

## ***Fighting the Battle to Win the War on Cogongrass***

### **Introduction**

Cogongrass [*Imperata cylindrica* (L.) Beauv.] is a perennial grass originating from Asia. It was first introduced into the US through Mobile, AL in the early 1900's as packing material for oranges. Found in at least 9 states across the US and in 73 countries, cogongrass is a pest on a global scale with over 1.2 billion acres infested. It is listed in the top 10 of the world's worst weeds and in the US as a noxious weed. With its biological desert, cogongrass has decimated entire agricultural areas in other parts of the world. The danger is that cogongrass, left unchecked, will spread to *every* state in the US and require intensive economic input to control and eradicate.

Cogongrass spreads through its prolific seed production but also belowground through a vast, dense mat of rhizomes. The extensive rhizome network is so thick that other plants cannot acquire enough water and nutrients to compete with it. Seeds embedded in vehicle grills, rhizomes caught in tire treads and a vehicle's belly, and even fragments spread through mowing and road construction are prime examples of how cogongrass spreads. It is found on all manner of sites, from dry sandhills to within standing and flowing water, and almost everything in between. Fire liability is a substantial risk in areas infested with cogongrass. It ignites within seconds, burns extremely hot and at a very fast rate, and its flames can extend many times above the height of the leaves. In many ways, cogongrass could be called "the perfect weed". It grows fast, outcompetes almost everything, kills other plants through fire, creates a high liability risk, and requires intensive investment to control.

### **Teaming Up**

In 2008, agencies in Alabama reached a consensus that something needed to be done to combat the cogongrass problem. A Memorandum of Understanding was signed among 23 public agencies and private entities, among them the Alabama Forestry Commission (AFC), Alabama Department of Wildlife and Freshwater Fisheries, Alabama Cooperative Extension Service, Alabama Soil and Water Conservation Committee, USDA Forest Service, US Army Corps of Engineers, and UAP Distribution (now Crop Production Services, Inc.). Later that year several southeastern state forestry agencies convened to sign another MOU so that additional resources could be garnered and coordination among states might continue.

While the impetus was there to begin the fight against cogongrass, there was recognition that more funds were

## **Stephen D. Pecot, Larson & McGowin, Inc.**

necessary to eradicate it. Shortly after President Obama took office the American Reinvestment and Recovery Act (ARRA) was signed, which made funding available that would begin to meet the goals set forth in the MOUs. The AFC prepared a Program Narrative and in May 2009 received word that \$6.28 million in funds would be available to fight cogongrass in the state over a 3-year period.

Since the project was so ambitious—and knowing that



AFC's mandate is not strictly for cogongrass control—the decision was made to put out an RFP to Alabama companies to coordinate the state's efforts at combating cogongrass. Of several companies who submitted proposals, Larson & McGowin, a land management and forestry consulting firm in Mobile, AL was selected to administer the project. A Project Leader and Communications Director were immediately assigned the task of bringing to life a program that would affect thousands of landowners, tens of thousands of acres, and millions in federal funds.

### **Project Goals**

The project's goals are simple, and its scope ambitious:

1. Create and/or maintain jobs (~75);
2. Use education and technological transfer to prevent the further spread of cogongrass;
3. Use adaptive management techniques to intervene and quickly treat infested sites as well as restore and maintain treated areas;
4. Create a cogongrass-free zone in the northern part of the state and along its borders, halting the spread to other states; and

5. Create a program that will outlive the grant's initial period by obtaining further funding.

## Program Description

There are close to 6,000 documented cogongrass infestations in the AFC's Geographic Information System (GIS) database. Based on early work done by our program we estimate there to be 10-50 times that amount in the entire state with the majority in the southern counties (below Montgomery, AL). To best combat cogongrass we decided early on to divide Alabama into several zones and subprograms. The program has 2 zones, north and south, with the demarcation line approximately in the center of the state (Columbus-Montgomery-Tuscaloosa; subject to change). In the northern zone we have set an objective to eradicate cogongrass using available funds. This serves many purposes; most importantly it will effectively stop the spread of cogongrass into Tennessee and points northward. In the southern zone we are more pragmatic: with our current funding and the large number of known infestations on small properties such as residential lots we will mitigate cogongrass effects along with landowner education.

To have the greatest effect with the limited funds available,



*Stephen Pecot (left) and Ernest Lovett (center) discuss cogongrass treatment options with Jamie Thomas, a local forester (right). Courtesy Montgomery Advertiser/USA Today*

we designed a program that would touch different segments of the state's landowner population. By doing this we will enroll people of diverse backgrounds and even more diverse management objectives. The grant has 6 subprograms that will be available to private, nonindustrial landowners:

1. Survey and Spray – this subprogram will deploy teams across the northern zone to fight the small cogongrass infestations.

