

## THE TURFGRASS INDUSTRY - PRESENT AND FUTURE

The turfgrass industry consists of many diverse groups including millions of homeowners, athletic field managers, lawn care operators, golf course superintendents, architects, developers and owners, landscape designers and contractors, seed and sod producers, parks and grounds superintendents, roadside and vegetation managers and cemetery managers. Turfgrass beautifies tens of millions of home lawns, provides safe playing surfaces on over 700,000 athletic fields, outdoor recreation for nearly 26 million golfers on over 17,000 golf courses and economic opportunities for tens of thousands of seed and sod producers, lawn care operators and landscapers. In addition, turfgrasses provide safety and dust control along millions of miles of highways and thousands of airport runways. Turfgrasses beautify our parks and landscapes. They are part of a larger “green industry” that improves the physical and mental health of Americans, particularly in crowded urban and suburban areas. Finally, turfgrasses provide environmental protection and enhancement by purifying and protecting our water, soil and air wherever they are grown. Turfgrasses truly touch each and every American in some way every day!!

Following are some facts about turfgrass:

- Cooling:** Average-size front lawns of eight homes have the cooling effect of about 70 tons of air conditioning.
- Air-cleansing:** A 2500 square foot lawn absorbs carbon dioxide and releases enough oxygen for a family of four.
- Soil & Water Protection:** A healthy lawn absorbs rainfall and reduces runoff up to 80 times more efficiently than impervious surfaces, such as driveways, sidewalks and parking lots.
- Safety:** To reduce injuries, over 90% of National Football League players prefer natural turf to artificial turf. The safety benefits of well-managed turf extend to all levels of athletic activity, particularly primary and secondary schools that often lack the supervision and equipment found in professional and college sports.
- Economic:** Studies also have shown that aesthetically-pleasing landscapes, including turfgrass, contribute up to 15% to home property values.

As the turfgrass industry grows, there are significant issues that must be addressed to ensure the benefits of turf are available to all our citizens. Some of these issues are:

- *Water use* - drought conditions in many areas of the U.S. have resulted in watering bans on lawns, landscapes, golf courses, etc. or restrictions on planting turfgrass by local jurisdictions.
- *Pesticide use* - concerns over the impact of pesticides on human health have resulted in pesticide bans in some local communities.

- *Fertilizer use* - nitrate and phosphorous pollution of waterways and groundwater supplies have prompted some states and jurisdictions to require reduced fertilization of turfgrass.
- *Safety concerns* - overuse of athletic fields have resulted in unsafe conditions prompting liability lawsuits in some areas.
- *Biodiversity* - providing acceptable habitat for fish and wildlife while systematically preserving grass germplasm for future generations.

The turfgrass industry desires to be part of the “solution” rather than the “problem”. However, we want to address these issues with science-based information and with improvements in turfgrass development and management. Since these issues are national in scope and importance, the turfgrass industry feels that ARS is the appropriate agency to conduct the research needed. Therefore, many national associations including the National Turfgrass Evaluation Program (NTEP), United States Golf Association (USGA), Golf Course Superintendents Association of America (GCSAA), Professional Lawn Care Association of America (PLCAA), Turfgrass Producers International (TPI), Oregon Seed Council (OSC), Sports Turf Managers Association (STMA), the Irrigation Association (IA) and others have come together to put forward this Initiative. This Initiative has been developed, discussed and approved by these groups in conjunction with the USDA-ARS.

### **Size and Scope of the Industry**

There are approximately 50 million acres of managed turf in the U.S. This places turfgrass third in total acreage nationwide. In many states such as Maryland, Pennsylvania, Florida, New Jersey, and North Carolina; turf is the number one or two agricultural commodity. In addition, it is estimated by the Economic Research Service that the turfgrass industry, in all its forms, is a \$40 billion industry. Yet almost no federal dollars (less than 0.0005 percent of USDA plant and animal research) are devoted directly to this industry's research needs.

### **Industry Research**

The turfgrass industry has been quite active in providing grant-in-aid and competitive grant funds, mainly through its own privately funded research foundations. Industry-funded grants for research to benefit the industry total more than \$10 million each year. The industry has a long history of commitment to supporting its own research needs, and is prepared to continue to do so. However, these funds are unable to meet the industry's research needs and often only address local or state problems. Therefore, the Federal government needs to play a leadership role in research which cannot be undertaken by the private sector or individual states.

The Federal government has a well established and important role in funding agricultural research. Industry-supported research tends toward applied programs of limited term. Federal support can provide greater depth, increased duration, and better long-term coordination of research efforts. It is important to note that this proposal envisions using federal funds to expand research efforts rather than replace or duplicate privately funded efforts that will be on-going.

A basic premise of this proposal is that Federal research dollars should be directed toward programs which cannot be funded adequately by the states or industry, particularly for programs where the Federal government can play a coordinating role not possible for any other entity. Some research programs, for example, increased understanding of basic biological processes, are too risky or long-term for private industry to fund. Other research programs might be particularly appropriate for government support because they clearly benefit society at large, as with much environmental research. With many programs, the Federal government can play a coordinating role which is not possible for any other entity but which is essential to ensure cooperation and maximum efficiency. Federally-funded research programs also increase the credibility of results beyond what might be afforded privately-funded programs. Finally, the industry looks to government to fund the long-term basic research, the building blocks to which the industry applies in its own, more limited-term research programs.

Increased Federal research funding for the turfgrass industry will return benefits not only to the industry itself but also to the environment, homeowners, athletes - young and old and those who appreciate the beauty of our world. This Initiative will benefit rural and suburban economies across the country, increase our international competitiveness and improve our quality of life.