

# 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.

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## CONFERENCE ON TURFGRASS CULTURE

The 1954 conference will consist of meetings held at the Elks Club, 607 Parkview Street (near MacArthur Park at Wilshire) in Los Angeles on Monday, October 4. This will be followed on Tuesday, October 5, by a chartered bus tour of interesting turfgrass areas in Los Angeles County. A registration fee of \$1.50 will be charged at the conference, which will not include cost of meals or bus transportation.

A notable group of authorities will appear on the conference program. We are fortunate in having with us Dr. Fred V. Grau, Mr. John Gallagher, Dr. Robert M. Hagan, Mr. W. A. Harvey, Dr. James R. Watson, Jr., Mr. Charles G. Wilson, Mr. O. J. Noer, and others.

Monday morning will be devoted to a program of lectures. The afternoon program will consist of rotating panels in sections devoted to the following interests:

1. Parks, recreation, athletic fields, cemeteries, industrial and school grounds.
2. Golf courses and bowling greens.
3. Landscape architects and contractors, governmental agencies.
4. Nurserymen and home lawns.

The chartered bus tour on Tuesday will be preceded by an inspection of the experimental turf plots at 300 Veteran Avenue on the U.C.L.A. campus beginning at 9:00 A.M. The bus will leave the area at 10:15 A.M.

Programs of the conference may be obtained from the Department of Conferences and Special Activities, Extension Division, University of California, Los Angeles 24, California.



◁ MR. W. A. HARVEY



MR. CHARLES K. HALLOWELL

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TURFGRASS SURVEY OF LOS ANGELES COUNTY

This survey has been in progress for a considerable period of time and has just been printed. It is the first detailed survey of this kind to be made for any area in the state.

Distribution is in progress by the secretaries of the various organizations interested in the experimental program in the culture of turfgrasses at U.C.L.A. The Survey will be discussed in a future issue.

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RECENT GIFTS

Hardie Manufacturing Company  
Los Angeles  
4" plug cutter

U. S. Golf Association Green Section  
of New York  
Q300.00

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WESTERN GRASS NURSERY

As a public service, we plan to list from time to time Western nurseries which can supply stolons of the newer strains of vegetatively propagated grasses. A new source for zoysias and bermudagrasses is

The Turfgrass Farm  
4961 East 22nd Street  
Tucson, Arizona

Here is probably the only large commercial stock of Meyer zoysia in the West.

Mr. Milo Perkins, the proprietor, was a prominent Washington, D.C. figure for many years in the U.S. Department of Agriculture, and later during World War II was in charge of the program of Economic Warfare.

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RESEARCH GRANT FOR SOIL STUDIES

The recent drastic reorganizations of structure and policy of the U.S. Golf Association Green Section have emphasized extension services to member clubs. However, it is now apparent that the Green Section is encouraging and underwriting the cost of research projects at Colleges of Agriculture over the entire country. We are happy to announce that a grant of \$300 in funds has been made to support the work of Dr. O. R. Lunt of the Department of Irrigation and Soils on physical structure and compaction of soils in relation to the culture of turfgrasses.

The Green Section has also supported the research of Dr. Robert M. Hagan at Davis on irrigation and depth of rooting of grasses.

# THE VERTICAL MOWING OF GRASS

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Department of  
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In areas where bermudagrass is well adapted, it has long been a standard practice to remove periodically or thin out the thick mat which invariably develops on bermudagrass turf areas. This mat is a combination of living grass stolons and dead grass clippings. It builds up rapidly if the clippings are allowed to fall and if mowing is rather high.

The process of removing this mat is often called "renovation" and the machines for doing the job, "renovators." A renovator is a machine with a series of vertically revolving knives that cut and tear out the creeping stolons and lift the dead organic matter to the surface. Renovation is usually a very severe treatment of a lawn area and is done most often in the fall of the year. The knives are set deep enough to remove the dormant bermudagrass and stir up the surface of the soil to provide a shallow seedbed for reseeding with a cool-season grass. Renovation is often done in alternate years, but also annually or at irregular intervals.

More recently some manufacturers have refined the basic principles of this machine for more precise control of the action on a less severe basis. Additional knives have been added to permit a more even cutting and thinning job and the controls for setting the depth of cut have been made more flexible to enable the operator to set the machine with greater precision. Treatments may now be given without interfering with the appearance or the use of the area.

