

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, 1951

VOL. 1. NO. 4

TURF FIELD DAY NOVEMBER 14

A one-day program has been arranged for Wednesday, November 14, 1951 devoted to presentation of results of experimental work at UCLA. The morning session will be at the turf plots on the UCLA campus at 300 Veteran Avenue, West Los Angeles.

The afternoon and evening sessions of the conference will be devoted to talks on subjects relating to turf by members of the College staff and several nationally known speakers, including Dr. Fred V. Grau of the U.S. Golf Association Green Section, Mr. O.J. Noer of the Milwaukee Sewerage Commission, and Dr. O.R. Lunt of the Division of Irrigation and Soils. Dr. Lunt will review some of his recent work on soil structure in relation to turf culture.

The conference will be of great value and interest to all who are connected with various phases of turf culture, whether applied to parks, golf courses, bowling greens, sports fields, airports, cemeteries, estates, or home lawns.

Complete program of the conference is presented herewith.

The Fourth Southern California Conference
on TURF CULTURE

NOVEMBER 14, 1951

Presented by
College of Agriculture, University of California
Los Angeles
and the
Department of Conferences and Special Activities
University Extension

PROGRAM

(In case of rain, meetings will be held at
Rancho Golf Course Club House)

8:30 a.m.

Registration (Fee, One Dollar)
Ornamental Horticulture Area
300 Veteran Avenue, West Los Angeles

9:30 a.m.

Discussion of Experiments:
Dr. V.T. Stoutemyer, Presiding
Crabgrass Trials of 1951 -
Mr. John E. Gallagher
Div. of Floriculture and
Ornamental Horticulture, U.C.L.A.

(Continued on page 4) .

THE CONTROL OF POA ANNUA (Annual Bluegrass) IN PUTTING GREENS

(A Progress Report)

Jesse D. Skoss
Division of Botany, UCLA

The infiltration of annual bluegrass into putting greens with the subsequent displacement of the original grass is a problem of the first order on many golf courses. This phenomenon of infiltration is not one that occurs overnight but the realization that the green has 'become a stand of bluegrass is apparent usually after an abrupt change in climatic conditions.

Poa annua is an annual grass which grows best in cool seasons. It may stand up fairly well under usage during cool weather, but with the advent of hot days, the bluegrass withers and dries up leaving a green with many bare spots.

Sound cultural management of the greens - adequate fertilization and proper mowing to keep the growth of the desired grass vigorous so that the bluegrass cannot get a foothold is, of course, the best practice. Once established, annual bluegrass is spread by the golfers walking from one green to another, by the mowers which collect seed and mechanically distribute it.

When the bluegrass problem becomes acute, cultural practices are of little value for eradication. Chemicals must be used for effective control. To this end IPC (isopropyl N-phenyl carbamate) shows considerable promise. IPC is a water insoluble compound, is non-toxic to animals or man, and shows a selective herbicidal action toward many grasses and some broad-leaved plants. It is effective only when applied and washed into the soil, where the roots of the grasses can absorb the chemical, No effect whatever is obtained by spraying IPC on the foliage alone; it must be washed into the soil. IPC is gradually decomposed by bacterial action. It remains effective for from two weeks to about three months, depending on its formulation, moisture content of the soil, temperature, soil reaction, and so on. The nature of the herbicidal action is to block root growth by disrupting the normal cell division of the growing points of the roots. The grass then cannot be supplied with its mineral and water requirements; it gradually turns dark green, shrivels and dies. Germinating seedlings and young grasses with little top growth are much more susceptible to the action of IPC than are

(Continued on page 2)

RESEARCH ADVISORY COMMITTEE

FOR THE

EXPERIMENTAL PROGRAM IN TURF CULTURE

Mr. Colin C. Simpson, Chairman

Mr. F. W. Roewekamp, Secretary
Department of Recreation and Parks
305 City Hall
Los Angeles 12, California

Mr. William P. Bell
Mr. William Beresford
Mr. Carl Bloomfield
Mr. Samuel E. Davis
Mr. Harold A. Dawson
Mr. John Dawson
Mr. W. G. Hay
Mr. William Johnson
Mr. E. B. Marzolf
Mr. Raymond E. Page
Mr. Frank Post
Mr. Edwin Schneider
Mr. William W. Stewart
Mr. J. W. Tollefson
Mr. Charles Wenger
Mr. Verne Wickham

HONORARY MEMBERS:

Dr. Fred V. Grau
Mr. Charles K. Hallowell
Professor H. B. Musser
Mr. O. J. Noer

This publication "Southern California Turf Culture" is sponsored and financed by the Research Advisory Committee. Communications regarding this publication should be sent to the Division of Floriculture and Ornamental Horticulture, University of California, 405 Hilgard Avenue, Los Angeles 24, California.

NEWS ITEMS.

