Northwest TURFGRASS TOPICS

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From the President's Corner

By John Zoller

As this is the first President's message of the 1973 term, I would like to use it to again emphasize the importance of getting the Research Assistant Program into existence. Al Blair and his committee have come up with a workable plan to finance this project and I ask you all to support it. It is important that you familiarize yourself with the program so that you can speak convincingly in support of it. No one is more deserving of our efforts than Roy Goss and Chuck Gould and this is one way in which we can make a contribution to the program that has given us so many benefits through the years.

In reflecting on the 1972 conference at Ocean Shores, I believe it was one of the best I have attended. The lineup of speakers and their topics was outstanding and I congratulate Dick Schmidt and all of his committees responsible for it. The commercial people were pleased with the exhibits and feel that it was very worthwhile. We look forward to the 1973 conference in cooperation with our Canadian friends and hope that it is equally as good.

On November 1, 1972, John Harrison, Superintendent of the Hayden Lake Golf and Country Club at Hayden Lake, Idaho, announced his retirement from that position which he has held for 43 years. John is one of the original founders of the Northwest Turfgrass Association and his contributions to this organization through the years are in part responsible for its success. Johnny was an active member of the Board of Directors of the Northwest Turfgrass Association at the time of his retirement. We take pleasure in appointing Bud Ashworth, of Liberty Lake, Washington, and Superintendent of Hangman Valley Golf Course to fill his unexpired term. We wish Johnny many happy days in pursuit of his hobbies and interests in the future.

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Northwest Turfgrass Association Research Program Report

By Al Blair

The Liaison Committee has been hard at work getting the financial backing necessary to start the Expanded Research Program. It has taken an unexpectedly long time to get organized and know which way to go.

Over $5,000.00 has been paid or definitely pledged to the Research Fund, with much more near commitment. Industry is expected to help with a major share of the funds needed.

As soon as the committee feels there is a very sound backing in monies pledged or paid in, the program will begin. Several very qualified men have already applied for the position of conducting the research under the direction of Dr. Roy Goss. The Advisory Committee will be consulted before any steps are taken to initiate the program.

Several new suggestions for inclusion in the research will be discussed and the merits of these suggestions will be weighed in relation to the original list of needed answers. One thing that must be given utmost consideration is to solve all items in the program in an ecological manner. This is a big order but very necessary if we are to maintain a healthy place in which to live in the future. Answers derived from this Research Program will help one and all, wherever turf is grown.

LET'S ALL SUPPORT THE NORTHWEST TURFGRASS ASSOCIATION RESEARCH PROGRAM.

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Washington Chapter of International Pesticide Applicators Association	**300**

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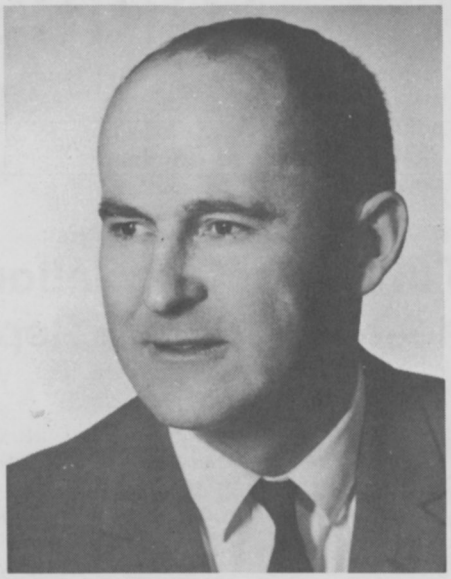

By Dick Malpass

Twelve OGCSA members from the Portland area have just completed a seminar which was a series of six two-hour sessions. The subject involved was "Self Development." Mr. Ken Smith from Cascade Planning Dynamics conducted the series. Among subjects covered were: positive habits and attitudes; motivation blocks, how to dissolve them; make time work for you; and personal goals, a practical system.

The Oregon Golf Course Superintendents' Association have scheduled an all-day session at the Linn-Benton Community College for February at which time pesticide application laws and regulations will be studied. Upon completion of the session, the pesticide applicators license exam will be given for those desiring to obtain a state license.