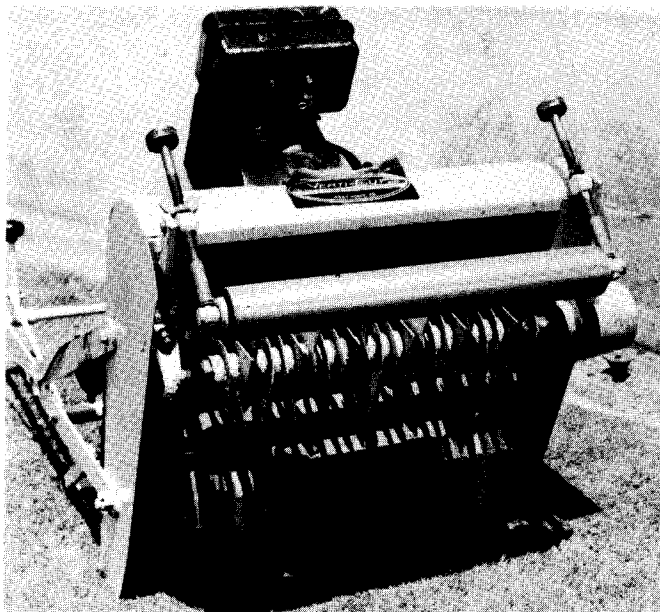
New clonal strains of bermudagrass are rapidly replacing common bermuda on highly specialized turf areas, and while they are far superior to common bermudagrass, they likewise require periodic thinning for best results. Vertical mowing in two directions has proven to be the fastest and easiest method of thinning bermudagrasses.

The development of "grain" in bentgrass putting and bowling greens is a frequent undesirable condition which vertical mowing prevents. The removal of "thatch," the surface layer of dead grass clippings, has done much to eliminate localized dry spots on all turf areas. Such areas are extremely difficult to wet once they develop, particularly if there is an appreciable slope to the ground. Aerating such areas and removal of the material preventing water penetration are the best treatments for this problem.

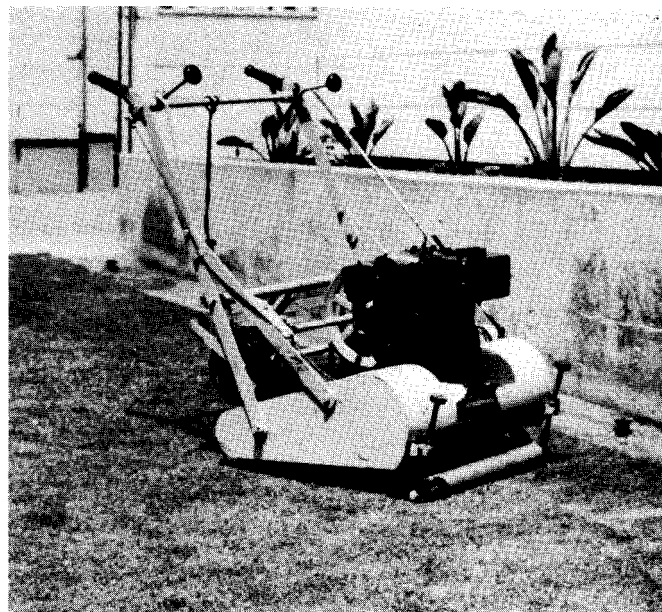
Vertical mowing has been promising in the control of noxious weeds. The spread of crabgrass runners can be discouraged and reseeding greatly reduced by cutting off the seedheads as they emerge from the sheath. Creeping perennial weeds are also held in check by periodic mowing with these machines. Data obtained in studies by John Gallagher, working with Professor H. B. Musser at Pennsylvania State College, will shortly be made public. Their experience indicated that the Verti-cut mower offers a practical method for the control of crabgrass in small turfgrass areas.

Another possible value of vertical mowing is in the keeping of certain combinations of warm-season and cool-season grasses in permanent satisfactory balance. An illustration of this is given by recent experiences at U.C.L.A. with the mixture of U-3 bermudagrass with Merion bluegrass. This has produced one of the finest quality lawns we have ever seen when relatively new. Unfortunately, as the mat of stolons piled up thicker and thicker, the growth of Merion bluegrass was suppressed to a point where it was inadequate to furnish winter color.

