

Northwest TURFGRASS TOPICS

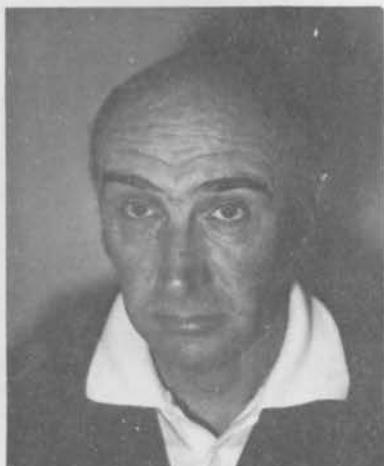
VOL. 21 - NO. 1

PUYALLUP, WASHINGTON

APRIL 1978

President's Corner

by Sam Angove



All plans and programs are moving along very smoothly in the Association at the present time. We have good committees that are really out working in a number of areas and I would like to call your attention to some of the important details. All members of the Association should not forget that there is an active membership drive going on this year. A television set will be awarded to the member who brings in the most *new members* during 1978 up til Conference time. All new memberships should be directed to John Monson, Treasurer Northwest Turfgrass Association, P.O. Box 274, Redmond, WA 98052. Be sure to have the new member indicate who referred him to membership in the Association so you may be credited with this new member. None of the Directors will be eligible for the prize. We badly need all the members we can get to give us more voice and strength in matters of State Legislation, EPA, and other environmental issues, and representation to Washington State University. So get out there and really work and let's make a good showing.

We have been making some good progress with Washington State University Research and Extension Administration to bring to their attention the needs in the turfgrass industry. At the present time we are striving to encourage the staffing of 1/2 time extension specialist and 1/2 time research agronomist to round out 2 fulltime positions, one in research and one in extension. By increasing the extension time we can have closer contacts with research accomplishments, obtain more workshops, short courses, etc. By increasing the research time, obviously more research accomplishments can be made. I have met several times with WSU administrators and they are working hard toward this end.

I have met with Cliff James and others in the Tri Cities area to finalize arrangements for the Conference. These guys are really going all out to make this a very memorable turfgrass conference. It does take some travelling and doing, but we are very happy with our progress at this time.

In conjunction with the golf tournament at Meadow Springs Golf Course, there will be an equipment show and display during the golf tournament and for 2 hours

Continued on Page 5

Turfgrass Field Day

The annual turfgrass field days will be held at the Western Washington Research and Extension Center by the following categories and dates.

Golf Course Superintendents and Employees. June 13 has been set for golf course superintendents, employees, and club officials to view turfgrass research in progress at the Western Washington Research and Extension Center at Puyallup, WA. Field day participants will assemble at Farm 5, five miles East of the City of Puyallup at 10:00 a.m. and will adjourn between 12:30 and 1:00 p.m. Persons not interested specifically in golf courses should not attend this field day since it will be devoted entirely to discussion of golf course problems. Plan to bring your assistants or any of your employees who wish to come as well as any of your club officials.

General Field Day. We are trying something a little different this year. The general field day will be held on Saturday, June 17 at the Western Washington Research and Extension Center. Persons wishing to attend the turfgrass field day will arrive at the main station 2 miles West of Puyallup on Pioneer Avenue and may participate and view all research at the Experiment Station. In addition to the turfgrass research, you can observe poultry, dairy, small fruit and berries, vegetable crops and all other general research that is conducted at this Station on that date. You may choose specific segments such as turfgrasses if you wish or take in the entire field day. By holding the field day on Saturday it will give many other persons an opportunity to attend who are normally involved with their work during the normal work week.

The general field day on June 17 will cover all aspects of schools, parks, cemeteries, home lawns and all turfgrasses in general.

A special session will be held with County Extension agents, state and federal workers on Wednesday, June 14. Only this group of people will be admitted that day.

Mark these dates on your calendar and tell all of your friends and others interested in turfgrass research so they may be advised of the field days.

Sod Webworm Control

It won't be long before sod webworms will be appearing on the scene in turfgrass areas and if this is one of your problems, there are still some materials available that are effective. Those of you who may be fortunate enough to have some chlordane on hand or still have access to the material may use this until supplies are gone. But those of you who do not have the material or cannot obtain it must resort to some other treatment. Toxaphene 40W is a wettable spray powder and is available through local dealers for the control of sod webworm. Just remember, you still don't have to get "et up" by sod webworms since we still have something to control them.

Second Announcement — NW Turfgrass Conference

This is your second reminder of the Northwest Turfgrass Conference forthcoming at the Holiday Inn at Richland, Washington, September 25-28. Those of you who are not interested in playing golf need not arrive before the evening of the 25th, but those of you who do wish to play, there will be a golf tournament during the day of the 25th. The conference will begin promptly at 8:30 a.m. Tuesday, September 26, and will adjourn Thursday noon, September 28. The conference will be conducted similar to last year by getting an early start each day and adjourning by 1:00 to 1:30 each day. This will allow all of you plenty of time for private conferences, visiting, recreation, etc. in the afternoon.

