

TURFCOMMS

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PURPOSE: To pass on what we learn willingly and happily to others in the profession so as to improve turf conditions around the country.

IN MEMORY : Dr. Marvin H. Ferguson died of a heart attack the week of January 6th. He was very active in the USGA Green Section from 1940 thru 1968 and received the Green Section Award in 1973. I read many of his reports when I took over much of what was his old region in 1978. Dr. Ferguson was the researcher primarily responsible for the Green Section Specifications for Putting Green Construction.

He also will be remembered by many in his old Green Section Region as a golf course designer. He did an excellent job in that field also. He will be best noted for designing golf courses that were easy to maintain. His Wolf Creek layout south of Kansas City, KS and the C. C. of Missouri stand out in my mind as two of his finest. Neither course terrorizes the average golfer from the front tees but, both provide a good test of golf from the back tees I'm told. Marvin did not have a high regard for the need that some architects have for moving a half million cubic yards of soil to built an 18 hole golf course. Farewell Dr. Ferguson, it was good to have known you.

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Douglas T. Hawes, Ph D
Certified Professional Agronomist
Specializing in Golf Course
Maintenance Consulting

2408 Roundrock Trail
Plano, Texas 75075
(214) 867-0176

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Poa annua

Annual bluegrass as a cool season fairway turf problem

Dr. Doug. Brede's recent article "Turfgrass Competition: It's A Jungle Out There!" reminded me of a paper I wrote for the conference proceedings of a Nebraska Turf Conference in 1982. See the Jan./Feb., 1985 issue of the Record for the Brede article.

I was asked to give a talk and write an article on "Fairway Renovation: What Really Works? Well I had been quite impressed by what I had seen Jim Young do with perennial ryegrasses at Cherry Hills Country Club, Denver. Perennial ryegrass overseedings there in 1977 a year before the U. S. Open had done an excellent job of converting Poa annua landing areas to decent turf in 2 to 3 years. Jim had become so impressed with the results that he did all of the fairways. That didn't rid the golf course of all its Poa annua but, it sure did help dramatically.

Partially on the basis of this success I had begun to recommend straight perennial ryegrass overseedings for renovation of Poa annua contaminated fairways. I had also seen similar crowding out of Poa annua in bermudagrass fairways in Maryland a few years back overseeded in the fall. Old patches of perennial ryegrass I had seen in fairways at other clubs in Colorado, as far north as Billings, Montana and in Lincoln and Omaha, Nebraska also helped to convince me that this was definitely the way to go.

So I went on and wrote the paragraphs you see below encouraging superintendents in Nebraska to renovate fairways with perennial ryegrass. Well, I didn't convince too many of them. I did have some great success in Sioux Falls, S.D. and a few other places but, Pythium had the Nebraska superintendents a little scared. I didn't really blame them. It can be a very impressive disease. They are now beginning to go with creeping bentgrass and I have finally come around and am encouraging them with some reservations which we will have to go into in the next issue. I would also like to note here that since writing the article below I have seen a complete wipe out of perennial ryegrass on 1 and a half year old fairways in Dickinson, N. D.. Luckily those fairways had a fair percentage of Kentucky bluegrass in them. The ryegrass there was killed by the extreme cold in the open winter of 1983-84.

Fairway Renovation: What Really Works?
(a condensed version)

If Poa annua (annual bluegrass) is the predominant turf species or makes up close to the majority of the turf species present a different approach is desirable. I would urge that you drop the consideration for improved Kentucky bluegrass cultivars and give consideration to a blend of perennial ryegrass cultivars. The cultivars I would suggest in alphabetical order are: Citation,

Delray, Derby, Diplomat, Manhattan II, Pennfine, Regal, Yorktown and Yorktown II. Pennfine has poor cold tolerance and should not be considered too far north. Delray has excellent cold tolerance and should be considered first in the north. Check for local research information concerning preformance of any cultivar's response to your areas enviromental stress at 1 inch or less before using.

