Northwest TURFGRASS TOPICS

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THE PRESIDENT'S CORNER

By Ray McElhoe

As we enter into the growing season it is an appropriate time to talk about research and the benefits to be gained by all.

We all have had the need to pick up the phone and ask for help in solving a problem. But how many times have you been "too busy" to attend a field day in your area, attend the research reports at the Turf Conference, take the time to fill out the forms to contribute to research, or to volunteer a location for research projects?

Research is an important part of our profession. Without it we would not be able to keep up with the demands from our industry. Our parks are being used more now than ever, the ball fields have an increased usage, and the golf courses are at an all time high for play. Without the research done at Washington State University at Pullman and the Research Center at Puyallup, the Oregon State University, the University of Idaho, and Canada Department of Agriculture at Agassiz, B.C., we would have to rely solely on the reports given to us from other areas of the country. We all know that what works in the East and South does not always work well in the Pacific Northwest.

A great opportunity for us to participate and observe the extensive work that has been accomplished in research will be shown at the Turfgrass Field Day in Puyallup on June 12, specifically for golf courses, and on June 13 for schools, parks and other turfgrass interests. Let's also not forget to visit the other facilities in our own area to keep abreast of their work. These field days are an excellent time to get together with the research people and others in our field to discuss problems and look for solutions. When we attend these field days why not make it a personal goal to take someone with us each time who would normally not attend.

The Northwest Turfgrass Conference is another vital learning experience and you should put the dates of September 17 to 20 on your calendar at this time and plan to be in attendance.

CONFERENCE PLANS DEVELOPING

The 38th Annual Northwest Turfgrass Conference is definitely scheduled for the Sheraton Hotel in Spokane, WA, from September 17-20, 1984. A golf tournament and registration will take place on Monday, September 17, and the educational conference program starts promptly on Tuesday, September 18, adjouring at noon on Thursday, September 20.

You will recall that the previous conference at the Sheraton Hotel was highly successful and everyone was warmly welcomed by the Inland Empire Association of Golf Course Superintendents. The hotel staff and administration have been extremely cooperative and makes us feel welcome to that location for this year's conference.

All committees appointed by President McElhoe are functioning and this promises to be an outstanding conference with plenty of activities. The Program Committee, chaired by Mike Nauroth, is hard at work and promises to give you a varied subject matter as well as an interesting and informative educational program.

The conference format will be general sessions on Tuesday, followed by split sessions on Wednesday, and returning to general sessions again on Thursday. All persons interested in golf management activities will meet as a group; parks, schools, cemeteries, and all other turfgrass interests will meet in a separate session.

There are numerous people around the Pacific Northwest who will profit by this conference; therefore, we challenge each of you to notify at least two or three other people about this conference and encourage them to attend.

The Northwest Turfgrass Conference provides an intensive training session for beginners as well as journeymen in the trade. It is becoming increasingly impossible for State Extension Specialists to provide one-on-one service to every individual and it is your responsibility to take advantage of these educational sessions to maintain competency in this rapidly developing field of turfgrass sciences. In addition to many good speakers in various phases of plant establishment and maintenance, there will be a number of new research progress reports made. These reports are very important in helping you to make day-to-day management decisions.

Mark these dates on your calendar now and protect these days, and don't let trivia stand in your way - BE THERE!

TURFGRASS FIELD DAYS

Golf Course Interest Only
Tuesday, June 12, 1984

Grounds Maintenance and Others
Wednesday, June 13, 1984

FARM 5 — West. Wash. Res. & Ext. Center, Puyallup

MAKING UREA SAFE AS A NITROGEN SOURCE FOR TURF

By Stan Brauen

Urea fertilization can be phytotoxic to turfgrass. Discoloration, phytotoxicity, or burn increases as temperature, humidity, and rate of application increases. Burn or discoloration is normally of less concern during cool, wet weather conditions, but dramatically increases as the temperature rises. Immediate irrigation following urea application either in dry or liquid form will mostly reduce the threat of burn or discoloration. In addition, the ammonium losses associated with surface application of urea can be very high. Thus, though urea is the least expensive form of dry fertilizer available, most turf managers are reluctant to use urea in turfgrass fertilization.

Since last spring we have been looking at ways to eliminate or reduce the potential injury caused by urea applications to turfgrass. Surface applications of soluble magnesium chloride at a 1:1 ratio with urea have looked excellent. No surface discoloration has been observed in any experimental or blanket applications to fine turf during the past year. Even liquid applications of urea at 2 pounds of nitrogen per 1000 ft^2 in August in 90°F temperature resulted in no discoloration of turf leaf tissue. The most phytotoxicity encountered at this point has been very minor tip burn when applied in very dry conditions without irrigation following application. Our studies also suggest the excessive flush growth following the application of soluble forms of fertilizer nitrogen is somewhat reduced or eliminated by this method.

