

Official Publication of the Michigan & Border Cities Golf Course Superintendents Association



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## **Replacing Poa with Bent**

by: Warren Bidwell

In dealing with this old and very frustrating problem is there really anything new under the sun? I suspect you are, like myself, forever looking for either a new idea with which to deal with the subject, or a different approach using an old idea.

It certainly is not my intent to tell you how to do your job, for I can only relate my personal experience and that of others in dealing with Poa.

A short history, then, is a good starting place. For Poa is not a new subject. I can easily recall the presence of this weed-grass when I began cadding in 1929 at Clovernook C.C. in Cincinnati, Ohio.

During the past fifteen years I have had the good fortune of worldwide travel under the sponsorship of turf interested firms, and I can assure you that Poa is a universal problem applicable to all climates, knowing no geographical bounds.

Almost no Poa is found in the desert country golf courses, of the U.S.A. But at the Furnace Creek Inn Golf Course in Death Vally, Calif., where the temperature has reached  $137^{\circ}$  in mid summer, there it was growing in the compost piles in November. In Capetown S.A., it was in abundance on a course overlooking the Indian Ocean,

as observed in November of '74 during the NCR sponsored S.A. open. On the many courses of Spain, Australia, New Zealand and Japan, the usual question was always straight forward. "What do you caps in the with Poa Annua? States do Further questions always indicated a line of thinking that went something like this. "You rich Yanks should be able to handle it, you spend more money on turf maintenance than anyone else in the world." How true! Could it be that we encourage some of our own problems with this pest weedgrass?

In support of this question, and the beliefs of quite a number of professional turf growers today, I offer the following quote from Mr. Richard Tufts, past president of the U.S. golf association. "Golf under the more natuual conditions under which it is played on the British link courses, is a far better sport. The overmanicuring of our courses, to meet the demands of our golfers has injured the game. Things have to be too perfect with us, and the only practical excuse for the maintenance of our roughs in almost fairway condition is the problem of delay in play created by lost balls."

Continued Page 12



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## 6 ANSWERS TO QUESTIONS WE NEVER THOUGHT YOU'D ASK (BUT DECIDED TO ANSWER ANYWAY)

Yes, GCSAA can help you become a better superintendent. One way it does this is through educational seminars and conference sessions it sponsors each year to help you become better informed about turfgrass diseases, pesticides, landscaping and management practices.

Yes, GCSAA is helping to further the advancement of the turfgrass industry. Through the GCSAA Scholarship & Research Fund, Inc., GCSAA provided more than \$13,500 last year in research grants to leading turfgrass programs. GCSAA also provides educational opportunities to turfgrass students through annual turfgrass scholarships. **3** Yes, GCSAA provides a meeting ground for superintendents. Each year, GCSAA sponsors an annual conference and show for its members. Last year more than 6,500 educators, industry representatives and members from all over the world attended. GCSAA's executive committee decided at its last board meeting that the conference experience is so valuable that first-year members should be encouraged to attend by being given free admission.

**4** Yes, GCSAA offers recognition for superintendents. Through its public relations efforts, its magazine, and its award programs, GCSAA helps promote the image and the professionalism of the superintendent. GCSAA also provides information to superintendents about how they can use public relations to promote their own image to their course, their community and their association. Yes, GCSAA provides each member with a life insurance program. Supplemental insurance, disability and pension programs also are available.

No, GCSAA can't help you with your golf handicap. You'll have to work on that yourself.

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## A Love-Hate Relationship with Poa Annua

#### by Bill Smart

An extract from talk given at the New Hampshire Turf Conference at Betford, N.H., on January 15, 1981.

For too many years the thrust of work with Poa Annua has been in the area of chemical or cultural control in an effort to decrease the Poa population and encourage other grasses. This could be termed a hate relationship. Almost without exception this has proved to be a failure, and in many cases an expensive failure, - in terms of money, time and personal reputations.

Judging from the current printed matter and personal observations I feel that the attitude is now undergoing a complete about face. Slowly but surely the emphasis is being directed toward finding out more about the Poa Plant and how to grow it. This could be termed a love relationship but at this stage of development is more of a "If you can't beat 'em - join 'em" solution. There is no doubt in my mind that if I had good health "desireable" turfgrass with a small percentage of Poa Annua that I would discourage the annual bluegrass by any means at my disposal, chemical or cultural. Unfortunately, turf of this description is the exception and not the rule.

