1996–2002 ACCUMULATIVE RESEARCH SUMMARY

UNIVERSITY OF CALIFORNIA, RIVERSIDE
TURFGRASS RESEARCH ADVISORY COMMITTEE (UCRTRAC)

CALIFORNIA GCSA
CALIFORNIA SOD PRODUCERS ASSOCIATION
GCSA OF SOUTHERN CALIFORNIA
HI-LO DESERT GCSA
SAN DIEGO GCSA
SOUTHERN CALIFORNIA GOLF ASSOCIATION
SOUTHERN CALIFORNIA SECTION PGA
SOUTHERN CALIFORNIA TURFGRASS COUNCIL
SOUTHERN CALIFORNIA TURFGRASS FOUNDATION
UNIVERSITY OF CALIFORNIA, RIVERSIDE
UNITED STATES GOLF ASSOCIATION

DECEMBER 10, 2002

http://ucrturf.ucr.edu

UNIVERSITY OF CALIFORNIA RIVERSIDE TURFGRASS RESEARCH ADVISORY COMMITTEE (UCRTRAC)

Mission of UCRTRAC

The mission of UCRTRAC is to focus on southern California turfgrass research issues and be a leader in educational dissemination and public awareness.

Vision of UCRTRAC

The vision of UCRTRAC is to provide leadership through an industry-university partnership with the purpose of addressing turfgrass issues in southern California. The organization enhances the collaborative efforts of researchers, educators and practitioners to identify and solve challenges that face the turfgrass industries. UCRTRAC focuses on environmental stewardship and provides a central clearinghouse for factual, forward-thinking turfgrass research and policy making decisions. The organization is active in identifying and providing funding support to achieve mutually agreed upon goals.

Benefits to Member Organizations

- Ability to clearly state research agenda, make input of research needs, and have a location to answer researchable needs in an unbiased way;
- Provides an opportunity to review research direction and progress;
- Provides increased linkage for additional educational information flow from UC to turfgrass organizations.

June 2002

Research and Educational Needs Assessment of the Southern California Turfgrass Industries

	Research and Education Industry Needs	General Turfgrass and Sod Production	Golf Course Turfgrass
	Research Needs		
1.	Irrigation Water Use Efficiency Including Utilization of Effluent Water	✓	✓
2.	Impact of Turfgrass Chemicals and Fertilizers on the Environment	✓	✓
3.	Unbiased Product Testing (fertilizers, pesticides, equipment, etc.)	✓	✓
4.	Unbiased Cultivar Evaluations	✓	✓
5.	Production of Quality Putting Greens • Annual bluegrass/creeping bentgrass summer decline • Managing/controlling annual bluegrass • Wear/traffic issues • Pest control • Soil compaction and salinity issues • Spring transition of overseeded bermudagrass		✓
6.	Wear/Traffic Issues Including Safety and Playability	✓	✓
7.	Management/Control of Kikuyugrass	✓	✓
8.	Pest Control Including IPM and Biological Control	✓	✓
	Education Needs		
1.	Articles that Would be In-Depth, Unbiased Specific Issue-Analysis Reports	✓	✓
2.	Accessible, User-Friendly Research/Education Reports	✓	✓
	Other		
1.	The Ability to Respond to Sudden Research and Education Industry Needs	✓	✓

June 1996

Irrigation Water Use Efficiency Including Utilization of Effluent Water

1. Influence of irrigation scheduling on tall fescue performance■
2. Water use rates among tall fescue cultivars■
3. Water use rates among bermudagrass and zoysiagrass cultivars■●
4. Tall fescue morphological characteristics associated with evapotranspiration rates and clipping yields■
5. Influence of Primo on the water stress relations of tall fescue during the warm season■●
6. Influence of irrigation frequency when irrigating bermudagrass and zoysiagrass below ET crop during the warm season■●
7. Evaluation of water conservation surfactants on two warm-season grasses in southern California■●
8. The development of irrigation and nitrogen fertilization programs on tall fescue to facilitate irrigation-water savings and fertilizer-use efficiency■
9. Characterization of markers for leaf firing resistance among turf-type bermudagrasses■●
10. Tall fescue irrigation studies in Riverside, an inland valley climate■
11. Texas bluegrass, Kentucky bluegrass, and tall fescue performance and quality as affected by irrigation frequency and variety at different locations in the transition region■●

Impact of Turfgrass Chemicals and Fertilizers on the Environment

1. Measurement and model prediction of pesticide partitioning in field-scale turfgrass plots●■
2. Nitrogen leaching and best management practices for overseeded bermudagrass fairways●■
3. Further evaluation and modeling of pesticide data from the UCR putting green lysimeters●■
4. A survey of professional turfgrass managers of southern California concerning their use of turfgrass best management practices■●
5. Development of BMPs for fertilizing lawns to optimize plant performance and nitrogen uptake while reducing the potential for nitrate leaching ■

Unbiased Product Testing (fertilizers, pesticides, equipment, etc.)

1. 1996 Vigoro consumer and polymer coated fertility trial on tall fescue■●
2. 1996 Vigoro coated urea fertility trial on tall fescue■●
3. Two-year evaluation of nitrogen products applied on tall fescue in Riverside, CA: 1995-1997■●
4. 1996-1997 evaluation of slow-release and fast-release nitrogen fertilizer products applied on an overseeded common bermudagrass during the cool season●■
5. One-year evaluation of iron applications applied with three nitrogen fertility rates on tall fescue in Riverside, CA: 1996-97■
6. Annual evaluation of bio-feed fertilizer on tall fescue■
7. Evaluation of experimental coated urea fertilizers on Kentucky bluegrass during the cool season■
8. Evaluation of the phytotoxicity of six experimental Aqueduct formulations applied on a creeping bentgrass putting green in August●
9. Influence of Primo on the total nonstructural carbohydrate partitioning of tall fescue■●
10. Effect of soil conditioner on physical properties in a golf course putting green●■
11. 1997-1998 Agrium coated urea fertility trial applied on tall fescue in Riverside, CA■●
12. 1998 Agrium slow-release nitrogen product trial on Bonsai tall fescue■●
13. The evaluation of slow-release nitrogen fertilizers applied on Arizona common bermudagrass during the warm season●■
14. Test of Nutrismart on established tall fescue ■●

Unbiased Cultivar Evaluations

1. UCR bentgrass variety trials●
2. GCSAA, USGA, and NTEP on-site testing program for bentgrass and bermudagrass cultivars on USGA specification golf course putting greens●
3. GCSAA, USGA, and NTEP on-site testing of grasses for overseeding of bermudagrass fairways●■
4. Further evaluation of on-site testing of bermudagrass cultivars on USGA specification golf putting greens●

Production of Quality Putting Greens

1. The evaluation of summer cultivations with a Toro HydroJect on a creeping bentgrass putting green located in the Coachella Valley●
2. Maintaining putting green soil aeration and leaching capabilities during the summer with a Toro HydroJect●
3. Improvement of the spring transition of overseeded bermudagrass putting greens in the Coachella Valley●
4. Management of annual bluegrass putting greens in California●
5. The effect of endoROOTS and ROOTS 2 on creeping bentgrass establishment and maintenance on a newly constructed sand rootzone ●■

The Ability to Respond to Sudden Research and Education Industry Needs

1. The effect of fall renovation treatments on PM_{10} emissions during raking of debris following scalping of common bermudagrass fairways prior to overseeding ●■

● Golf Course Turfgrass ■ General Turfgrass and Sod Production