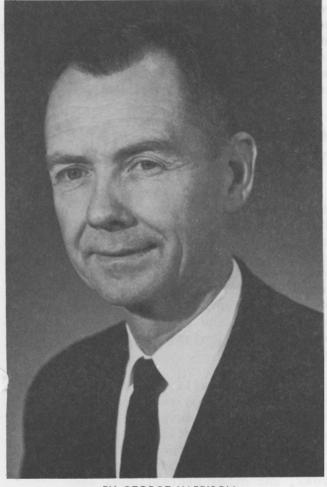
### NORTHWEST TURFGRASS TOPICS

VOL. 10, NO. 3

PUYALLUP, WASHINGTON

DECEMBER, 1968

#### From The President's Corner



BY GEORGE HARRISON

Education time is nearly over and action time is nearly upon us. It seemed like a long winter but maintenance courses, training schools and educational lectures certainly helped to make the winter months profitable for the ones who were able to take advantage of them. Washington State University put on a road and street maintenance school at St. Martin's College in December and the material ranged from personnel management to turf management. I was able to participate as a coordinator for the roadside turf and brush control segment and was very impressed by the presentation on growth control chemicals. This lecture, by Don Haugland of the Seattle Engineering Department, showed the possibilities of the use of MH-30T and his results indicated a great time and expense saving from such use.

(Continued on Page 4, Col. 1)

### GOLF COURSE MAINTENANCE WORKSHOP

A workshop sponsored by Washington State Research and Extension Center's Winter School Building will be conducted on March 6 and 7, 1969. Although this notice seems to be somewhat short regarding the workshop, all of you have probably been contacted by mail at an earlier date to announce this workshop. The reason for conducting this particular session is to get down to basic problems affecting the growth of grass, the manipulation of soils and just generally understanding more about the business.

Topics considered for the workshop are Soils for Putting Greens, which would include additives, amendments, and reasons for loss of soil structure. Fertility problems of putting greens. tees and fairways, and improved methods of handling will also be discussed. A review of diseases of turf will be presented as well as diseases of ornamentals which would be applicable to clubhouse grounds and plantings on the golf course. Tree plantings on golf courses will be discussed from the standpoint of the proper tree for each location and methods of management. Summaries of weed control practices today will also be discussed. Along with weed control, a special presentation on the control of Poa annua will also be discussed.

A new concept of irrigation, namely the cell system, for irrigating putting greens by sub-surface irrigation will be discussed by a Canadian firm designing this type of system.

Several other topics will fill out the remainder of the program for a twoday session and will include things to consider before and during the building of a golf course, and the interrelationships of the golf course superintendent and the management. This two-day workshop could save you a considerable amount of labor, money, and problems. So plan to take the time now and be with us on March 6 & 7 at Puyallup.

## 1969 NORTHWEST TURFGRASS CONFERENCE

This is the first announcement of the 1969 Turfgrass Conference to be held at Hayden Lake Golf & Country Club at Hayden Lake, Idaho, on September 24, 25, and 26, 1969. Many of you recall having the conference there in 1965. For a conference site, it is an ideal location since there are few distractions to a conference group. Most of you who have not been to Hayden Lake will find it an extremely beautiful setting situated on the shores of beautiful Lake Hayden. the weather is generally ideal for traveling at that time of year in that area, and the Northwest Turfgrass Association Board of Directors feel sure that you will be pleased with the site.

A number of rooms are available in the upstairs portion of the clubhouse designed for that purpose. If you wish to stay in the clubhouse itself, it would pay you to make your reservations as soon as possible. as it will be first come, first serve. You should direct your letters to the manager, Hayden Lake Golf & Country Club, Hayden Lake, Idaho. There is not enough room at the country club to house all persons coming into the conference; therefore, it will be necessary for many of you to stay at local motels. It is nine miles from Hayden Lake Country Club to Coeur d'alene. There are many excellent motels in the Coeur d'alene and Hayden Lake vicinity, therefore, you will find no difficulty in housing. It is anticipated in the next issue or two of Turfgrass Topics a list of available motels and price ranges can possibly be published.

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Distributed by WILSON & GEO. MEYER & CO. Seattle Telephone—AT 4-1620 Portland Telephone—288-5591 The program for the next conference is shaping up quite well at this time. Suggestions from the membership have been considered by the Board of Directors as well as a number of topics from the Board Members. There will be something for recreational turfgrass managers such as schools and parks; plenty of fresh invigorating topics for golf course personnel, something for the commercial applicators and other good fundamental topics assigned to qualified and key personnel.

