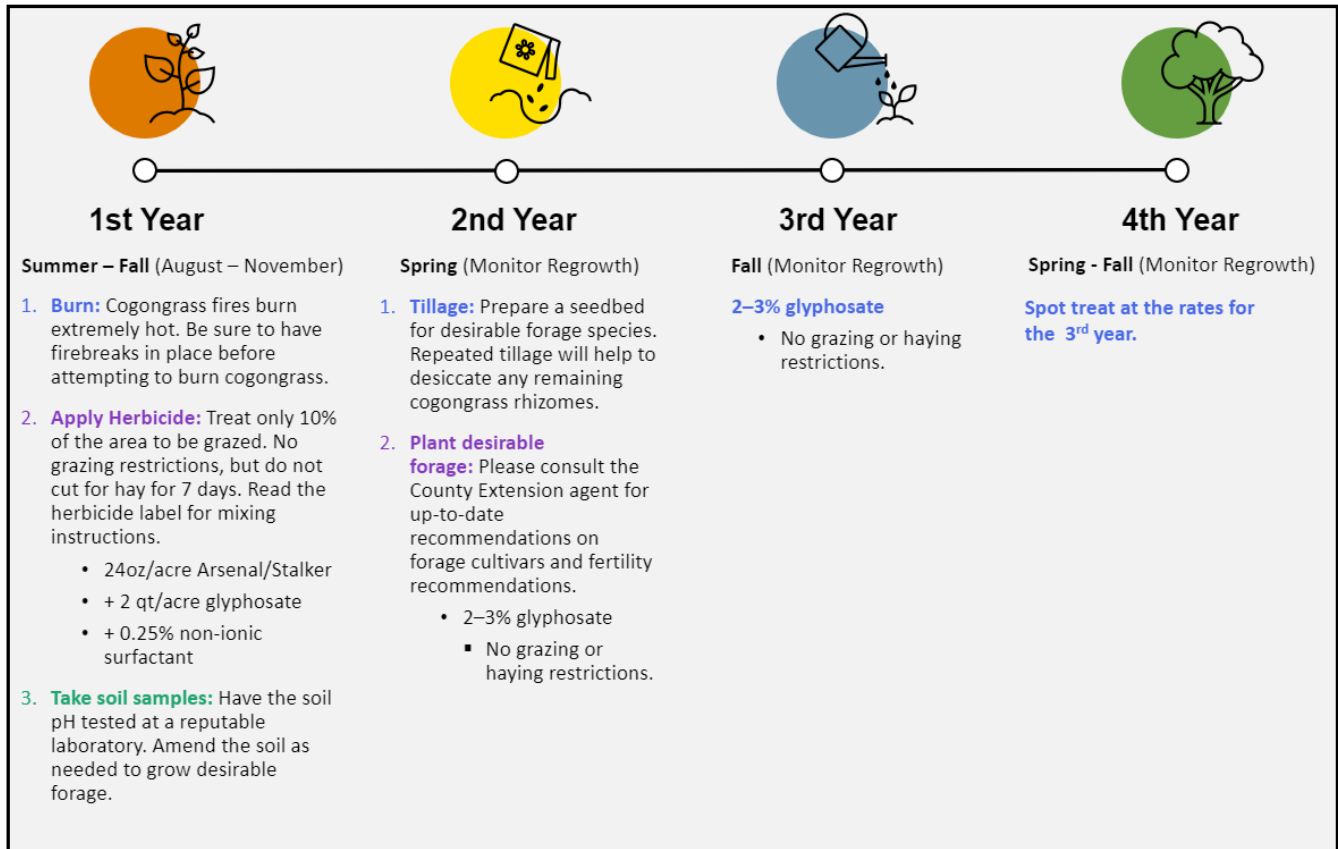
- The Contractor(s) must provide a detailed invasive species maintenance/control plan upon request.
- b. Notify the Operations Support Administrator (Technical Services Division) when a contract is secured to add the contractor's name and other information needed to be recorded in the Work & Asset Management System as work is performed.
 - c. Research and pursue grants such as cost/share programs with the local community.
 - Cost-share grants are available through the Florida Department of Agriculture and Consumer Services (Florida Forest Service).
 - See Attachment D for examples of grants used in the past to assist the community with cogongrass treatment.
4. If burning is selected as an option, the Senior Project Manager (Operations Division) shall research the possibility of a burning approach, which can be a useful method of control in an integrated approach. Burning should be done in August or September.
- a. Burning authorization could be obtained through the Withlacoochee Forestry Center (Florida Forest Service) in the event that burning is selected as an option.
 - b. Chemical treatments can be applied one to four months after authorized burning activities.
5. The Senior Project Manager (Operations Division) shall coordinate with the Public Communications Specialist (PCS) to establish public outreach activities and provide education to citizens about cogongrass and what can be done to control or eradicate it.
- a. The PCS shall create and edit all outreach materials to inform/educate the public cogongrass about including brochures, graphics, and social media posts in alignment with department branding to educate the public on reduction of stormwater pollution.
 - b. The PCS will create handouts to educate citizens on the identification, prevention, treatment, and control of cogongrass. The handouts should be distributed at the government center, libraries, chamber of commerce, schools, meetings, events, and presentations.
 - c. The PCS shall establish a link on the Pasco County website to report cogongrass areas.
 - Alabama partnered with the U.S. Department of Agriculture, Alabama Department of Agriculture and Industries, the Alabama Forestry Commission, and the Alabama A&M & Auburn Universities Extension office to create a website to educate the community about cogongrass and how to treat/report it (<https://www.alcogongrass.com/>).
 - d. The PCS shall coordinate with the Pasco County Extension Office, UF/IFAS, for appropriate content.
 - e. Guidelines shall follow the established design and brand for the Public Works Department.
6. This SOP must be reviewed or updated every 3 years or as needed.

