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 GERMLASM
    (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