



Over 1,000 bermudagrass and zoysiagrass accessions are being screened as part of a USGA-funded project to improve winter color retention and drought tolerance.

HIGHLIGHTS FROM THE 2018 UNIVERSITY OF CALIFORNIA RIVERSIDE FIELD DAY

BY PAT GROSS | REGIONAL DIRECTOR, WEST REGION

Approximately 200 turf and landscape professionals met the University of California Riverside (UCR) Turfgrass Research Center on September 13 for the 2018 Field Day. The program included eight stops to view a few of the many research projects currently underway at UCR. Here are highlights from two of the studies:

Improvement of bermudagrass, kikuyugrass and zoysiagrass for winter color retention and drought tolerance

Drought and water use continue to be critically important issues in the West. This USGA-supported project is focused on broadening the adaptation and acceptance of warm-season grasses by developing new

cultivars with better winter color retention while enhancing the drought tolerance of these grasses. The project was initiated in 2016. Here are a few highlights from the project:

- Since last year, 750 new bermudagrass hybrids have been generated.
- The evaluation of over 1,000 bermudagrass and zoysiagrass accessions is ongoing. It was interesting to see the differences in color, density and texture of the different plants.
- The project is evaluating 12 of the most promising bermudagrass hybrids in comparison to the commercial varieties Tifway, TifTuf and Bandera in different climatic zones throughout California.
- More than 400 individual seedings of kikuyugrass from the UCR collection are being evaluated for turf quality, drought tolerance and winter color retention. The initial genetic cross of the kikuyugrass accessions was completed this year. The new hybrids will be included in evaluations next year.



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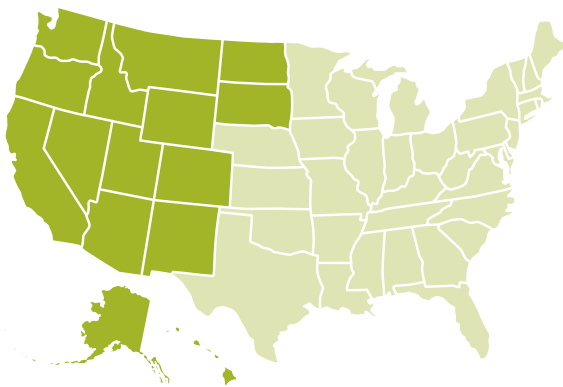
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Evaluation of herbicides and plant growth regulators for the control of *Poa annua* in creeping bentgrass greens

This project is investigating the ability of 16 different herbicide and plant growth regulator (PGR) treatments to control *Poa annua* in a 'Pure Distinction' creeping bentgrass green. Two years of data have been collected. Treatments have been made from May through November. Here are some highlights from the study:

- The herbicides being evaluated are methiozolin at four rates and cumyluron at three rates. One of the methiozolin treatments uses a wand applicator to treat individual plants within test plots.
- The PGRs being evaluated are flurprimidol at three rates; a premix combination of flurprimidol and trinexapac-ethyl at three rates; a premix combination of flurprimidol, paclobutrazol and trinexapac-ethyl at three rates; and paclobutrazol at three rates. Applications were made at two-week intervals.
- Of the PGR treatments, the best *Poa annua* control was achieved with applications of paclobutrazol at 8 ounces per acre and the combination of flurprimidol, paclobutrazol and trinexapac-ethyl at 15 ounces per acre.
- The herbicide treatment with the best control was six applications of methiozolin at 0.3 ounce per 1,000 square feet at two-week intervals from May to July with six additional applications from October to early December. As noted at the field day, reapplication of methiozolin in the same calendar year was not needed. This is contrary to label directions but was done to evaluate the potential effects of overapplying the product. As Dr. Baird is fond of saying, "let me kill the grass so you don't have to."

- Turf injury with the PGR treatments was visible in May and increased over time until November when the plots showed recovery.
- Turf injury with the herbicide treatments occurred with the reapplication of methiozolin in the fall, especially at high rates. Cumyluron also caused thinning and turf injury described by the researcher as “coffee staining” the foliage.



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