- a. If a review is required, the division manager or designee shall complete the review box below.
- b. If a change in procedure is required, the division manager or designee shall update the file to _REVISED, complete the changes, and notify the Technical Services Project Manager of the changes.

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| Last Edited by: Larry Alcaide | | Date Last Revised: February 29, 2024 |
| DEPARTMENT OF PUBLIC WORKS APPROVALS | DIVISION MANAGER | _____ Signature/Date |
| | TECHNICAL SERVICES MANAGER | _____ Signature |

| SOP Review Conducted by Division Manager or Representative | | | |
|--|------------------|-------|-------------------|
| Date of Review (Every 3 Years) | Name of Reviewer | Title | Digital Signature |
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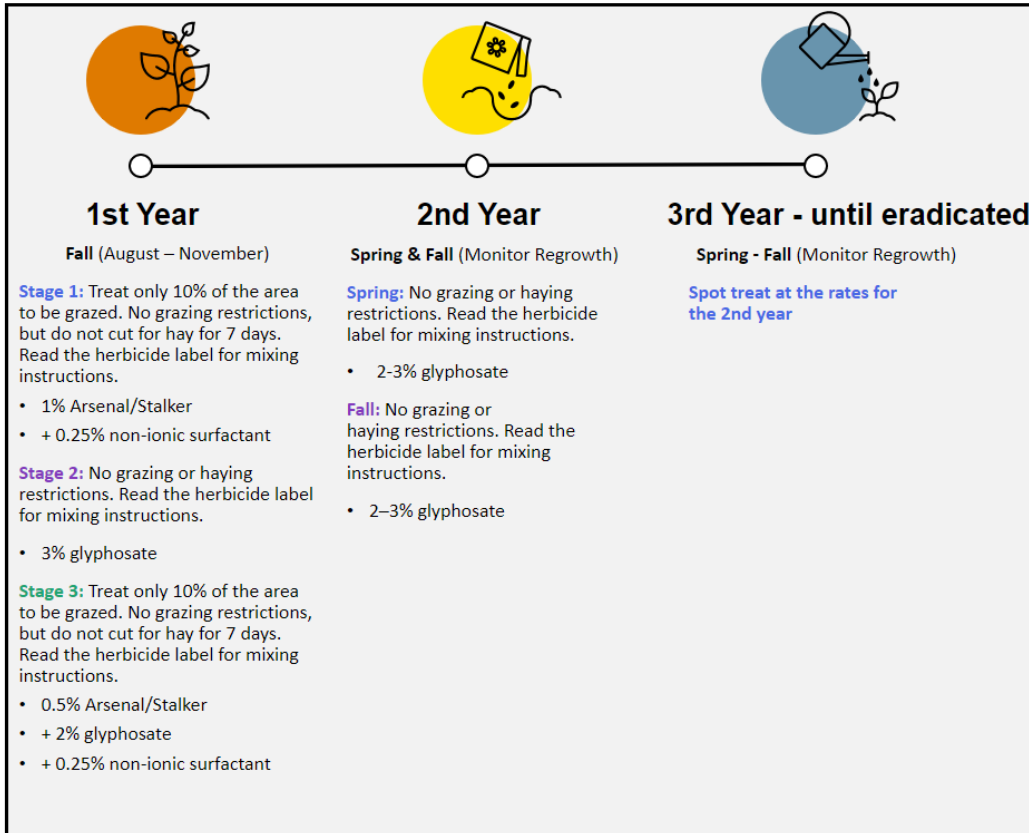
Herbicide Suggestions Using an Integrated Approach to Cogongrass Infestations