With the previous in mind, I offer the following thoughts on how to cope with Poa Annua.

I don't think that many Turf Managers will argue with the premise that proper watering is the key to summer survival of Poa - and in fact all turfgrasses in he Northeast. Just what is proper is the subject of much off-hand discussion. It never ceases to amaze me that such an important phase of turfgrass culture has had so little research that there is almost no written data to refer to. Phrases such as, "Apply one inch a week, water infrequently and deeply, don't water in the Spring 'till the turf shows signs of stress, and syringe lightly once or twice a day" are often seen in turfgrass literature when in fact they are impractical; if not actually misleading.

Needless to say your water system should be as good as labor, love, and vour available money can make it. Don't waste time dreaming of the perfect water system - there is no such animal. Face up to another fact - no one really cares about your irrigation system except you. Not your golfers, the people who use your park, your Green Chairman or your Park Director. It is up to the turf manager to add some lines, change a head, develp a better water source and in total make the water system the best possible tool he can. Desire and interest are far more Continued Page 13





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#### OFFICIAL SLATE OF CANDIDATES DETERMINED

The GCSAA Nominating Committee has announced the official slate of candidates for the 1982 annual election.

President James A. Wyllie, CGCS Vice President Robert W. Osterman, CGCS James W. Timmerman, CGCS Director Paul Boizelle, CGCS William J. Emerson John P. Hayden, CGCS James E. Lindblad, CGCS Richard Slivinski, CGCS All chapter secretaries will be mailed the official notice of the slate of candidates as declared by the Nominating Committeel This mailing is scheduled to go out in November.

"MANAGING CHANGE" IS GCSAA'S 1982 CONFERENCE THEME "Managing Change, with GCSAA at the Helm" is the theme of GCSAA's 53rd International Turfgrass Conference and Show, Jan. 30-Feb. 5, in New Orleans. The theme reflects the Association's continuing efforts to prepare its members for the challenges of the future.

"Whether we call them limited resources or management challages, the hurdles are definitlely there--all part of change, "GCSAA President Michael R. Bavier, CGCS, said. "Our job is to stay on top of and to help direct this inevitable change."

The conference educational program will feature two, three-hour symposiums on water and the challenges is will offer in the coming years. Panels of nationally recognized experts will attack the problem from several angels, providing a wide base of information to help superintendents plan for the future.

Those symposiums are just two of the 10 education sessions scheduled during conference week. The conference schedule also will include six pre-conference seminares, the USGA Green Section's annual educational conference, a Mardi Gras reception, the GCSAA's annual membership meeting, an expanded spouses' program, the conference banquet, a management tour of the Superdome and a host of other activities.

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#### Replacing Poa Annua, cont.

I often recall our determined efforts to rid ourselves of Poa via the tri-calcium arsonate method; how many of my friends went down to defeat and lost their jobs because of their efforts. Then later on the membership realized he had more on the ball while going in this direction than they had realized The success of this type of program takes years and, most of all, patience on the memberhship's part for postive results; that imporved turf by replacing Poa with bent was possible after all. For the lack of faith, a good program was dying about the time EPA put an ax to the manufacturers of the product because of poor working conditions in the plants.

Why, then, have we pursued the challenge to rid our courses of Poa Annua? Again, quoting from the Green Section magazine, "A golf course superintendnet would simply not survive in the U.S. with the Turf management

practices commonly followed abroad. Our golfers demand quality turf and uniform playing conditions. Our climatic differences dictate a total turf management effort; disease control, weed contol, optimum fertility levels, uniform irrigation, soils to resist compaction, etc. The climatic factors and the turf use factor alone takes all the argument out of "who grows the best turgrass in the world?" The question is irrelevant. Suffice to say the turfgrass plant, through good management, can be successfully grown around the world and under a tremendous variety of climatic and the successful of the succ

of climatic conditions It's a marvelous plant! It usually demands good management, and to grow it well, our constant attention. Turfgrass management is the center of a very humbling profession."