### GROUNDS MAINTENANCE WORKSHOPS

Two grounds maintenance workshops will be conducted in western Washington for persons connected with schools, parks, and recreational areas. The first workshop will be conducted at the lower Columbia College at Longview, Washington on March 11 and 12, and the second workshop will be at Everett Community College at the conference center of the Trojan Bookstore on March 13 and 14.

The program will include such items as soils as related to plant nutrition which will be presented by Dr. A. R. Halvorson, Soil Testing Specialist at Pullman, soils for specialized uses such as football fields, playground areas, and other recreational uses presented by Dr. R. L. Goss, Western Washington Research & Extension Center, Puyallup, and choosing the right grass for the right area, by Dr. K. J. Morrison, Extension Agronomist, Washington State University, Pullman, Washington.

(Continued on Fage 9, Col. 1)

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Cart Paths for Golf Courses

Most of the following material has been taken from the January, 1967 issue of the U. S. Golf Association Green Section Record. The article was originally written by Mr. James L. Holmes, Mid-western Agronomist, U.S.D.A., Green Section.

The grand entrance of mechanized golf carts has altered maintenance practices as well as the game of golf itself. Golf carts, especially those with wide tires, cause little compaction to soil. However, the shearing action where the tire meets soil, sandwiching grass blades between, results in bare rutted areas very quickly. One cart will cause damage or shearing. Consequently, many golf course superintendents have cart paths or plan to install them. What is the best arrangement? Courses which have 12month play and where cart use is heavy have installed paths throughout the grounds, and many insist that carts stay on those paths at all times. A non-cart enthusiast measured the distance walked for 18 holes with a cart, and again without a cart. Unless a golfer is inhumanly accurate, and can hit his ball to a path on every shot, he is in for some walking with this arrangement.

Rather than build paths throughout the course, some clubs install roads where cart operators naturally seem to go. Invariably, this starts at the number I tee and also in funnel or concentrated areas between the greens and the following tee. Efforts are made, as indeed they should, or must be, to place paths in out of play areas such as among trees which may be close to putting surfaces, behind traps placed near greens, or behind the green.

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Where it is not desirable to install an artificial path, but turf wear is nevertheless a problem, increased cultural practices such as aerification, extra fertilization, careful watering practices and other pest control programs should be carried out for best results.

#### MATERIALS USED FOR CART PATHS

Almost any material you can name has been used at one time or another for cart paths. However, the trend definitely is toward asphalt. If other materials such as gravel or sand are used, they are eventually covered with asphalt. Many superintendents, contractors, and cart users have been asked what type of path they prefer. Without exception the one considered best, and actually the most economical in the long run, consists of 3 to 4 inches of gravel under base, covered with 2 inches of "hot roll" (240° to 280°) asphalt which will not harden to a consistency impenetrable by spikes.

#### WIDTH OF PATHS

In the beginning, most paths were 4 ft. wide. But carts simply will not stay on a 4 ft. expanse. Paths have been increased to 6 ft. in many cases, but the trend is to 8 ft. in width. The 8 ft. wide path is appropriate for a number of reasons.

1) Anyone can stay on them. 2) They can be used for maintenance equipment. 3) Asphalt spreaders normally lay 8 ft. wide swaths; thus, it could be less expensive to place 8 ft. rather than 6 ft. paths in some instances. Oftentimes, 8 ft. wide is not adequate in certain areas of concentration particularly around number 1 tee or number 10 tee.

Some construction tips. If we assume that asphalt is the best pathway in this case, and would be constructed at the depths indicated above, here are some additional things to consider. Remove the existing sod and soil to such a depth that the finished asphalt surface will be level with the soil. The center of the path should be 2% to 3% higher than the edges to provide for drainage. If 4 inches of gravel and 2 inches of asphalt are to be laid, the depth should be 6 inches. One variation

(Continued on Page 7, Col. 1)

#### PRESIDENT'S CORNER from Page 1

Shortly after that course, Washington State University sponsored a ground sprayers short course in Seattle. There must have been 50 - 70 people attending each lecture and again the use of chemicals on turf was covered. Many people attending who had no appreciation of our turf problems were brought up to date. During the same period of time there was an aquatic weed course at the Puget Sound Power and Light Building at Bellevue. The information available from this course would certainly have been profitable to golf course and cemetery operators who have ponds and streams which become infested with aquatic weeds.

