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, 1953 VOLUME 3, NUMBER 4

NORTHERN CALIFORNIA TURF CONFERENCE

Attention is called to the fact that the Northern California Turf Conference will be held Thursday, October 8, 1953 on the Davis campus of the University of California. There will be a program of talks by well known turf authorities in the morning, followed by inspection of the turf plots. The afternoon program will consist of four panels, followed by a summary and discussion meeting. Refreshments will be served at 5:30 p.m., the time of adjournment. The registration fee will include the noon luncheon, the late afternoon refreshments, and membership in the Northern California Turf Council.

RECENT GIFTS

Pacific Guano Company
Los Angeles
80 lbs. Guano Organic

American Chemical Paint Company
Ambler, Pennsylvania
1 lb. ACP-L-478 wettable powder

Shell Oil Company
Denver, Colorado
1 gal. Shell D-B
1 gal. Technical CBP

Milwaukee Sewerage Commission
Milwaukee, Wisconsin
1 ton Milorganite

MEETINGS OF THE ADVISORY COMMITTEE

The large attendance and keen interest in the monthly meetings of the Advisory Committee have continued during the past season. These meetings are usually held in cooperation with one of the specialized professional organizations concerned with some aspect of turf culture.

The meeting on May 11 at Rudi's Italian Inn with the Sunset chapter of nurserymen was notable for a peak attendance record and interesting program. Mr. Jack Evans, president of the state-wide organization, the California Association of Nurserymen, conducted the panel discussion.

The program meeting of June 8 at the Rancho Golf Course Clubhouse was supervised by Mr. Leo Davis. Mr. Norman Springer of the Bandini Fertilizer Company gave an informative talk which was followed by motion pictures in color. Mr. Agar M. Brown, editor of the Golf Course Reporter, was a visitor.

SOUTHERN CALIFORNIA TURF CONFERENCE

Plans have been announced for the 1953 Turf Conference, which disclose several interesting new features. Rotating panels, used so successfully at the conference at Oakland last year, will be tried here for the first time. Also, the entire second day of the conference will be devoted to a chartered bus tour of interesting developments in turf culture.

All of the sessions of the first day of the conference, Monday, October 12, 1953 will be held at the Riviera Country Club at Sunset Boulevard and Capri Drive, West Los Angeles. The registration fee will be $1.50.

Several out-of-state speakers will be featured on the morning program. Dr. James Watson, formerly of the Texas Agricultural Experiment Station and nationally known turf authority, will speak on soil compaction. Dr. Watson is now with the Toro Company in Minneapolis.

Mr. 0. J. Noer of the Milwaukee Sewerage Commission will also be with us again, and likewise Mr. Charles G. Wilson of the Western Regional office of the U. S. Golf Association Green Section at Davis. Dr. V. T. Stoutemyer will discuss recent findings in turf management in Southern California.

(Continued on next page)

WILLIAM P. BELL

The many friends and associates of the late William P. Bell were saddened by his sudden passing on June 21 following a heart attack. He had lived in Pasadena 40 years and during this time created an enduring monument to himself in the 70 golf courses which he designed io California, Hawaii, Mexico, and several of the western states. Many of these are world-reoowned courses today. A number of other golf courses were also re-worked by him, and he was a consultant to many clubs. Recently he served as president of the American Society of Golf Course Architects. In recent years he worked with his son, William P. Bell, Jr., who survives him together with his wife, Mrs. Anna K. Bell, and his daughter, Mrs. Marjorie Callahan, who is a noted golfer in this area.

Mr. Bell was a member of the Turf Advisory Committee and was deeply interested in its work. His passing is a great loss to the field of turf culture and golf course architecture.

RESEARCH ADVISORY COMMITTEE FOR THE EXPERIMENTAL PROGRAM IN TURF CULTURE

Mr. Colin C. Simpson, Chairman
Southern California Golf Association

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

Mr. Joseph Beeler
California Landscape Contractors Association

Mr. 'William Beresford
Southern California Golf Superintendents Association

Mr. Frank Collier
Athletic and Recreational Turf Association

Mr. Leo Davis
California Fertilizer Association

Mr. Harold A. Dawson
Southern California Golf Association

Mr. William G. Hay
American Lawn Bowling Association

Mr. William Johnson
Golf Course Superintendents Association of America

Mr. E. B. Marzolf
Implement dealers

Mr. M. E. McCollam
California Fertilizer Association

Mr. Raymond E. Page
Southern Californio Chapter of American
Society of Landscape Architects