Bob Shields, Supt. of Woodmont, and former president of G.C.S.A. took this approach. "I spike my greens monthly between April and October, two ways if necessary, and appy 1 pound of P. Cross per green." Bob only airified during August, verticutting the cores from his excellent soil structure. In ten years he transformed his mixed POA-SEASIDE BENT to all P. Cross Greens. Such a program depicts a good procedure in action, one that least disrupts the playability and gives little cause for concern from the membership or the superintendent. There are other variations to be found in use around the country, like the monthly light top dressing programs of sand, accompanied by over seeding. This program drew a full house when presented by Dr. Madisen during the G.C.S.A. conference in Portland. Oregon a few year ago. While at Wing Foot during his "1st time around", Sherwood Moore achieved some degree of satisfaction in eliminating Poa from fairway turf using old an timer. Endothal. During my return trip to Australia last May to participate in their 6th national program in Hobart, Tasmania, I observed a very successful program using Endothal and a new product, Ethofumesate, marketed under the Australian trade name "Turmate". Upon my return, I wrote Ted Gilligan, superintendent of Tasmania Golf Club concerning his program, and I quote form his reply. "The chemical you speak of is Ethofumesate, which Scherings are going to market under the trade name of "Turmat". This is the product that is called "Turmat": it is the same chemical but not registered for fine turf. The rate that I use this material is 1.5 litres of Tramat to 1,000 litres of water ot 1 hectare or 2 1/2acres. As you can see this is a very low rate of water to that given area. I use this in the autumn, April/May and use Endothal in spring and summer also at the same rate, but at 10 - 14 day Continued Page 17

### IT'S A TOUGH LIFE

"Tll run over and pick up my unemployment check, and then go over to the U and see what's holding up my check on my Federal Education Grant, and then pick up our food stamps. Meanwhile you go to the Free VD Clinic and check up on your tests, then pick up my new glasses at the Health Center, then go to the Welfare Department and try to increase our eligibility limit again. Later we'll meet at the Federal Building for the mass demonstration against the stinking, rotten establishment..."

 $\ldots$  America, love it – or leave it.

#### Love - Hate Relationship, cont.

important here than a lot of money. Early morning watering, from dawn to mid or late moring seems to be the most desirable time to water turf that is in use during the day. Even an automatic system should be activated in the dawn or pre-dawn hours to give a cooling effect to the turf as close to the peak heat hours as possible.

This will in most cases carry the turf through the stress periods with little or no additional water or syringeing. This would be especially true in the early and mid-season but would need use of judgement later in the year as the deeper roots tend to be reduced due to summer dormancy. At any rate, if syringeing is a normal operation the watering practice should be reviewed to allow it to be a controlled operation and not a panic situation. It is much easier to obtain water personnel for the dawn to noon time frame than it is to hire for night operation. Running water in the dark is counter productive in that it is difficult to see, is dangerous, and is impossible to personally supervise. All this is a poor trade for the one advantage - not interfering with the use of the turf - and early watering can stay ahead of the player most of the time. Watering in the Spring should begin at the first sign of need, droughty signs on light or poor soil area. If this is very early consider it a test of the system and watermow a "dry run" before the real life and death test. Put your brightest and dependable most greensman on this and impress on him that his is the single most important job on the course. Tell him this every day and listen to his ideas and thoughts. If it rains for two days give his three days off - with pay. Within reason let him develop his watering method within the broad outline you have laid out. Avove all make him feel it is his job and you are holding himm 100% responsible for the moisture profile in the turf. He should have no other duties that are not some how connected with his basic job.

The amount of water applied should be directed toward getting the turf at field capacity; or put another way it should be just short of being able to press free *Continued Next Page* 



#### Love - Hate Relationship, cont.

water out of the turf with your foot. The minute the water application stops natural functions (air/water movement, drainage and temperature) will attempt to bring about conditions as they were before you started to water. Your water program should attempt to keep a uniformly moist soil at all time. Due to the limitations imposed by your watering systems, turf use, climate conditions and cost, this goal is seldom attained for any length of time - neverthe less it should be your target. Detractors will say that is will lead to overwatering - and I agree. It is a fact of life that seems to be overlooked or ignored that almost all turf in the Northeast with a half-way decent water system is overwatered by August. To keep fine turf (that should be semidormant if grown in its natural environment) in the condition its use dictates it is far better, in fact necessary, to err on the side of too much water, rather than too little. Too much water may make for unhealthy growing conditions at least on a temporary basis. Too little water may result in death on a permanent basis. Do we have a choice?

