

Intensive Production System For Turfgrass Utilizing Solid Waste Compost Over Ground Cover



Presented by Chuck Todd



FORCE Grant Project

- **Scope:**
 - Develop a viable cropping system for turf grass production that will conserve both water and land.
- **Program Manager-** Chuck Todd
- **Location:** Webster, FL 33597
- **Grant:** \$24,520.00



Site Construction Process

April 2004

- A fabric landscape ground cover was laid over a ¼ acre section
- A root inhibitor was sprayed on the ground cover
- Irrigation system was installed allowing for fertigation
- One inch plastic poly-tubing bed frames were constructed



Irrigation installation and poly-tubing

Site Construction Process

May 2004

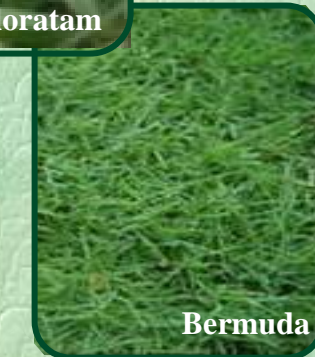
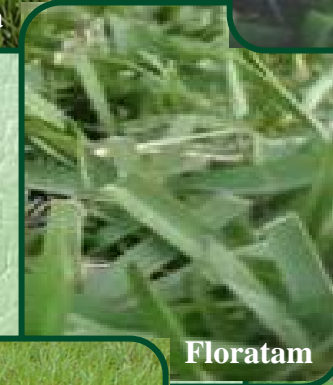
- Sumter County delivered more than 500 cubic yards of MSW compost
- Additional staff assisted in site preparation
- 1600 square feet of Floratam St. Augustine and Celebration Bermuda sod was donated and installed



Construction Process

June 2004

- Five varieties of turf were sprigged and seeded:
 - Floratam St. Augustine
 - Palmetto St. Augustine
 - Celebration Bermuda
 - Bahia Species
 - Zoysia Species
- Fertilizer program was developed
- Irrigation requirements were monitored and recorded



Construction Process

July 2004

- Growth monitoring appeared during this time
- Soil and tissue samples were used to develop and modify the fertilizer program



Bahia seed



Monitoring seed growth

Construction Process

August 2004

- During active growing season, Sumter County Commissioners and Sumter County Extension Service was invited for a site visit
- Continued monitoring turf for weeds, pests and diseases



Results and Findings

Planting Bed Recommendations

- Beds were designed to facilitate irrigation efficiency;
30' W x 300' L x 1" D
- A root inhibitor should be applied to fabric



Results and Findings

Sprigging/Seeding Rates

- Bahia ranged from 50 to 100 lbs. per acre
- St. Augustine, Bermuda and Zoysia sprigging rates range from 600 to 800 bushels per acre



Results and Findings

Irrigation Scheduling

- Due to shallow rooting light frequent applications are necessary
- One quarter inch of water per day was applied during the growing season
- A timer was installed to allow multiple applications throughout the day



Results and Findings

Fertilization Schedule

- Soil and tissue sampling during this growing period indicated acceptable nutrient levels
- A high pH was found in Sumter's MSW compost
- Sulfur was applied to adjust the pH



Results and Findings

Production Practices

- Herbicide application was required to control weeds on-site
- Grey leaf spot was detected on St. Augustine turf during hot and humid months and required treating
- Mature sod was mowed with a rotary type mower and harvested by hand



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For more information, please contact:

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