Northwest **TURFGRASS TOPICS**

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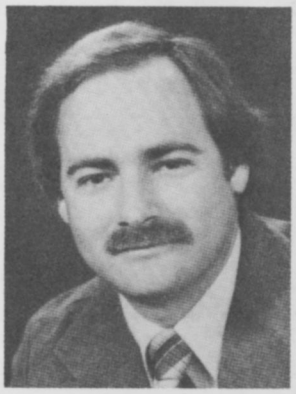


PRESIDENT'S CORNER

By Bo Hepler

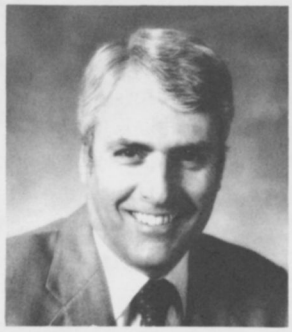
It's time to start thinking about our 1987 conference at Salishan Lodge (Gleneden Beach, Oregon) which is coming up September 21-24. If you haven't made reservations yet, I suggest you do so very soon. Salishan is a beautiful place. Be sure to bring your spouse as there will be many things for them to see and do while you are attending the meetings; and even more to do as couples when you are together. So, be sure to come together and enjoy the sunset over the sea each night together.

Mark Snyder is doing a great job in taking care of the many details that makes for a good conference, and Jim Chapman has lined up several excellent speakers for our program. Aside from all the fun you will be having, you can look forward to learning something beneficial as well.

The Management Selection Committee has selected the Organization Management Company of Olympia, Washington to take over and reorganize our Association. O.M.C. is headed up by Blair Patrick (president) and he is our contact there. As you will see when you get a chance to meet him personally, Blair is a very impressive, dedicated new addition to our association. You will enjoy many new improvements in our association due to his administrative talents. I believe the decision to hire a company such as O.M.C. is a very good one. I extend a hearty welcome to Blair Patrick. (Please read his introductory article in this issue).

Once again, I urge you to make your wants known to the WSU Administration on behalf of the turfgrass specialist position in Washington State being vacated by Dr. Roy Goss in January. It appears there has been some action taken by some of you, and to those of you who have taken such action I am grateful; but we still need more letters and calls to really make a difference. It really does work. Let's don't renege during the last half of the year. There is still time, and as the saying goes, "Let's do it for the 'Turfer' "—or is it the "Gipper"??

Best wishes to you and yours. Keep it green, beautiful and healthy. Have a good July 4th. See you all in September.



ORGANIZATION MANAGEMENT SELECTED BY NORTHWEST TURFGRASS ASSOCIATION

Mr. Bo Hepler, President of the Northwest Turfgrass Association, recently announced that ORGANIZATION MANAGEMENT, an Olympia, Washington, based association management firm, has been selected to provide management services and headquarters facilities for the association. The forty-year-old association with members from British Columbia, Canada, Idaho, Montana, Oregon and Washington will relocate its headquarters from Puyallup, Washington to 1322 Harrison Avenue N.W., Olympia, Washington. The new mailing address and phone will be: P. O. Box 1367, Olympia, Washington 98507, (206) 754-0825.

Hepler also announced that Blair Patrick, CAE, owner of ORGANIZATION MANAGEMENT, will service as the manager of the association and executive director. Patrick has been in the field of association management for more than 18 years. As chief executive officer, he has managed organizations with from 150 to 30,000 members. He has served as president of the 30,000-member Washington Education Association, as executive vice president of the 13,000-member Washington Association of Realtors and as executive director of the 1,500-member Washington Council, American Institute of Architects. He also served as president of his state professional organization, The Washington Society of Association Executives.

Mr. Patrick was certified by the American Society of Association Executives in 1977, after meeting strict standards of performance, demonstrating skill and expertise in the association management field, and passing an extensive examination as a CAE (Certified Association Executive). Nationally, only 1,200 people hold such certification.

As a registered lobbyist, Mr. Patrick has been actively involved in the governmental relations field for over 12 years.