Making allowance for natural rainfall there is nothing wrong with applying water every day during the 100 day period from June first to Sept. eight. It certainly makes more sense to me to apply water in the early morning light than to run around between golfers in the heat of the afternoon.

This "Hot One Hundred" also coincides with the school vacation and the peak golf period. A bright college or high school lad is the usual answer to keeping the turf in shape for the short but hectic season.

There is more agreement on fertilizer usage than on water management. Poa Annua responds well to three to four pounds of nitrogen perseason. More than this would be a waste of money and time - except in unusually starved and neglected turf. There is also general agreement that two pounds in November and one in September will give all fine turf good but not excessive growth. An additional pound in late May and early June might be applied on well drained areas where the leaching would warrant this action. On Continued Next Page



#### Love-Hate Relationship, cont.

greens this might provide too much growth for good putting qualities. At any rate the old exiom to keep the greens somewhat on the lean side is good advice.

To avoid a salt build-up and possible fertilizer application stress use as low a salt index fertilizer as is possible in your program. Natural organics and some of the synthetics give the turf man a slight edge in this area.

Iron sulfate is so inexpensive and easy to use, it is hard to understand why it is not standard operating procedure on all fine turf areas. One ounce per thousand square feet in the spray tank is standard for combating yellow insipid looking turf. Up to four ounces can be used and at the higher rate can produce a startling growth and turn turf a very dark (almost black in some cases) green. For fairway use, as little as one pound per acre seems to promote good growth but no visual color change. For small nozzle application it is necessary to make a slurry and strain the result through a fine mesh sive or nylon stockings before adding to the spray mix. This fine chemical tool can be used to offset vellow induced by overwatering from natural (rainfall) or artifical (sprinkling) sources. No ads will be seen extolling the virtues of iron sulfate, it is too cheap and easy to come by to be worth the expense.

A good fungicide program is a must for all good turf, Poa or otherwise. All fungicides work as indicated on their label. Choice will be dictated by past use and cost factors. Do not expect a fungicide to perform on a disease it is not labeled for and change your material from time to time to avoid creating a resistant strain of fungi.

While bent is much more prone to thatch problems than Poa, Poa can also have a stemmy build up especially if fostered by high cut, infrequent cut and high nitrogen. Studies show that the single biggest aid to thatch reduction is topdressing. An all out reduction program would be aerification, shatter the cores with a verticut (an effective topdressing) use of the brush and comb on greens mowers and correcting the maintenance methods that encourage thatch. Aerification is best done early in the Fall while brushing, combing and topdressing can be done in any of the cooler months.

Wetting agents have been around since 1954 but are still not widely accepted by turf managers and have almost no advocates among the academic turf people. Only recently has the United States Golf Association Greens Section suggested that wetting agents "might" be of value in some cases and are worth a trial. Many chemicals and materials have come and gone since

Continued Next Page



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#### Love - Hate Relationship, cont.

World War II. One soil admentment that was in every turf program in the 1960's is scarcely mentioned in print today; and if it is found in the maintenance building today is more likely to be used for soaking up oil and grease than in greens application.

It is ironic that part of the reason for the lack of wide spread acceptance of surfactants (wetting agents) is that they work so well that a statement of what they will do (by someone who has had practical experience with them over a period of time) is greeted by almost universal disbelief by non users; so much so they would feel foolish even making trial use of the material.

Wetting agents do work. The fact that they are still around after over twenty years attests to that. My own use of over 140 gallons per season of this rather expensive material out of a very tight budget also makes a statement as does my use since 1954.

Put very simply, surfactants break down water structure and help it penetrate tight knit turf, crowned areas and compact soil with poor air space structure - it aids in moving the excess water down and through the overwatered areas. This helps to give us the uniform moisture profile needed to keep the roots healthy and growing. The thatch breaks down mroe readily due to the constant moisture. This moisture and the better root growth can often make the difference between survival or injury on a hot summer afternoon; and I can state it does a lot for a turfman's meace of mind on those long July and August week-ends.

