UNITED STATES GOLF ASSOCIATION Green Section--Western Office

P. O. BOX 241

DAVIS, CALIFORNIA

Western Turfletter

No. 1

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April 1953

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REGIONAL TURF SERVICE

This, the first issue of your Western Turfletter, is but one of a series of firsts for turf in the West. The West is the first to have a Regional Green Section Office. It is the first to have organized direct turf service under our new program of helping USGA member clubs individually with their own particular turf management problems. For more complete detail concerning the Regional Turf Service, you are referred to the February, 1953 issue of the USGA JOURNAL AND TURF MANAGEMENT.

Many of you will be interested to know that $88\frac{1}{2}$ percent of the clubs contacted on our recent tour to explain the Service have indicated their desire to participate. Although 18 of the 130 courses represented at our meetings were nonmember clubs, there was a total of 115 probable applicants. As this figure grows it will be possible to give more and better service to the individual subscriber.

The USGA operates solely for service to golf, not for profit. Our foremost thought is always the golfer, and how we may increase his pleasure by improving the turf which is the basis for his enjoyment of the game.

TURF IN THE FIELD

Although little time was available to observe turf during our series of onenight meetings between March 17 and 26, in a few instances between planes we noted that turf improvement work was continuing unabated.

Controls Chlorosis While Killing Weeds -- Rocky Mountain

Jim Haines, Superintendent, Denver C. C., had excellent results on chemical clover control by mixing 1 3/5 ounces of iron sulfate with 1 1/4 ounces of sodium arsenite to 1,000 scuare feet. The iron prevented discoloration of the good turf grasses, and the clover control was as good as on areas where sodium arsenite had been used alone. Jim discussed this possibility with us last October, and it now appears that iron is a useful addition to arsenite for clover control in areas where iron chlorosis is a problem.

Economical Snowmold Control -- Inland Empire

In Spokane, the Inland Empire Greenkeeping Superintendents called a special meeting to hear about the Regional Turf Service. Cliff Everhardt, President of

the Association and Superintendent of Manito G. & C. C., and Dave Tod, USGA Sectional Affairs Committee member, organized things. Our first stop was to see Louie Schmidt, Superintendent, Indian Canyon G. C., and Harold Abbott, Superintendent of Parks, who have been cooperating with Dr. Jack Meiners, Washington State College, on the best fungicides for snowmold control. Although many of the standard controls looked good, PMAS at 0.1 pint and 0.2 pint was the most economical while still giving the desired results.

Lime Lines Keep Carts Away From Green Collars -- Northwest

Pete Masterson, Golf Director, City of Seattle, and Jack Chase, Superintendent at West Seattle G. C., are doing an excellent job of conditioning the course for the coming USGA Amateur Public Links Championship. Pete has devised a method of distributing caddie cart traffic around green collars that could be duplicated by many courses faced with the same problem. West Seattle G. C. uses lime or chalk marks (similar to gallery barriers at a tournament) to stop the carts from five to twenty feet away from the green proper. These can be moved in and out as needed to distribute compaction caused by the carts. Thanks to the education by the golf shop and grounds crew, the lime lines are as effective as an electric fence.

Dahlgren Bent Holds Up Under Heavy Play -- Southern California

At Rancho G. C. in Los Angeles we observed a continuing course improvement on what may well be the heaviest played course in the U. S. Thanks to Bill Johnson, Golf Course Manager, Los Angeles Muny Courses, and Allan Macdonald, Assistant Manager at Rancho, the turf continues to improve. Bill and Allan have sodded strips of Dahlgren C-115 bent on a few green collars. Bill says that Dahlgren is the first grass he has had any luck with on such critical areas. Dahlgren bent is a Green Section development.

RESEARCH ACTIVITIES

Dr. Bob Hagan, Department of Irrigation, University of California; Charlie Walker, one of his students and the Cal-Aggie golf champ; and your Western Green Section are cooperating with Vince Crockett, Superintendent, Del Paso C. C., Sacramento, on a practical study of water management as it applies to play of the game. Bob has done an excellent job of studying the water recuirements of our major turf grasses (see "Know How to Water", USGA JOURNAL AND TURF MANAGE-MENT, February 1953), and now, thanks to the enlightened management at Del Paso C. C., we are branching out with "on the course" studies to see if we can practice what we preach. It may amaze many folks to know that the green donated by Del Paso for this study had effective roots at an average depth of 20 inches at the start of this experiment in early March of this year.

FUNDAMENTALS OF PLANT GROWTH

One should have a working knowledge of the basic concepts of plant growth factors in order to appreciate WHY our turf grasses behave or misbehave. Therefore, this section on occasion, will cover many findings in related agricultural fields that have direct application to the care of turf on our Western courses.

<u>Environment for Seed Germination</u>: - All seeds require (1) water, (2) a suitable temperature, and (3) oxygen before germination can take place. In addition, light seems to be essential for bluegrass germination if a period of dry storage to break the dormant or rest period is not used. The demand for Merion bluegrass

as an example, has resulted in sale before storage, and in part contributes to reports of slow or poor germination.

- 1. <u>Mater</u> if no other factor is limiting, moisture absorbtion by the seed starts the physical and chemical processes which result in embryo emergence. At the start, complete germination doesn't occur when soil moisture is below the wilting percentage, and germination will be slowed down if moisture is much below field capacity.
- 2. <u>Oxygen</u> Seeds buried deeply in compact soils are often prevented from germinating by low oxygen concentration. Until the seed coat is ruptured, respiration may proceed under a near lack of air. However, once the seed coat of our common turf grasses breaks, aerobic respiration replaces anaerobic processes and oxygen is essential.
- 3. <u>Suitable Temperature</u> Seeds germinate within a certain range of temperatures. Above or below this range no germination will occur. Wheat seed germinates at slightly above freezing, and germination continues until temperatures approach 95° F. In general, the optimum temperature falls about midway between the extremes. In the case of wheat this would ideally be 63° F. Bluegrasses, fescues and bents germinate best under like conditions.

<u>Practical Application</u>: - From this brief lesson in Plant Physiology, taken in part from Meyer & Anderson's book of the same name, we can understand (1) why it is necessary to have or to apply water very frequently after seeding, (2) why we gradually increase irrigation frequency after seedling emergence, and (3) why we have little success in seeding bermudagrass in the late fall, or bentgrass, bluegrass and feacues during the heat of the surmer.

In short, we need to find out WHY turf troubles occur, as well as the answer of what to do when problems arise.

THE CHANGING SCENE

From the Green Section BULLETIN - 1921:

"Nothing has been written in golfing journals about grass putting greens in Southern California for the simple reason that there have been none, until cuite recently, to write about. Eleven years ago there were three grass putting greens in this locality, and all of them were failures in every respect... These three greens disappeared ten years ago, and during the next six years no attempt was made to get anything better than oiled sand greens. It was commonly understood that there was no use attempting to get grass greens; that while you could grow anything else in Southern California, you could not get putting greens".

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OUR DESIRE IS TO MAKE THIS WESTERN TURFLETTER FIT YOUR NEEDS. KINDLY LET US HAVE YOUR SUGGESTIONS.

VALLEY PRESS 707 Second St. Davis, California

This Is Your

Western Turf Letter

USGA Green Section

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