

Southern California Turfgrass. Culture

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

JANUARY, 1955

VOLUME 5 · NUMBER 1

TURFGRASS BY THE THOUSANDS OF ACRES

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A turfgrass survey of Los Angeles County reveals some 63,000 acres of actual turfgrass. It also shows that the present cost of establishing this grass would be about \$262,000,000 and that \$90,000,000 are spent each year in maintenance. This puts turfgrass in the big business bracket.

It is quite natural that the home lawn should collectively account for the greatest area and the major fraction of total installation and maintenance figures. The survey reveals 1,130,400 individual residences with a total of 50,681 acres of turfgrass. This averages 1953 square feet per home. The average installation cost of \$188.00 varies widely depending on whether the owner does the work or whether planting is part of a large tract contract, and on the presence or absence of a sprinkler system. Annual maintenance cost averages \$52.99 for the home lawn; however, this figure does not include labor of mowing and irrigating on 80% of the home lawns (and duplexes) managed by their owners. A careful estimate indicates this unrecorded labor amounts to 87 hours per year per home, or 83.6 million hours in the county. How much is the home owner's Saturday afternoon worth? You figure it and add the total to the \$90,000,000.

It is interesting to note the total area of turfgrass for all residences, including single dwellings, duplexes, and multiple apartments, accounts for 85.6% of all turfgrass area of the county.

Church lawns average 2500 square feet and new churches have more grassed area than older ones. An estimated 5% of the county's factories have lawns. These average about 3,000 square feet. Public schools of the county average 31,700 square feet of lawn. Colleges run to large grass areas with an average of 27 1/2 acres. This figure of course includes athletic fields, tracks, and parade grounds, as well as campus lawns.

The natural question is, how much turfgrass is in the State of California? This is indeed a good \$64 question! Before it can be answered accurately there should be several turfgrass surveys similar to the Los Angeles County survey in other parts of the State. It is hoped

that organized turfgrass interests will make every effort toward this end.

At the present time the only approach to even an approximate figure would be to interpolate the Los Angeles County figures on a population basis. It is anyone's guess whether there is a larger or smaller grass area per person in the rest of the State as com-

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This publication "Southern California Turfgrass 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.

pared to Los Angeles County. On the assumption that the turfgrass areas are reasonably comparable, totals for the State can be calculated on the basis of 2.515 times the Los Angeles figures. This ratio is based on a Los Angeles County population estimate as of April, 1954, and a U.S. Census estimate for the State on July 1, 1953 - the last figure available.

Using this ratio there would be 2,843,000 individual residences in the State with 126,780 acres of lawn around them. These would represent installation costs of \$531,640,000, and annual maintenance expense of \$149,700,000.

Applying the ratio to the total turfgrass area, the figure would be 158,725 acres for the state. Similarly, current installation cost for this area of turfgrass would be \$656,144,000. The annual maintenance outlay would total \$226,071,000.

People do not spend money year after year buying something that they do not want. Every new home owner wants a lawn. People want parks, playgrounds, athletic fields, and they are willing to support them. On this basis the current investment in lawns represents what people are willing to invest for benefits they want.

Likewise, it can be argued that people do not maintain an expense year after year unless they are getting value received. The home owner, school board, city fathers - all must be convinced that they are justified in spending money to maintain their grassed areas or they would put a stop to it. In this same vein, therefore, \$226,000,000 annual maintenance cost can be considered as reasonably comparable to cost of production.

The Los Angeles County Turfgrass Survey was sponsored by the Southern California Golf Association, 1709 West Eighth Street, Los Angeles. Copies can be obtained from that organization. Actual compilation of data was done by J. A. Beutel, Los Angeles County Farm Advisor, Agricultural Extension Service, University of California, and Fred W. Roewekamp, Park Development Supervisor, Department of Recreation and Parks, City of Los Angeles. These men had the cooperation of the Department of Floriculture and Ornamental Horticulture, University of California, Los Angeles, and of the Advisory Committee for the Research Program in Turfgrass Culture at the University of California, Los Angeles. The data in the survey are the result of hundreds of hours of careful investigation including the actual measurement of representative samples; for example, 10 to 30 homes in each of 31 districts of the county. Many actual records of installation and maintenance costs were obtained from park departments, athletic fields, golf courses, public institutions, landscape contractors, gardeners and home owners. A study of the methods used in data collection and calculation leads to the conclusion the survey was carefully and thoroughly done, and presents a reliable and conservative picture.

