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Group attending the two day meeting of the Midwest Regional Turf Conference at Purdue Univ.

Research Results Reviewed at Purdue Conference

By FRED BERGGREN

At the annual Purdue turf conference March 3-5, Dr. N. J. Volk, associate director of the Indiana experiment station, opened the meeting with a brief historical rundown.

J. Porter Henry, green chairman of Algonquin GC, St. Louis, gave a humorous account of troubles experienced by all golf club green chairmen. This paper appears in *GOLFDOM*

Henry Gilbert, landscape architect on the Purdue horticulture staff, told the golf course superintendents, cemetery managers, commercial dealers and other turf workers how to care for shrubs. He advised them to space shrubs in natural, informal settings, except for foundation plantings. Shrubs should be spaced three-fourths of their optimum spread for most pleasing results.

Rejuvenating old shrubs came in for mention too, with how to make shrubs bloom, their pruning and mulching. Gilbert showed slides of all types of shrubs and their arrangement.

Noer Explains Turf Troubles

Dr. O. J. Noer, agronomist with the Milwaukee Sewerage Commission, showed slides of turf trouble areas on golf courses from Washington, D. C. to Washington state, from Miami to Montana. He illustrated the value of aerating compacted greens and fairways in order to improve grass. Some of Noer's slides showed the performance of various grasses for different purposes.

Discussed also were fertilizers and their application—on fairways, greens and their use in combination with weedicides. Noer also talked about turf drainage problems.

Eric G. Sharvelle, plant pathologist at Purdue, told the turf conferees about his summer trip to Ireland and England. With slides he illustrated the tour, including the site of the 1951 British Open (in Ireland).

Tree care came in for discussion by Carl Fenner, city forester at Lansing, Michigan. He began with tree planting and care, discouraging the planting of walnut and most other nut trees. They are too susceptible to damage by insects and diseases, Fenner believes.

The forester outlined how to repair mechanical tree injuries, how to avoid environmental troubles, how to spray for tree insects, how to remove dead trees and how to prune them, in his slide-illustrated talk.

Stan Graves, supt., Westwood CC, Cleveland, traced the installation of his new water system from plans to final placement. It is important to choose a contractor with high grade equipment; to select suitable pipe and fixtures made by a reliable manufacturer; and to lay the pipe—once construction has begun—right up to where the trencher quit for the night in order to avoid cave-ins of soil during and following rains.

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answer period that followed was Porter Dix of the Johns-Manville Co.

Paul Burdett, dealer in turf materials, traced the swing over the past 7 years from old to new materials. He stressed that the rate, the concentration, the amount of rainfall, the relative humidity, the growth stage of the grass, the type of season, the method of application or machine used—all affect how a turf material responds on grass.

Dr. C. M. Harrison, head of the Department of Farm Crops at Michigan State College, spoke on the requirements of grass and its culture. Also, he stressed the importance of planting species and varieties which are adapted to given conditions and for particular uses. Dr. Harrison cited experimental data which suggests that the ryegrasses and red top severely retarded the growth and development of bluegrass and red fescue when grown in combination with these species. He recommended reducing seeding rates and more careful attention to seedbed preparation, fertility requirements and time of planting grass seed.

Harold Bohling, nurseryman and landscaper at Munster, Ind., told how his firm establishes lawns on various types of areas of varying size. He recommended simplifying operations so that power machinery could be used to a maximum.

Carol Lawrence, landscape architect with Upjohn Laboratories, Kalamazoo, Mich., traced large lawn-playground areas from the time the company decentralized from the city to when the new building and playground facilities were established. By slides, Miss Lawrence showed grass that was growing beautifully on a 1,600 acre tract on what she said was originally poor soil.