Other short courses which have been excellently presented were the sod laying seminar at Emerald Turf Farms in Sumner, the casoron lecture at the Washington Association of Ground Sprayers' February meeting and the irrigation seminar put on by the Turf and Toro Company in Seattle. A problem brought to our attention by the Washington Association of Ground Sprayers is Senate Bill 219. This will eliminate the use of chlorinated hydrocarbon pesticides. The bill, if it passes, would mean we, as turf managers, would have to find substitutes for DDT, Aldrin, Chlordane and Heptachlor. Your President has written the Joint Committee, holding hearings on this bill, expressing our interest in retaining the use of the materials and suggesting that users be required to have education in its use; education such as is available at our Turf Conferences held every year. Surely it would not be asking too much to require the people using these pesticides be required to pass some sort of examination to be sure that they understand the hazards present when used improperly.



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Speaking of our Conference, the program for the 1969 meeting at Hayden Lake has been outlined, speaker invitations have been issued and work is under way on the myriad details necessary to stage such a conference. The Board meetings to do this work have gone smoothly and the efforts of your enthusiastic Board members have been greatly appreciated. As members, your big job is to spread the word to your acquaintances in the trade. Our new brochures and membership blanks are available from Art Elliott, your Membership Chairman, and Dick Haskell, your Treasurer.

#### OBSERVATIONS

There seems to be a large amount of work going on renovating sport fields. The information on proper soil components and seed mixes which have been recommended by our Turf Association speakers is getting around and most of the specifications seem to be excellent. We certainly wish the maintenance personnel of other school districts could pass the word to their Board members of this need for renovation and see this trend continued. There seems to be no substitute for proper construction to give satisfactory performance from play fields.

We partially sponsored Dick Malpass as our representative at the National Meeting of Golf Course Superintendents of America. A digest of the information pertaining to our area will be presented by Dick at our Conference in September. Dick was honored by being named a candidate for the national board.

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# REVIEW OF 22nd ANNUAL NORTHWEST TURFGRASS CONFERENCE

The 22nd Annual Northwest Turfgrass Conference is past history at this point, but for those of you who did not attend we consider this one of the outstanding conferences. Ten excellent topics were presented on the program by approximately 20 outstanding speakers.

We were honored this year in having Mr. John R. Escritt, Director of the Sports Turf Research Institute of Bingley, Yorkshire, England, as our featured program speaker. Mr. Escritt very ably covered 2 important areas. One, the construction and maintenance of golf courses in Europe and two. lawns and sports turf in Europe. Although many differences exist in methods of maintenance and management of turf between Europe and the Pacific Northwest, there are nevertheless many similarities and reasonably similar climatic conditions common to both areas. One noticeable difference between management systems is the large amount of hand labor performed on most British and European turfgrass areas. Most budgets in the Pacific Northwest will not permit the use of as many personnel to do the job, but as Mr. Escritt pointed out a little tender loving care often makes the difference between good and better.

In comparing management systems on sports grounds between England and the Northwest U. S., it appears they more intensively manage these fields. Whereas many of our playing fields rarely, if ever, see an aerifier, their fields are frequently aerified and groomed in order to take the severe traffic and abuse. Mr. Escritt pointed out that it was not highly unusual for as many as 100 games to be played on their Rugby and soccer pitches annually. In fact, he stated that some of these sports fields were clamoring for increased numbers of games. The interesting fact is that Mr. Escritt points at that fairly decent turf is still found on the fields at the end of such a season.

Although most of Britain receives 30 to 40 inches of rainfall annually, much the same as many areas from Vancouver, B.C. to Oregon, the distribution is the important thing apparently. It was pointed out that in Yorkshire they receive approximately 3 inches of precipitation each month throughout the year. Needless to say, that some of our winter months find us with rainfall exceeding 10 inches just when we don't need it.

Another noticeable difference in management systems is the use of fertilizers. Quite low rates of nitrogen are applied to most British and European turfgrasses. This, of course, is an area of debate, economy, and personal preference. We might rationalize the subject by saying if the program you are using is producing suitable results, then by all means why change if no serious consequences are in store from your program. Many turfgrass managers in the northeast portion of the U. S. practice fertility programs much the same as England and Europe, that is, rather low rates of nitrogen.

Mr. Escritt stressed the importance of close-mowing, frequent mowing, and the use of good mowing equipment on turfgrasses in England and Europe. It is his opinion that this factor alone contributes very greatly to the development of beautiful, troublefree turf especially from the standpoint of thatch formation. While examining high cut lawn turf at the experiment station in Puyallup, it was generally agreed by Mr. Escritt and Dr. Goss that closer mowing would produce a better quality bentgrass for the Northwest region. We appreciated Mr. Escritt's visit and feel that these free exchanges of ideas lead to the best management practices.

