



**Meeting Notice MGCSA**

Date: Thursday, June 3, 1971  
 Place: St. Andrews Golf Club  
 Host: Roger Harmony  
 Golf: 12 noon on  
 Lunch available in grill room  
 Cocktails: 6-7  
 Dinner: 7 P.M.  
 Program: to be announced

**Coming Events:**

June 8th Rutgers Field Day  
 June 24th NJGCSA outing—Monmouth Race Track  
 (Contact Jack Martin for details)  
 July 13 Golf Club at Aspetuck (Conn. GCSA)  
 July 15 Winged Foot Golf Club  
 (Superintendents Championship)  
 August 2 New Haven C.C. (Conn. GCSA)  
 August 15-19 American Society of Agronomy  
 Meeting (NYC)  
 August 23 MGCSA Equipment and Supplies  
 Field Day (Westchester C.C.)  
 Sept. 14 Waccabuc C.C.  
 October 5 Elmwood C.C.  
 Superintendents Invitational  
 November Open Date

**MGCSA News**

Well, Memorial Day is upon us and the golf season is in full swing. The poa is in full bloom and certainly the recent rains have started things moving. The soil is still not that warm so growth has been a little later this year. It takes more than just a few days of good 70-80 degree weather to warm things up. The frost was even showing its face in mid-May. This is one of the reasons Spring seeding can be very spotty and certainly germination will be much slower when soil temperatures are still low. You can stimulate germination and increase soil temperatures through the use of polyethylene covers or screening, but you can't leave it on too long or it will get too hot. It's possible to get germination in 3-4 days if air temperatures are not too cold and you have a little sun to move the temperatures up under the polyethylene.

Now with the ban on Mercury certainly fairway spray programs will be changing. Certainly many will be trying Tersan 1991 while others will be using the Acti-Dion and Cleary's 3336 when available will be tried. It should be an interesting comparison. Certainly the newer fungicides have made great claims and the courses that have used the products supports their findings along with the research. So even though it was a widely used chemical, maybe we won't even miss Mercury except in cost.

John Corsi is recovering from a recent operation at the Greenwich Hospital. He expects to be home about June 1st.

We were all shocked by the tragic fatal accident of Bill Orloski. The MGCSA extends our deepest sincere sympathy to his family.

**THE MIGS MAINTENANCE SYSTEM**

The 100 days that separate the men from the boys will soon be here. This time of trauma starts June the first and (this year) ends on Sept. eighth. This is the prime turf stress period for the majority of golf course Superintendents. Play is heavy and our unnatural short cropped grasses are trying to do their thing — go semi dormant or die. Greenkeepers gulp Gelusil and snap at their wives and kids. Thus it is, thus it ever shall be. The MIGS system won't change it, just makes it more bearable. This is Mow — Irrigate — Groom and Spray. NO construction — NO experiments — NO tree planting — NO verticutting — NO aeration. No nothing, just basic maintenance.

**Mowing** — All mowing should be on fixed schedule. This best for the turf, best for your men and best for you. Do you hassle every morning about mowing greens — fairways — rough? You and your men should know we mow greens x times a week. Don't listen to the men when they tell you there is nothing on them. They don't get paid by the clipping weight but you do get paid to produce smooth putting surfaces — slick fairways and well tended rough. I don't like to impart animal characteristics to grass but it does seem to respond to regular care and behave a little bit better as a result. This also starts the day off smoothly with everyone knowing what to expect.

**Irrigations** — I could write 10,000 words on this and not cover all bases. In essence, water so to keep uniform moisture in the top 6 inches at all times. I happen to believe that this is best done by every morning watering on greens (thus eliminating syringing in the afternoon) same with low cut tees. Fairways and higher cut tees will respond to every other day unless the temperature starts touching 90 — then cut down the time and hit all heads. I am referring to Poa on fairways, now, some of the bluegrass and bent fairways will no doubt stand heat a bit better. I wouldn't know, I never had any.

**Groom** — You can tell a well maintained course from any vantage point; turf is maintained at a uniform height. No fringes around trees, along walls, buildings, etc. Traps are clean and raked. Banks are mowed before they have to be hacked down and the clippings raked up. All furniture is in good order and fresh looking. Your golfers should have a well kept course that they can be proud to bring guests to. This is what your summer help is for.

**Spray** — Weekly spray on greens and low tees is now more or less routine. The use of fungicide (checks disease) water soluble fertilizer (for slight growth) iron (for better color) chlordane (insect pests and retards crabgrass) and wetting agent (promotes water movement and retards wilt) used on an individual basis or in combination will head off many a problem before it is a problem. With the jet boom, many now spray fairways on a weekly or bi-weekly schedule. Those that start ask themselves why they did not start years ago — it's that worth while.

There it is—simple, practical and no extra costs. It took years for these simple truths to become self evident — but then some never catch on.