City United in Turf Improvement

Robert Duke, landscape architect with Western Electric in Indianapolis, made his talk on the Indianapolis Yard-Parks Program with how city citizenry began their local beautifying campaign. After being branded a dirty city by John Gunther a few years ago, an Indianapolis newspaper, botany groups, turf specialists, fairs and the city Hobby Show were welded into a home and factory, yard-beautifying program. Contests of various kinds and a 6-weeks high school course taught by seven Indianapolis high schools have heightened interest in the landscape improvement program.

In a sectional meeting, Eric G. Sharvelle gave his group up to date findings on turf disease control as it is found today in Ireland and England. He believes that feeding a fungicide to grass—a "systemic" fungicide—has definite possibilities. Sharvelle conferred with an English fungicide manufacturer who is experimenting with the method.

Other speakers in this panel were Dr. Charles Wilson, extensionist with the Green Section, USGA; Dr. John Vaughn, Michigan State College plant pathologist who helped test Acti-dione, a turf antibiotic; and William Klomprens, graduate assistant in plant pathology at the same college. While Acti-dione has been effective in controlling melting out disease, it is not available commercially as yet.

Dr. Wilson said that there is no substitute for good turf management in helping to control disease. Fertility levels, water management and drainage, aeration both above and below standing turf, mechanical damage and compaction, the degree of mat formation—all these affect the ability of proved fungicides to prevent or cure infected turf. He listed the fungicides and combinations that helped or cured various conditions in the 1951 National Cooperative Turf Fungicide Trials.

Dr. W. H. Daniel, MRTF extensionist and researcher, described the 4-year turf management curriculum offered at Purdue. He also spoke on how people with turf trouble could help themselves by asking at the right places. Dr. R. B. Alderfer, Pennsylvania State College soil technologist, presented the results of extensive experiments showing the effects of soil compaction on the loss of rainfall by runoff.

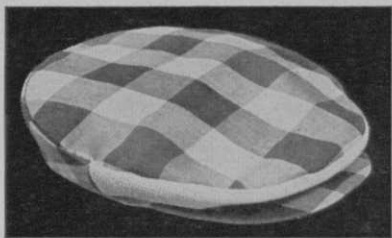
Mal McLaren Heads Midwest Regional Turf Foundation

Midwest Regional Turf Foundation members on March 4, re-elected Mal McLaren, Oakwood Club, Cleveland, president. Elected to vice-president was Taylor Boyd of the Camargo Club, Cincinnati. Dr. Kenyon T. Payne, Purdue plant geneticist, was re-elected treasurer and Dr. W. H. Daniel, Purdue turf specialist, was elected executive secretary.

Directors elected were Taylor Boyd, Camargo Club, Cincinnati; Carl Bretzlaff, Meridian Hills CC, Indianapolis; William Stupple, Exmoor CC, Highland Park, Ill.; Les Verhaalen, Brynwood CC, Milwaukee, and Ward Cornwall, Lochmoor CC, Detroit.

To provide better distribution among the various in-state subdivisions of the foundation, the executive secretary, the treasurer and Dr. Fred V. Grau, director, USGA Green Section, Beltsville, Md., were all made ex-officio directors. They were replaced by 3 of the elected directors, raising the total number of directors to 12 instead of 9.

Directors continuing unexpired terms include Edward Fifield, Gary, Ind., Municipal Golf Courses; Joe Graffis, GOLFDOM, Chicago; Al Linkogel, Westwood CC, St. Louis, and Mal McLaren of Cleveland.



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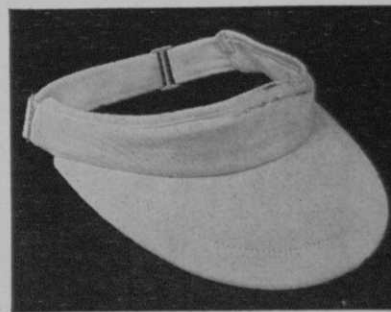
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Golf students at the University of California at Los Angeles are learning more than the fundamentals of the game. Here UCLA golf instructor, Cecil Hollingsworth, is using test plots at the Univ. to teach his students some of the differences in turf and how it affects their game.

