Southern California Turf Culture

A Quarterly Publication devoted to the activities of the Experimental Program in Turf Culture of the College of Agriculture, University of California, Los Angeles 24, California.

OCTOBER, 1952

VOLUME 2, NUMBER 4

1952 SOUTHERN CALIFORNIA CONFERENCEONTURFCULTURE

The 1952 Southern California Conference on Turf Culture will be held Monday and Tuesday, October 6 and 7.

Dr. William Daniel, Agronomist in Turf Research and Extension, of Purdue University, Lafayette, Indiana will be the featured speaker.

Other turf authorities who will take part in the program are Mr. 0. J. Noer of the Milwaukee Sewerage Commission; Mr. Charles G. Wilson of the U. S. Golf Association Green Section; Mr. Thomas Mascaro of West Point Lawn products; and members of the University of Califoknia staff at the Berkeley, Davis, Riverside, and Los Angeles campuses.

The opening session will be at the UCLA turf plots at 300 Veteran Avenue in West Los Angeles. All other sessions will be at the Riviera Country Club in West Los Angeles, at Sunset Boulevard and South Capri Drive. Luncheon will be served each day at the Riviera Country Club, and a banquet will be held there at 6: 30 P.M. on Monday, October 6.

All persons interested in problems of turf culture on golf courses, parks, sports fields of all types, airports, cemeteries, estates, and home lawns are invited to attend. Registration fee of one dollar will be charged each day.

The program for the 1952 conference is presented herewith.

SOURCES OF U-3 BERMUDAGRASS

This strain rarely produces any seed and must be prop agated by stolons. At the present time this grass is being propagated commercially by the following growers:

> Armstrong's Nurseries Ontario, California C. W. C. Lorbeer 530 Pico Boulevard Santa Monica Ed Newkirk 1436 Kelton Avenue West Los Angeles

We understand that the bedding plant growers are becoming interested in growing this grass, and if sufficient demand develops it should become available at most retail nurseries.

We shall be glad to list any growers of new vegetatively propagated turf grasses or sedges.

1952 SOUTHERN CALIFORNIA

CONFERENCE ON TURF CULTURE

MONDAY AND TUESDAY, OCTOBER 6, 7, 1952

Presented by

THE COLLEGE OF AGRICULTURE AND UNIVERSITY EXTENSION

UNIVERSITY OF CALIFORNIA, LOS ANGELES

PROGRAM

OCTOBER 6, 1952

930 - 11:30 a.m. 300 Veteran Avenue West Los Angeles Inspection of University Turf Plots

12:30 - 1:30 p.m. Riviera Country Club Sunset Blvd. and S. Capri Drive West Los Angeles Registration

1:30 p.m. Presiding: Colin C. Simpson, Chairman Turf Research Advisory Committee

> Welcome: Robert W. Hodgson, Dean College of Agriculture University of California Los Angeles

Introduction of Turf Research Advisory Committee: Colin C. Simpson

The Turf Program at Los Angeles -Vernon T. Stoutemyer, Professor Floriculture and Ornamental Horticulture, UCLA Development of the Extension Program

in Turf Culture -John J. McElroy, University of California, Berkeley. Kenneth Smoyer, Director, Agricultural Extension, Los Angeles County The Midwest Redgional Turf Program -William H. Daniel, Agronomist in Turf Research and Extension, Purdue University, Lafayette, Indiana

3:15 Intermission

RESEARCH ADVISORY COMMITTEE FOR THE EXPERIMENTAL PROGRAM IN TURF CULTURE Mr. Col in C. Simpson, Chairman Southern California Golf Association Mr. F. W. Roewekamp, Secretory Citv Forester Department of Recreation and Parks 305 City Hall Los Angeles 12. Colifornio Mr. William P. Bell American Society of Golf Course Architects Mr. William Beresford Southern California Golf Superintendents Association Mr. Carl Bloomfield, Supervisor, Rose Bowl Mr Leo Davis California Fertilizer Association Mr. Samuel E. Davis Public Links Golf Association Mr. Harold A. Dawson Southern California Golf Association Mr. William G. Hav American Lawn Bowling Association Mr. William Johnson Golf Course Superintendents Association of America Mr. E. B. Marzolf Implement dealers Mr. M. E. McCollam California Fortilizor Association Mr. Raymond E. Page Southern Colifornio Chapter of American Society of Landscape Architects Mr. Frank Post Interment Association of California Mr. Claude A. Richards Seed dealers Mr. William W. Stewart Southern California Golf Superintendents Association Mr. George Thompson Southern California Golf Association Mr. Charles Wenger Los Angeles City Schools Mr. Richard Westcott California Association of Nurserymen Mr. Verne Wickhom Los Angeles County Parks & Recreation Department HONORARY MEMBERS: Dr. Fred V. Grau, Director, U. S. Golf Association Green Section Mr. Charles K. Hollowell Agricultural Extension Service The Pennsylvania State College Prof. H. B. Musser Deportment of Agronomy The Pennsylvania State College Mr. 0. J. Noer, Agronomist Milwaukee Sewerage Commission This publication "Southern California Turf Culture" is sponsored and financed by the Research Advisory Committee. Communications should be sent to the Secretary, or to Dr. V. T. Stoutemyer, Department of Floriculture

ond Ornamental Horticulture, University of California, 405 Hilgard Avenue, Los Angeles 24, California.

