

UNIVERSITY OF GEORGIA - Dr. S. Edward Law, Project Leader

Funds Granted - \$5,000 — Electrostatic Precipitation of Low-Volume Pesticide Sprays Onto Turf.

The overall objective of this project is to increase the efficiency of depositing airborne pesticide droplets onto turf surfaces by the development of appropriate electrostatic principles and technology. Progress, though good, was delayed by the failure of a regional golf equipment company to provide, as previously agreed upon, a truckster vehicle on loan. Several concepts have been developed which hopefully will be applicable to turfgrass spraying. Two requirements must be met: 1) all droplets must be charged to a common polarity, and 2) a sufficiently intense electric field must be established to drive the charged droplets to the grounded turf target.

Major efforts this year have involved: theoretical analysis and conceptual design for guiding subsequent detailed engineering design; evaluation of the existing spray charger for use as a system component in turf spraying; selection and evaluation of alternate "back-up" spray-generation capabilities in order to retain design options; and the design and fabrication of a first generation prototype charged sprayer for turf.

UNIVERSITY OF GEORGIA - Dr. B. P. Verma, Project Leader

Funds Granted - \$1,000 — Development of a Sand Cleaning Machine for Use in Bunkers.

The objective is to produce an attachment for the mechanical rakes presently on the market that could remove gravel 1/4 inches and larger from sand in bunkers. The earlier prototype required a great number of rotating metal parts and therefore a new design was developed using nylon belts at a preset distance which rotate on pulleys. The new design successfully cleans damp or dry sand. Hopefully, manufacturers of mechanical sand rakes will adapt this principle to their machines. It would help greatly in cleaning debris from bunkers, it definitely would be a contribution to labor-savings in golf course maintenance when this problem exists.

GEORGIA COASTAL PLAIN EXPERIMENT STATION - Dr. Glenn W. Burton, Project Leader

Funds Granted - \$4,000 — Bermudagrass Varietal Improvement for Golf Through Selection and Breeding for the South and the Transition Zone.

This project is aimed in the direction of developing winter hardy cultivars of bermudagrass for golf. This past severe winter, much information was gathered on the winterhardiness of a large number of mutants and hybrids. These cultivars