

THE NATIONAL TURFGRASS RESEARCH INITIATIVE

Turfgrasses impact Americans in many ways on a daily basis. Millions of acres of turfgrass on home lawns, commercial landscapes, roadsides, parks, athletic fields, golf courses and sod farms improve our quality of life by providing open space, recreational and business opportunities, enhanced property values, and the conservation of important natural resources. With its above-ground network of leaves, shoots, and stems and an extensive fibrous root system below, turfgrass removes dust and dirt from the air, reduces soil erosion, filters water, and produces a safe playing surface for children, adults, and athletes. In addition, scientific research has shown that hospital patients recover faster when beautiful landscapes are in view. Therefore, turfgrass not only enhances the value and beauty of our lives but also contributes to improvements in our physical and mental health.

Rapidly expanding urbanization profoundly affects the economic and environmental future of turf use and management. The U.S. turfgrass industry is already a \$40 billion annual business that provides hundreds of thousands of jobs and promises even more in the future. The rapidly expanding uses of turf can create challenges as our urban areas try to do more with finite natural resources. There are growing concerns about levels of use of water, fertilizer, pesticides, fossil fuels and machinery on turf establishment and maintenance. In some locations, these turf inputs are being severely restricted, if not eliminated. For instance, severe drought conditions in many regions have resulted in government-imposed water restrictions or the use of lower-quality effluent water sources. Also, in some communities where concern about exposure to chemicals has reached heightened proportions, pesticide use on turf is now banned.

At the same time inputs for turf establishment and maintenance are becoming less available, a growing, more prosperous population is demanding increasingly more from our current turfgrass-based recreational facilities. In addition, our nation's awareness of safety is at an all-time high. Turfgrass provides multiple benefits to society including child safety on athletic fields, protection of groundwater, reduction of silt and other contaminants in runoff, green space in home lawns, parks, golf courses, etc. New facilities will have to be constructed with many located on abandoned sites such as landfills, industrial brownfields, gravel pits, or mine spoils. Turf in these areas will play an important role in both reclamation and recreation.

Balancing multiple economic, aesthetic and environmental goals for turf requires new technologies and management strategies. Conducting the research to discover and integrate the knowledge, plant varieties, and technologies needed to provide these new technologies and strategies will require a sustained and cooperative effort among federal, state, and private sectors. The USDA's Agricultural Research Service (ARS) can contribute uniquely and significantly to turf research through its national network of multi-disciplinary laboratories and a commitment to long-term research to achieve economic and environmental sustainability. To identify how they can best serve the turfgrass industry, ARS scientists met with turf providers, managers, and users at a workshop in Dallas, Texas, January 22-25, 2002. The research priorities described in this document were identified at the workshop.

The USDA has a unique opportunity to significantly increase the benefits of turf use by developing and promoting turf management systems that require less pesticide, water and other

inputs as well as other efforts to improve integrated pest management programs, recycling, etc., the USDA has a unique opportunity to significantly benefit the turfgrass industry. While the vast majority of the USDA's funds have been and will continue to be directed toward traditional "food and fiber" segments of U.S. agriculture, it is important to note that turfgrasses (e.g., sod production) are defined as agriculture in the Farm Bill and by many other departments and agencies. *It should also be noted that the turfgrass industry is one of the fastest growing segments of U.S. agriculture, while it receives essentially no federal support.* The turfgrass industry is important to nearly every local economy in every region of the United States. Turfgrasses are produced, marketed and maintained in every Congressional district of the U.S.

The National Turfgrass Research Initiative proposes a coordinated research program targeting this industry, to be funded through USDA-ARS and conducted through a coalition including the USDA, the university research community, and the turfgrass industry. This proposal discusses the industry, the crucial need for this research initiative, and specifically identifies priority research goals and key programs.

The National Turfgrass Research Initiative has been developed with much discussion among industry, academic, and government researchers, and fine-tuned through the recent efforts of a joint working group of industry leaders. The Initiative is the exciting result of a new alliance, proposing a new level of cooperation among industry, academia and the Federal government, for research in an area that, up until now, has not been federally supported.

Federal attention to the issues and research goals identified in this Initiative is critical to the continued success of the turfgrass industry.