CONFERENCE ON TURF CULTURE (Continued) 3:30 p.m. The New Western States Regional Turf Program of the U.S. Golf Association Green Section -Charles G. Wilson, Regional Director U. S. Golf Assn. Green Section. Davis 4:00 p.m. New Ideas in Turf Culture -**O.J.** Noer. Agronomist **Milwaukee Sewerage Commission** 6:30 p.m. Dinner - Riviera Country Club Panel Discussion and Question Period Presiding: Charles G. Wilson. Regional Director U.S. Golf Association Green Section Panel Members: **Boysie Day** O.I. Noer William Daniel **Rogert** Hagan 0. R. Lunt V. T. Stoutemver Kenneth Smover Pierre Miller Marston Kimball Thomas Mascaro OCTOBER 7 - 9:30 a.m. Riviera Country Club **Presiding: Raymond Page. Secretary** American Society of Landscape Architects Southern California Chapter. Los Angeles Turf Pests: Weeds Boysie E. Day, Asst. Plant **Physiologist** University of California. Riverside Diseases -Pierre Miller. Professor of Plant Pathology, UCLA Soil and Water Problems -Robert M. Hagan, Assistant **Professor of Irrigation.** University of California, Davis Soil Compaction -0. R. Lunt. **Instructor in Soils. UCLA** 12:00 m. Luncheon 1:30 p.m. Presiding: Fred Roewekamp, Park Development Supervisor and City Forester. **City of Los Angeles** Factors affecting Depth of Rooting of Turf: 0. J. Noer **Crabgrass and Clover Control in Turf:** William H. Daniel Intermission -**Turf for Athletic Fields and Playgrounds: Charles G. Wilson**

An exhibit of turf weeds and turf weed control will be arranged at the Riviera Country Club.

V. T. Stoutemyer

Influence of Management on Turf Composition:

TURF PROGRAM INCORPORATED IN UNIVERSITY BUDGET

This present year of 1952 should be considered a memorable milestone in the program in turf culture in California.

One important development, mentioned in our last issue, is the opening of the Western Regional Office of the U. S. Golf Association Green Section at 815 Oeste Drive, Davis, California, with Charles G. Wilson as director. The past assistance of the Green Section has been invaluable in establishing our experimental plot work on the Los Angeles Campus. This new regional office should help to place this area in the forefront of turf research.

Simultaneously, the experimental program on the Los Angeles Campus has been placed in the budget of the College of Agriculture for the first time, thus achieving, at least partially, the objectives of those who more than six years ago, decided that California deserved a turf research program comparable to some of those in the Eastern states.

The rapid progress which has been made thus far has been made possible by the long continued support of many individuals and organizations who raised funds to support an experimental program which demonstrated its value. This fine progress is a tribute particularly to the vision and leadership of Mr. Colin C. Simpson who, although actively engaged in both civic and private business duties, has given generously of his valuable time and organizing ability to the cause of turf culture in California.

We do not yet have a program comparable to that at Pennsylvania State College, but we are now on an equal footing with many of the other Stations doing work in this field We should be able to look forward to a steady growth of the program here, and likewise a corresponding growth of the coordinated work on the Davis Campus may be expected. An unusual number of experimental grass turf plots are being started in California by various groups and commercial firms. When properly managed, these may be expected to yield much valuable information. We shall be pleased to be informed of the locations of these plots, since they afford an excellent opportunity to persons in many parts of the state to see the newer and less common turf grasses.

TURF MEETINGS IN ORANGE COUNTY

The planting of experimental turf plots seems to be popular everywhere in California. Recently several plots were established in Orange County under the direction of Mr. A. H. Holland, Farm Advisor in the Agricultural Extension Service.

On Tuesday, July 17, informal extension meetings were held at two of these plots. The plots at Santa Ana College were in excellent condition - the plots of Merion bluegrass being notable. Here also, areas seeded with a low percentage of Merion bluegrass in mixture revealed a fair amount of the Merion bluegrass, and these trials will doubtless be followed with much interest later.

Among those discussing the plots were Mr. C. Gordon Wyckoff, Professor Pierre Miller and Dr. V. T. Stoutemyer from the Los Angeles Campus, and Mr. Charles Wilson of the U. S. Golf Association Green Section at Davis. About 40 persons attended the meeting.

A similar meeting was held at similar plots at Fullerton Junior College. This meeting was also attended by Mr. Marston H. Kimball and Mr. James A. Beutel of the Agricultural Extension Service in Los Angeles County.

