

Plant Solutions

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The NRCS Plant Materials Program eNewsletter for the conservation community

Volunteers Transplant Sod, Bring Back Historical Cajun Prairie

What does it take to restore one of the most threatened ecosystems in the world?

For a swath of southern Louisiana "Cajun Prairie," the needs are basic--volunteers and hard work.

The "Cajun Prairie" is part of the tall grass coastal prairie, beginning about 30 miles inland from the Gulf Coast and, at one time, stretching across southwest Louisiana and southeast Texas.

The prairie is dominated by little bluestem, switchgrass, big bluestem and Indiangrass, and includes hundreds of wildflower species and many rare plants.

Less than 200 acres of coastal prairie remain in Louisiana—less than one percent of the 2.5 million acres that existed when French settlers first arrived two centuries



Coastal prairie once covered millions of acres in both states.



ago. "A settler would have to stand on his horse's back to see over the tops of the tall grasses and the nearly 500 different species of plants," says Dr. Ernest Girouard, chairman of the Vermilion Soil and Water Conservation District.

Over 250 volunteers, many of them Cajun descendents and wearing "I Dig Prairie" t-shirts, dug small sections of sod from nearby remnant prairie and

scattered it in the 110-acre project area.

"The lack of commercially available species adapted to Louisiana is the major reason more large-scale restorations have not been successful," says Scott Edwards, plant materials specialist, for the Natural Resources Conservation Service (NRCS). "Native seed for coastal prairie is in extremely short supply and, right now, transplanting sod and hand collecting small quantities of seed are the only two options we have."

The NRCS Plant Materials Program and the U.S. Geological Survey have collected native seed from 20 wildflower and five grass species and are currently growing them, in hopes of increasing native seed supplies and restoring more prairie in the future.

The 110-acre "Cajun Prairie" restoration project was a cooperative NRCS Wetland Reserve Program project with landowners Al and Dolores Dietz. About 20 other partners assisted including Ducks Unlimited, the Cajun Prairie Habitat Preservation Society and The Nature Conservancy.

Contact: Scott Edwards, scott.edwards@la.usda.gov



NRCS State Conservationist Don Gohmert and Wildlife Biologist John Pitre visit with "Cajun Prairie" landowner Al Dietz during the workday.

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Plants Help Save Disappearing Marshes

Louisiana loses an acre of Gulf Coast marsh every 25 minutes. This adds up to 25 to 35 square miles every year.

Lost salt marshes become open water, killing off plants like smooth cordgrass and then, in return, depleting marine habitat and causing soil erosion. This affects tourism and the seafood industry, and increases the exposure of oil pipelines.

“The issues with coastal erosion are so massive—it’s going to take a lot of collaboration and work,” says Gary Fine, manager of the NRCS Golden Meadow Plant Materials Center (PMC).

The Golden Meadow PMC near Galliano has tested and made available six native plant varieties for use in coastal marsh restoration, including ‘Vermilion’ smooth cordgrass and ‘Brazoria’ seashore paspalum. Over the last several years, the Soil and Water Conservation Districts and the Louisiana Department of Natural Resources have used these releases for most of their coastal restoration projects. The partners have garnered impressive results: 23 constructed ponds and almost one million linear feet of protected shoreline.

The PMC is also cooperating with Louisiana State University and others to study new planting technology for re-establishing marsh vegetation.

“It’s the plant communities that hold it all together,” Fine says. “And that’s where we’re starting.”

Contact: Gary Fine, manager, Golden Meadow PMC, gary.fine@la.usda.gov



‘Vermilion’ smooth cordgrass

Ask the Expert

Ken Vogel, USDA-Agriculture Research Service geneticist, University of Nebraska-Lincoln, Agronomy Department

Can perennial switchgrass be as effective for biofuel production as other crops, such as corn?

Perennial, high yielding grasses such as switchgrass have the potential to produce significantly more ethanol per acre than corn. Several existing switchgrass varieties could produce almost 500 gallons of ethanol per acre while dryland corn grain produces 290 gallons per acre, on average. However, at this time, the biomass conversion costs are higher for switchgrass. If they are reduced, switchgrass can be a viable energy crop.

In addition, switchgrass can offer conservation benefits. It can be grown on lands with high erosion potential, such as those in the Conservation Reserve Program. It also requires less inputs, such as tractor fuel and herbicides, thereby saving money and promoting air and water quality.

Contact: Ken Vogel, kvogell@unl.edu

Link: <http://ard.unl.edu/rn/0900/grass.html>



Ken Vogel



‘Alamo’ switchgrass

Switchgrass Varieties Offer Biofuels Promise

To complement the work Ken Vogel is conducting with switchgrass, the NRCS Plant Materials Centers (PMCs) in Coffeerville, MS, Booneville, AR, and Manhattan, KS, are testing production of new and existing switchgrass varieties. Included in the trial are varieties selected and made commercially available by the NRCS Plant Materials Program. Promising varieties include ‘Alamo’ switchgrass for the South, ‘Kanlow’ for the Midwest and ‘Cave-in-Rock’ for the central and northern states.

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Quotable Quotes

“Over the long haul of life on this planet, it is the ecologists, and not the bookkeepers of business, who are the ultimate accountants.” --Stewart Udall

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