In 1983, Patrick opened his own Olympia based company designed to provide associations with a headquarters and professional management services. His firm currently manages the Washington Association of Building Officials; the International Association of Plumbing and Mechanical Officials, Washington Chapter and provides government relations services for the Washington Automotive Wholesale Association.

NORTHWEST TURFGRASS CONFERENCE LODGING FACILITIES

If you will hurry, you can still get reservations at Salishan Lodge, the conference site for the 1987 Northwest Turfgrass Conference. A few rooms are still available.

There are a multitude of motels in the Lincoln City, Gleneden and Depoe Bay area, and if you do not wish to stay at Salishan Lodge, you may contact any of the following facilities for your accommodations.

Nordic Motel (503) 994-8145/1-800-452-3558
2133 NW Inlet Avenue
Lincoln City, OR

Cavalier Condominium (503) 764-2352
P. O. Box 59
Gleneden Beach, OR

South Shore Motel (503) 994-7559
1070 SW 1st
Lincoln City, OR

Sea Gypsy Motel 1-800-452-6929
(OR)/1-800-341-2142 (Outside OR)
145 NW Inlet
Lincoln City, OR

Siletz Bay Inn (503) 996-3996
861 SW 51st
Lincoln City, OR

Shilo Inn (503) 994-3655
1501 NW 40th
Lincoln City, OR

Alpine Chalets (503) 765-2572
Box 23
Otter Rock, OR

Arch Rock Motel (503) 765-2560
Box 251
Depoe Bay, OR

Beachcombers Haven (503) 764-2252
7045 Glen Avenue Box 275
Gleneden Beach, OR

Budget Motel (503) 765-2287
P. O. Box 66
Depoe Bay, OR

Channel House Country Inn (503) 765-2140
P. O. Box 56
Depoe Bay, OR

Four Winds Motel (503) 765-2793
P. O. Box 423
Depoe Bay, OR

Holiday Surf Lodge (503) 765-2133
Box 9
Depoe Bay, OR 97341

Little Whale Cover Property Management (503) 765-2120
P. O. Box 49
Depoe Bay, OR

Ocean West Motel (503) 765-2789
P. O. Box 414
Depoe Bay, OR

Surfrider Oceanfront Resort (503) 764-2311
P. O. Box 219
Depoe Bay, OR

Inn at Otter Crest (503) 765-2111
P. O. Box 50
Otter Rock, OR

Whale Cove Inn (503) 765-2255
SRS Box 1-X
Depoe Bay, OR

GIFTS, LOAN OF EQUIPMENT AND RENOVATION OF RESEARCH FACILITIES FOR IMPROVED RESEARCH AT PUYALLUP

Stan Brauen

As most of you know, the research program at Puyallup has been significantly understaffed for the past five years and totally without technical and maintenance staff support from state funding for the past two plus years. It has been mostly due to the increased maintenance support provided from the Northwest Turfgrass Association which has allowed the completion of online research projects since Stan Orton's retirement in 1985 and the move of Dr. Jeff Nus to Kansas State University at about the same time.

Many research projects nationally are directed at providing better information about low maintenance, stress tolerance and efficient water-use of turfgrass. We are moving toward directing a good portion of the research effort at Puyallup toward similar goals as has been the case since 1981. However, good studies require good technical resources and these are slowly being acquired from non-state funding. The Northwest Turfgrass Association over the past two years has provided funds for the purchase of some of the facilities needed such as continuous environmental recording equipment, a research plot sprayer and partly contributed toward the funding of an Irams 6000, which makes use of the principle of Time Domain Reflectometry (TDR) for instantaneous measurement of volumetric moisture content in soils.