UCLA Golf Students Learn About Turf Maintenance

Cecil Hollingsworth, golf instructor at UCLA, is giving his golf students a better than average education on the subject of turf. Hollingsworth not only is qualified to teach golf, but also has a knowledge of turf, which he passes along to his students. Just as the violinist appreciates the value of a Stradivarius to his art, so are these golf students learning an appreciation of the good workmanship that goes into the course on which they play. This double-barreled approach makes for better golfers and is excellent training for future Green Committee members.

Differences in turf affect play. Hollingsworth's students are learning to recognize the differences. They are better equipped to judge whether high scores can be blamed on the condition of the course or the shortcomings of the players. Unavoidable damage to turf from disease is pointed out to the students. They recognize the obstacles Nature put in the path of the superintendent, who is trying to maintain a near perfect turf surface.

Hollingsworth's "turf" instruction pro-

gram is made possible through cooperation of Dr. Verne T. Stoutemyer, Dept. of Ornamental Horticulture. Dr. Stoutemyer started the turf research and extension program at the University. The program was begun originally for the benefit of golf course, athletic field and park superintendents. The turf plots established for demonstration to these men also are the classroom for turf instruction for UCLA golf students. The large, well-planned layout of turf plots provides a comprehensive education in turf maintenance. Numerous strains and varieties of grasses grow side by side in evenly marked out plots. Students compare the texture of the different grasses, learn how texture affects their putts. Some plots demonstrate the effects of different chemicals being tested for control of weeds and diseases. Effects of aerification of turf plots is shown. Students are informed about maintenance practices carried out on the golf course.

Cecil Hollingsworth is well-qualified for his dual instruction job. In partnership

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FLOOD OF TROUBLE

When you hear those radio and TV gags about Los Angeles flash floods, you may laugh but not Bill Johnson, supt. of Griffith Park courses. This view of the 18th at the Harding course gives you an idea of what Johnson and his staff are up against after the waters that surge down from surrounding hills make tiny streams raging torrents and leave a fairway covered with tons of mud.

with Gomer (Potlikker) Sims, he owns the Alondra Park GC—a regular 18 hole golf course and a 9 hole pitch and putt course. Successful operation of this enterprise demands a knowledge of both golf and turf.

Hollingsworth feels that information about turf is very much a part of golf instruction. His students are learning how turf affects their game—and how their game affects turf. Appreciation of the amount of effort that goes into maintaining a golf course may make for more considerate players. These students comprehend the difficulties the golf course superintendent is up against, and realize the need for player cooperation. They are aware of the necessary maintenance operations which must be carried out. They recognize the damage caused by natural factors, and understand the problems of the golf course superintendent.

Far too few golfers are aware of the important contributions of research men and course superintendents. Improved playing conditions are brought about by these men; higher standards for the future will be possible through their work. Hollingsworth believes players should know about this phase of golf. He says, "It is definitely in the players' interest to encourage turf research, and recognize the necessity for qualified course superintendents to apply research to improve the game of golf."

John Melady Author of 4 Garden Manuals

John Hayes Melady, widely known among course supts. for his practical knowledge of turf, garden and tree work, and for years with Stumpp and Walter, has written four handbooks that supts. will find well worthy of OK to their members who are seeking answers to home lawn, flower, fruit and vegetable growing problems. There is considerable information that supts. who have club flower garden maintenance as part of the job will find useful.

The books are *Better Lawns for Your Home*, *Better Flowers for Your Home Garden*, *Better Vegetables for Your Home Garden* and *Better Fruits for Your Home Garden*. The fruit book contains tree care information that some men in charge of golf courses can use to good advantage.

The Melady Garden Books are plentifully illustrated. A number of the "how to do" illustrations were drawn by John's daughter Eva who has added to the understandable, simple and fool-proof character of the excellent books. Each book is \$1.50. A boxed set of the four is sold for \$5.95. Grosset & Dunlap, Inc., 1107 Broadway, New York 10, are the publishers.