A year ago, an area of these grasses in mixture in which the Merion bluegrass was so reduced that it was believed to have died out entirely, was given a vertical cutting and the thatch was removed. A surprising amount  
(over)



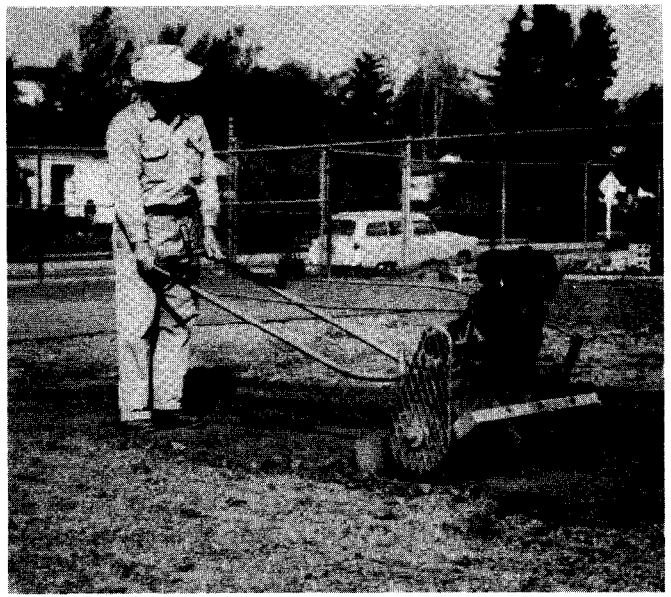
The Verti-cut Mower



The Verti-cut Mower



ALUMINUM ROLLER RAKE



"THE BIG GUS"

## NEW LAWN MAKING EQUIPMENT

In line with our belief that the future development of turf culture is closely connected with mechanization, we wish to call attention to several pieces of equipment developed locally by Mr. G. J. Hartman and Mr. John Margherio, which should be of much interest to those who install lawns or other turf areas where considerable truthness and quality is needed in the preparation of the seedbed. One of these is an outfit called "The Big Gus" which consists of a small water roller, rubber covered, which is powered with a four cycle Kohler gasoline motor. This has a blade in the rear for grading, and in the front, several teeth may be lowered for breaking up

hardpan. A combination belt and friction clutch arrangement permits a full power forward and backward. The apparatus is geared for a rapid movement and will easily double the speed of seedbed and site preparation. This is an important saving for landscape contractors. This equipment is ideally adapted for use in small areas.

The same inventors have also developed a large toothed rake with an aluminum roller and also a leveling blade with the same roller, which both help to eliminate drudgery and speed up site preparation. Manufacturing rights to these three new equipment items will be assigned to the Mefco Manufacturing Company of Glendale.

### THE VERTICAL MOWING OF GRASS (continued)

of Merion bluegrass reappeared and supplied an excellent winter color. Studies on this promising new lead will be continued. Another possible approach to the problem would be to prevent the appearance of thatch by frequent vertical mowing during the growing season. There are reports of weekly use and in one instance of use twice monthly or weekly on bermudagrass putting greens in the South. It should be emphasized that these machines are not renovators, but are maintenance machines for frequent use at light settings.

Another effect of vertical cutting which has been claimed in areas where grasses are subject to infestation with scale insects is that by removal of the old stems, the insect population is reduced. Also, greater freedom from turf diseases can always be expected when the formation of thatch is prevented.

Experience has produced several practical suggestions. It is well to change direction of operation with each use. Avoid excessive speed. Don't set the cutting blades too deeply or scars may be left on the surface. Once over the area is sufficient at one time. A practical way to remove clippings from vertical mowing is to follow with a 'mower with grass catcher.

Years ago the Del Monte greens rake accomplished a similar objective for bentgrass putting greens, but the pioneer modern introduction in vertical mowing equipment

was the Verti-cut, manufactured by the West Point Products Corporation. A more recent arrival is available locally from the Hardie Manufacturing Company, and is a modification of the Hardie renovator much used by gardeners in southern California. A third outfit is the Par-Thatcher, a light, small piece of equipment which is substituted for the reel and bed bar of an ordinary greens-mower. Doubtless this is only the beginning and other interesting pieces of equipment will be introduced.

This new development in maintenance of turfgrass is so recent that there are few exact experimental data on many of the varied aspects of vertical mowing. However, practical observations have long testified to the need for this sort of treatment. It is particularly important with the fast growing, stoloniferous grasses which are so prevalent in California. Unquestionably, this new equipment represents a definite milestone of progress. It is one of the many signs of vigorous activity which characterize the field of turfgrass culture today.

**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 or chemical 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.**