SS-AGR-52/WG202: Cogongrass (*Imperata cylindrica*) Biology, Ecology, and Management in Florida Grazing Lands (ufl.edu)

Herbicide Suggestions for Small Infestations of Cogongrass

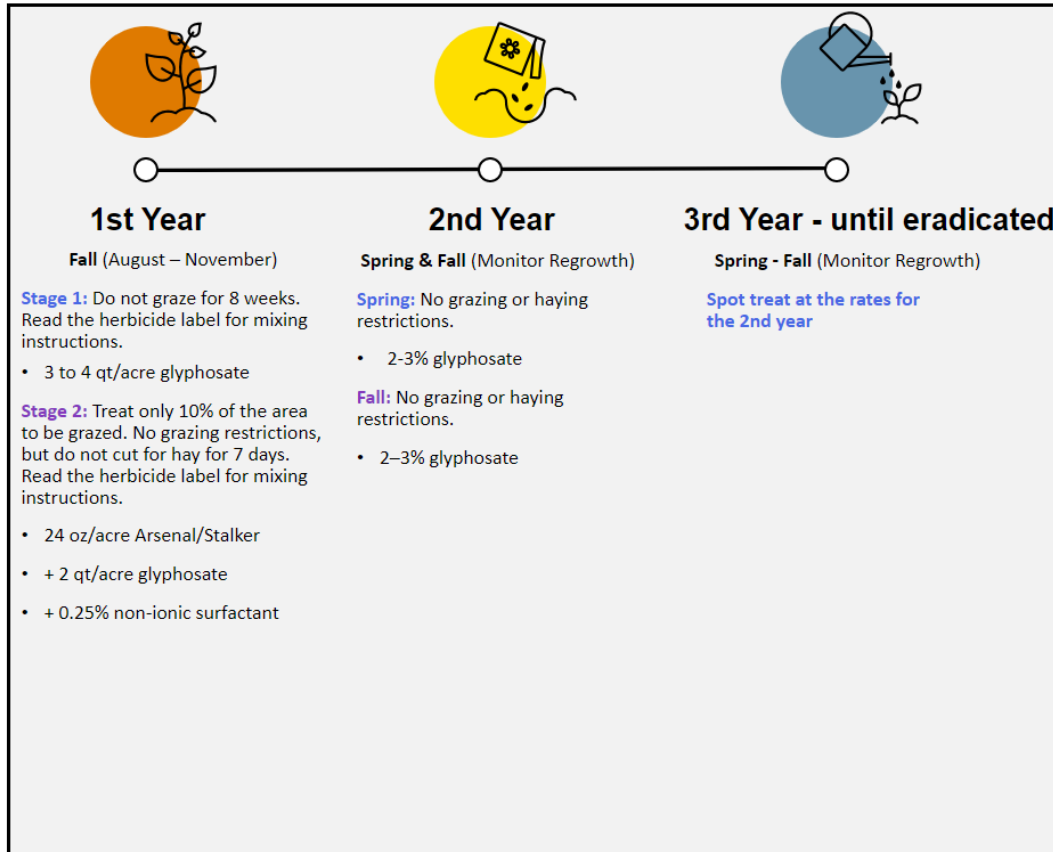
Small infestations are defined as 20-30 feet or less in diameter. Early detection and treatment are extremely important because young infestations are much easier to treat/eradicate than established infestations.