Approximately 20 visitors attending the meeting of the American Society of Landscape Architects visited the turf plots at 300 Veteran Avenue on the morning of Saturday, June 9. Professor L. S. Morris and his assistant, Prof. Kenji Shiozawa, of Utah State College had a group of their students in landscape architecture on an educational tour, who joined this group in order to see the work in turf culture, along with members of the local chapter. It is gratifying to see an increasing number of professional groups look to U.C.L.A. for guidance in turf culture.

-0-0-0-

Propagating stock of many of the varieties of grasses under test in the plots at 300 Veteran Avenue is freely available to all who may wish to try these on a small scale. Only a few proprietary strains are restricted. We shall appreciate having reports from all who test these grasses in cooperation with us.

0-0-0-

The mixture of U-3 bermudagrass and Congressional bent, cut at putting green height, has continued to be outstanding during the entire season. Periodic plant sampling counts by Mr. M. Zaki Mahdi, graduate student, have shown that liberal nitrogen fertilization does not change the proportions of bent and bermuda.

-0-0-0-

An interesting observation on the natural distribution of dichondra in Los Angeles lawns was recently made to us by a local home owner, to the effect that dichondra was particularly abundant on parkings immediately beneath large palm trees. This is apparently frequently true. A possible explanation is that the heavy root development of the palms creates a soil condition in which dichondra can compete better than ordinary turf grasses.

THE CONTROL OF POA ANNUA

(Continued from page 1)

grasses which are mature and possess adequate food reserves and well developed root systems. Still, resistance is a relative matter because the concentration of IPC used must be low enough to keep the desired grass from receiving too much injury, which may weaken it excessively, and strong enough so that the bluegrass will be eliminated.

The fact that poa annua is an annual is the point around which the chemical control is based. By repeated sprayings of aqueous suspensions of low concentrations of IPC over a green in the late summer and early fall, when the bluegrass would normally be germinating, complete inhibition of bluegrass germination is achieved. At the same time the concentration is too low to cause serious injury or impairment of the vigor of the desired grass. These sprayings, coupled with appropriate fertilization to enhance rapid vegetative growth of the desired grass, will inhibit germination and growth of the bluegrass, and the green will gradually reassume the desired character.

Application rates of 3/4 to 1 pound of active IPC per acre at monthly to bimonthly intervals has prevented annual bluegrass growth with no apparent injury or appreciable loss of vigor of Seaside bent. Experimentation is continuing in order to determine the best time, frequency, rate of application and formulation of IPC and the best subsequent handling of the putting green so that the green will have the greater vigor and will competitively prevent the bluegrass from re-establishing itself. Preliminary experiments are very encouraging and point to a practical and economical method whereby annual bluegrass can be effectively controlled and the proper greens condition restored.

Greenkeepers who wish to try this method of control should do so at first on a very small scale where turf damage, if it occurred, would not be serious, since this method is still in the early experimental stages of development.



DR. O.R. LUNT

DR. O.R. LUNT JOINS STAFF

The experimental work in Turf Culture on the U.C.L.A. Campus has been greatly expanded by the addition of Dr. O.R. Lunt to the staff of the Division of Irrigation and Soils. Dr. Lunt is developing a project on the influence of various soil amendments and soil treatments on compaction and aeration of soils.

Dr. Lunt was born April 8, 1921 at El Paso, Texas, and attended elementary and secondary schools there. During summers he worked on irrigated cotton farms, with construction crews, or as a salesman. In 1938 he enrolled in Brigham Young University and nine years later received a B. A. degree in chemistry. The years from 1941 to 1946 were spent in travelling in South America and in the Armed Forces. He served with a Naval Air Wing as aviation electronics technician during World War II.

On graduation from Brigham Young University, Dr. Lunt was employed by the Department of Agricultural Research of the American Smelting and Refining Company, to work on soil acidification. He left this position in the fall of 1947 to enter Graduate School at North Carolina State College at Raleigh. There he majored in soil chemistry and minored in plant physiology. His research problem dealt with the value of sodium in the mineral nutrition of cotton. After completing requirements for a Ph. D., he joined the Division of Irrigation and Soils at U.C.L.A. in February, 1951.

This new phase of the experimental work, together with the work on water being done on the Davis Campus by Dr. Robert Hagan will doubtless lead to great expansion of knowledge of turf culture under California conditions.

RECENT GIFTS

Research Advisory Committee for
the Experimental Program in
Turf Culture -
\$2000.00.

Steele Briggs Seed Co., Ltd.
Toronto, Ontario, Canada
2 lbs. Canadian bluegrass

Pacific Toro Company, Los Angeles
4 Brass Teejet Spray tips
4 100-mesh strainers
Servicing of equipment

American Cyanamid Company
New York
6 lbs. pulverized potassium
cyanate

Carbide and Carbon Chemicals Co,
Yonkers, New York
5 lbs. EH 2-73- Herbicide
Riv. #1 Herbicide

Antara Products
New York
2 lbs. Igepon AP Extra Conc.