AGRONOMY SOCIETY MEETINGS

Two staff members of the University of California, Los Angeles, Dr. V. T. Stoutemyer and Dr. O. R. Lunt, attended the meetings of the American Society of Agronomy in St. Paul, Minnesota during the week of November 8 to 12. One of the crop science sections was devoted to Turfgrass Management, and approximately 75 persons were in attendance. This compared favorably with some of the other sectional meetings. In the opinion of the writer, this field of activity is now firmly established in the society because of the efforts of Turfgrass Committee and its chairman, Dr. Fred V. Grau. In his annual oral report to the society, he did not read the formal report (which will be printed) but showed slides of interesting work in progress at various experiment stations. Dr. Grau has done outstanding service in obtaining recognition for this subject as a unique and important phase of agricultural science.

The "Turfgrass Survey of Los Angeles County" attracted considerable attention and warm commendation from the group. It will doubtless inspire similar studies in other parts of the country.

A number of interesting papers were presented in the Turfgrass section. Dr. W. H. Daniel of Purdue University has data which show that failure of arsenicals to control Poa annua may be attributable to excessively high amounts of phosphorus in the soil. This is a very common condition in his locality. This seems to be a distinct contribution of new knowledge.

Joseph M. Duich and Professor H. B. Musser of the Pennsylvania Agricultural Experiment Station reported successful establishment of crown vetch on roadside cuts by seeding in mixtures with certain grasses. Prof. Musser also gave a report on the excellent performance of the new Penncross creeping bentgrass (formerly called Polycross) which can be grown from seed. This will

become available again in limited quantities next fall.

A paper from Rutgers University dealt with the importance of nitrogen in establishing a roadside cover.

V. T. Stoutemyer presented a report on work by Dr. M. Zaki Mahdi and Gordon Wyckoff on the maintenance of cool season grasses in bermudagrass.

Dr. J. R. Watson of the Toro Manufacturing Company described his experiences in growing warm season grasses in Minnesota for testing machinery. Dr. Watson conducted an afternoon bus tour sponsored by the Toro Company for the turfgrass agronomists, visiting parks, the Minikahda Country Club, and the large experimental turf area at one of the plants of the Toro Manufacturing Company south of St. Paul. This is maintained perhaps more for the study of machinery than for grasses, although the effects of leaf mulching, mowing, and other cultural practices involving machinery are studied very scientifically. Here are located proving grounds for machinery where it is run to the point of breakdown for study by the engineering staff. Some radically new types of experimental equipment were displayed.

In the evening, the members of the group were guests of Toro for a very fine dinner at the St. Paul Athletic Club.

Information presented at some of the other Soils and Forage Crop sections will doubtless be applicable to our specialized field. Those who attended the meetings seemed to be in unanimous agreement that some highly significant advances in the agricultural sciences were reported.

The meetings of the society for 1955 will be in Davis, California, August 15 to 19. This will be the first meeting of the Society on the west coast and we hope that many of our readers will plan to attend.

"SUPERIOR PUTTING GREENS"

by
Dr. Fred V. Grau

This 14-page mimeographed bulletin was recently published by the West Point Products Company, West Point, Pennsylvania, as the first bulletin in a series. It deals with the important considerations in the construction, repair and management of putting greens from a thoroughly modern standpoint, including correct mowing, aerifying, and vertical mowing. Important but often overlooked points on the care of equipment are given. Unquestionably, many instances of unsatisfactory performance have been due to faulty maintenance of equipment.

Much of the material in this brochure cannot be found in the standard books and bulletins or turfgrass culture. The subject is one in which rapid advances are being made. We all owe a debt to those who record and make available current progress.

All golf course superintendents and greenkeepers of lawn bowling clubs should read this bulletin.

RECENT GIFTS

- U. S. Golf Association Green Section
\$300.00
- Douglas W. King Company
San Antonio, Texas
Bahagrass seed
- Associated Seed Growers, Inc.
Los Angeles
Merion bluegrass seed
- Wilson & George Meyer & Co.
Los Angeles
100 lbs. Hi-Press peat moss
- Pacific Guano Co.
Los Angeles
5 sacks Pax
3 sacks Guanorganic
3 sacks G & L 6-9-6
- Brea Chemicals, Inc.
Los Angeles
100 lbs. ammonium sulfate

NEW EXTENSION COURSE

University Extension of the University of California, Los Angeles, announces the following agricultural course:

Course No. 830 ABCD

Plant Growth in Relation to Its Environment

The physiological and environmental factors which affect plant growth from a standpoint of "how and why" in order to achieve the best plant growing conditions.

Problems to be studied include:

Disease control -

What plant diseases are; how they spread; present day cultural and chemical methods of control; diseases of specific crops, their recognition and control.

Insect control -

How insects attack plants; plant protection against attack; insects of specific crops.