Cliff James and his Tri-Cities group are really going all out to provide some interesting activities for the ladies and men alike. The way things are shaping up, this will be one of your more memorable conferences.

The Holiday Inn is a brand new facility with many attractive features including swimming pool, recreation rooms, etc. For those of you who like to play golf, there are several golf courses in the immediate area.

The Conference program is shaping up very nicely and should be rounded out before June with all speakers solidly committed. The program is quite varied ranging all the way from the uses of gypsum and micronutrients on through to playfield and putting green construction. Research reports will be presented from several people involved in research and final reports will be presented on *Poa annua* investigations.

Pre-registration forms will be mailed out by mid-summer with all information regarding the golf tournament, registration fees, room rental, etc.

John Monson, Northwest Turfgrass Association treasurer, has promised there will be no waiting line for all who have pre-registered. All you have to do is stop by the registration desk, pick up your badge and other registration materials.

The board of directors will meet at the Holiday Inn on Friday, June 2, and make all final arrangements regarding conference room, meals, banquet, etc.

Please let anyone in your vicinity know of this conference so they can make their plans now to attend.

A Special Thank You

By Roy L. Goss

I extend my special thanks to Joe Lymp, Dr. Charles J. Gould, Milt Bauman, Dick Malpass, Dick Fluter and Sam Angove for their support and work in helping me to be nominated as one of the three recipients in 1978 of the Golf Course Superintendents Association of American Distinguished Service Award. My thanks go out to anyone else who was involved in supplying information and recommendations for this award.

I sincerely feel this award is the highlight of recognition in my career in the turfgrass science area and am deeply grateful to the GCSAA Selection Committee and to those of you who supported my nomination.

Now that the celebration is over, we shall continue to do our best from the standpoint of research and extension and will try to serve all of you in the best possible way during my remaining years in this capacity.

We are hopeful of obtaining another 1/2 time position in each of the research and extension areas so we will have 1 fulltime person in research and 1 in extension. This will allow us to do even a better job in handling problems in the field, conducting more workshops, training sessions and developing more publications which should be useful.

In the meantime, we shall continue as we have been and sincerely thank you for your kind and generous support.

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International Pesticide Applicators Annual Convention

The IPAA will hold its annual convention at the Sea-Tac Motor Inn at 18740 Pacific Highway S., Seattle, WA on September 13, 14 and 15, 1978.

The registration fee for Turfgrass Association members will be the same as IPAA members which is \$85.00 for a couple and \$55.00 for single members. This fee includes one lunch and the banquet dinner.

The program that has been planned should be of interest to all turf people. With the regulations we all are now under, many people should be interested in discussions regarding R.P.A.R.'s rebuttable presumption against registration (24C's and IR-4's) just to mention a few topics of interest that will be covered during some of the programs.

Some of the areas of interest will be discussed by the Department of Agriculture, Cooperative Extension Service, EPA, Dick Beeler, and Dr. Ed Smuckler, with the EPA Service Advisory Panel on cancer related pesticides.

For further information regarding this important convention, you may contact Ed Walters, 20057 Ballinger Rd., NE., Seattle, WA 98155, phone (206) 362-9100, or Bill Harlan, P.O. Box 681, Kirkland, WA 98033, (206) 827-9666.

Since most of us are vitally concerned with pesticides in general, it is to our best interest to know as much as possible



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Nematode Testing Locally Available

Dr. Fred D. McElroy has recently opened a private laboratory for analyzing plant parasitic nematodes. Dr. McElroy is a native of Washington and received his agriculture pathology and nematology training at Washington State University and the University of California at Riverside. He has worked in the field of nematology in Washington, California, Canada and Scotland and has spent the last 10 years in nematology research extension and teaching with Agriculture Canada.

What are plant parasitic nematodes? Nematodes are a natural part of all soils and bodies of water. The majority of nematode species are not harmful but there is a group called "plant parasites" which feed on the roots and foliage of economically important plants. These nematodes range in length from 0.3 to 2.0 mm (1/100 to 1/12 inch) and are thin and colorless. They possess a spear or stylet which they use to puncture plant cells and feed. There are two general categories of plant parasites: those which live only in the soil and feed on the outside of the roots (ectoparasites) and those which enter the roots and foliage with their bodies to feed and destroy tissue (endoparasites).

What Damage Do They Cause

Nematode damage is extremely difficult to diagnose and can only be accurately done through laboratory analyses. Pacific Northwest growers lose millions of dollars annually to these pests and in many cases without knowing nematodes are the cause. Nematode feeding results in lesions, galling and stunting of roots, which in turn causes yellowing, stunting and wilting of tops. The final result is a reduction in yield and/or quality of the crop. Nematodes can also interact with fungi, bacteria and viruses to cause even greater damage and breakdown disease resistance.