This year, the Northwest Golf Course Superintendents Association has provided a grant for the purchase of an electronic irrigation controller and remote control valves to replace the outdated 30-year-old hydraulic control system and to purchase a Spotlite sprayer, a computer printer and color monitor. We have been busy this spring, with the help of the station plumber and electrician, installing these facilities which will give much improved water control on research plots after replacement of many irrigation heads. From grants received for turf research projects from multiple sources, a Guelph permeameter, a ''Tensimeter'' and numerous tensiometers have been purchased or constructed. Thus the new equipment for water-use research will provide very sensitive measurement of soil moisture in trials and relate this to our environment. A battery of 80 weighing lysimeters are being constructed from PVC pipe and installed at Farm 5 for assessing turfgrass water use. Projects addressing water use as it is affected by species, antitranspirants, surfactants, water application rate, variety, canopy structure, cutting height and other related management factors are part of a new project approved this past year by the University. As support can be generated and construction funds attained, it is our intent to add a rhizotron at Farm 5 for conducting studies of grass root development associated with water and chemical use and turf culture, including annual bluegrass culture. Much of the equipment for maintaining turf areas has been rather decrepit for the past few years. This spring we have been strongly supported with the loan of several new mowers which will provide much needed relief from equipment breakdown and also for flexibility of mowing management of research areas. Northwest Mowers, Inc., Jacobsen, and Ryan Equipment have continued the support they have provided for several years in loaning a Greensking IV mower and a Greensaire II aerifier. Western Equipment Distributors, Inc. and The Toro Company have replaced the ''Toro 70'' mower with a ''Reelmaster 216'' and added a ''Greensmaster 3000'' plus helped in the purchase of irrigation equipment. Turf Equipment Northwest, Inc. and Ransomes Inc. have delivered a loaner Motor 218 reel mower and a T1861 Professional Rotary plus have donated a 21 Inch Rotary and two Auto-Certe walking mowers, one in support of Dr. Gary Chastagner's needs in his turfgrass disease work at Farm 1. Sand for topdressing is continuing to be provided by Santo Golf Course Specialties and IBDU by Fran-Cher and Estech. We acknowledge and greatly appreciate the expanded support being provided to research and extension programs and to the associations that have continued to support turf programs. Thank you kindly.

NORTHWEST TURFGRASS ASSOCIATION, 1948-1987

By Roy L. Goss

The Northwest Turfgrass Association was founded in 1948 and has a continuous record of 40 turfgrass conferences without a miss. As a matter of fact, one year there were two conferences held, making the conference at Salishan Lodge in September of 1987, the 41st Conference.

The directors of the Association determine the goals and objectives and see that they are carried out and the Executive Secretary has generally done the work or sees that it is carried out. The Executive Secretary's position has been an unpaid position from the beginning and his duties include: keeping of the minutes, arranging for conferences and speakers, publishing of the conference proceedings, editing and publishing of newsletters, responding to member inquiries, arranging conference sites, membership recruitment and a host of other activities.

Rolland Wade was the first Executive Secretary, followed by Alvin G. Law, retired Agronomist, Washington State University, from 1950 to 1954, followed by J. K. Patterson, who served until 1961. Al Law completed Dr. Patterson's term following his death until 1962. Roy Goss was elected Executive Secretary in 1962 and has served continuously to the present.

The treasurer of the Northwest Turfgrass Association was responsible for maintaining membership records, billing for dues and maintaining financial records until about 1975 when Diane Ritthaler was hired on a part time basis to carry out these functions under the direction of the treasurer. Henry Land, Sr. served nine years as treasurer and Dick Haskell, 15 years. Other treasurers include James R. Chapman, John Monson, Ray McElhoe, Gary Sayre, Bill Campbell, Milt Bauman and Gene Howe.

The Northwest Turfgrass Association has always been a very active organization and has sponsored exceedingly high quality educational conferences. With the exception of one year (1975), the turfgrass association specialized in an educational conference only, without trade show. Since 1984, a trade show has been incorporated along with the educational conference. This has added another dimension to the educational conference.

UNDER NEW MANAGEMENT

After considerable debate, the directors have decided to place the operation of the Association under an association management firm. The new firm is known as Organization Management and is headed up by Mr. Blair Patrick, who will become the executive director. This change was felt necessary not only because of Roy Goss forthcoming retirement in January 1988, but also because the work load has continually built up to the point where Roy Goss and Diane Ritthaler could not effectively manage the affairs of the Association along with their other responsibilities in spite of the tremendous help given by the officers and directors.