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### “SOMETHING TO THINK ABOUT”

Are you an active member,  
The kind that would be missed;  
Or are you just contented  
That your name be on the list?  
Do you attend the meetings  
And mingle with the flock  
Or do you stay at home  
And criticize and knock?  
Do you take an active part  
To help the work along;  
Or are you satisfied to be  
The kind that just belongs?  
Do you ever go to visit  
A member who is sick?  
Or leave the work to just a few  
And talk about the “clique?”  
Think this over, member  
You know right from wrong;  
Are you an active member  
Or do you “just belong?”  
Anon.

### THE PLANT – POA ANNUA

V. A. Gibeault

*Poa annua*, also known as annual bluegrass, annual meadowgrass, walkway grass, Suffolkgrass, and, to the real pro, Poor Ana, has certainly been a topic of interest to the turfgrass grower and user for the past several years. This is evidenced by the increased attention devoted to the species both in conference meetings and popular/scientific publications. Only last year, a full morning program of the GCSAA national meeting was spent discussing the *Poa annua* problem. Also, one rarely receives a turf-oriented magazine without observing some mention to this plant – either how to live with it or how to effect its control.

Although much information has been presented relative to use or control – “Friend or Foe” – only infrequently have the characteristics and life cycle been discussed. This will be attempted here because an understanding of the plant should be the first step in any weed control endeavor.

#### Origin and Distribution – Where From and How Far?

*Poa annua* is thought to have originated on the northern shores of the Mediterranean from a cross between *Poa supina* and *Poa infirma*. *Poa supina* is a low growing perennial species that presently inhabits the mountainous regions of Europe. The other parent, *Poa infirma*, has an upright growth habit, very similar to typical annual bluegrass, and is found along the Mediterranean shores. Dr. T. G. Tutin, from the University of Leicester, England, suggested that the cross and subsequent formation of *Poa annua* probably occurred during a recent glaciation when the alpine parent would have been driven to lower altitudes.

Following stabilization and increase, the plant was probably dispersed by carriers such as wind, water and animals, including man, to present-day worldwide distribution. Man evidently played a key role in this regard since annual bluegrass is most obvious in and around past and present areas of human habitation.

Because of its wide distribution and relatively broad genetic base, numerous plant types are present within the species. Actually, there are at least 48 recorded botanical varieties of *Poa annua*, the descriptions of which range from low growing, dense plants that are perennial to upright, open, typically annual forms. An earlier publication, and observation by this author, indicate that both types are present in Southern California.

#### Seed Germination

As with any plant seed, certain minimum environmental conditions must be met prior to seed germination. These include the presence of available moisture and oxygen, proper temperature levels, light, and a suitable substrate.

It has been demonstrated that although optimum germination will occur at a temperature regime of 86° F day, 68° F night, significant germination of mature seed has been recorded from 40° F to 100° F. It is widely recognized that most germination occurs from early to mid-fall when temperatures are moderate and moisture is available.

Light has been shown to enhance seed germination in several trials. Work from England indicated a 50 percent reduction when light was absent. This could, in part, explain the germination and establishment of annual bluegrass following a fall renovation.

*Poa annua* seed germination has been observed to be affected by the pH of the substrate, especially when this measurement recorded below 4.5. The continued use of acid forming fertilizers such as sulfate of ammonia has resulted in inhibited germination.

#### Growth

Following germination, vegetative growth rate is dependent on day length, climate and fertility levels. Growth was shown to be more rapid as day length increased and as temperatures approached the optimum, 75° F day, 60° F night. The plant responded to applications of nitrogen, especially with sources that did not produce an acidic soil condition. Little or no growth response was observed following phosphorus or potassium treatment.

It has been noted that *Poa annua* growth and survival is more dependent on available soil moisture than other turf species. This,

and the fact that annual bluegrass is the first to show nutrient (nitrogen) deficiency, has led to the conclusion that it is a shallow rooted plant. Actual measurements have supported this supposition.

If moisture and nutrition are maintained at levels necessary for growth, a disease infestation frequently becomes a problem. Annual bluegrass is susceptible to approximately twenty pathogens, including *Corticium* sp., Powdery mildew, various root rots, Fusarium patch, Melting out, Brown patch, Damping off, and Dollar spot to mention the most common.

### Seedhead Production

One of the most distinguishing characteristics of a *Poa annua* stand is the presence of unsightly seedheads. They can be observed irrespective of mowing height or time of year. Whereas flower production is related to the photoperiod with most plant material, annual bluegrass is truly indeterminate. Thus, seedhead initiation and development is influenced more by the stage of growth than by a set of light conditions. Production can therefore be observed year-round although most prolific seeding occurs in late spring to early summer under turf.