SS-AGR-52/WG202: Cogongrass (*Imperata cylindrica*) Biology, Ecology, and Management in Florida Grazing Lands (ufl.edu)

Herbicide Suggestions for Large Infestations of Cogongrass

Large infestations are defined at 30 feet or more in diameter. These types of infestations are established patches with a large, intact root system. This will require more herbicide treatments to control or completely eradicate the cogongrass.



SS-AGR-52/WG202: Cogongrass (*Imperata cylindrica*) Biology, Ecology, and Management in Florida Grazing Lands (ufl.edu)

Community Cost Sharing Program Examples

Program Details:

Example 1 (Florida 2014)

- Reimbursement of 50% of the cost to treat Cogongrass infestations with herbicide for two consecutive years, up to a maximum of \$100 per year for treatment of up to one acre, and \$75/acre per year for any additional area. Qualified applicants may apply to treat up to a maximum of 133 acres of infested area.
- Enrollment period was 3-4 months.

Example 2 (Florida 2017)

- Applicants who meet the eligibility requirements listed above may receive reimbursement for up to 50% of the actual cost (including labor and materials, based on submitted receipts or invoices) of treating cogongrass infestations with herbicide for two consecutive years. However, payment will not exceed \$100/year for treatment of up to 1 acre of infestations, plus \$75/ac for any additional area treated each year. No contracts may exceed the maximum payment of \$20,000, or \$10,000 per year for a 2-year contract.
- First come, first serve process for applications. Enrollment period not stated.

Example 3 (Alabama 2023)

- Enrollment for 1.5 months or up to 250 applicants.
- Cannot treat cogongrass infestations within 25 feet of all surface water (streams, ponds, lakes, rivers, etc.).
- Cannot treat cogongrass infestations within 150 feet of a known threatened and endangered species.
- Cannot treat cogongrass infestations within 330 (or as high as 660) feet from an active bald or golden eagle nest.
- Careful deliberation will be taken for treating cogongrass infestations that are in proximity to school grounds, bus stops, playgrounds, children, domesticated animals, livestock, homesites, or other special/unique/inhabited sites.

Cogongrass Identification

1. When identifying cogongrass it is best to focus on vegetative characteristics, because it flowers only for a brief time. The presence of just one of these characteristics does not confirm identity as cogongrass – it is best to look at multiple traits to confirm.
2. Cogongrass can be identified by bright green leaves, which commonly grow up to four feet in height, but can reach over six feet in height and approximately one inch wide (Figure 1).



Figure 1 – Cogongrass are yellow to green in color

3. Cogongrass leaves have serrated margins and a distinctly off-center white midrib (there are a number of other grasses that also have an off-center midrib, so this alone is not a reliable identification method) (Figure 2).



Figure 2 – Cogongrass leaf showing the off-center midvein and serrated edges.

4. Cogongrass lacks above-ground stems, as leaves arise directly from underground horizontal stems called rhizomes. At least 60% of the total plant biomass is often found below the soil surface as rhizomes. These rhizomes are white, segmented, and covered with reddish-brown scales. Cogongrass rhizomes possess several features to ensure survival and spread, including specialized internal anatomy to reduce water loss, and sharply pointed tips.



Figure 3 – Cogongrass rhizomes

5. The rhizomes can penetrate to a depth of 4 feet, but most of the root system is within the top 6 inches of the soil surface. The rhizomes are responsible for long-term survival and short-distance spread of cogongrass. Long-distance spread is accomplished through seed production. Seeds can travel by wind, animals, and equipment.
6. The only stem above the ground is the flowering stalk, which typically lacks subtending leaves. Flowers of cogongrass are whitish-silver, plume-like (fluffy) and range from 4 to 8 inches in length (Figure 4).



Figure 4 – Cogongrass flowers

7. Each seed head can contain over 100 individual flowers, but most flowers abort and lack seed development. When seeds are produced, they are extremely small, brownish-tan colored with long white hairs attached to aid in wind dispersal (Figure 5).



Figure – 5 Cogongrass seed attached to the flower