The other speakers on the program conducted their presentations in a very interesting manner as evidenced by the fact that the conference room was full at all times.

An interesting evening session was conducted on new turfgrasses for the future. We were pleased to have Dr. C. R. Skogley from the University of Rhode Island participate in this particular program. Dr. Skogley is conducting extensive and productive breeding programs on turfgrasses. One of the most recent releases under his direction has been Exeter Colonial Bentgrass. Of the participants in this section were Dick Bailey from the W. R. Grace Company, Rudy Patrick Seed Division; Roy Goss, and John Escritt.

#### **New Bentgrass Research Area**

Approximately 30,000 sq. ft. of Highland bentgrass was established in the fall of 1968 to continue nutritional. disease and other management studies here at the research center. It is anticipated that the area will be used to study lower mowing heights which may be used for home lawns, golf course fairways, and other specific areas that have problems with thatch formation. A portion of the area will be devoted to investigation of sources of nitrogen particularly, and of other nutrients in general. A number of new fertilizer materials are on the market or will be arriving soon, and additional information is needed for the northwest region under our systems of management.

**New Turfgrass Varietty Plots** 

Approximately 75 new turfgrass selections and/or varieties were established in early fall of 1968 for observation. These grasses represent the genera represented by ryegrasses, bentgrasses, fescues and Kentucky-type bluegrasses.

Plant-breeding stations from all over the world contributed their selections to these particular trials. Seed came from Holland, Sweden, Norway, England and from our own plant-breeding stations here in the U. S. The plots will be observed as long as necessary to determine if certain ones of these new grasses would be more or less suitable for the Pacific Northwest. They will be evaluated upon their ability to withstand not only our climatic conditions, but mowing, response to fertilizers, and susceptibility to turfgrass diseases, and color and general appearance of the grass.

Several of the ryegrass materials are touted to be vastly superior to the old ryegrass varieties for turf characteristics. We are particularly interested in some of these ryegrasses for their potential use on play and athletic fields under western Washington conditions and northwest conditions in general. It is difficult to beat a good improved Kentucky-type bluegrass for athletic fields as evidenced by the success of our plantings in eastern and

western Washington both. In 1968, Cougar bluegrass held up under severe traffic much better than Merion bluegrass on the Joe Albi Stadium in Spokane, Washington. The bluegrasses so far have outperformed the ordinary ryegrass varieties in western Washington, but even so they are not as satisfactory as we would like. It will be interesting to observe the response of these grasses over the years, and we invite you to look at them when you are visiting our station.

#### Annual Turfgrass Field Day

The annual Turfgrass Field Day for western Washington will be conducted at the Western Washington Research & Extension Center on Wednesday, June 11, 1969. The date has been set for early notification this year since many people frequently fail to see the notice on the first goaround. This is the time when all of you can come to the Experiment Station and review the program that we have in progress and examine our research as it stands today. Programs that are being conducted at this time will be discussed by the various research workers involved.

The only equipment display associated with this field day is that used in our research program.

Put this date on your calendar now and plan to be here on June 11.

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CART PATHS — (Continued)

that can be used is to swale the center of the pathway, or make the center lower in order to carry away xcess drainage water. It would be a good idea to follow the instructions from your local asphalt suppliers as to the type of base material to be used. Normally, fine crushed rock, approximately 1/2 or 1/4 minus would be most satisfactory for base material. An important detail is to remember that asphalt will compress and that it should be placed so that there are 2 inches of asphalt surface after compression. As a rule of thumb, about 2 1/2 inches of asphalt will compress to 2 inches after rolling with rollers that exert no more than 400 lbs. per sq. inch.

Care should be taken to insure safety of cart paths particularly in hilly terrain. Paths must not run downhill or have too great a slope toward water. All paths should traverse hill-sides on grades that the operator can control. Another point is to design the pathways to avoid trees particularly n the turns.

#### CART PATHS AREN'T PERFECT

In addition to the usual objections of cart paths, they do not always eliminate the problems and wear for which they were designed. The usual tendency is to make the cart paths too short to protect the area. When the entire golf course is not pathed, the carts must get off of the surface area somewhere. Many times the carts will leave the path at the same place and where this occurs, the turf is worn away. It is much better if the cart paths extend from the green to the next tee and perhaps 50 yds. or more down

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the following fairway in heavy traffic areas. Frequently, barriers can be placed on the cart path to force carts off the path at different places in order to prevent wear only at the ends or at the same place on the path. There are many different methods for controlling path exits.

