



This semi-annual newsletter is published by the USDA-NRCS Plant Materials Center, 14119 Broad Street, Brooksville, FL 34601-4525, Tel: 352-796-9600, FAX: 352-799-7305.

## “High Noon” Playing Out on the Florida Landscape

*The Varmint* – the invasive exotic Cogongrass (*Imperata cylindrica*)

*The Good Guy* – the native grass Hairawn Muhly (*Muhlenbergia capillaris*)

Cogongrass, a native of Southeast Asia, is ranked as one of the worst invasive weeds in the world. It is a major problem along roads, and in pastures and natural areas in Florida. Cogongrass mainly spreads by vegetative means using its tough, scaly rhizomes to form new plants; however, it can also spread by seed. Humans are primarily responsible for spreading cogongrass around the state by moving the rhizomes from place to place in fill dirt or even on contaminated excavation equipment. Once established, it is extremely difficult to control using herbicides, and true eradication requires long term monitoring and repeated herbicide treatments.

Dr. Oghenekome Onokpise (Dr. Kome) of Florida A&M University (FAMU) in Tallahassee was driving through St. Marks National Wildlife Refuge, located in Florida's Big Bend, and he noticed a strange sight. Along the roadside, there was a patch of hairawn muhly that was surrounded by cogongrass (right) and the cogongrass was not invading the muhly. His preliminary research in pots in the greenhouse showed that hairawn muhly had competitive and possibly allelopathic (chemical) properties that affected growth of cogongrass.

Dr. Kome is a member of the technical advisory committee for the Brooksville PMC. In this capacity, he was aware of research that the PMC is conducting to select improved types of hairawn muhly for release. He approached the PMC staff about the possibility of conducting cooperative research on using muhly as a unique form of biological control for cogongrass. He was also interested in determining if other native species could also successfully compete against cogongrass. The staff provided plants of two PMC releases, Citrus germplasm maidencane (*Panicum hemitomon*) and Miami germplasm switchgrass (*P. virgatum*), to include in the study. Since several researchers have shown that legumes compete well against cogongrass, PMC Biological Tech-

nician Mary Anne Gonter suggested that he might also include the native skyblue lupine (*Lupinus diffusus*) in the test. Although the PMC had made collections of this species in the past, we did not have seed available, so he obtained it from a commercial source.



*Hairawn muhly is the fine-textured clump grass in the front of the wider bladed, rhizomatous cogongrass to the rear.*

Currently Dr. Kome is conducting pot studies in the greenhouse at FAMU using these species. Hairawn muhly is again showing good competitive ability, and so is Citrus maidencane. Next year, field studies will be initiated, both in North Florida, near FAMU, and at the USDA, ARS, Subtropical Agricultural Research Station, in Brooksville near the PMC, to look at using these plants and tillage and herbicide treatments to control cogongrass. Hopefully, this research will allow the addition of other weapons to the arsenal that can be deployed against cogongrass.

## Notes from the Specialist

### *Demonstration Plantings... What are they and how do they help NRCS do its job?*

Demonstration plantings are not full-blown research evaluation plantings. You know, those types of plantings that more often resemble gardens, where as many variables as possible are controlled and the plants might be somewhat pampered. Demonstration plantings are more real world, not necessarily pretty, sort of root-hog-or-die type of plantings. They are usually planted for one of two reasons.

First, to assist PMC staff in evaluating plant selections that the Brooksville PMC are considering to release for conservation use. The PMC is representative of only a very limited range of the soil, moisture, and temperature conditions that can be found in Florida. By helping the PMC staff and the Plant Materials Specialist to locate sites for demonstration plantings and assisting in monitoring the success and survival of the plants, you can greatly improve the amount and quality of information the PMC has on a prospective release. Demonstration plantings of new plant materials help ensure that producers, who choose to use a plant developed at Brooksville PMC, will be getting quality plant material well adapted to Florida's varied environments.

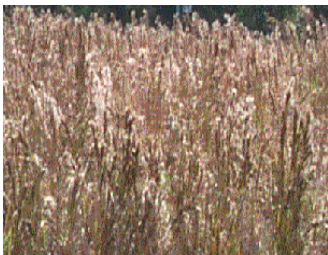
Another purpose of demonstration plantings is to introduce NRCS staff and the public to plants developed by various PMCs and how these plants help people help the land. The Brooksville PMC already has an array of plants that can be used for wildlife habitat improvement, rangeland renovations, erosion control, wetland restoration, coastal dune stabilization, low maintenance landscaping, etc. (See results of a current demonstration planting with coastal materials below.) If you can name a Brooksville PMC release for all these categories, then you might not be interested in a demonstration planting. But if you are sitting there scratching your head, then give me, Mimi Williams, a call. We'll get you fixed up with a demonstration planting of your own.



*Planting demonstration at Gulf Shores, AL, evaluating different beach grasses. This photo was taken of some plants that were transplanted in late May 2006 and have survived almost 8 weeks with little natural rainfall and with no supplemental irrigation. Obviously some can take the heat!*

## 2007 Plant Materials Available

The PMC has two new releases that are available for distribution to commercial growers for the 2007 growing season. These releases are **Ghost Rider Germplasm Purple Bluestem** (left) and **Morning Mist Germplasm Hairawn Muhly** (right), a white-flowered selection of this common landscape grass. Seeds of Ghost Rider and plants of Morning Mist can be requested from Mimi Williams, Plant Materials Specialist, at (352) 338-9544.



Seeds and/or plants of the following PMC releases are also available for production purposes. These plants were selected to meet conservation needs and are recommended by USDA-NRCS for planting throughout the Florida PMC service area. Contact the PMC for additional information at (352) 796-9600.

- ◆ Floral Passion blazing star
- ◆ Miami, Stuart, and Wabasso switchgrass
- ◆ 'Flora Sun' beach sunflower
- ◆ 'Northpa' and 'Southpa' bitter panicum
- ◆ 'Sharp' and 'Flageo' marshhay cordgrass
- ◆ Citrus maidencane
- ◆ 'Florigraze' and 'Arbrook' perennial peanut
- ◆ 'Chapingo' Mexican teosinte
- ◆ Martin and St. Lucie eastern gamagrass
- ◆ Brooksville 67 and Brooksville 68 perennial peanut

Look up the Brooksville, FL PMC at <http://plant-materials.nrcs.usda.gov> or <http://www.fl.nrcs.usda.gov/programs/flplantmaterials.html>

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