Several Oregon Golf Course Superintendents are intending to go to Boston, Massachusetts, to attend the Golf Course Superintendents' Association of America Conference and Show January 7-12, 1973.

Tim Manion, Superintendent of Columbia-Edgewater Golf Course, is presently beautifying the course with plantings of evergreens.

Dick Malpass has completed installation of 2,800 feet of plastic drain tile on Riverside Golf Course adding to the over 20,000 feet of clay and cement tile installed in the fall of 1970. Dick reports that the four-inch tile comes in 250-foot rolls weighing 70 pounds per roll, a far cry from the nearly six pounds weight for each clay tile one foot in length. Trenches are opened, the tile laid and then backfilled to the surface with washed round rock. A substantial saving in labor results from the use of the plastic tile. In cost, it compares very favorably with the conventional clay or cement tile.

Bill Nuessle, Superintendent of Charbonneau, near Wilsonville, south of Portland, was able to complete the second nine of the big development. The new seeding is coming along fine and Bill's next concern is the construction of a shop building.

John Slaughter was able to complete seeding of the second 9-hole unit of the King City development southwest of Portland. The mild weather of October and November was a big assist for both John and Bill.

We are sorry that we are unable to have news of other courses about the state, but our traveling reporters were all out of town when this summary of news was sent to the Editor.

Typhula Snow Mold Tests

By Chuck Gould

Experiments on the control of *Typhula* snow mold and *Fusarium* patch were started in November at five locations in eastern Washington and western Idaho. This a joint effort with Dr. Roy Goss (WSU, Puyallup), Dr. Ron Ensign (Univ. Idaho, Moscow) and Al Law (WSU, Pullman) in cooperation with Bud Ashworth (Hangman Valley Golf Course, Spokane), John Harrison and Vern Harvey (Hayden Lake Golf & Country Club, Idaho), Al Liotta (Pullman Golf Club), Ken Jordan (Elks Golf Course, Moscow), Fred Hall and Dick Snyder (Univ. of Idaho Golf Course).

Twenty treatments were applied at each location, using various fungicides at different rates for control of *Typhula*. Seven were combination treatments of two different fungicides -- one for control of *Typhula* and one for control of *Fusarium*. Six plots will also receive additional applications for control of *Fusarium* as soon as the snow melts next spring. One plot will get a dose of Milorganite plus Tersan 1991 on top of snow in late winter.

If any of these treatments appear promising we would like to start a new series of tests early in September of 1973 for a year-round treating program involving *Fusarium* control in both fall and spring as well as *Typhula* control during the winter.

The superintendents and/or managers of each course will be glad to show you the plots if you are in the vicinity and would like to stop.

GCSAA Convention Schedule

By Dick Malpass

The executive committee of the Golf Course Superintendent's Association of America met in Portland, Oregon, October 18-22 for their regular fall board meeting. During the course of the meeting, Portland, Oregon, was selected as the site of the 1977 Golf Course Superintendent's Association of America conference and show. The meeting schedule up to 1977 is as follows:

Boston, Massachusetts, January 7-12, 1973
Anaheim, California, February, 1974
New Orleans, Louisiana, February, 1975
Minneapolis, Minnesota, February, 1976
Portland, Oregon, February, 1977

This will be the first time that the National Convention will have been held in the Pacific Northwest. Those of you who are actively concerned with the GCSAA will find a good opportunity to attend the national meetings. Those of you who are not members of this organization might find it well to join in the near future.

Candidates for election at the GCSAA meetings in January are as follows: Cliff Wagoner, President; Charles Baskin and Palmer Maples for Vice President; Dave Mastroleo, George Cleaver, Dick Malpass, and two other persons (unidentified at this writing) are candidates for three directorships that will be voted upon.

The Thatch Patch

By Jim Chapman

This winter is a good time to do some thinking on the new regulations for pesticide handling. The present laws apply more to dealers, salesmen and contract applicators than to employees using pesticides on their own (employer's) property. I found out the other day that I have to have two licenses. *But*, there is a new federal law that may increase the restrictions, requiring even more licensing. Your Cooperative Extension Agent is the best source of information on these present and new restrictions.

