

UCR Turfgrass Research Summary  
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UCR golf turf research is vibrant and growing throughout California. In late 2014, new National Turfgrass Evaluation Program (NTEP) trials were established at the California Golf Club of San Francisco (bentgrass putting green and fineleaf fescue fairway) and Bel-Air Country Club in Los Angeles (bentgrass putting green). A warm-season (bermudagrass/zoysiagrass/seashore paspalum) NTEP putting green trial was established in 2013 at Tamarisk Country Club in Rancho Mirage. Recently established NTEP trials at UCR include: bentgrass fairway (water deficit); fineleaf fescue (no-mow); zoysiagrass fairway (shade tolerance); bermudagrass fairway; and tall fescue rough. In addition, UCR has active trials with the Turfgrass Water Conservation Alliance (TWCA) and Alliance for Low Input Sustainable Turf (A-List) to identify cool-season turfgrass cultivars with superior drought resistance in southern California. The UCR Turfgrass Breeding program has been resurrected and focuses on improvement of bermudagrass (winter color and playability); kikuyugrass (winter color, playability, turf quality, disease resistance); and tall fescue and perennial ryegrass (drought resistance and turf quality). Several new bermudagrass hybrids have been created and have undergone one cycle of selection for turf quality characteristics and winter color retention. Kikuyugrass was collected from golf courses and other areas across California and Hawaii. These selections, in addition to a kikuyugrass collection from Australia, are undergoing genetic testing to evaluate diversity as the basis for launching a turf-type kikuyugrass breeding program for California.

A significant part of the UCR turfgrass research program involves product testing for pest control, water conservation, and salinity alleviation. PoaCure (methiozolin) research continues across the state to help fine-tune use information in anticipation of the Experimental Use Permit (EUP) program. The EUP was approved by the USEPA in late 2014 and is pending state approval expected in 2015. Approximately 30 California golf courses are registered for the EUP, which is the most of any other state in the US. Product registration is anticipated in 2017-18. In 2014, research at Pebble Beach Golf Links identified a new nematicide that effectively reduced *Anguina pacificae* populations and improved turf quality on *Poa annua* putting greens. Research will continue this year in San Francisco and Monterey as this product is developed for the California turf market. A Rapid Blight study conducted last year at Ridgemark Country Club in Hollister identified new chemistry including Velista fungicide (CA registration expected in 2015) with activity against this disease that is associated with salinity. Other current studies on golf courses include: evaluation of herbicides and PGRs for *Poa* control in overseeded turf at Toscana Country Club in Indian Wells (Field Tour on March 17); evaluation of fungicides for Spring Dead Spot control on bermudagrass fairways at San Joaquin Country Club in Fresno; and selective control of dallisgrass in bermudagrass turf at Fairmount Park Golf Club in Riverside. Pylex (topramezone) is a new herbicide from BASF currently under development for control of crabgrass, goosegrass, and other weeds in cool-season turf. Pylex is also being evaluated for selective control of bermudagrass. UCR is assisting with efficacy and tolerance studies for California

registration. Research is ongoing to evaluate new and existing herbicides and formulations for preemergence and postemergence weed control. Each summer, fungicides are evaluated for control of anthracnose on a *Poa annua* putting green at UCR. P.W. Gillibrand Co. donated rootzone mix to construct a new bentgrass putting green at UCR. The green will be used to evaluate fungicides for disease control as well as continued studies with PoaCure herbicide.

Several studies are ongoing to evaluate fertilizer rates and formulations, PGRs, and soil surfactants that help reduce water use on turf. Examples of products that have performed well to date include Gro-Power (5-3-1) fertilizer, Primo Maxx, and Revolution. In addition, we are evaluating a synthetic/natural hybrid turf (EZ Hybrid Turf) for turfgrass water use reduction. A two-year study was just completed to evaluate products to alleviate salinity stress in bermudagrass turf. The treatment containing DeSal and Stress Rx (Ocean Organics) provided the best overall salinity reduction and turf quality in both years of the study. Research is also ongoing to evaluate seed coatings for improved turfgrass establishment under water and salinity stress.

Currently, the Baird Lab consists of Dr. Marco Schiavon (post-doc; water and salinity management); Dr. Fayek Negm (research assistant; herbicide biochemistry); Toan Khuong (research assistant; water and salinity management); Tyler Mock (Ph.D. candidate; kikuyugrass management and genetics); and Jon Montgomery (Ph.D. student; water stress/PoaCure management). On behalf of my team, our sincerest thanks and appreciation go to the California golf industry for your ongoing support of our program. Stay tuned for our new turf website (URL: [turfgrass.ucr.edu](http://turfgrass.ucr.edu)) currently under construction, which will house all past, present, and future research reports and information from our program.