Mr. Frank Post
Interment Association of California

Mr. Claude A. Richards
Seed dealers

Mr. Gomer Sims
Public Links Golf Association

Mr. William W. Stewart
Southern California Golf Superintendents Association

Mr. Charles Wenger
Los Angeles City Schools

Mr. Richard Westcott
California Association of Nurserymen

Mr. Vern Wickhom
Los Angeles County Parks & Recreation Department

HONORARY MEMBERS:

Dr. Fred V. Grau
Grau-Murray Grass Service

Mr. Charles K. Hallowell
Agricultural Extension Service
The Pennsylvania State College

Prof. H. B. Musser
Department of Agronomy
The Pennsylvania State College

Mr. 0. J. Noer, Agronomist
Milwaukee Sewerage Commission

Mr. Charles G. Wilson, Regional Director
U. S. Golf Association Green Section

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

(Continued from page 1)

The long-awaited results of the comprehensive turf survey of Los Angeles County will he disclosed for the first time. Many individuals and organizations are working hard to complete this report on the areas of turf in the different classes before the conference.

There will be a noon luncheon at the Riviera Country Club. The afternoon session will be devoted to sectional meetings for the following groups of turf interests:

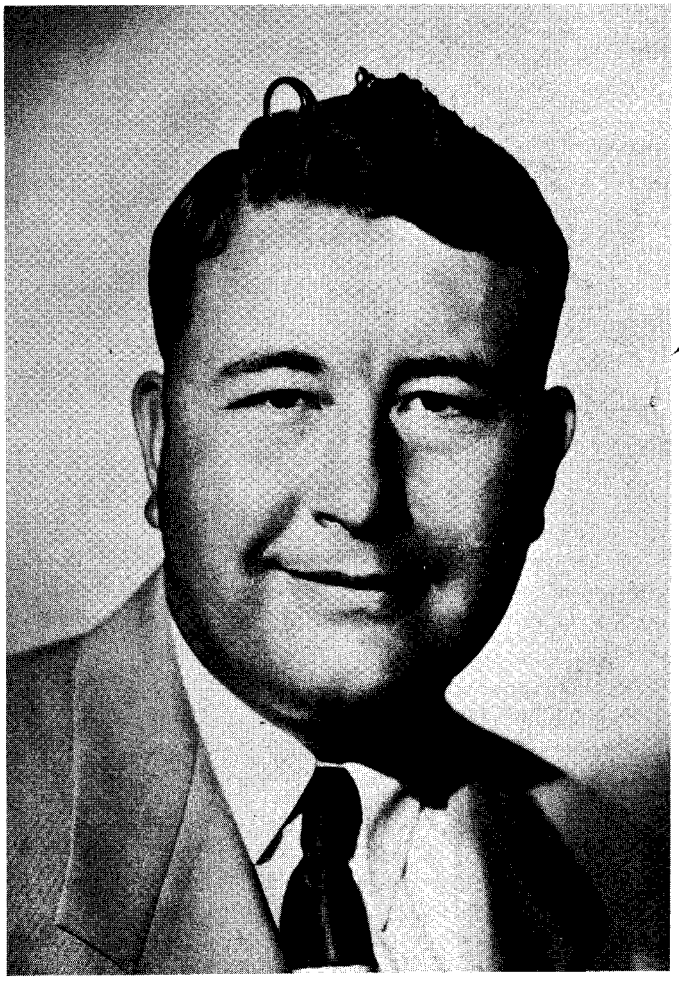
1. **Parks, Recreation and Athletic fields, Commercial Grounds and School Grounds, and Cemeteries.**
2. **Golf courses.**
3. **Landscape Architects, Landscape Contractors and Government Agencies.**

Panels devoted to the following subjects will appear in rotation before each of the groups:

1. **Grasses**
2. **Soils and Irrigation**
3. **Fertilization**
4. **Insects, diseases and weeds**

This will be followed by an evening banquet and program.

On Tuesday, October 13, an inspection of the experimental turf plots at 300 Veteran Avenue at 9:00 AM., will be followed by a chartered bus tour to various places where interesting developments in turf culture may be viewed. The bus will return to the campus late in the afternoon.



DR. JAMES R. WATSON, JR.