Poa can be maintained during the Northeastern summers. It is almost never easy. It takes time, hard work and at least some money - but most of all it takes the desire and interest to work with what you have to produce a quality stand of turf.

On the plus side is the firly short period of stressful activity one hundred days, give or take a few day. Within a few years I am sure we will know much more about Poa and it is withing reason that this most populus of turf grasses will find acceptance and even love from its former detractors.

#### Replacing Poa Annua, cont.

intervals, rather than 3 to 4 weeks as recommended by the manufacturer. The rate of the manufaturer is much higher than what I use which probably accounts for longer periods between sprays by them. I find that I cannot use it here when frosts are imminent.' The views of Dr. Rov Goss. Washington State University are reported in the August 1980 issue of Management. Golf Course "It is the obligation of professionally dedicated turfgrass researchers and golf course superintendents to provide the best quality turfgrass surfaces and grasses with the least number of managements headaches. With constantly increasing operations and maintenance budgets, we must search for methods of reduced maintenance costs including labor and materials. Bentgrass have a wider range of adaptation for putting greens in North American than any other grass. There are fewer problems associated with the care and maintenance of bentgrass by far than the management of Poa Annua. Considering summer heat stress and winter desiccation factors, alone we find the survival rate of bentgrasses significantly better than Poa Annua. On the disease front, fewer fungicides are required to maintain excellent quality bentgrasses than Poa Annua. Although some hand syringing may be necessary under extreme summer conditions with bentgrasses, labor can be significantly reduced as compared to managing pure strands of Poa Annua. As a matter of fact, a little stress tends to tip the balance in favor of bentrather than Poa grass Annua. Investigations have been continuing as part of our turfgrass project at Washington State University's Western Washington research and extension center at Puyallup, Washington, on the methods of controlling Poa Annua since 1958. As early as 1861, we knew the value of preemergence herbicides in controlling the germination of Poa Annua. Since that time a great deal of effort has gone into nutritional management with special emphasis on the use of higher levels of sulfur, reduction of phosphates, Continued Next Page



#### Some Good Things to Remember Iprodione = Chipco 26019 Triadimefon = Bayleton Thiophanate "E" = 3336 Thiophanate "M" = Fungo 50 Chlorothanil = Daconil 2787 Chloroneb = Tersan SP Benomyl = Tersan 1991 Benlate = Tersan 1991

#### Replacing Poa Annua, cont.

maintaining adequate levels of potassium and moderation in the use of nitrogen. Unquestionably, irrigation plays a vital role in balance between bentgrass and Poa Annua. Over-irrigation is one of Poa Annua's greatest allies."

At this point I believe we should broaden the subject to include fairways, then ask the question, "Why replace Poa Annua with bent?" In geographical areas that cover both the cool season and warm season turf growing region, we know from experience that Poa has some very basic weaknesses that show during the stress of the summer months, a time when our turf should provide the best possible playing condition. Lack to ability to cope with the H&H twins (heat and humidity) are the first to come to mind. Unfortunately, the negative aspect to this weed-grass does not end here. Short roots and susceptibility to provide additional turf diseases points against trying to live a successful professional life with Poa, because we may be reminded of the famous beer T.V. ad, "When you're out of Schlitz, you're out of beer". or more aptly put, brown is bad, green is good. Bringing this subject into sharp focus, we must recongize that our turf scientists have clearly demonstrated that bentgrass develops a far greater root structure that Poa, requires less irrigation, and responds more favorably to a well timed program of fertility to help ward off the rigors of summer problems. This is most important as we go into the 80's and must face the escalating cost of producing satisfactory turf for our membership. With the upward swing of P. Cross and P Eagle seed production, plus price adjustments at the consumer we can look forward to grater incentive toward converting from POA to bent.

GOLF COURSE MANAGEMENT is expanding to 12 issues beginning in 1982. Formerly consisting of 10 issues, two of which were combined, Novermber-December and January-February, the magazine will now be able to better serve the membership, readers and attract a larger portion of the advertising dollar, with the most up-to-date information presented in a more timely fashion.



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