

Poa Annua — Jekyll or Hyde?

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Poa annua is no less a subject of controversy today than it was 30 years ago. It has been a topic for discussion at turfgrass conferences at the national, state, and local level for years. Today even the casual golf televiewer soon learns that "po-annie grass" is something to dislike, something to be on guard against!

What is **Poa annua**? It is a member of the bluegrass family, the same family that gives us Merion Kentucky bluegrass, **Poa Trivialis** (a handsome grass suited to moist shaded conditions), and other Kentucky bluegrass common and select types.

Unlike these, **Poa annua** is classified as an annual plant, yet few will argue about its perennial qualities. **Poa annua** is an upright grower, it grows in individual clones, yet researchers say that some selections produce runners the same as creeping bentgrasses. **Poa annua** is classified as a cool-season grass that does best in the northern climates, yet it is found growing in areas of the Deep South!

How did it get to be a problem? In the early days quality fairway seed included a mixture of bentgrass, Kentucky bluegrass, and creeping red fescue. It was reasoned that a "shotgun" mixture such as this would satisfy all situations of soil and topography, and those strains suited to a particular ecology would evolve and persist.

These mixtures suited the general requirement very well over the years. Not until irrigation and closely clipped fairways were introduced did the weaknesses of this combination turf become apparent. Those who began to mow closer than 1½ inches found that the creeping red fescue and the Kentucky bluegrass weakened badly; those who watered and fertilized heavily found that the creeping red fescue died; those who watered and mowed high to keep the bluegrass and fescue found that the bentgrasses became too puffy and too soft to support the golf ball.

As these weaknesses persisted, it seemed that members demanded closer mowing, and this favored the bentgrass at the expense of the other two grasses. As the bluegrass and fescue weakened, **Poa annua**, apparently a contaminant of early imported seed mixtures, encroached and supplemented the bentgrass to make up a **Poa-**

bentgrass fairway turf. Once **Poa annua** gained a hold it spread very quickly. The battle has raged ever since.

What are the Jekyll-Hyde characteristics that cause **Poa annua** to be denounced so vigorously by some and defended so strongly by others?

As Jekyll

1. It affords an excellent lie—**Poa annua** can be cut as closely as the terrain will permit; from 3/16's to 3/4's of an inch. No amount of argument can change the fact that this is what a fairway should be—closely cut for golf: as close as the specific grass being grown allows.
3. It forms a dense turf—**Poa annua** seeds heavily; seeds germinate in close proximity to one another and thrive well despite the high plant density per square inch. **Poa annua** seems to adjust to crowded conditions better than other turfgrasses.
3. It is relatively easy to grow at least six months of the year. **Poa annua** seeds profusely at any height of cut, and the seeds drop and remain viable apparently for several years. When conditions are right, the seeds can germinate within a few days. Disturb the soil in spring or fall and up pops **Poa!**
4. It has excellent color for most of the year. It becomes green earlier than bentgrass in spring, and stays green longer into the fall-winter season. Growing alongside each other bent color looks anemic compared with well-fertilized **Poa annua** during most of the spring and fall.
5. It comes disguised as a friend. It is a handsome appearing plant resembling a dwarf Merion bluegrass, and somehow things in perfect miniature always give a good psychological impression with people.

As Hyde

1. It is unpredictable in summer. During periods of high temperature and high humidity, **Poa annua** can disappear completely within a day. Once the plant goes,

it is dead and makes no recovery in summer. This opens the door to crabgrass, knotweed, spurge, plantain, dandelion and other weeds. *Poa* regrowth occurs from seed that is in the soil, but germination takes place during periods of cool nights, from late August on through the winter.

Odds that favor *Poa annua* at 6 to 1 are hard to pass up. It's human nature to gamble and many accept the challenge yearly. Also involved are the desires of the playing members; they clamor for extending the golfing season by starting earlier in spring and finishing later in winter.

They also are looking for turf of summer quality the year around. Forcing permanent grass only weakens it and encourages the *Poa annua* to take over. The present dilemma in many cases is an expression of the desires of the membership. Yet the danger lasts only through

July and August. The injury is proportionate to the summer heat and humidity. Turf loss is not always severe.

Also, in the last few years headway has been made in techniques designed to keep *Poa annua* healthy in summer. It seems that experience tends to direct more and more programs toward attempts to keep the *Poa* alive. In effect, we are becoming a nation of *Poa* pamperers!

From the agronomic standpoint, *Poa annua* can never be considered a sound turfgrass as long as the possibility of complete summer failure exists. Either we must find a certain method of providing *Poa annua* with safe passage through July and August or we must breed a permanent cool-season grass that will grow 10 months of the year like *Poa annua* grows and looks in May. There is no question that the latter is the sound approach to better fairways on northern courses.

Out with *Poa Annua*

by SHERWOOD A. MOORE, Superintendent, Winged Foot Golf Club, Mamaroneck, N. Y.

Many times fairways are burned off thoroughly to rid them of *Poa annua*, aerated, seeded to bents and then in a few years, they're solid *Poa annua* again. Certainly this is discouraging, but perhaps it can be avoided through careful maintenance practices that follow the renovation.

Listed below are a few of the principal practices and what can be done to improve them:

Mowing

This is one of the most important operations and yet one of the most abused and neglected practices.

On watered bent fairways, cut often, cut close and change directions.

Move the tractor out of the same wheel marks by raising the outside mower or throwing it out of gear and allowing it to overlap in the rough; then occasionally mow a few feet inside the fairway edge, going out to fairway boundary on the next mowing.

Be careful in turning fairway units.

Pull tractors and gang mowers off approaches and bottleneck areas and mow instead with triplex mowers.

Fertilizing

Many problems are created unnecessarily

and one of them is caused by poor fertilizing practices—mainly overfertilization.

During some of our real tough seasons, the low budget courses came through in better condition than some of our lush layouts. They could apply only a minimum of fertilizer and in many cases no water at all.

Think twice before applying large quantities of fertilizer, especially in a single application.

On a new golf course or new turf areas and on very sandy soils fertilizer might be used more liberally than on an old established course, or where the soil is a clay loam.

The practice at Winged Foot is to apply a maximum of two pounds of nitrogen per 1,000 square feet per season. In some seasons it has been even less. The course is fertilized often and lightly using four to five applications each season. A complete fertilizer, such as a 10-6-4, is applied in late May at the rate of half a pound of nitrogen per 1,000 square feet and during June, July and August three applications of sewerage sludge is applied totaling one pound of nitrogen per 1,000 square feet to be followed in the fall with another one half pound of nitrogen from a complete fertilizer.

Watering

Watering is a maintenance practice that is