Sampling Procedure

Proper sampling is the key to a meaningful assay report. The results are only as good as the sample. Since nematodes are not uniformly distributed in a field, some of the following special procedures must be followed. There are two main reasons for nematode assay:

1. Diagnoses to determine the involvement of nematodes in a current growing problem.
2. Prediction — to predict if nematodes presently in the soil will be a problem to a future crop.

Sample accordingly. Be sure to include feeder roots whenever possible. This aids in making recommendations. For a diagnosis of a problem, sample healthy and diseased areas separately. Never sample dead plants. Take samples from the outer margin of the affected area.

When To Sample

Take sample any time the soil is not too wet, dry or frozen. Best results are obtained from early fall samples or those collected no earlier than 60 days after the initiation of root growth. Be sure to submit samples early enough to allow time for proper soil treatment.

Sampling Tool

A soil sampling tube is the quickest, easiest and most reliable for collecting samples. Trowels or shovels may also be used. Take soil cores to a depth of 12 inches.

(Continued on page 7, column 1)

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Too Many Muddy Playfields

By Roy L. Goss

A normal winter such as that experienced in 1977-78 brought out the true expression of many playfields in Western Washington. The winter of 1976-77 was reasonably dry; therefore, many of these fields escaped with only minor mud problems. But with the return of a normal years, many of these fields have failed.

Unfortunately, a number of fields that have been reconstructed like-wise failed because the fundamentals were ignored. Therefore, we must go back to the basics and restate some of the rules as follows:

1. Remove all soil that is not highly permeable and which has tendencies to puddle, compact and seal to a depth of 16 inches.
2. Backfill at least 8 inches of clean pitrun sand and gravel conglomerate.
3. Install drain tiles if subsoils are not permeable, on 15 foot spacings.
4. Apply a rootzone layer of 8 inches of sand or 75% sand — 25% peatmoss or sawdust mix over the pitrun without mixing the two together. If 16 inches of sand is available, the pitrun gravel can be omitted. Pitrun is usually cheaper.
5. Use sand particle sizes for the rootzone mix between 16 and 100 mesh with U.S. Standard Tyler Sieves. Do not allow any significant fraction coarser than a No. 16 nor very few of the particles finer than the No. 100. The sand should be essentially free of silt and clay.
6. Incorporate the required amount of lime, phosphorus, potassium, nitrogen and micronutrients and seed or sod the field.

Now that you have done the job right, it is extremely important to carry out a super maintenance program for a field that can have a long life and free of drainage problems. Surfaces can be sealed by organic material which is forced into the surface by cleats and other shoes causing drainage problems to develop even where proper construction has been practiced. It is important to remove some of this dead material once or twice annually and reseed any thin areas hopefully with one of the new improved turf-type perennial ryegrasses. Fields that were initially planted with a mixture of turf-type perennial ryegrass and Kentucky bluegrass may be successfully reseeded with rye grass, but only moderate to poor success will be achieved with bluegrasses.

You must agree that this is not a difficult procedure and the writer can assure you that it will positively work. Frequently, money can be found to build the field properly in the first place, but rarely can the money be found to rebuild a mistake.

Anyone interested in play or football field construction should follow these rules closely.

President's Corner

Continued from Page 1

following the tournament so that everyone will have an opportunity to see some new equipment items, and meet your company representatives.

Along with the pre-registration packet that will be mailed out during the summer there will also be information brochures about the motel and the Tri Cities area. Final arrangements for the Conference will be made by the board of directors on Friday, June 2, and we hope this will be one of our finest conferences.

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Research with Slow Release Fertilizers

By Roy L. Goss

Most of you are aware that we have been vitally interested in testing, understanding, and making recommendations about the use of slow release fertilizers for a number of years. Urea formaldehyde (38% nitrogen) has been around for a lot of years and is still a very top quality product for those of you who wish to use slow release nitrogen sources. Methylene ureas, a very similar product, has also been around for a number of years and most of you are familiar with the activity of that product.

Several years ago various coated fertilizers either supplying nitrogen or complete analysis fertilizers came on the market but have not been highly popular, presumably because of price, for application in large turfgrass areas.