HOW TO PLANT CREEPING BENT STOLONS AND PRODUCE PUTTING GREENS

R.R. Bond

Before planting stolons, check on the greens to see whether they are ready to be planted -- a green correctly built will save many headaches in years to come.

FIRST: Is the foundation of the green made up of porous materials, such as coarse sand and pea gravel or stone and cinders and a little soil, so as to have a quick, natural drainage, not only downward but sideways? If not, and you have considerable clay in the sub-soil, it will be **best** to tile the green.

GOOD SUB-DRAINAGE IS VERY IMPORTANT.

SECOND: Is the green so shaped that there are at least two or three different slopes for quick drainage in case of over-watering or heavy rains?

GOOD SURFACE DRAINAGE IS VERY IMPORTANT.

THIRD: Do you have seven to ten inches of good top soil, composed of about 20% rich corn land soil, 60% coarse sand, and 20% cultivated peat, all mixed together with a disc or roto-tiller?

GOOD INTERNAL DRAINAGE IS VERY IMPORTANT.

FOURTH: Has the green been worked over and over from all angles with roller and rakes so as to smooth out all sharp undulations and hillocks? This does not mean that the green must lie perfectly flat and smooth. You may have undulations, but they must be so graduated that a putting green mower can run over them from any angle without scalping and so that no pockets remain.

FIFTH: Is the green well settled?

If you have neglected to perform any of these operations your greens are not ready to plant, and your omissions should be corrected before planting.

Assuming that all these operations are taken care of, we are now ready to plant the green. The objective towards which we are striving is to establish perfect bent greens as fast as we can to help nature grow the grass and follow a program in which playable greens can be established in eight weeks or less, and good playable greens in nine or ten weeks. To obtain this goal we must have rapid and continuous growth of grass.

PLANTING PREPARATION

A week before planting, spread dry ammonium sulphate over the green at the rate of eight pounds per thousand square feet. If there is no rain during the week, gently rake the sulphate in, and wet down the night before planting. If the green is well packed,--and about five per cent of them are--the men can work on them by wearing rubbers or heavy socks over their shoes, but if the green is soft and apt to show heel prints, it is best to work on wide boards. Run a line of boards the full length of the green from the apron to the back and through the middle of the green. Then lay two rows of boards about a foot apart at right angles to the first row of boards; these should start two feet from the edge of the green. In this way we start planting at the back of the green and work towards the apron where all our materials should be placed.

The materials needed are: a supply of shredded or chopped stolons, a wheelbarrow, four bushel baskets four tin pails, two rakes, one fairly heavy roller, a hose with an extra-fine nozzle, about ten wide boards ten feet long, and a cubic yard of ready-mixed, sieved top dressing. This top dressing has about two-hundred pounds of Milorganite or similar organic fertilizer, and a few shovels-full of potash. The correct mixture is composed of 60% coarse, sharp sand, 20% fine cultivated peat and 2% good soil. Any good humus fertilizer, such as well-rotted, screened barnyard manure, at least four or five years old, can take the place of some of the peat. This additional fertilizer disintegrates slowly and is a continuous feed for the young roots growing down. You will note that our first top dressing is very friable. The object is to have it so porous that a newly sprouted node can come through the soil wherever it sprouts instead of crawling along under a crust until it finds a crack in the soil for an opening.

PLANTING THE GREEN

First rake the part of the area between the first row of boards and the end of the green to a depth of about a fourth of an inch. Spread the chopped stolons through your fingers at the required rate. Roll these stolons down, and top dress to no more than an eighth of an inch, and roll again. The object is to have the stolons packed between two layers of dirt in the same way that a gardener would pack down the soil after planting seeds. About a fourth to a third of these stolons will show above ground.

This is as it should be as the nodes above ground will sprout into leaves and new stolons, while the nodes under ground will sprout into roots as well as new stolons. The top dressing must not be thrown on with a shovel, but must be laid on so as not to disturb the stolons. A top dressing spreader would be very satisfactory here, but if none is available drop the top dressing as evenly as possible by working the material through the fingers. Now, move the first row of boards behind the second row of boards about one foot. This will give you a planting area about two feet wide, which is all the average man can reach while doing his planting; then proceed as stated before. First, rake; second, plant; third, roll; fourth, top-dress; fifth, roll again; and sixth, move your boards back again. It is all very simple when once you get the rotation.

