



Louisiana Native Plant Initiative

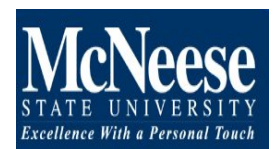
Mission Statement

The Louisiana Native Plant Initiative will collect, preserve, increase, and study native grasses, forbs and legumes from Louisiana ecosystems, conserving a vanishing natural resource and providing an essential step in the development of a native plant seed industry that will supply plant materials for restoration, revegetation, roadside plantings and the ornamental plant industry.

Executive Summary

There is a growing interest from public and private sectors to utilize locally adapted native plant materials for restoration, conservation and revegetation projects. Conservationists have experienced inconsistent results when establishing native species ranging from success to complete stand failure. The lack of commercially available plant material that is adapted across the state of Louisiana is the largest contributing factor to stand failures. Plant materials that are not adapted to the state exhibit signs of summer stress and are less vigorous with lower biomass production than local ecotypes of the same species. Performance may also be affected by changes in flowering date, seed set, dormancy initiation and precipitation. Restoration experts agree that plant materials native to an area must be used in conservation projects to achieve long term sustainability. Commercially available sources of locally adapted plant materials have the potential to provide substantial ecological and economic benefits for Louisiana.

In 2 years, the Louisiana Native Plant Initiative (LNPI) has 45 extensive collections from across the state, 15 species in initial evaluation, 5 breeder blocks and 3 species in seed increase. However, the LNPI has reached maximum production and development of local ecotypes because of budget constraints. Additional funding will secure needed infrastructure and permanent full time staff to adequately meet the growing demand for locally adapted plant material.



The **Acadiana Resource Conservation and Development Council** is a non-profit organization that addresses the social, environmental and economical concerns of south central Louisiana. Our primary focus is on the conservation, development and utilization of natural resources in Acadia, Avoyelles, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, St. Mary and Vermilion Parishes.

Background

Grasslands are the most threatened ecosystem in North American. Of the 2.5 million acres of Coastal Prairie that once covered southwest Louisiana, less than 0.1% remains. Longleaf pine forest, with its native grassland under story, had been diminished from 93 million acres to less than 3 million across the southeastern U.S. Grasses and forbs that make up these ecosystems evolved over tens of thousands of years in response to conditions on the gulf coast including grazing, fire, drought, and flooding. These native plants are well adapted to our growing conditions and thrive with little input. Restoration experts agree that plant materials best adapted to an area originate on the same site or nearby sites with similar physical and biological environments. These plant materials must be used in conservation projects to achieve long term sustainability.

Despite a great demand for native plant material for conservation, restoration, revegetation, ranching, and the ornamental trade, they are not available. Louisiana consumers must purchase less adapted plant material from Texas and the Midwest. Many restoration projects in Louisiana have been unable to proceed because of the lack of commercially available sources of seed that are adapted to the state. The lack of commercially available plant materials that are adapted to Louisiana is the largest contributing factor to stand failures. Cultivars that are not adapted to the state exhibit signs of summer stress and are less vigorous with lower biomass yields than local ecotypes of the same species. Performance may also be affected by changes in flowering date, seed set, dormancy initiation and precipitation.

There is a growing interest from the public and private sectors to utilize locally adapted native plant materials for restoration and revegetation projects in Louisiana. Ensuring ecosystem integrity and ensuring genetic integrity is a major concern for restoration projects. To address the lack of local ecotypes, a Memorandum of Understanding (MOU) was signed April 22, 2004 between the Coastal Plain Conservancy, McNeese State University, USGS Wetlands Research Center, and Natural Resources Conservation Service. In March 2006 another MOU was signed between Nichols State University, Barataria Terrebonne National Estuary Program and Natural Resources Conservation Service. These MOU's formalized a partnership to develop a comprehensive plant materials program to collect, increase and release locally adapted ecotypes of native grasses, forbs and legumes. Commercially available sources of locally adapted plant materials have the potential to provide substantial ecological and economic benefits.

Plant Materials Process

The collection, assembly, selection and release of new plant varieties are integral parts of the Louisiana Native Plant Initiative (LNPI). The LNPI will utilize procedures and guidelines from the USDA-NRCS National Plant Materials Manual (3rd edition, 2000). The NRCS Plant Materials Program relies on the cooperation, standards, and regulations of other state and federal agencies during the development of plant releases. The Association of Official Seed Certifying Agencies (AOSCA) develops the basic requirements for crop production and defines the various classes of releases, requirements for each class of release and labeling requirements. The LNPI will also work closely with the Louisiana Department of Agriculture and Forestry to establish standards for new crop production and insuring source of seed stock, genetic purity, isolation requirements, rouging other crop or weed contaminants, field inspection, seed cleaning and seed quality, purity and germination.

Products

Seeds or plants of native species will be released to commercial growers for increase, production and sale to the general public. Species currently in the program will be released in 2007 and 2009. With additional funding the LNPI technical committee proposes to work with the species with an anticipated release date of 2010 and 2011. Collection of these species will begin in 2008.

Estimated release timeline 2007 to 2011	
2007	
Little bluestem	<i>Schizachyrium scoparium</i>
Woolly rose mallow	<i>Hibiscus moscheutos</i>
Cluster bushmint	<i>Hyptis alata</i>
2009	
Indiangrass	<i>Sorghastrum nutans</i>
Big bluestem	<i>Andropogon gerardii</i>
Rattlesnake-master	<i>Eryngium yuccifolium</i>
Hoarypea	<i>Tephrosia onobrychoides</i>
Kansas gayfeather	<i>Liatris pycnostachya</i>
Candidate species to be collected in 2008 / 2009	
2010	
Indian plantain	<i>Arnoglossum ovatum</i>
Slender mountain-mint	<i>Pycnanthemum tenuifolium</i>
Shiny coneflower	<i>Rudbeckia texana</i>
Yellow wild-indigo	<i>Baptisia sphaerocarpa</i>
Prairie aloe	<i>Manfreda virginica</i>
Ashy sunflower	<i>Helianthus mollis</i>
Rough coneflower	<i>Rudbeckia grandiflora</i>
Meadow beauty	<i>Rhexia mariana</i>
Candidate species to be collected in 2009 / 2010	
2011	
Pale purple coneflower	<i>Echinacea pallida</i>
Yellow indian-blanket	<i>Gaillardia aestivalis</i>
Prairie bluetets	<i>Hedyotis nigricans</i>
Dense gayfeather	<i>Liatris spicata</i>
Nuttall's prairie parsley	<i>Polytaenia nuttallii</i>
Prairie petunia	<i>Ruellia humilis</i>
Azure blue sage	<i>Salvia azurea</i>
Slender bluestem	<i>Schizachyrium tenerum</i>
Compass plant	<i>Silphium laciniatum</i>
Sweet goldenrod	<i>Solidago odora</i>



*COLLECT, CONSERVE,
INCREASE, AND STUDY
NATIVE GRASSES,
FORBS AND LEGUMES
OF LOUISIANA*

USDA-NRCS

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