# *Germplasm Evaluation and Cultural Management of Seashore Paspalum*

**J. Bryan Unruh and Barry J. Brecke**
University of Florida

**Objectives:**

1. To evaluate seashore paspalum germplasm under saline and non-saline irrigation.
2. To evaluate the influence of verticutting frequency and depth on 'Sea Isle 2000' thatch accumulation when grown under saline and non-saline conditions.
3. To evalute tolerance of seshore paspalum to herbicides applied under saline irrigation.

**Start Date:** 2003
**Project Duration:** three years
**Total Funding**: $32,712

Seashore paspalum is a warm-season grass selected for excellent tolerance to saline or recycled water and requires relatively low fertility and pesticide inputs. However, seashore paspalum possesses heightened sensitivity to many common herbicides and is prone to increased thatch production, particularly when over-fertilized and over-irrigated. Furthermore, little unbiased information on seashore paspalum germplasm is available.

Our research is evaluating seashore paspalum germplasm grown under saline and non-saline irrigation and determining the influence of verticutting frequency and depth on greens-height seashore paspalum thatch accumulation when grown under saline and non-saline irrigation.

*University of Florida research is evaluating seashore paspalum germplasm grown under saline and non-saline irrigation*

*Dr. Ken Hutto hand-sprigging seashore paspalum plots at Lost Key Golf Club, Perdido Key, FL.*

### Non-Saline Irrigation Site

'SeaDwarf' and 'SeaIsle 2000' maintained at putting green height (3.5 mm) consistently had the best color, quality, and density throughout the 2005 growing season. Increasing levels of nitrogen from 0.5 to 2.0 lbs. N/1,000 $ft^2$/growing month applied every two weeks increased turf color, quality, and density at most rating dates. On several rating dates, no differences were noted between the 0.5 and 1.0 lb. rates. No interaction between cultivar and nitrogen rate was observed at any rating date.

At fairway height (12 mm), 'SeaWay' and 'Salam' had the best turf color, the experimental line (SI-99) and 'Aloha' had the best turf quality, and 'SeaWay' and 'SeaDwarf' had the best turf density in 2005. Increasing levels of nitrogen from 0.5 to 2.0 lbs. N/1,000 $ft^2$/growing month increased turfgrass color, quality, and density at all rating dates. No interaction between cultivar and nitrogen rate was observed at any rating date.

### Saline Irrigation Site

Hurricane Ivan struck the Florida panhandle on September 16th, 2004 and heavily damaged Tiger Point Country Club in Gulf Breeze, FL which necessitated the relocation of the saline irrigation research component to Lost Key Golf Club on Perdido Key, FL. This golf course was also destroyed by Hurricane Ivan but has since been rebuilt and established to seashore paspalum. Plots were sprigged on September 20, 2005. The electrical conductivity of the water at Lost Key averages 8.82 mmhos/cm or 5,645 ppm (TSS) which should provide for interesting results.

### Influence of Verticutting Frequency and Depth

This project will be conducted at Lost Key on a target putting green adjacent to the variety trials. The project will be initiated in spring, 2006 after the green is fully established.

### Summary Points

- 'SeaDwarf' and 'SeaIsle 2000' maintained at putting green height consistently had the best color, quality, and density throughout the 2005 growing season.
- At fairway height, 'SeaWay' and 'Salam' had the best turf color, the experimental line (SI-99) and 'Aloha' had the best turf quality, and 'SeaWay' and 'SeaDwarf' had the best turf density in 2005