# *Germplasm Evaluation and Cultural Management of Seashore Paspalum*

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**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 gorwn 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 will provide an evaluation of seashore paspalum germplasm grown under saline and non-saline irrigation and determine the influence of verticutting frequency and depth on greens height seashore paspalum thatch accumulation when grown under saline and non-saline irrigation.

Grasses planted last fall went dormant shortly after planting. Upon favorable temperatures this spring, the grasses resumed growth. Fairway-height grasses were established by plugs and established uniformly. Greens-height grasses were sprigged, However, the planting rates were not uniform due to the number of nodes on the sprigs. The slab size from which sprigs were cut were uniform, however, grass slabs obtained from breeders stock were from areas maintained at ½" mowing height. Slabs obtained from commercially available sources were maintained at 2" and thus, had a greater number of nodes which could root. Although the greens-height plots were not fully established, fertility treatments were initiated in early September and biweekly data collection started.

*After establishment is complete, seashore paspalum cultivars will be evaluated on their ability to tolerate several herbicides and verticutting treatments under both saline and non-saline conditions.*

*Fairway trials required establishment of ten seashore paspalum cultivars using plugs on 12-inch centers.*

During establishment, significant dollar spot (*Sclerotinia homoeocarpa*) was noted. Greens-height 'SI-98' had the greatest dollar spot severity followed by 'SI-99' and 'Salam'. Greens-height 'Seadwarf' and 'Seaspray' had the lowest level of dollar spot incidence. On fairway-height selections, 'SI-99', 'Salam', and 'Sea Isle I' exhibited the greatest level of dollar spot activity and 'Seaspray' and 'Seaway' exhibiting the least.

*'Seaspray' (seeded cultivar) was seeded at a rate of 1.5 lbs/1000 ft$^2$.*

During early summer, 2004, seashore paspalum selections were obtained from breeders and producers, planted in uniform sized flats, placed in the greenhouse, and maintained at one-inch mowing height. Plot areas at Tiger Point Country Club in Gulf Breeze, FL were sprayed twice with non-selective herbicides during late August - early September, 2004 and the site was to be tilled the week of September 13th and was to be fumigated. Hurricane Ivan struck the Florida panhandle on September 16th and Tiger Point Country Club experienced significant damage. The golf course is expected to remain closed for six to eight months. How this will impact this research project remains undetermined.

## Summary Points

- University of Florida researchers are evaluating seashore paspalum germplasm grown under saline and non-saline irrigation and determine the influence of verticutting frequency and depth on greens height seashore paspalum thatch accumulation when grown under saline and non-saline irrigation.
- Due to Hurricane Ivan, progress of this project has been delayed.