

## LIVING WITH POA ANNUA

by Bob Williams - Supt. at Bob O'Link Golf Club  
Wisconsin Turf Symposium - October, 1976

My philosophy on poa annua as a golf turf for fairways, simply stated, is that until the research people can give me a practical, efficient and safe method for removing poa from bentgrass turf, I will continue to make every effort to live with poa annua.

I have witnessed the scorching programs on fairways with sodium arsenite followed by bent overseeding. Within two or more years the poa was back again and the membership discouraged.

I have witnessed the lead arsenate programs which have given varying degrees of success. However, this material is no longer available.

I have witnessed the calcium arsenate programs with results running all the way from success to disaster, with many of the superintendents involved losing their jobs as members became unhappy with the unpredictable results.

Currently, we have new chemicals being advertised as specific controls for poa. Frankly, I am not up to date as to whether or not these chemicals are doing the job. My primary purpose in attending this conference is to keep abreast of the latest developments so that when a breakthrough does come to light, I'll be informed.

**Carl Hoppman**, at the Aurora C.C. is one superintendent that I know of who has licked poa annua. However, he did it with bluegrass fairways, not bent. He tells me that he too had his ups and downs in the process of achieving his ultimate victory.

My membership neither knows or much less cares what specie of fairway grass they are playing on. They are only concerned with the playability and the aesthetics of that turf.

Having made the judgement to attempt to live with poa annua, just what can I do to maintain satisfactory turf throughout the season? Let's talk about fairways first. The main weakness with poa annua as a fairway turf is its shallow root system. Due to this short root system, the poa plant has a very low drought and heat tolerance. It is disease prone and has a poor resistance to golf cart and foot traffic. At the same time I am mindful that poa annua does make a good playing turf and it is persistent due to its heavy seeding capability.

Generally speaking, if the poa plant in a fairway is supplied with adequate moisture for transpiration on a hot, humid or arid day, the plant will survive. This means that the moisture must be available in that shallow root zone at the time of stress. So we can see why superintendents who are trying to live with poa-bent fairways must use the light, frequent application method of irrigation. Automated irrigation is ideally suited for this purpose. My normal fairway irrigation program calls for approximately 10 to 15 minutes on an almost every night basis. I'm really trying to keep the soil moisture at a constant level. Only replacing daily, that moisture we have lost through evapotranspiration.

This kind of irrigation program dictates that we must keep the soil surface open for water penetration and uniformity. To do this, we rely on frequent aerification with spoons, knives or discs depending on the time of the season. During July and August, I prefer to use the triangular knives following a good rain.

Next to watering, perhaps the most significant feature towards keeping the poa in our fairways, is the height of cut. In our procedure, the mechanic places the mower unit on a 4 foot square steel plate and then

accurately gauges the setting with a ruler. I have found in practice, that poa-bent fairways mowed within the range of 7/8ths to 1 and 1/8th inches will survive much better than the 5/8th 3/4" range. But, now comes the argument, will the membership stand for fairways mowed 7/8ths to 1-1/8th? My answer and experience is definitely yes, providing the turf will support the ball and allow for a clean hit. In fact, every year when the touring golf professionals are in the area we have a number of them who play our course. I always make it a point to ask them what kind of fairway lies they are getting and how the ball is responding. They invariably reply, "Super", just like setting on a tee, no fuzz behind the ball. And this is when we are at the 1" height. If there is a secret to this, it lies in having a full dense turf that will support a ball for a clean hit.

I'm afraid that all too often superintendents have had to go along with low handicap members who insist on 1/2 fairways just because that's what the professionals want. Now I've proven to myself that the golf professionals do not necessarily want a 1/2" lie. What they really mean is a clean lie where grass blades will not stand up between the clubface and the ball. I'm sure you have noticed that the tour professionals do not place their ball on the tight turf of the par 3 tees. No, they use a wood tee to make sure there will be no grass between clubface and ball.

In contrast to the professional, the average clubmember is a fifteen handicapper who has had a successful round of golf if he has gotten most of his shots airborne. In order to do this, most golfers require a cushion of turfgrass under the ball but not behind it.