It is very important that the stolons shall be scattered evenly. It is an exacting job because if planted too sparsely it will take longer for the growing stolons to cover the ground, and if the planting is too thick the stolons will bulge when they stool out and will need to be rolled down every morning until the roots take hold. For quick coverage we suggest that stolons be planted to a thickness of ten bushels per thousand square feet. At this rate the green will thicken very rapidly and before the weeds have a chance. To obtain the correct thickness mark off a plot exactly 10 x 10 feet, which is 100 square feet, and plant one bushel of the stolons in this area. This is at the rate of ten bushels per thousand square feet. After getting the knack of planting this area to this amount of stolons you may feel pretty sure that you are planting correctly without running short or having an over-supply of stolons.

WATERING

If the day is warm, windy, or sunshiny better start spraying even before the green is half planted. This spray is an extremely fine mist, one through which rainbows can be seen. It is not the amount of water put on the green that counts, but the frequency of moisture, because after all, one need not water over a quarter of an inch, and at no time must the top layer of this soil become dry, not even for an hour, and it must be kept moist for a period of at least four days. On the other hand do not over-water, as the top dressing will then be washed off the stolons and rivulets will form in the green. This is so important that the best man on your force should be given the task of spraying. Leave one man to spray on the first green while the second green is being planted. He can alternate his time between the two greens until the third green is ready for him. One man can take care of three greens by just making the rounds. The first four days tells the story and are the most important. If this top layer of soil becomes dry and the tiny roots dry up you lose your green. After the first four days of almost constant and continuous spraying from sunrise until after sunset, slow up the spraying to about every hour or so, depending on the winds and the hot sun. If the weather is cool or the sky overcast it is natural that the ground will not dry out so quickly and will not have to be sprayed so often.

On the fourth day new shoots will show all over the green. Then there is nothing to do for the next two or three weeks except, of course, spray. Watch your green carefully, and whenever the new stolons become an inch or two long, the green is ready for another application of ammonium sulphate at the rate of five pounds per thousand square feet, the sulphate generally dry or mixed with damp sand, And, be sure to wash it off the blades.

FORMING SOD

Whenever the stolons grow to a length of three or four inches they are ready for the first mowing. This may be three or four weeks after planting, depending upon warm, growing days and nights. Before mowing roll the green so as to force as many of the stolons into the soil as possible, and then mow, first with an ordinary five-blade mower, following this up with a putting green mower set to a heighth of one-fourth inch. Let the clippings fall where they may, scattering some of them where they are too thick over the places that are too thin. Then roll the clippings down and top dress with the same mixture of top dressing as stated before, and not over an eighth of an inch thick. Do this once a week for four weeks. This is what is called "Building Sod." After this remove the clippings with a catcher on the mower, and your green is ready to play upon. The last rwo top dressings are dragged in so as to level and smooth the green. The program outlined is an eight-week schedule, but it may be slowed up a week or two or advanced a week or two depending upon growing weather.

SUBSEQUENT CARE

From here on in, lower your mower to 3/16 of an inch and keep it there, and change the top dressing mixture to less sand and more dirt. A good average top dressing is composed of about 30% good soil, 50% coarse, sharp sand, and 20% peat. But you must do your own experimenting and when you get the correct mixture of your soil, stay with that mixture to avoid layering. Stolons may be planted any time during the growing season, presumably from April 1st to November 15th, depending upon your locality.

(Editorial Note: Permission to reprint this excellent discussion was given by Mr. R. R. Bond of the Old Orchard Turf Nurseries, Madison, Wisconsin.)

THE RYAN SOD CUTTER

Through the courtesy of the Pacific Toro Company of Los Angeles, the new Ryan power sod cutter was loaned recently for use on our experimental turf plots where it expedited the lifting and removal of some large areas of sod. The unique feature of this piece of equipment is the vibrating cutting knife. The outfit is shown in operation on the turf plots in the accompanying photograph.

This new sod cutter is one of a number of important new developments in the increasing mechanization of turf culture.

(In order that the information in our publications may be more intelligible it is sometimes necessary to use trade names of products or equipment rather than complicated descriptive identifications. In so doing it is unavoidable in some cases that similar products which are on the market under other trade -names may not be cited. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.)

THE RYAN SOD CUTTER IN ACTION ON THE TURF PLOTS AT U C L A