The chloride-urea combinations may also control ammonium loss. Although our studies have not been concerned with nitrogen loss from surface applications of liquid urea, Dr. Fenn, a soil chemist from Texas A & M University who first developed the procedure, believes the application process will nearly eliminate gaseous ammonia loss following urea application to calcareous soil. Recent studies at the University of Maryland showed ammonium losses from surface-applied urea on loamy sand pH 6.4 soil were reduced 38% by the presence of potassium chloride.

The work at Puyallup has been mostly with the product called SolU-Mag containing primarily magnesium chloride, a by-product of potassium sulfate production by the Great Salt Lake Mineral and Chemical Company.

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MILT BAUMAN, CGCS, RETIRES

After more than 50 years of close association with golf courses, Milt Bauman retired in March 1984.

Milt began his career at the Kellogg Golf and Country Club in the early 1930s and, except for World War II interruption, stayed with golf courses until his retirement. Besides his tenure as superintendent of Kellogg Country Club, succeeding his father, he was superintendent of Overlake Country Club at Medina, WA. He took a break from golf courses for two years to manage Emerald Turfgrass Farms and then returned as superintendent of Seattle Golf and Country Club until his retirement. Milt Bauman has left behind him an enviable record of accomplishments and is a credit to the dedication he has shown to the turfgrass industry over these many years.

Milt became involved in the Northwest Turfgrass Association shortly after its organization and served as its president, according to records, in 1955, 1956, 1964, and 1974. He also served a number of years as director of this Association and several years as chairman of the Research Committee.

Milt distinguished himself as one of the first group of superintendents who received their certification from the Golf Course Superintendents Association of America and was later honored by the same association for his many accomplishments by being awarded the Distinguished Service Award.

Milt has helped to develop many golf course superintendents and has freely given help and assistance to anyone who would ask.

Milt and his wife Ellie are looking forward to retirement at Discovery Harbor on the Big Island of Hawaii. They plan to build their home as quickly as they can liquidate their property on Camano Island. You can help Milt and Ellie accomplish their dreams by sending them a good buyer with cash in hand. Good luck to you, Milt, and we hope that you will always be associated with us wherever you go.

NTA SPECIAL COMMERCIAL EVENING

In past years, the directors have had numerous requests from commercial representatives for active participation in an organized product exhibit. There are two or three major product and equipment shows around the Pacific Northwest annually, and it is an expensive and time-consuming effort to move lage equipment, prepare, set up booths, and man them as well. In order to cut down on the expense and manpower required for this type of exhibit, the directors of the Northwest Turfgrass Association have decided on a slightly different approach that we feel will be successful if everyone gets behind it.

First, an 8-1/2 x 11, three-color brochure will be produced and will include a multitude of useful information which you can retain as a reference source. The brochure will include all programs for the conference, advertising, historical information and background of the Northwest Turfgrass Association, directory of available information, publications, and many other useful facts.

Commercial representatives can buy advertising space as professional card size, one-forth page, one-half page or full-page ads, or they can buy a combination of ads and booth space as well.

Information and small exhibit booth space will be provided to the first 50 commercial representatives on Tuesday evening, September 18, at the Sheraton Hotel in Spokane. The booths will be professionally set up and decorated, will have a skirted table, and will be 8 feet by 10 feet in dimension.

It is anticipated that the program brochure will be mailed out by July and everyone attending the conference will be encouraged to participate in the Tuesday evening program. This can be a real fun evening as well as meeting your commercial representatives and learning more about available products, equipment, and supplies.

For further information on commercial exhibits, please contact Bill Campbell, phone (206) 885-6481, or John Eby, (206) 776-1811.

BRING A FRIEND OR YOUR ADMINISTRATOR TO TURFGRASS FIELD DAYS JUNE 12-13, 1984

ED JENNINGS RETIRES

Ed Jennings, former superintendent of Snohomish Golf Course, retired after more than 20 years with golf courses in the Puget Sound area.

Ed worked for many years with the Idaho mines in heavy equipment work and eventually he worked for several years with a construction firm in South America where he became extremely fluent with Spanish. He says it was important to learn since you had to know when they were talking about you, and we are sure that it was very useful in communicating with labor as well.