RECENT GIFTS

Naugatuck Chemical Company Naugatuck, Connecticut 5 lbs. maleic hydrazide

American Chemical Paint Company Ambler, Pennsylvania 1 gal. Weedar MCP

E. I. DuPont de Nemours & Co. Wilmington, Delaware 100 lbs. Uramite

Northrup, King & Company Los Angeles 5 lbs. Goar's fescue seed

Germain's Inc. 4 lbs. Goar's fescue seed

Velsicol Corporation Chicago 1 gal. Chlordane We shall appreciate having telephone calls regarding turf problems kept to a minimum, since we do not have secretarial personnel at the location of the turf plots on 300 Veteran Avenue. In many instances, a letter can be handled with less loss of time.

The mixture of U-3 bermudagrass and Congressional bent grass, cut at putting green height, continues to be outstanding at all times of the year. Although some other strains of bermudagrass are superior to the U-3 in some particular respect, we believe that it remains the best general purpose strain for Southern California.

PATIENCE NEEDED TO SOLVE THE COMPACTION PROBLEM

John E. Gallagher, Jr. Formerly Senior Laboratory Technician University of California - Los Angeles

Today, many of our athletic fields, parks, and school playfields are from 10 to 20 years old. In that time soil compaction on those fields has developed into a severe problem. To expect a single annual aerification to undo the work of time, continuous use of the turf by players, and the compaction of heavy maintenance equipment, is to expect a miracle. Present day aerification equipment does seem to work miracles, but it takes time for these to happen.

All turf fields are not 20 years old; and many of them have not been over-watered or mismanaged, but most of them have been overworked by continuous activity, and all of them are compacted to some degree.

Compaction is a term applied to soil structure which has been compressed. This compression has reduced the number of pore spaces in the soil. The purpose of pore spaces is to act as channels for the movement of air and water. When the pore spaces are gone, water penetration is poor and air circulation is non-existent.

Compaction is caused by many forces. First, there is that of continuous wear--excessive use of the turf with no rest period allowed for normal growth. A second force is that of overwatering. The weight of water alone is sufficient to cause some compaction. When overwatering is combined with excessive use of the turf, compaction is accelerated. Finally, there is the demand for a closecropped, tight turf which requires frequent use of heavy mowing equipment.

Compaction frequently starts the day the field is seeded Heavy rollers are used to smooth out small irregularities and to put the seed in firm contact with the soil. The need fa the field usually is so great that the area is opened for play long before it is ready. As a result, compaction is well started by the end of the first year. This usually is quite clearly indicated by the great percentage of shallowrooted grasses such as crabgrass and annual bluegrass.

We have always had soil compaction in turf, but until a few years ago it was impossible to do anything really effective about it. There was no way to cultivate an established stand of turf without putting it out of play. Today there is available equipment which will completely cultivate a play field without interrupting its use. Many superintendents are now using such equipment and deriving full benefit from it, but unfortunately in this day of super chemicals and machines, some of us are expecting too much in too short a time. Aerification cannot correct the compaction of many years overnight. Aerification is not a substitute for good management, but along with fertilization, water and mowing maintenance, weed, insect and disease control, is just one. part of a sound management program.

Once aetification is started, there are many visible indications of its work. The turf begins to green up and grow. Water runoff is less, and the field begins to have some resiliency. The ease in which the aerification equip ment penetrates the soil gives some indication of its tilth. Compacted soils resist penetration of the spoons or tines, while loose, friable soils readily admit them. As an illustration, here is an outline of the program followed by Mr. Carl A. Bloomfield, Supervisor of the Rose Bowl, using the Aerifier.

(4 times over in all cases)

Fitst Use - May 15, 1950:

North, south and two diagonals Machine set for 1 1/2 inches Penetration: 1 inch.

Second Use - May 29, 1950: Machine set for 2 inches Penetration: 2 inches.

Third Use - June 5, 1950:

Machine set for 3 inches Penetration: 2 1/2 to 2-3/4 inches.

(Because of use of field for a number of events, the field was not aerified until July 10, 1950)

Fourth Use - July 10, 1350:

Machine set for 4 inches Penetration: 3 inches.

Fifth Use - July 17, 1950: Machine set for 4 inches Penetration: 3 inches.

July 18: 1200 lbs. gypsum used on field.

Sixth Use - August 1, 1950:

Machine set for 4 inches Penetration: 4 inches.

By having field cut to $1 \frac{1}{2}$ to $\frac{1}{3}\frac{4}{4}$ inch settings, and proper moisture content (on the wet side), the aerifier has been working to maximum depth.

These results show clearly the need for patience in loosening the soil. Do not be discouraged if penetration is difficult in the first trials.

The aerifier is likewise a useful tool for the preparation of seed beds for grass. Sometimes it is run over the ground as many as six times. The aerifier holes seem to provide an ideal location for the germination of seed, as can be seen from the accompanying photograph taken on January 20, 1951, of the football field at Occidental College. This field was aerified and seeded to Alta fescue in early December. Similar experiences have been reported from various parts of the country.



Germination of gross seeds in aerifier holes on football field at Occidental College WORO STUDIO PHOTO