We feel that this change will bring about the following advantages:

1. A significantly increased membership.
2. Computerized membership records and billings.
3. Increased contact with the membership.
4. More precise financial and other records.
5. Free the directors and officers to delve into matters of greater concern and do a better job of directing the management firm and the Association.

All of this will definitely increase the costs of operating the Association, but it is felt that it is a most viable avenue and will pay dividends in the future. We hope that you will join the officers and directors in welcoming Blair Patrick and his management firm, and feel free to contact that office at any time that you have questions with respect to Northwest Turfgrass Association business. Blair Patrick's address is: Organization Management, 1322 Harrison Avenue, NW, P. O. Box 896, Olympia, WA 98507. His office can be reached by phone at (206) 943-8155. This is still your Association and we hope that you will continue to assist in generating new membership and helping the Association to grow.

APPLICATIONS OF PLANT DISEASE DETECTION KITS FOR TODAY'S TURF MANAGER

By Dr. Sally A. Miller

One of the many challenges faced by managers and growers of turfgrass, ornamental plants and other high value crops is the timely and accurate diagnosis of plant diseases. Many diseases are caused by highly aggressive pathogens that can cause severe damage within a short time after symptoms are spotted. Other diseases develop more slowly but in the end may be just as devastating. Often, diagnosis is hindered by the absence of ''classic'' symptoms. Pathogens may also infect and colonize plants but fail to induce symptoms until environmental conditions favor disease development. Until recently, few analytical tools have been available to assist the turf manager in detecting and diagnosing plant diseases. However, advances in biotechnology during the past decade have made it possible to develop rapid, specific, user-friendly tests for the detection of pathogens in plants, soil, and water. Such tests utilize antibodies in formats designed to take advantage of the unique properties of these ''reagents'': their ability to recognize and bind to specific substances such as components of plant pathogens. One of the most popular types of assay is the enzyme-linked immunosorbent assay (ELISA), in which the pathogen-detecting antibodies are tagged with an enzyme. When an appropriate substrate is added to the reaction mixture, a positive reaction is visualized by a color change as substrate is converted to a colored product. There are a number of different types of assay formats that are applicable to plant disease diagnosis. One that has been developed recently is the dipstick assay. In this assay, the reactive end of the dipstick is incubated in the sample extract with the enzyme-tagged antibody solution, washed, then transferred to substrate. A positive reaction is indicated by the deposition of insoluble colored product onto the dipstick. Semi-quantitative results can be obtained by comparing the color of the dipsticks to known standards. Quantitative results are obtained by using an inexpensive, field-adaptable reflectometer that measures the intensity of the color on the dipstick. Dipstick assays can be carried out rapidly, often in a few hours.

Plant disease detection kits should be viewed as tools for managing agronomic practices. They can provide a turf manager with information that will help him or her to make the right choice of disease control remedy. Some of the decisions are: selection of pesticides and timing of pesticide applications, selection of plant varieties, and use of cultural control practices. For the turf manager, the availability of such kits will make it possible to diagnose plant diseases quickly and accurately, often before symptoms are present. Where symptoms are indistinct or confusing, kits can be used to confirm a preliminary diagnosis based on the appearance of the plant and/or signs of the

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pathogen. Used in conjunction with crop and weather data and forecasting systems, the kits will make it easier to predict the occurrence of disease outbreaks in a variety of crops.

Once diagnostic tests are widely available, they will play an integral role in crop management. The primary components of the assays, the antibodies, can be produced for most plant pathogens, and in the coming years more and more tests will become available as part of the crop manager's arsenal against plant disease.

EDITOR'S NOTE: Dr. Sally Miller was raised in Ohio and received her B.S. degree in 1976 from Ohio State University with an undergraduate major in biology. Her interests in graduate studies included mechanisms of disease resistance in alfalfa and she graduated with a Ph.D. degree in Plant Pathology from the University of Wisconsin-Madison in 1982. Currently, she is Unit Head of Plant Pathology Research for Agri-Diagnostics Associates, Cinnaminson, NJ. Her responsibilities included the development of diagnostic kits for detection of turf pathogens.