Because the environmental awareness influence is ever stronger, there are some other related restrictions that can directly affect us all. How many of you keep your pesticides, fungicides, insecticides and weed controls under lock after they have been opened? How do you dispose of the old bags, buckets, bottles and drums of unidentified materials that have accumulated over the years? Did you know the mere presence of unlabeled items may be illegal? Disposal and storage restrictions are just part of the regulations that should be understood.

The WSU Extension Service is presently conducting short courses and seminars on Pest Controls that will detail the information on these and other regulations. Much of the information is also available in the Washington State Pest Control Handbook, November, 1971, issue, for $6.00. Get it from WSU Extension Service. Much of the newest information will only be available at the seminars . . . unless we can prevail upon the specialists to conduct programs within the framework of our Turf Associations. I think they will be happy to, if asked.

The warm, late fall kept grass growing much longer than expected, using more nutrients than normal. Therefore, the soil test data you get this winter should be very important. Ask your suppliers and/or the county agent if you have any questions on soil testing techniques

Lots of *Fusarium* patch in Central and Eastern Washington caught many golf course superintendents by surprise. The activity has most likely been checked until spring by the cold weather--and that cold weather is another story. Wow!

See you next trip. Till then remember, making things happen is a state of mind.

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Turfgrass Winter Injury

By Ross L. Goss

Each year we have given precautions and warnings about winter turfgrass injury. Winter injury can occur in several forms. Chiefly, they are traffic effects on frozen turf and soil, dessication, diseases and the direct effects of low temperatures.

Recently, western Washington has experienced conditions that sometimes occur in eastern Washington and Oregon, namely, sub-freezing temperatures with no snow cover. Although this is unusual for the west side area, it does occur from time to time. Without snow cover and with the grass and soil in a frozen condition; dessication can occur rapidly, particularly if winds occur. Those of you who live in areas where dessication may occur rather frequently throughout the winter should take precautions to protect areas such as putting greens or other important turfgrass areas. Wind breaks, excelsior matting, conwed winter blankets, and shade screen are some of the methods for reducing dessication. In most areas it is usually hoped that thawing conditions or a snow cover will occur in time to prevent dessication.

Winter diseases contribute a great deal to turf injury and are classed as winter injury. *Typhula* snow mold is one of the most serious problems in eastern Oregon, Washington and British Columbia. These areas usually have permanent snow cover occuring toward the end of November and remaining on the soil, for the most part, until about March 15 to April 1. This provides an excellent environment for snow mold to work and the damage is apparent when the snow melts in the spring unless fungicidal protection has been given. *Fusarium* patch more often occurs before snow fall or after spring melt. This is probably associated more with its slightly higher temperature requirement but both *Typhula* and *Fusarium* can occur east of the Cascade mountains but most often, only *Fusarium* occurs west of the Cascades.

Traffic during freezing conditions is probably one of the worst enemies of turf management. This type of injury can occur on athletic fields, playgrounds, home lawns and in all areas in golf courses. Everyone, no doubt, has observed the effects of vehicular traffic or footprinting on turf with heavy frost. If conditions are suitable for growth after the frost has melted, these brown footprints or wheel marks may disappear after a few days. If the grass is not growing they may persist for a considerable period of time.

Recent observations during our extended periods of very low humidity and temperatures near zero degrees F. and no snow cover show that many public golf courses were allowing a few hardy golfers on their courses. Perhaps they were not aware of the damage that may be caused by playing the putting greens or simply walking or pulling carts on the fairways at this time, or perhaps it was greed to pick up the few dollars revenue. Extensive damage can be caused to any turfgrass area when the tissue is frozen or when both the tissue and the soils are frozen. Cellular damage is extensive in addition to leaf abrasion and crown damage.

Perhaps some of the most intensive damage can be done to both the grasses and the soils at the time that the frost is coming out of the ground. The surface may be thawed to a depth of one-half inch or so, which produces a very wet surface condition where no water can drain away because of frost beneath it. Traffic during this period of time can result in uneven surfaces, extensive crown damage and, in some cases, soil structural problems.

