

OVERVIEW - RESEARCH PROPOSAL

TOTAL FUNDING REQUESTED: \$32.4 MILLION

I. IMPROVEMENT OF WATER MANAGEMENT STRATEGIES AND PRACTICES
(FUNDING REQUESTED: \$5.85 MILLION)

- Increase the basic understanding of turfgrass water use/efficiency
- Improve the management of available water
- Evaluate the use of non-potable and poor quality water sources and their impacts on turfgrass and the environment

II. COLLECTION, ENHANCEMENT AND PRESERVATION OF TURFGRASS GERMPLASM
(FUNDING REQUESTED: \$5.4 MILLION)

- Collect, evaluate and preserve valuable turfgrass germplasm. This will benefit all aspects of grassland agriculture in addition to turf.
- Increase our understanding of turfgrass biology and genetic systems for stress tolerance
- Improve turfgrass stress tolerance through genetic improvement

III. IMPROVEMENT OF PEST MANAGEMENT PRACTICES
(FUNDING REQUESTED: \$5.4 MILLION)

- Increase our understanding of the life cycle and biology of fungal pests
- Increase our understanding of the life cycle and biology of insect pests
- Increase our understanding of the life cycle and biology of weed pests
- Increase our understanding of the life cycle and biology of vertebrate animal pests
- Refine the use of Integrated Pest Management (IPM)
- Investigate biological control methods

IV. UNDERSTANDING AND IMPROVEMENT OF TURFGRASS' ROLE IN THE ENVIRONMENT
(FUNDING REQUESTED: \$6.3 MILLION)

- Assess and characterize environmental impacts of turfgrass and management techniques including the role of turf systems at the watershed and ecosystem level
- Evaluate and develop management strategies and technologies to enhance the environmental quality of turfgrass systems

V. ENHANCEMENT OF SOIL AND SOIL MANAGEMENT PRACTICES
(FUNDING REQUESTED: \$4.5 MILLION)

- Overcome soil limitations to turf production, establishment and use
- Investigate the potential of using agricultural and industrial by-products for turf applications

IV. DEVELOPMENT OF INTEGRATED TURF MANAGEMENT SYSTEMS
(FUNDING REQUESTED: \$4.95 MILLION)

- Develop economic-based integrated turf management tools to enhance environmental quality
- Develop decision tools for integrated turf management practices