Several years ago TVA produced a sulfur-coated urea compound that has been further refined and is in quantity production at this time. Sulfur-coated urea is simply a process where molten sulfur coats the urea granules resulting in a hard sulfur shell that allows the urea to slowly dissolve and exude through small pores in the sulfur shell. At the present time only nitrogen is supplied through this process and no attempts are made to the writer's knowledge of including N P and K in the same sulfur shell. Sulfurcoated urea is supplied presently from Canadian Industries Limited in Canada under the name of CIL - SCU. Research results to date have indicated that it is truly a slow releasing type of material and has performed satisfactorily in comparative tests with all other slow release materials. Application rates of nitrogen ranging from 2 to 4 lb. per 1000 sq. ft. have produced very good results with no resulting burn to turfgrass areas. Some injury was observed when rates as high as 8 lb. N per 1000 sq. ft. were applied in a single application. This probably resulted from the 30% dissolution rate in 7 days or possibly from the physical crushing of pellets at this very high application rate. It is unreasonable to apply SCU at 8 lb. N per 1000 sq. ft. in a single application. It is much better to apply levels this high in 2 or 3 evenly divided applications.

Further advantages of SCU would include the ability to supply all the sulfur required for turfgrass plants while utilizing the slow release characteristics.

Although IBDU (isobutylidene diurea) has been around for a few years marketing has increased in the Pacific Northwest. IBDU is not dependent upon soil temperature and soil microorganisms for breakdown which is required by urea formaldehyde and methylene ureas, but is dependent only upon soil moisture for dissolving the granules. Although a few problems have been experienced with applications of urea formaldehyde, fewer problems might possibly be expected from IBDU since soil reaction would not significantly affect the nitrogen availability. Some turf burning was observed in experimental plots with rates of 8 lb N per 1000 sq. ft. applied in a single application, but no burning was observed at either 2 or 4 lb N per 1000 sq. ft. in single applications. Similar to SCU uses, IBDU should be applied 2 to 3 times for season-long nitrogen availability.

Occasionally company representatives can become overenthusiastic about a product or may be inclined to find fault with others while inadvertently and incorrectly citing various people as their source of information. This article has been prepared to restate to all of you that it is neither

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Washington State University's nor my policy to endorse or subscribe to any product but only to state the facts as we know them, and, the facts at this time are that all of the materials discussed above have produced satisfactory results in our experimental trails. You, the buyer must be the judge as to what you want to buy. The trials reported above have been conducted on lawn type turf and would be applicable only to home lawns, parks, cemeteries and golf course fairways. Work will be conducted on putting greens beginning this spring, but obviously, large size particle materials probably will be avoided due to close mowing requirements on putting greens.

Nematodes — (Continued from page 4, column 1)

Sampling Size

A quart of soil per sample taken from a larger subsample of at least 20 cores. The number of subsamples needed depends upon the size of the area concerned.

1. Less than 5,000 sq. ft. - 20 subsamples.
2. 5,000 sq. ft. to one acre - 50 subsamples.

EDITOR'S NOTE: Probably 20 cores to a depth of 12 inches on a standard green would be adequate for each putting green, or if the area is larger such as parks and large turfgrass areas, follow the above and following directions.

3. One to 5 acres - 100 subsamples.

One soil sample should represent one soil type, same crop history last year, no more than 5 acres. Divide large fields into 4 or 5 acre units.

Mix subsamples in a clean pail or plastic bag and transfer one quart to a plastic bag for analysis. Close the bag tightly to prevent loss of sample or drying. Always place bags in boxes for mailing.

Sample Storage

Improper handling of samples will result in nematode death and an inaccurate analysis. Do not place samples in direct sunlight, in the trunk of a car or in a freezer. While samples may be stored at 50 to 58°F for a short time, they should be sent in for analysis as quickly as possible.

For sampling turfgrass areas be sure to sample the margins of the affected area, not the dead grass. Sample only to a 4 inch depth in turfgrasses since this is where the major root zone is found. A cup cutter or good soil tube may be used on putting greens and soil tubes or other instruments used in other areas.

Results and Recommendations

Assay results will show the type, number and importance of nematodes found. If nematodes appear to be a problem, appropriate recommendations will be supplied. These recommendations should be discussed with the local Extension agent in detail who can suggest alternate approaches in light of your overall practices. If additional consultation is required, it can be obtained.

Fee Schedule

Single soil samples are \$12.00 each. Ten or more samples are \$10.00 each. If more than ten samples are involved, contact Dr. McElroy for further information.

Your check or money order should be sent with samples at the time they are delivered or mailed.

Samples may be delivered or mailed to: Peninsu-Lab, 23976 Northeast Newellhurst Court, Kingston, WA 98346.

The major purpose of providing this information about Peninsu-Lab is to let all of you know that rapid service is available when problems occur. If you have exercised a good nutritional program and have adequately controlled diseases by regular and proper recommended fungicide applications, there is always reason to suspect nematode damage. They have been found in turfgrass areas in most years in the Pacific Northwest and they could be causing more problems than most of us know. When in doubt, it may be a good idea to follow these instructions, take a sample, handle it properly and obtain the analysis.

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Communications concerning content of this paper should be directed to Dr. Roy Goss, Editor, Western Washington Research and Extension Center, Puyallup, Washington 98371.