In my procedure, I start mowing fairways in the spring at 7/8ths, move up to 1 inch about the middle of June and if it looks like a difficult season for turfgrass, I'll go up again to 1 and 1/8th by the middle of July. We then move back down in two steps starting about the middle of August. Additionally, in a stretch of 90 degree weather we may skip mowing altogether for as much as a week at a time. We try to accomplish our fairway mowing either in the early morning or the evening hours, to avoid the peak stress period for the grass plants.

My theory on height of cut for poa-bent fairways is that there must be a compromise between what is best for the golfer and what is best for the turfgrass. Each must give-a-little to keep everyone happy. But how does the membership feel about this? I believe the answer lies in the fact that our members had come to expect that poa fairways automatically killed out every July. That was before my time at Bob O'Link. Over the past 18 years, I have made a constant effort to communicate to the membership that if they will accept playing on slightly higher cut on fairways, they could expect minimal if any loss of turf. We seldom ever hear any discussion on the subject anymore. I really believe the superintendent who has poa in his fairways, has been his own worst enemy in yielding to the pressures of the 1/2 inch cut for fairways.

Two years ago, Jim Latham brought Mr. Allis, green chairman from the Milwaukee C.C. down to Chicago to visit several clubs. He was particularly interested in fairway maintenance. While at Bob O'Link, he tried a number of iron shots from the one inch poa-bent fairways. His conclusion, "I see it but I don't believe it".

Fertility, of course, has to play a significant role in providing a dense turf. My practice has been to use approximately 2 lbs. of actual nitrogen, 1 lb. of phosphorus and 2 lbs. of potash per year. We use



milorganite at about 1,000 lbs. per acre in the dormant winter season and apply urea, superphosphate and sulphate of potash as supplements. This program has been effective, efficient and most economical. In fact, my fairway fertilizer expense this past year was \$3,600 for approximately 35 acres or roughly \$100 per acre.

Perhaps modern day disease control ranks equally important with automatic irrigation in learning to live with poa annua. For the past 20 years I have been using a strong disease control program on fairways. In 1976, we used a total of 13 fungicide applications to date and will apply one more in November. We rotated 3 different prescriptions:

- 1st -- Daconil at 1 gallon per acre.
- 2nd -- Combination of PMAS at 1 quart per A. with Thiram at 3 lbs. per A.
- 3rd -- Combination of Acti-Dione TGF at 2 pkg. per A with Thiram at 2 lbs. per A.

The 14 applications started in May with 1 treatment, 4 in June, 3 in July, 2 in August, 2 in September, 1 in October and the final will be in November. Total cost for fairway treatment was about \$6,000. The rotation of the 3 formulations was determined on the basis of what was most appropriate at any time in relation to the weather, phytotoxicity, and type of specific disease that might be expected. One disease problem I have not controlled is fairy ring. We have experienced a minor problem now for about 4 years. Dr. Vargus of Michigan State agrees with my suspicion that this might be a negative side effect from the former use of systemics.

When it comes to poa annua on putting greens, I have a different attitude and a different approach. I detest having to tolerate poa in our greens and yet I am at a loss as to a painless method of eradication. Poa is particularly bad on putting greens when it is seeding and we have some greens with perhaps as much as 20 or 30% poa. My long range program for greens is to grow our own poa-free turf in our nursery and resod. This project is now underway with 20,000 square feet seeded this fall and we expect to add another 10,000 square feet next spring. The soil was sterilized with methyl bromide.

Allow me to conclude this report with a couple of observations. First, I have noted that some of our courses with the poorest irrigation systems have the most bentgrass in their fairways. (Providing they have seeded in bent rather than bluegrass). I've also noticed that with a single row irrigation system, you will find more bent along the outer edges of the fairway and into the short rough where less water is applied. My closing observation is that our golfers in the Chicago area pretty much judge our greenkeeping ability on the basis of how well the greens putt and whether or not we are able to hold the fairway turf throughout the season. They are quite intolerant with even moderate loss of grass on fairways regardless whether bent or poa. So, I believe most of us are doing whatever we can to live with poa on fairways until something better and painless comes along.

#### **SORRY AN ERROR WAS MADE**

In the January issue of the **Bull Sheet** a statement was made concerning the Toro Distributor in Itasca, Illinois was for sale. **It is not for sale!** The editor was not the author of the statement and again the editor is sorry it happened.

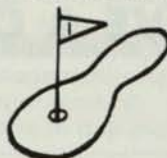
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