Seedhead formation is affected, however, by fertilizer treatments. Early work showed that nitrogen applications increased vegetative growth but decreased seedhead production. When phosphorus and potassium were added to the nitrogen treatment, seedhead formation increased.

### Senescence

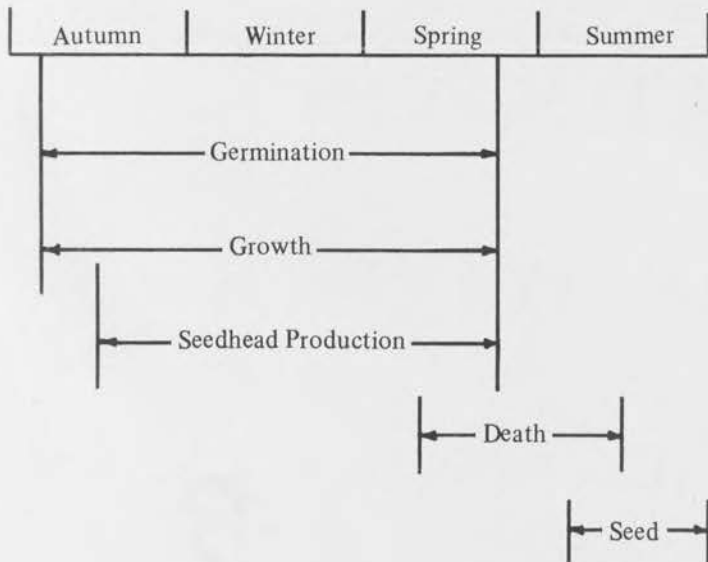
With the advent of warm, dry weather in late spring to early summer, annual bluegrass seedhead production increases and subsequent senescence and dying out follows. This part of the life cycle is the major concern of turf growers since bare ground is often the result. Fortunately, for those who wish to live with the plant, acceptable turf stands can be maintained by syringing, frequent irrigation, and close care of fertilizer applications. Of course, these "precautions" will be to the detriment of the desirable turfgrass species.

Herein also lies the best opportunity for control because, again, the dying out during warm, dry weather is a natural response of "annual" *Poa annua*. Annual bluegrass that survives the summer as seed can be controlled chemically the following fall if proper management procedures are practiced.

### Conclusion

To summarize the above discussion, a generalized life cycle diagram is presented. This may be helpful in planning a management/control program in areas that *Poa annua* is present.

The life cycle can be considered as follows:



# Planting New Trees?

What is the vector for the problem that attacks nearly every tree on your golf course. The elm bark beetle? Nope, it's that rough unit that tried to save a couple of minutes of trimming and just nicked that newly planted tree! Just a small wound but it may eventually reduce the terminal growth of that tree by 40 to 50%!



This cross section picture shows the internal damage caused by *LAWN MOWERITIS*. The damaged area would obviously impede the translocation of water and nutrients in the tree.

Check the trees on your course. Are your small cottonwoods producing 3 feet or more of new growth a season? Are your maples increasing their terminal growth by 2 feet a season? If not, your trees may well be the victims of a most devastating disorder . . . **Lawnmoweritis.**

Jerry Morris with Rocky Mountain Tree Experts, coined the name *Lawnmoweritis* so it might find a place in the literature as a most serious tree problem. Jerry feels that unless we take

some precautions to protect our young trees on our courses, they will probably all eventually fall victim to this malady.

Aside from threatening your rough unit operator by using your most rigorous techniques, there are other ways to lessen the incidence of *Lawnmoweritis*. A small circular spot can be cultivated at the base of each tree but this calls for lots of hand weeding to keep it clean. Contact chemicals can be used with a great deal of caution to keep the grass away from the base of the trees. Some supers use this method successfully but Jerry is a bit skeptical about the long term effects of the applications of such chemicals.

Jerry feels that the answer may lie in a rubber barrier placed around the base of each of your newly planted trees. The barrier, made from used belting material from  $\frac{3}{8}$  to  $\frac{1}{2}$  inch thick, is cut into a circular shape with about a 30 inch diameter. Each barrier is then cut to the center and custom fitted around the base of the tree. Caution must be used to avoid too tight a fit that would interfere with the growth of the trunk; then black polyethylene is wrapped around the trunk to stop the grass from growing through the cracks. As the tree grows, the barrier must necessarily have its hole enlarged to accommodate the larger trunk size.

This is a solution to the problem that should eliminate hand trimming, shouldn't interfere with the play of the game, and should eliminate that temptation to get that rough mower close to the trees. A possible solution to a problem far more serious than most people realize. If you have another idea that may help solve this problem, send it in so it may be shared with others and maybe someday we'll slow down this epidemic of *Lawnmoweritis*.

(Our thanks to Jerry Morris and Larry Johnson both with Rocky Mountain Tree Experts for their contributions of text, time and pictures for this article).



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