The reason for using perennial ryegrass when bothered by *Poa annua* is quite simply that the perennial ryegrass seedlings are extremely competitive with *Poa annua*. If the perennial ryegrasses cultivars are seeded at four pounds per thousand square feet or more you will reduce the *Poa annua* percentage considerably the first year. The perennial ryegrass cultivars are superior to *Poa annua* in their ability to withstand hot summers. The cultivars suffested will take a low height of cut. They do have problems with disease if over watered and over fertilized. I think that with the new pythium fungicides, Subdue and Banol, plus old standbys, we can have a minimum of pythium problems in perennial ryegrass fairways in the summer. I would suggest that a late June preventative application of one of these fungicides is a must wher night humidity plus temperature often exceed 150.

I would like to comment briefly on the problems of perennial ryegrass - Kentucky bluegrass seed mixtures. I do not typically recommend mixtures of these two species because if the perennial ryegrass exceeds more than 10 percent of the mixture by weight, there is a good tendency that it is going to make up 70 to 80 percent of the germinating seed that survives the first three or four months. If the seed is sown a little too late in the fall it may make up even a higher percentage. If the seed mix is sown above 80 pounds per acre than perennial ryegrass also will have a tendency to predominate. Therefore if one is going to include more than ten percent by weight perennial ryegrass seed, I would eliminate the Kentucky bluegrass seed in a renovation seed mixture.

I would like to note that in Colorado where the winters can be very cold and very dry like much of the northwestern plains, they are having a considerable degree of success with broadcast seeding of perennial ryegrass after spring aerification. It should be noted that Colorado summers are not as hot as eastern Nebraska summers. The advantage of a spring seeding following aerification is that the perennial ryegrass is more mature going into the winter. In that particular area, the winter is more stressful on the ryegrass than the summers are. In many cases the success with these seedings are not really noted until the second or third summer.

For many of you spring seeding may be something to give serious consideration. I would also like to note that they are aerifying with Ryan Greensaires, removing the cores and topdressing with sand. This sounds expensive and I assure you it is, but it works. I am not saying it is something you should try. If the club is demanding something that will improve fairway quality this will work. I am not sure how long the improvement will be evident. But, I have seen old *Poa annua* contaminated fairways that improved steadily after one such operation for four summers. I do not expect further improvement next summer as there was a leveling off this year in turf quality.

Chemical aids to this renovation process:

There have been numerous articles and a lot of comments on the use of Roundup (glyphosate) to renovate fairways. Personally I have never been on a golf course, that I know of, where this has been used to renovate fairways with the purpose of increasing the amount of Kentucky bluegrass. However, I have seen paraquat and sodium arsenite used. They allowed one to convert to improved fairway turf only where superior grasses were planted and management practices changed to aid them. I see no reason why Roundup should be superior to those two products. Basically the other two products (which no longer have labels for use in turf) may have had an advantage in that they had the ability to more selectively eliminate annual bluegrass over the perennials, Kentucky bluegrass and ryegrass. Roundup does not effect seed germination of weeds or desirables and it will non-selectively kill off all green grasses. A renovation program with Roundup only allows you to kill off living grassy weeds and some broadleaf weeds but not their seeds. Management and growing conditions must be changed to encourage the superior strains of grasses selected in their battle with the remaining very competitive weed seeds.

FROM THE FILES:

Bank stabilization - ponds and streams

Banks of ponds are not normally the problem that stream banks are but where ponds are lined with plastic or some other liner material stabilization becomes very important to protect the investment in the liner. I have seen many liners fail because no one took the proper amount of time to insure a stable bank on the edge of the pond to protect that liner. Gabions have been over all the most successful device I have seen used for bank stabilization. They work well for both ponds and streams. In ponds they have the added advantage of keeping muskrats out.

Gabions are not cheap but, it is possible for superintendent and crew to install them. For an added nice look around ponds lay some of this new geofabric over the top as well as on the soil side. Then lay a heavy sod over the top of this. Zoysia works very well where adapted. More on gabions at a latter date.

EDITORIAL COMMENT

I'll give a free year subscription of TURFCOMMS to the first person who tells me what magazine I got the idea for the PURPOSE on page one of this issue. Hint: the sentences from which the idea sprang was a published quote of something I wrote; also it was in a 1985 issue of a golf oriented magazine.

Hope to see all of you in Washington, D.C. at the GCSAA Conf. & Show.