As one might suspect, *Poa annua* (annual bluegrass) is the grass most severely affected by all of these winter problems. Is it any wonder, then, why there is so much emphasis and extensive research work being conducted to find ways to eliminate *Poe annua* and to perpetuate good bentgrasses or bluegrasses? It is frequently said by persons who have given up, "Why don't we just let the whole thing go to annual bluegrass and be done with it?" A few years ago this might have been about as much wisdom as anything else, but today our management systems and chemical control programs are advanced to the point where *Poa annua* control can be achieved through good management.

During extended cold periods, where soils and grasses are frozen or in frosty periods, exclude all play until all areas, grass and soil, are thawed. This holds true for playgrounds, golf courses and all other turfgrass areas.

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Possible Fusarium-Resistant Bentgrass

By Chuck Gould

Some rather sharp differences in resistance showed up during an outbreak of *Fusarium* patch in our plots during November, even though the bentgrasses had not yet become fully established. Most disease developed in the area that was planted in the spring of 1971. Several new varieties were even more susceptible than Highland. Among these were: Astra, Barbinet, Bardot, Boral (Bore), EGS-1, Enate (Brabantia), Holfior, N.Z. Certified Browntop, Orbica (GS-2), Tracenta, Ligrette, and Saboval. Those in the same area appearing to be the most resistant at that time were: Smaragd (Emerald), S-4979 (from Canada) and Mikro Daehnfeldt. In an adjacent area, planted in the spring of 1972, Strandhem, ACA-61, A-74 and A-75 appeared to be the most resistant.

Although some varieties appear to be resistant now, it is entirely possible that one or more of them may succumb to *Fusarium* later after the turf has become better established and/or other strains of the *Fusarium nivale* are brought in. This happened in both experimental and commercial plantings of Penncross and Congressional bents several years ago. Both varieties lasted for almost two years in excellent shape but then suddenly succumbed. Therefore, Dr. Goss and I will continue our observations for at least two years before selecting the most promising types for large scale planting at Farm 5 in order to evaluate their management characteristics, since disease-resistance is only one factor to be considered in selection of a suitable variety

You are invited to visit the plots at any time. If neither Roy nor I are around, just ask our secretaries for a planting plan. Each plot has been numbered for your convenience. If you have time, we would appreciate having you rate their quality (from 10 as best to 1 as poorest).

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Bentgrass Variety Evaluation

By Roy L. Goss

The bentgrass variety plots initiated at the Western Washington Research and Extension Center, Puyallup, Washington, throughout the last year have become quite well established and quality evaluations are made periodically to determine if outstanding differences appear among the varieties and selections.

The initial quality ratings are based upon color, texture, and density. Disease susceptibility was rated separately by Dr. C. J. Gould. Those varieties and selections receiving high ratings in both color and texture are as follows: Barbinet, Bardot, Enate, Orbica, S-4979, Tracenta, Mamelou, Tendenz and Waukanda. Since all of the selections and varieties had essentially 100% density there were no apparent differences among them in this respect.

When you compare the disease susceptibility or resistance against a list of those with best color and texture, the list becomes much shorter. Many of the outstanding varieties in both color and texture, upon first year evaluation, appear to be highly susceptible to *Fusarium* patch.

Since color ratings in this case are based upon those of the darkest green color as best and the lighter green colors or shades of yellow as being poorest, there is obviously some discrimination. Most of the velvet bents do not come up to the color of some of the other bentgrasses. None of the broader leaved bents (*Tenuis, palustris* and *stolonifera* types) could match the textural characteristics, however, of the velvet (*canina* type) bentgrasses. Some turfgrass managers place a premium on deep green color quality whereas others are less concerned with this factor and desire a grass that has a better texture, fewer management problems such as thatch and freedom from common diseases.

Extensive data will be accumulated from these plots and cross-checked for all characters to determine which grasses might have the most promise for practical use.

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Spring Variety Trials

As part of the expanded research program at the Western Washington Research and Extension Center, fine-leaved fescue, bluegrass, and ryegrass variety trials will be initiated in the spring of 1973. Dr. S. E. Brauen, will be working cooperatively with C. J. Gould and R. L. Goss in the overall production and evaluation of these varieties.