Reprinted from "The Grass Roots", an official publication of the Wisconsin Golf Course Superintendents Association, July-August, 1986.

RANDOM THOUGHTS THAT SURFACED WHILE CHANGING CUPS

By William B. Stevens, CGCS

After changing cups on the same greens for over 15 years, the mind starts to wander...

I HATE CHANGING CUPS!

Why is the number of rocks encountered while changing cups in direct proportion to how close the golfers are?

What law of nature states the number of no-shows and tardy employees is related to the importance of the tournament and the earlier tee-off time?

Why is it when you borrow or lend equipment it inevitably breaks down?

What law is it that makes the severity of machinery breakdown in direct proportion to the importance of the job and the time limit allowed?

How does equipment and pump house know when it is a weekend?

How does disease know when it is the first day of a three-day weekend?

WHY ARE THESE GREENS SO HARD?

How come there are so many ball marks on the greens when every golfer swears that he repairs his and two other ball marks?

Ever notice that it is usually the same golfer who complains about poor playing conditions and who complains that the course is closed due to wet conditions or renovations?

Would reverse psychology work on the same golfer, for example a cart sign **"Please Drive Carts Through Wet Areas?"**

I wonder how many golfers would hit a ball at an unaware worker, if that worker were his son or daughter?

Ever notice when mowing fairways, golfers will never hit a ball when you drive towards them, they wait until your back is turned and driving away?

Why do golfers feel the need to walk or drive in front of maintenance equipment?

THERE MUST BE AN EASIER WAY TO CHANGE CUPS!

Due to budgetary restrictions, the brakes on maintenance equipment are usually the last thing repaired, much to the surprise of the above golfer.

Why is it usually easier to get clubs to spend $500 to repair an old piece of equipment, when a new one costs only $1,000? (This is hypothetical as there are no machines for $1,000).

Most members join a golf club for golf, otherwise they would join a social club; so why is it when money gets scarce, the golf course budget is the first to get cut? We have streamlined our operation enough so that April 1, we are only 6 months behind our regular yearly maintenance!

Why is it you can search for something you need and after you finally buy one, many others become available?

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WHY CAN'T SOMEONE INVENT A HYDRAULIC CUP CUTTER TO FIT ON THE BACK OF A CUSHMAN?

Ever notice early in the morning while going to work, a traffic light will turn red on you for no reason and will remain red until another car approaches the green light from another direction?

Ever realize the Catch-22 we are in? We try to pay some of our help what they are worth so we can help them and as soon as we do, they realize they aren't starving and have lives besides work, so they don't want to work overtime?

Why don't we take summer vacations? I took a week this year, and probably lost less turf than if I had been on the job. Are we irresponsible if we take time off? Should our jobs be in jeopardy if we take time off? Would members tolerate being told when they could take their vacations? This is too touchy a subject to be discussed here.

The most original excuse by an employee for taking time off was used twice by the same person within a five-year period. He probably doesn't think I've caught on so I expect to hear it again soon. He needed time off because his wife was three months pregnant and had six months to live. (Please note the woman is healthy and too old to have children.)

Why is it that the practice green, which has the most holes, is usually the hardest and rockiest (is that the word?) green when changing cups?

OH MY ACHING BACK!

Why is vandalism in direct proportion to the desire of showing off a good course?

Ever notice salespeople seem to come in groups? No one for weeks, then everyone at the same time. It is almost like they have a secret meeting to decide who they are going to see. (Please don't take offense guys.) This is a fill in the blank. Did you ever notice a salesman is like a policeman, never around when you need one? Why does the boss always show up when something goes wrong that you don't want him to see?

Ever notice how things come back to haunt you? I instituted the policy that each Director write an article for the *Collaborator*, now I'm paying for it! Who is, Bo??—Ed.