2. State Borders – along with the northern zone we are working with agencies in MS, GA, and FL to combat cogongrass infestations immediately along the border to effectively create a band of cogongrass-free areas.
3. Underserved and Limited-Income Landowner Service – Central Alabama counties are among the poorest in the nation. Many landowners do not have access to land management professionals or the funds to adequately take care of their land. We will provide mapping and treatment services to enrolled Alabamians in certain counties.
4. Stop The Spread – In addition to the northern eradication zone and along the state borders, we have designated a small, narrow belt immediately



*Cogongrass seed and rhizomes are easily spread by farming and logging equipment as well as vehicles. In many cases the person is not aware they are spreading a noxious weed. Courtesy forestryimages.org*

along the demarcation line where we will treat lands along minor roads and connected landowner property.

5. Threatened and Endangered Species and Habitat Protection – Habitats that are classified as G1 and G2 would receive assistance to prevent the decimation of these areas from cogongrass.
6. Landowner Lottery – In the southern zone we will accept landowners based on several factors, including: proximity to high-threat spread routes such as state highways; existence and length of an active cogongrass program; spatial analysis of proximity to other infestations; and many other factors. A spatial-weighted grade will be generated for each landowner, and those with the highest grade in an area will be accepted.

**www.alabamacogongrass.com . info@alabamacogongrass.com . (334) 240-9348 . (251) 650-1600 (fax)**  
**Alabama Cogongrass Control Center c/o Larson & McGowin, Inc. P.O. Box 2143, Mobile, AL 36652**

For the program we will use a GIS application developed by Silvics Solutions of Birmingham, AL ([www.silvics.com](http://www.silvics.com)) in order to: detect new infestations using aerial imagery and spatial modeling; determine the applicant's placement in the program; record progress; and make decisions at multiple landscape scales. We also are documenting financial and labor information using a web-based tool that increases project efficiency. Furthermore, by integrating tabular and spatial data we can quickly mine data as is often necessary during auditing and project reports. A project website and blog ([www.alabamacogongrass.com](http://www.alabamacogongrass.com)) allows for the public to view updates, apply for the program, check application status, and obtain educational webinars and white papers. Ultimately, using these technological tools allows us to create a highly transparent program that can be translated from the single infestation to the entire landscape. We feel that these approaches will be among the critical contributions to the subject of invasive control programs across North America.

In its most basic sense, the landowner will track through the program in the following way. Upon contacting us they will be assigned a case number. Once we have their property and infestation information we will analyze the data to assign them to a subprogram and a "place in line". They will sign a landowner contract agreement, and after verification treatment will begin by one of our licensed and insured spray vendors. The infestation will be monitored and retreated after a specific length of time. Once cogongrass has been assessed to be gone, the case will be closed. At no point in the process will a landowner be required to pay any funds, unlike cost-share programs. This may bring traditionally hesitant landowners to the table.

We will use consultants with a forestry background to locate new infestations using public outreach, local contacts, and good old-fashioned detective work. These consultants will work with our chemical spray supervisor to develop prescriptions and receive legal affirmation from the landowner before treatment. The chemical spray supervisor will oversee the many spray teams deployed around the state during treatment. An internal audit process is in place to inspect treatment operations and ensure safety and contract fulfillment. An active outreach program conducts training, publishes articles for print and the web, and presents program overviews to landowners, foresters and agricultural groups, government agencies, and other interested parties.

## Project Expectations

We began this work in September 2009. Because of the time-sensitive nature of chemical applications for cogongrass (the effective treatment window is July-October) we treated only in October 2009. Every day we are receiving

additional infestation data and landowner inquiries. In spring 2010 we will begin enrollment and vendor selection for the duration of the program. Full treatment in all subprograms will begin in the summer of 2010.

The public perception of this wholly voluntary program has been positive thus far. We have been interviewed by the New York Times, USA Today, several local newspapers, and written articles for trade magazines. Because the landowner's role has shifted from a direct treatment and reimbursement process (as in some cost-share programs) to a simple application and signed document we are optimistic that the program will be a resounding success.

It is worth reiterating that our intention is to create a program that will outlive the initial life and funding of the ARRA grant. If we satisfy the goals outlined earlier we will have created a system that can be used as a successful template for other invasive species programs.



## About The Author

*Stephen Pecot is a Forester and Environmental Specialist with Larson & McGowin, Mobile, AL and is the Communications Director for the Alabama Cogongrass Control Center. He can be reached at 251.438.4581 (office) or 251.654.6372 (cell). His email is [specot@alabamacogongrass.com](mailto:specot@alabamacogongrass.com).*