

# Getting Serious About Annual Bluegrass

Golf course superintendents in Idaho are starting to get serious about annual bluegrass (*Poa annua*) in their Kentucky bluegrass fairways. A few superintendents, with the encouragement of Washington State agronomist Roy Goss and Oregon State University agronomist Tom Cook, are adjusting their irrigation and fertilizer programs to discourage the outcast of the bluegrass family.

Bob Lee, superintendent at Stoneridge Golf Course near Blanchard, OR, is one of those superintendents whose fairways used to be 60 percent *Poa*. Today those same fairways are 90 percent Kentucky bluegrass. Lee is not alone. He credits much of his early success to fellow superintendents Thomas Wolff at Monito Golf and Country Club, Spokane, WA; Roland "Bud" Ashworth at Liberty Lake Golf Course, Liberty Lake, WA; and Dick Gilfoil at Hayden Lake Golf and Country Club, Hayden Lake, ID.

"They helped give me the confidence to make the changes," says Lee, "particularly cutting back on water. Now I'm putting on less water than anyone, and I've been able to practically eliminate *Poa* from this course."

Even though his Idaho location provides him with an excess of available water, Lee is cutting back. "When fairways and greens are overwatered, *Poa* thrives," he states. "It's easy to run up a \$5,000 yearly bill just to treat for *Fusarium* patch disease. The lush turf also encourages *Typhula* snow mold disease and, of course, winter desiccation."

Less water is only part of his *Poa* reduction program. Applications of endothall and judicious use of fertilizers and sulfur have enabled him to develop his bluegrass fairways and Pennncross bentgrass greens. His greens are now 99 percent Pennncross and all fairways are at least 90 percent Kentucky bluegrass.

"Golfers favor playability of a course over aesthetics. Most golfers are more interested in how the course plays than how it looks," Lee claims. "I notice stress before the golfers do. Therefore, I irrigate only when the fairways show the first signs of stress. This keeps annual bluegrass from coming back to compete with the perennial grasses. We irrigate greens only at seven to ten day intervals. At times, we can go a full week before moving the cups because the greens are able to withstand more traffic."

Lee says the overall result is reduced maintenance, including less fertilizer. "Our annual budget for fertilizer on this 18-hole course is only about \$7,000, half that of some Northwest courses. We reinvest some of the savings into a higher quality slow-release fertilizer. We use isobutylidene diurea (Estech's Par Ex IBDU) which is a slow-release, 31 percent nitrogen fertilizer. We can fertilize and irrigate and the nitrogen doesn't over-release in the turf. Since it is not temperature dependent, it works well with our great temperature extremes in Idaho."

Greens are fertilized in the spring with one pound of 25-0-8 per 1,000 square feet (containing IBDU) along with some ammonium

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Bob Lee checks the greens at Stoneridge Golf Course with a soil probe before irrigating to avoid damp conditions which encourage annual bluegrass.

sulfate to speed early growth. "We'll also use some water soluble pharmaceutical grade fertilizer and chelated iron," says Lee. "Then we come back twice later in the season with IBDU along with sulfur."

Fairways are fertilized in spring and fall with one pound per 1,000 square feet. "Lately, most of the fairways really don't need a fall application judging from appearance," Lee states. "The reason we make the second application is to have the nitrogen available during the cool fall weather when the bluegrass plant continues important root growth. This helps turf withstand high temperatures the following summer when Poa is weakest. The fall-applied nitrogen is also there is the spring for early greenup."

With less water and fertilizer, you'd think Lee would be lucky to keep the course appearing as lush as it did before. The fact is it plays better. "The ball sits up on our bluegrass fairways, cut at one inch, almost as if it's on a tee," boasts Lee. Greens are cut as low as 3/32-inch. Balls roll true on the dense Penncross. The system, in Lee's opinion, constitutes good management."

Dr. Ross agrees and credits Lee with "some of the finest bentgrass greens in the entire Pacific Northwest." Goss repeatedly cautions superintendents against permitting *Poa annua* to dominate golf turf. Over-irrigation and high phosphate fertilizer are the two key causes of *Poa* infestations,

Goss states.

During a check of root systems on Stoneridge Golf Course's greens the day before a field day last summer, Goss discovered 12-inch root systems—attesting to the workability of Lee's system.

Goss states that *Poa annua* requires two to three times as many fungicide treatments as Kentucky bluegrass to control diseases. Annual bluegrass requires fungicide treatments almost year round. Susceptibility to diseases, winter kill and heat stress make management of *Poa* much more difficult than other turfgrasses.

By contrast, Kentucky bluegrass fairways offer superior beauty and playability; they also need less maintenance, less water and few, if any, fungicide treatments. Lee helps the Kentucky bluegrass resist disease with applications of sulfur and potassium.

Thatch, also the result of overfertilization and overwatering, has been another target for Lee. When he started as superintendent at Stoneridge six years ago, thatch was two or more inches deep over the entire course. "We aerated the fairways four times the first season and twice every year since. We verticut greens every three to four weeks and topdress them with sand every two weeks. The slow-release of the IBDU helps avoid lush growth and thatch buildup.

Lee's responsibility extends to the resort and condominiums around the course. "In my six years as superintendent, we have planted 3,000 new trees on the course and

resort grounds," Lee points out. "In 1985, we planted more than 250 flats of flowers throughout the 1,100-acre condo community."

A great part of Lee's confidence and knowledge comes from experience and talking with others. Since his father was a developer who built golf courses, such as Sudden Valley Golf Course in Bellingham, WA, Lee could have skipped much of the golf crew internship after he finished his college degree. Instead, he chose to start as a golf course mechanic, switched to landscape contracting, and then did stints in a chemical warehouse, housing construction, drainage installation, and maintenance assistance at a ski resort. All this was in addition to three summers on a golf course crew.

Six months after Lee started at Stoneridge, he became superintendent. He immediately became active in the Inland Empire Golf Course Superintendents Association, the Northwest Turfgrass Association and the Golf Course Superintendents Association of America. "It's my goal to become a certified golf course superintendent next year," says Lee.

The reason Lee meets his fellow superintendents so often is because his active association membership and a one-day-per-week job of selling chemicals and seed. Lee's territory includes Spokane and Coeur d'Alene. "I never visit a golf course where I don't learn something," he points out. "It's a great way to see lots of friends and share experiences in golf course management."

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