(Continued on Page 8, Col. 2)

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# FIRST INTERNATIONAL TURFGRASS RESEARCH CONFERENCE ANNOUNCED

The first international turfgrass research conference is presently scheduled to be held at Harrogate. England. The dates of the conference will be July 15, 16, 17 and 18, Papers will be presented from turfgrass research scientists throughout the world, and at the present time, it is anticipated there will be approximately 40 persons presenting papers. The subject matter will consist of turfgrass nutrition, diseases, soil mixtures and aggregates, soil warming, soil temperature, the effects of light, weed control, nematode and insect control. breeding and developing of warm and cool season grasses, and other phases of turfgrass research. The usual custom at international conferences is for a brief presentation of a paper followed by ample time for discussion of the subject.

The conference is jointly planned by Mr. John Escritt of the Sports Turf Research Institute at Bingley, England, and a committee of U. S. research personnel headed up by Dr. J. B. Beard and Dr. J. R. Watson.

It is anticipated that following the close of the conference, a tour will be made of the research grounds of the Sports Turf Research Institute at Bingley which is only a few miles from Harrogate. The Sports Turf Research Institute is a private research organization that provides information in the form of services and consultation to clients who become members of the organization. The institute has been in the business of turfgrass research and investigations for many years. The present director, Mr. Escritt, has been on the staff of the institute for over 30 years.

It is anticipated further that additional tours will be made to Scotland, Sweden, Denmark, Norway, Germany, and Holland to visit research and plant-breeding stations in those countries. To accomplish all of this in three weeks seems to be a full schedule but should be extremely profitable to all persons participating in the conference and

tour. At the present time, the editor is planning to participate in the conference and tour and will be prepared to render complete reports about the conference and tour.

#### CART PATHS — (Continued)

It is the editor's personal opinion that cart paths should be strongly considered by the golf architects and by the owners of the golf course from the very outset. The need and location for cart paths can be predicted just as accurately as the placement of sand paths. Our experience today tells us the usual habits and patterns of the golf cart operator. It is much cheaper to build the necessary cart paths during the construction phases of a new golf course than it is to tear the grounds up after the golf course is in operation. Furthermore, paths are designed for the benefit of everyone concerned with golf and are not meant to discriminate against only a few. It should, therefore, be an enforceable rule that carts must follow the paths where indicated.

It is needless to say that golf is played in western Washington, Oregon, and British Columbia 12 months per year.

Saturated soils from excessive rainfalls are invariably reduced to mud holes in certain areas. The usual pattern is as follows: 1) worn-out grass, 2) compaction, 3) poor soil drainage, 4) loss of soil structure, 5) mud holes. Once the soil structure has been destroyed, it is virtually impossible to reclaim the area unless it is pathed or traffic is excluded from the area entirely, or the soil is replaced with sandy type that will continue to be permeable even under these conditions.

We might as well face it - cart paths are here to stay, but we should do some very wise planning on methods of construction and how extensive we wish to go.

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#### WORKSHOPS — (Continued)

The proper mower, aerifier, and thatch equipment and methods of mainenance and operation of this equipment will be presented at Longview by representatives from the Jacobsen Equipment Company and at Everett, by a representative from the Toro Equipment Company. This will be your opportunity to ask these people what type of mowing equipment you should have, and answer some of the questions on the proper maintenance.

The question is frequently asked by school and park maintenance personnel about the proper type of sprinkler for watering specific areas. For this phase of the program, we are providing Mr. D. A. Hogan, Civil Engineer who specializes in irrigation and irrigation design problems, to discuss this important topic.

Trees and shrubs for school, parks, and cemeteries will be discussed by Dr. Wessenburg, from the Western Washington Research and Extension Center, and liseases of trees and shrubs will be discussed by Dr. Arlen Davison from the same location.

Several other items are planned for the program including two very important areas of planning and building the athletic fields and playgrounds, which will include methods of construction, some ideas for specifications, location of materials, contracting and last, but not least, getting the most mileage from your management dollar. This last section will consider ways and means of not being taken by fast-moving operators and possibly how to say "no".

We feel that the persons conducting this workshop are well-qualified in their respective areas, and that you will gain considerable knowledge from attending. Therefore, if you are in the parks or school maintenance program, be sure to put this date on your calendar. We might also encourage that anyone reading this article notify your local schools as well.

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Communications concerning **content** of this paper should be directed to Dr. Roy Goss, Editor, Western Washington Experiment Station, Puyallup, Washington.