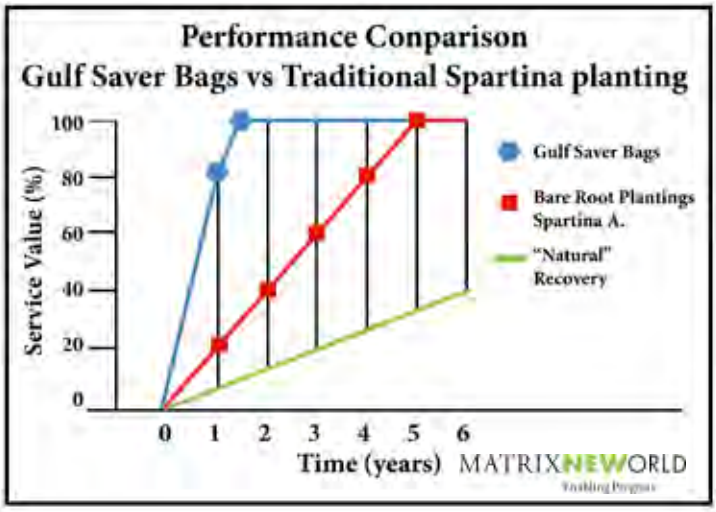
Gulf Saver® Bags Wetland & Habitat Restoration
SPARTINA Performance/Cost Benefit Analysis
An Innovative Solution for Early Project Success!

Bags are 14" x 26"

Gulf Savers® is an initiative of Restore the Earth Foundation Inc., a 501c3 not-for-profit, that has proven to be a successful innovative approach to marsh creation for stabilization and restoration of wetlands and habitats.

The Gulf Saver Bag is a biodegradable, self contained package of native plants with its own site specific custom mixed supply of natural nutrients to support, feed, and protect the native vegetation. The bag is a stability kit that jump starts growth and survivability in the face of storm surge, wave action and rapid erosion, unlike traditional methods of planting plugs.

The Gulf Saver Bag, creates a supportive environment for accretion by slowing down water, allowing sediment to build, and adding nutrient rich biomass to the soil. Oil eating microbes can also be introduced to the custom mix for added protection against oil impacted sites.



Benefits of Gulf Saver Bags & Initiatives

- **Reduces erosion**
- **Stabilizes and accelerates native re-vegetation**
- **Prevents interior marsh breaching**
- **Remediates soil and organic matter**
- **Creates environment for accretion**
- **Re-establishes wildlife habitat**

- **Replicable/scalable**
- **Provides for community engagement**
- **Supports local economy**
- **Provides opportunities for environmental education**
- **Supported by collaborative partnerships**

Gulf Saver bags® Demonstration/Pilot at Pass a Loutre, WMA, Venice, Louisiana

Gulf Saver bags at 4 months

Gulf Saver bags at 8 months

Gulf Saver bags at 18 months with flowering EKOgrown Mangrove

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Bag Filling with custom mix

Volunteers at USFWS filling Bags

Deploying bags in LDWLF WMA

COST/BENEFIT ANALYSIS/Gulf Saver Bags vs Traditional Plug Planting		
Measurements	**Gulf Saver Bags**	**Bare Root Plugs**
Cost Per Acre	**$15,990 ($30 per bag planted)**	**$ 37,850.00 ($2 a plug planted)**
Spacing	5.0 meter centers/3 bag clusters - 507 bags/acre	0.7 meter centers -10,816 plugs/acre
Survivability	95% 1st year	50% 1st & 2nd year
Anticipated Replanting	**5% one time**	**50% year 1 / 50% year 2 (2x)**
Service Value	**100% in <2 years**	**100% in 5-10 years**
Carbon Credit Value Achieved	1st year	5th year
Estimated DSAYs	**16+ /acre**	**12+ /acre**
Estimated Cost Per DSAY	$1,000.00	$3,154.00

COST: Excludes transportation to off shore sites. Additional 15-20% cost reduction for projects of 100,000 bags or more

Gulf Saver Bag Performance
Spartina alterniflora Performance
North Pass A Loutre, WMA

	8 Months	12 Months	18 Months
Percent Cover (%)	75 - 80%	65 - 90%	70-100%
Average Canopy/ Veg Height (cm)	70–85 cm	75-110 cm	90-150 cm

Regulatory Acceptance and Endorsed By:

United States Army Corps of Engineers
Natural Resource Conservation Service
Louisiana Department of Wildlife and Fisheries
National Oceanic & Atmospheric Administration
United States Fish and Wildlife Services
LSU Department of Oceanography & Coastal Science
Southeast Louisiana University
Gulf Future Coalition - Sunshine on the Gulf Report
Audubon Nature Institute
Nature Conservancy
Center for Energy and Climate Solutions
National Wildlife Federation
Coalition to Restore Coastal Louisiana
Restore Americas Estuaries
Venice Port Complex
Plaquemines Parish Government
Gulf Restoration Network
Common Ground Relief
Gulf Coast Alliance
Americas Wetlands
Ducks Unlimited

Technical Support, Product Development and Monitoring Provided By:

MATRIXNEWORLD
Enabling Progress

Ecological Restoration Services, LLC

SUSTAINABLE ECOSYSTEM RESTORATION

LOUISIANA WILDLIFE & FISHERIES