After the varieties have been evaluated for disease resistance or susceptibility and for certain other apparent quality factors, the best ones will be moved into management trials much the same as the bentgrass varieties which are a little older. Management practices such as mowing heights, nutritional levels, chemical injury, traffic and environmental factors will be evaluated.

Vast numbers of new varieties of all three of these genera are being developed by plant breeders around the world. Unless these varieties are tested, observed, and managed, it would not be determined whether they are adapted to climates of the Pacific Northwest or not. Therefore, it is important that these trials be conducted.

The bluegrasses, bentgrasses and fescues have always been looked upon as the best turfgrasses for all purposes. In only the last few years the ryegrasses have begun to emerge as the real challengers in many areas of turfgrass endeavors. Varieties such as NK-100, NK-200, Pelo, Norlea, and finally, Manhattan and Pennfine are examples of real efforts to produce good turf-type ryegrasses. These grasses are finer leaved, produce much denser stands of turf and show less "mower shred" than common ryegrass varieties.

In addition to the variety trials as such, field selection of all of these genera will be made to determine if we have genetic types available in the northwest that differ from registered varieties or other selections. There is no doubt that many mutants exist in nature and are simply waiting to be gathered, propagated and tested. Although we have to test hundreds of these types to find a single good new one, the effort can possibly be worth it. As an example, bluegrasses (Kentucky type) can be found growing in western Oregon, Washington and British Columbia that exhibit vigor and other desirable characteristics during the winter season. These characteristics are not found in most bluegrasses which are being produced today. Perhaps there is reason also to select for fescues with rhizomatous root systems. We frequently use the term "creeping" associated with red fescues, but for the most part, there are no rhizomes or crepping root stalks produced by this genus to the writer's knowledge. There are many characters for which we must select. We need better grasses for football fields that will stand a great deal of traffic, although mowing height is not a problem. We need grasses that will stand a great deal of traffic on golf course tees, but they must withstand mowing heights down to ½-inch or perhaps lower. We must also look for grasses that have strong persistence and the ability to resist invasion of other types of grass and broadleaved weeds.

In short, we have just begun in the science of improvement of grass varieties.

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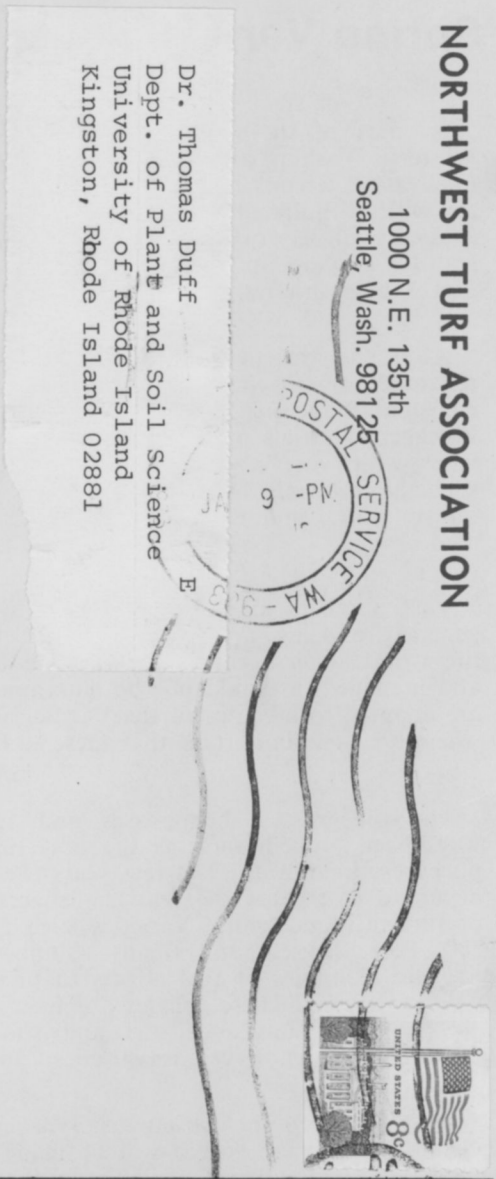

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