News from the UCR Turfgrass Program

Short Takes

• Welcome to the newest member organization of UCRTRAC: Women's Southern California Golf Association (www.womensgolf.org). This Association includes the San Diego County Women's Golf Association, Women's Public Links Golf Association and The Women's Southern California Golf Association. Together these associations have over 160 clubs and 40,000 individual members.

• The partnership between UC Riverside and the Turfgrass Industry was highlighted during a recent trip to Sacramento on 20 May 2004. Delegates from UCRTRAC and other UCR officials visited with a number of California State Legislators to discuss several key messages, including that UCRTRAC is a successful industry-university partnership that produces valuable research and promotes collaboration among researchers, practitioners and the public. Additional information is available on the UCR Turf website, (ucrturf.ucr.edu) UCRTRAC section, News.

Research Focus

Improvement of Spring Transition of Overseeded Bermudagrass Putting Greens in the Coachella Valley

Objective: To test factors related to fall seedbed preparation and overseeding (chemical treatments, scalping level treatments, and seed rate treatments) that may hasten bermudagrass spring transition.

• Chemical treatments were 1) check, 2) Reward (1.0 qt/acre), 3) Primo Liquid (0.75 oz/ 1000 ft²), and 4) Primo Liquid (0.25 oz/1000 ft²). Chemical treatments were applied to 6.0- x 10.0-ft subplots.

• Scalping level treatments were moderate “stubble” and severe “dirt”. The average percent green bermudagrass coverage on the day of scalping in 1997 was 41% for the stubble treatment and 2% for the dirt treatment. Scalping level treatments were applied to 10.0- x 24.0-ft main plots.
Seed rate treatments were “high” and “low” and are reported on a pure live seed (PLS) basis. The high rate was 35.8 lb seed/1000 ft$^2$ perennial ryegrass plus 9.4 lb seed/1000 ft$^2$ Poa trivialis. The low rate was 22.3 lb seed/1000 ft$^2$ perennial ryegrass plus 9.4 lb seed/1000 ft$^2$ Poa trivialis.

Findings:

Fall Applied Treatment Effects on the Spring Transition of Bermudagrass Putting Greens

- During two consecutive seasons, fall-applied treatments associated with seedbed preparation and overseeding of a Tifgreen putting green nursery did not affect bermudagrass spring transition.

- During the second season, these treatments also did not affect visual turfgrass quality for an overseeded bermudagrass putting green (these measurements were not taken during the first season).

- Under the conditions of this study, Poa trivialis was the dominant component of the mature overseeding and it persisted for a longer time during the summer than perennial ryegrass.

- Possible explanations why the treatments were not significant include 1) a no scalping treatment was not included in the study and 2) Poa trivialis may have dominated any effect due to the difference between high and low seed rate treatments. The difference between seed rate treatments was the amount of perennial ryegrass.

The Influence of Air and Soil Temperatures on the Spring Transition of a Bermudagrass Putting Green

Based on the two seasons of data from this study, the following observations can be made:

- Initial bermudagrass greenup occurred in mid- to late February when warm (12 noon to 4 PM) air temperatures were in the 80’s °F.

- Bermudagrass spring transition (the rapid increase of percent green bermudagrass coverage) initiated during mid- to late May and completed mid- to late July. During this period, average cool (2 AM to 6 AM) air and soil temperatures (2.0-inch depth) were in the 70 °F range and the average warm (12:00 noon to 4:00 PM) air and soil temperatures were in the 96° and 94 °F range, respectively.

For more information about the study, please see the UCR Turf website, UCRTRAC section, “1996-2002 Accumulative Research Summary”, Project E3.