Ed began working on the West Coast with Milt Bauman as a mechanic at Overlake Golf and Country Club for several years before taking on the responsibility of building Snohomish Golf Club and subsequently becoming its superintendent. Ed did an outstanding job of developing a very fine privately owned public golf course. Ed was very instrumental in helping Gordy Richards, owner, maintain construction costs within budget. Ed peformed many improvements to the golf course between 1966 and his retirement in 1984.

Your friends join us, Ed, in wishing you many years of happiness in retirement and that all of your fish will be big fat ones with lots of fight.

TURFGRASS DESICCATION

By Roy L. Goss

Turfgrass managers deal primarily with two types of desiccation - heat and cold. Most people know how to deal with heat desiccation, but many are not current on methods for preventing cold desiccation and extensive turf losses during the winter.

In general, bluegrasses, fescues, and bentgrasses are more resistant to desiccation injury than annual bluegrass. Moisture stress should not be confused with desiccation losses. In general, moisture stress usually develops more slowly than desiccation losses. In the end, it all amounts to the same, but the mechanisms are somewhat different. Light, frequent irrigations during summer heat stress periods may not penetrate to the full depth of the root zone while hydrophobic conditions develop in the surface thatch layer and may allow water to run off to low areas. The hydrophobic areas eventually run out of water and the grass will either die or develop some drought induced dormancy. Desiccation, on the other hand, may occur when root zone moisture is at field capacity. Rapid wilting and loss of annual bluegrass can occur when temperatures are high, relative humidity low, and wind conditions persist. The roots may not be able to transport water to the leaves as fast as transpiration occurs causing the plants to wilt. Syringing (an application of very small amounts of water) during the hottest parts of the day will both cool the plants and reduce the transpiration rate of water from the leaves. When soils are near their full fuild capacity for water holding, you should be extremely cautions in applying any more than enough to cool the plant since additional water will only aggravate the problem. This problem is generally quite well understood, but freezing desiccation losses are another problem.

The apparent problem with many turfgrass managers with respect to freeze desiccation is to determine when to start applying protective measures. No one can accurately predict the length and intensity of deep freeze periods. Freeze desiccation losses occur most commonly on *Poa annua* that has not sufficiently winter hardened and where deep freeze conditions persist for more than 48 hours. Grasses established on a pure sand medium suffer from desiccation to a greater extent than those established on natural soils of sandy loam or heavier texture.

Without snow cover, moisture is rapidly lost from frozen sands in the upper rooting profile, the crown area, and the leaves. When soils are frozen throughout the entire rooting profile, no water can be transported to the leaves, resulting in leaf desiccation. If low temperatures and winds persist for periods greater than 48 hours, there is a good chance that desiccation will proceed on into the crown and upper rooting zone. This is exactly what happened in most cases in western Washington, Oregon, and British Columbia during December of 1983.

DESICCATION PREVENTION

All this talk about how desiccation occurs serves little purpose without detailing some methods of prevention. Unfortunately, you do not have too many options. Some important factors and methods that you should consider can be listed as follows:

1. Keep all traffic from your turfgrass areas during these conditions.

2. When root zone soils are frozen and after 24 to 48 hours of desiccating conditions, apply small ammounts of water to the leaves and upper thatch layer. A thin coating of ice will stop rapid leaf water loss and may be significant in preventing total loss of the plants. This process may need to be repeated once or twice daily for the duration of desiccating conditions.

3. Provide covers for your prime turfgrass areas. A number of products have been developed for this purpose, including polyethylene sheeting, spun-bonded synthetic sheeting, and others. It is even possible to cover the grass temporarily with many types of organic material, including brush, if they can be successfully removed without other damage.

There are other types of winter damage to turfgrasses which are well described in various turfgrass textbooks, but our problem this winter was desiccation and you can definitely expect it to happen again.

In summary, *Poa annua* lived up to its reputation in the winter of 1983-84 - FAILURE grass.

SULFUR REDUCES FUSARIUM PATCH IN PRACTICE

By Roy L. Goss

A number of golf course superintendents have reported a significant reduction in the use of fungicides after 2 to 3 years or more on slightly accelerated sulfur programs. The superintendents reporting success have applied 3-6 lb. of elemental sulfur per 1000 ft² per year in addition to some other sources of sulfate sulfur.

Your major sulfur applications should be made between April and October when soil temperatures can be expected to be high enough for bacterial activity. It is not advisable to apply significant amounts of sulfur when soil temperatures are below 45°F, and especially if soils are poorly drained. It is possible that phytotoxic by-products can be formed due to incomplete conversion of elemental sulfur to the sulfate ion form.

Sulfur is an extremely useful tool in our turf management programs, but like any other nutrient, we need to use good judgment in its application.