Weed control -

Identification, ecology and physiology of weeds; modern agricultural chemicals and herbicides used in weed control; dosages, methods of application, spray rigs; specific methods of weed control in truck and field crops, flower crops, turf, range land and industrial areas; use of plant growth substances for other horticultural purposes.

Soils -

Agricultural characteristics of soils; fertilizers; soil amendments; methods of irrigation; water quality; mineral nutritional requirements of plants; soil - water - plant relations; soil fumigation from the standpoint of disease, insect, nematode and weed control.

Economics of institutional grounds maintenance -

Factors which affect maintenance costs of public and private landscaped areas such as parks, playgrounds, golf courses, and other turf areas; methods of planning of work schedules, increasing efficiency and lowering overall costs; determination of cost of production for various flower, vegetable, greenhouse and nursery crops.

Taught by Jesse Skoss, Ph.D., Consulting Agronomist

Classes meet at U.C.L.A. in Room 29, Physics-Biology Building, from 7:30 to 10:00 P.M. starting Monday, February 14, 1955, and meeting every Monday and Wednesday thereafter for twelve weeks.

Fee - \$36.00 for 60 hours of instruction.

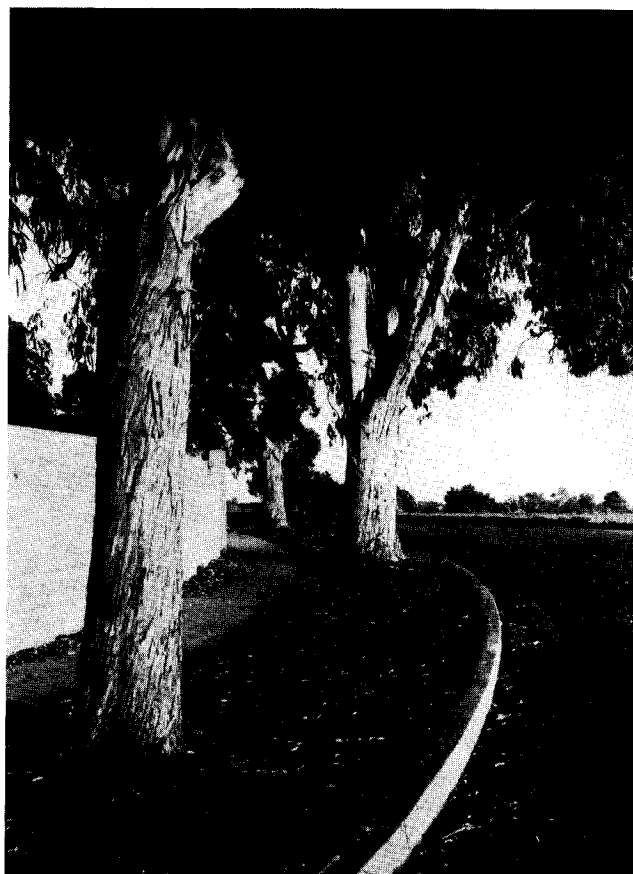
Turfgrass surveys seem to be popular all over the country just now. The New York State Turf Association recently released figures on a somewhat incomplete summary. In this, the number of home lawns was estimated at 1,875,000, having a replacement value of \$93,750,000. Public schools in the state have a total turf area of about 10,000 acres. The state has 150 eighteen-hole and 280 nine-hole golf courses, with an estimated four acres of fairway and 1/9 acre of putting green turf per hole.

GROWING GRASS UNDER EUCALYPTUS

Eucalyptus trees, of any appreciable size and age, present almost insoluble problems for the growth of plants beneath them. That red creeping or Chewing's type of fescue may have some possibilities in such situations may be seen in the accompanying photograph of lawn under large trees of manna gum, Eucalyptus viminalis, in the parkway along a street in Pacific Palisades. The seed source or strain for this planting is not known, but for at least the last five years the quality of this strip of lawn has been excellent. The site has apparently not been sufficiently favorable to permit much invasion of other grass species. A sprinkler system is provided for this lawn, but watering appears to be on the light side. We have also noticed the same type of grass becoming established around the trunks of acacia trees where other species in the seeding mixture would not grow.

We shall appreciate hearing of any experiences related to this difficult problem, which is frequently encountered in many parts of California.

The selection of ground covers other than grass under Eucalyptus trees is quite limited. Mr. Theodore Payne, a pioneer Los Angeles nurseryman, specializing in California native plants, has seen Mesembryanthemum cordifolium doing well in this situation. This species has inconspicuous magenta flowers and is said to root from cuttings. He has also seen successful plantings of Crassula spathulata in the same situation.



FESCUE LAWN UNDER LARGE EUCALYPTUS TREES