Each book has a fine index so the reader can locate the answers, easily.

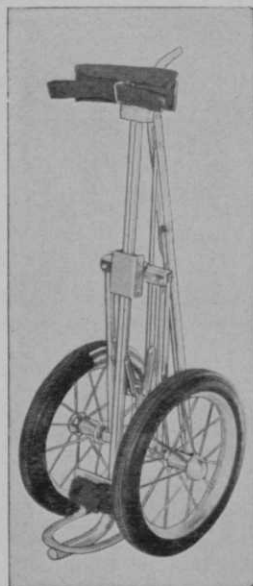
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How to Properly Maintain Mowing Equipment

By G. P. CARSON

Worthington Mower Co.

(GCSA Paper)

Most of the maintenance problems on mowing equipment that confront you from time to time are the result of not having the proper information available. This information is always contained in the instruction manual that is received with each piece of mowing equipment. But I dare say, in 90% of the cases, this manual is laid away and entirely forgotten. The manual is very important for maintaining this piece of equipment and should be read several times by all persons who are interested, and then kept in a place where it can be easily referred to from time to time.

I have had the privilege of visiting golf courses, municipalities, etc., throughout the United States and Canada, and in a large majority of cases, the lack of proper equipment and adequate tools to take care of their equipment in which thousands of dollars are invested is really astounding. I would venture to say that at least 25% do not have a work bench where a power mower can be taken apart to perform minor adjustments. Therefore, I would suggest that the first and foremost in maintaining power equipment is to have an ample and adequate supply of tools to do the necessary work that is required on all golf courses and mowing equipment.

In the October issue of *GOLFDOM* there was published a list of equipment for an average 18 hole golf course. If you were to purchase the maintenance equipment for fairways, roughs, greens and tees at the prevailing prices today, it would represent a total of approximately between \$15,000 and \$18,000. Therefore, it is important, and a good insurance policy, to devote some time and money towards maintaining this capital investment. If you had just delivered to you personally a new car which cost around \$3,000, would you immediately take this car and see how fast you could drive, and how rough a road it would travel over, or would you first become acquainted with the manual and then use your car accordingly?

Easy at the Start

This we find is one of the many faults with mowing equipment when it is received new. The \$3,000 represents the cost of a tractor and a gang of mowers

for fairway use. As this tractor is received, the instruction book should be thoroughly read and the operator or driver acquainted with this particular piece of equipment. Then, do not take this new piece of equipment and see if you can cut your fairways in 1½ to 2 hours less than it took you before; but run the tractor through a breaking-in period of one or two days of easy work and then try, if you must, to see how much time you can save. This same condition is very true with your small power mowers. They are bought new and immediately they are taken out, put on a green or a tee to see how fast they can run and how rough mowing conditions this machine can take. Use this equipment as you would a new car—then break it in and give it a chance.

Another important part of preventative maintenance, and I know that you will all agree with me, is the use of clean oil and grease. On different occasions I have had the opportunity to inspect work shops on golf courses and noticed, that although the cans of grease had come provided with a tight lid to keep the grit and foreign matter out of this grease, in lots and lots of instances, these cans were sitting around in the main building with the lid removed and sand, dust and whatnot were continually falling into this lubricant. It was then removed, put into a grease gun and the bearings and moving parts of the mowing equipment were lubricated.

In one instance, I went into a tool shed where a mechanic was regrinding a power mower. Underneath the grinder, of course it was out of the way so nobody could fall over it, was sitting a can of grease without the lid on the can and all the grinding of the metal from the reel with the grinding compound was going into this can of grease, and would eventually end up in some precision type bearing.

Another condition that we see all too often is the way your engine oil is treated. It comes to you in a sealed can or drum and is protected against dirt or any foreign matter getting into the oil; but once it is opened and you start to use it, there isn't too much care taken when you use this oil in the crankcase of your engine whether the can is clean before the oil is