SPORTSFIELD SEMINARS

Considerable attention was focused during this past winter and early spring on sportsfield planning, construction, and maintenance, and justifiably so. There are thousands of schools in the Pacific Northwest and all of them have playgrounds and intensively used sportsfields. Within recent years schools have given more attention to better quality sports fields, and considering the overall picture, a great deal of money is spent. This is also justifiable provided they get what they pay for.

So often specifications are poorly written or there is poor contractor performance, or a host of other problems that result in poor quality playing fields. The focus of these workshops were to properly instruct the participants in proper soil types (essentially sand construction), soil drainage, and irrigation to achieve our goals of dry fields. Instruction was also given in the types of grasses and subsequent maintenance to make these fields highly useful and withstand maximum use with minimum problems.

The seminars were taught principally from the PNW bulletin 0240 entitled *Construction and maintenance of natural grass athletic fields* which was prepared by Roy Goss and Tom Cook with the assistance of Carl Kuhn and Don Hogan, civil engineers with considerable eperience in irrigation drainage and general construction of sportsfields. We feel that the bulletin covers the important aspects of any type of sportsfield and serves as a good guide for maintenance for the Pacific Northwest.

Anyone not having a copy of this bulletin and deals with this type of turfgrass culture can obtain copies in Oregon generally from the Cooperative Extension offices in each county or by sending $1.75 to Bulletin Mailing Office, Industrial Building, Oregon State University, Corvallis, OR 97331, and requesting the bulletin number and title listed above. The bulletin cost is $1.50 and 25 cents for postage and handling. Persons living in Washington can obtain the bulletin by contacting the Cooperative Extension Service in the county in which you live or by sending your money to the Bulletin Department, Cooperative Extension, Cooper Publications Building, Washington State University, Pullman, WA 99164-5912.

Tentatively, we are planning additional seminars for three or four key areas in eastern Washington in the fall of 1984, while Tom Cook is working closely with school districts in the state of Oregon.

TURFGRASS FIELD DAYS AT PUYALLUP

Turfgrass research that is being carried out at the Western Washington Research and Extension Center will be viewed by all interested turfgrass managers on June 12 and 13, 1984. June 12 will be devoted specifically to golf course interests, and all persons interested in grounds maintenance which would include schools, parks, cemeteries, and home lawns are invited to attend on June 13.

Persons interested in golf course management will observe shatter core vs. hallow tine aerification, putting green speed studies, leaching of plant nutrients through sand profiles in lysimeter studies, comparisons of a number of slow release nitrogen sources and a number of other interesting projects.

On June 13, many of the same items shown above will be covered because of simiilar interests, but all discussions will be directed toward grounds maintenance applications. In addition to those items listed above, you will observe national tests ontall fescues, turftype perennial ryegrasses and fine fescues.

Many turfgrass managers are confronted with decisions regarding which form of slow release nitrogen should be used and what they can expect from their applications. This will be an opportunity for you to observe effects over a two-year period and to hear discussions with respect to our findings. Sources under test at this time include urea, ammonium chloride, oximide, Melamine, sulfur-coated urea, IBDU and urea formaldehyde.

There is increasing interest among turf managers in the new turftype tall fescues, and this will be an opportunity for you to observe their performance in a national cooperative test. In addition to the turftype tall fescues, there will be turftype perennial ryegrasses and fine fescues included in this same study. This will give you an opportunity to observe the better performing varieties west of the Cascade Mountains and may help you to make better decisions in the future.

In order to enhance turfgrass establishment on sands, a special study has been initiated incorporating different soils amendments with the objective of enhancing establishment.

There will be several other research projects that we are sure will be of interest to you and we welcome you to come to Farm 5 on these days. Farm 5 is located approximately 6 miles East of the Experiment Station on East Pioneer Avenue. You will have to stop at the Sumner-Orting Highway on East Pioneer and then proceed across the Highway and you will see the buildings and the turfgrass research area. If you wish, you can come directly to the Experiment Station and a map will be provided on how to find Farm 5. We will see you all on June 12 and 13.

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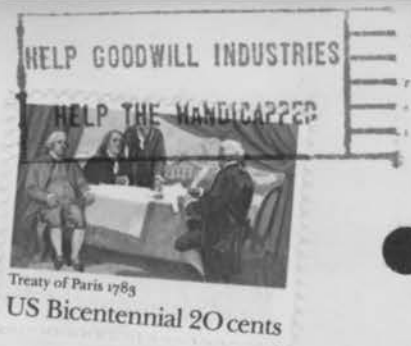

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