THE HECK WITH IT,
I'LL LET MY ASSISTANT CHANGE CUPS FROM NOW ON!

(Reprinted from the *Collaborator*, the official publication of the Golf Course Superintendent's Association of New England.

WATER CONSERVATION AND BLACK LAYER REDUCTION

Roy L. Goss

A lack of available water for turfgrass management is a real problem in many areas of the North America today. Every summer certain sections of the country are restricted in water use and frequently water available for lawns and turfgrass areas is cut off completely. Much of the turfgrass research in North America today is aimed at the reduction in water use rate of turfgrasses, perhaps as much as 50% reduction.

There are a number of ways that water use can be reduced —a few can be enumerated as follows:

1. Irrigate deeply (to the maximum rooting depth) and infrequently. This will reduce the evaporation. The term evapotranspiration encompasses both the water that evaporates from the free surface and that which is transpired by the grass leaves or lost through the stomata. Light, frequent irrigation significantly increases the evaporation part of the equation.

2. The type of grass affects water use rate. Cool season grasses have a higher water use rate than warm season grasses, but we can do nothing about that here. It only helps us to understand differences geographically. Among the cool season grasses, the fine leaved fescues such as red, chewings and hard have slightly lower water use rates than bentgrasses, bluegrasses and ryegrasses.

3. Rooting depth of cultivars. Turftype tall fescue has a significantly better drought avoidance characteristic than most other cool season grasses because it has a much deeper rooting characteristic.

4. The height of cut. In general, the lower turfgrasses are cut, the shallower the root system becomes. A deep root system is the best means of water conservation and drought avoidance.

5. Growth stimulation. Excessive use of nitrogen will significantly increase water use rate. Actively growing tissue will transpire more water due mainly to the increase in production of dry matter.

6. Growth regulators may play an important role in the future in reducing water use. A reduction in dry matter yield through growth cessation could significantly reduce water use as well. Keep in mind there is an optimum height for most turfgrasses with respect to root and shoot ratio. We should also keep in mind that the greater the leaf length, the greater the transpiration rate; hence, turfgrasses should be maintained at some uniform mowing height.

7. The use of surfactants. Frequently turfgrass managers will irrigate an entire sports field, putting green or other turfgrass facility because there are a few localized dry spots showing up. The majority of the area may have adequate soil moisture to run an additional two to four days, but the entire system is turned on to catch these few areas. This is not wise use of water and is wasteful. The discrete use of wetting agents on areas known to be hydrophobic can significantly reduce water use.

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EXCESS WATER AND BLACK LAYER

We need to remind ourselves that with the onset of summer, soil temperatures are increasing. The root respiration rate increases with an increase in temperature. Likewise, the oxidation of organic material increases with increase in soil temperature. As long as there is ample oxygen in the soil, there will be no black layers formed regardless of the nutritional status of the soil. There have been recent articles published that hint and even broadly claim that increase in the use of phosphorus will cause turfgrass roots to growth through black layer and cure the problem. ''This ain't necessarily so!'' Without a doubt, phosphorus is a very important fertility element; but as long as your soil test values for phosphorus are medium to high, additional applications of phosphorus are going to do absolutely nothing for black layer - you still have to get rid of the problem causing the anaerobic condition. This problem is usually always sealed surfaces or layered soils, clay layers, hardpans, etc. Do not confuse a sand layer over a soil layer as being layered. In the true sense of the word, it is. But at least a sand layer over a clay layer will give you a little bit of rooting medium that will freely exchange gases provided it is not maintained in a saturated state. Any person who maintains a putting green or a sports field or a lawn in a saturated condition during the summer and it is not caused by rainfall, deserves no sympathy if black layers form.

Just keep in mind that black layer is hiding around the corner and waiting for the person who falls down in his maintenance program.

Bring a friend to Salishan
The 41st Northwest Turfgrass Conference
September 21–24, 1987

NORTHWEST TURFGRASS ASSOCIATION
P.O. Box 397
Puyallup, WA 98371

Mr. Tom Cook
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Corvallis, OR 97331

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