Chipman Chemical Co.
Boundbrook, New Jersey
1 lb. dry sodium arsenite

Hardie Manufacturing Company,
Los Angeles
Servicing of equipment

TURF CONFERENCE AT OAKLAND

The Northern California Conference on Turf Culture will be held Thursday and Friday, November 8 and 9, 1951 at the Oakland Auditorium in Oakland, California. The program will stress the basic facts of soil preparation, seeding and maintenance of turf, and will appeal to all who are engaged in work involving turf culture. For information concerning the program, write to Mr. John J. McElroy, Agricultural Extension, University of California, Berkeley 4, California.

TURF CONFERENCE TRANSCRIPTS AVAILABLE

Those attending the recent 1951 Conference on Turf Culture will doubtless want a permanent record of the various talks. A bound set of the proceedings, including several photographs, may be obtained for \$2.75 per copy from the Hollywood Convention Reporting Company, Suite 606, 5410 Wilshire Blvd., Los Angeles 36, California.

Those who were unable to attend will also find this book a valuable mine of information on the various aspects of turf growing.

The USGA Green Section announces the publication of "Turf Research Review." This issue covers developments up to the end of 1950 and is a "must" in the library of every progressive golf course superintendent and every other turf superintendent as well. This volume condenses lists of experiment stations engaged in turf work, the personnel at the stations who are devoting their time to turf, as well as listing projects, publications, turf conferences, field days, fellowship and research grants, and much other useful information. Every greens committee chairman ought to have a copy of "Turf Research Review," so that he can become acquainted with 'the vastness of the national coordinated turf program and can appreciate in some small degree what is being done to help him and his superintendent maintain better turf for better golf.

"Turf Research Review" was printed in a limited number of copies. It is being sold at \$1.25 a copy, postage free. It is sold on a "first come, first served" basis. Send your \$1.25 to the USGA Green Section, Plant Industry Station, Beltsville, Maryland, and be sure to give your name and address accurately so that the booklet can be sent to you.

(Revised)

The well-known standard book, "Weeds of California," has just appeared in a revised edition, with over 300 illustrations, some of which are in color.

This publication originated from a paper-bound bulletin prepared many years ago and has grown to a size of almost 600 pages in the current issue. The book illustrates practically any weed which may be collected on turf areas, and provides a ready means of identification. Present approved methods of weed control are also discussed.

The authors of the present edition are W. W. Robbins, Margaret Bellue and W. S. Ball, and the book is published cooperatively by the Department of Botany, University of California, Davis, and the California State Department of Agriculture. The book may be ordered at most bookstores at a cost of \$5.00. It is published by the Document Section, Printing Division, State of California, 11th and O Streets, Sacramento.

TURF FIELD DAY

PROGRAM

(Continued from page 1)

Maintenance and Weed Control - Dr. Fred V. Grau, Director U. S. Golf Association Green Section	2:00 pm Developments in the National Coordinated Turf Program - Dr. Fred V. Grau
Turf Disease Control by Fungicides - Prof. P. A. Miller, Div. of Plant Pathology, U.C.L.A.	2:40 p.m. Soil 1 Amendments - Dr. O. R. Lunt, Instructor in Soils, Div. of Irrigation and Soils, U.C.L.A.
Influence of Maintenance on Diseases - Mr. O. J. Noer, Agronomist Milwaukee Sewerage Commission	3:10 pm Intermission
Turf Insects - Dr. R. N. Jefferson, Asst. Prof., Div. of Entomology, U.C.L.A.	3:25 p.m. Soil Tissue Tests for Determining Fertilizer Requirements in Turf - Mr. O. J. Noer
Trials of Turf Grasses - Dr. V. T. Stoutemyer, Prof. Floriculture and Ornamental Horticulture, U.C.L.A.	4:00 p.m. Turf Culture Abroad - Mr. Verne Wickham Parks Mgr., Los Angeles County Department of Parks and Recreation
12:15 p.m. BUFFET LUNCHEON Rancho Golf Course Club House 10460 West Pico Blvd., Los Angeles	4:30 p.m. Turf Culture in U.S.A. - (Colored Slides) Mr. Thomas Mascaro West Point Lawn Products West Point, Pennsylvania
1:45 p.m. AFTERNOON SESSION Rancho Golf Course Club House Mr. Colin C. Simpson, Chairman Research Advisory Committee, Presiding.	6:30 p.m. Dinner Rancho Golf Course Club House 10460 West Pico Blvd., Los Angeles
Introduction of Research Advisory Committee - Mr. Colin C. Simpson	ROUND TABLE - Dr. Fred V. Grau, Chairman