

Southern California Turf Culture

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THE ROTARY MOWER IN CALIFORNIA

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In the East and Midwest the rotary mower has had a startling success and in some sections is outselling standard reel-type mowers. The firms manufacturing these mowers now number around 150 and are growing. This intense competition can naturally be expected to lead to the rapid development of this type of equipment.

In California, where stoloniferous grasses require close cutting, the reel-type mower has not been challenged to the same degree by this newcomer since, up to the present time, the rotary mower has not been as well adapted to close mowing. However, a demonstration of an experimental model by the engineer of one firm has convinced us that a quite low cut can be obtained with a properly designed unit on level ground. It would also be possible to design a blade which would do a good job of renovating a bermudagrass turf, provided the engine had sufficient power,

A number of definite advantages can be claimed. The rotary mower is able to go through exceedingly tall weeds. Recently several rotary mowers were donated by the RPM Manufacturing Company of Lamarr, Missouri and have been used on the turf plots. They have been particularly useful in mowing long-neglected turf of bermudagrass which was difficult to mow with a conventional reel mower. These mowers discharge the clippings through a side orifice, and are available for 110 volt electrical power as well as with gasoline motors. These mowers were made available through the courtesy of the local distributors, Triangle Steel and Supply Co., of Los Angeles. This gift was reported in our January issue of "Southern California Turf Culture."

On small home lawns the collection of clippings might be desirable and this is possible with some models manufactured by Sensation Mower, Inc., of Ralston, Nebraska. Through the courtesy of the local distributors, Mac S. Krasnow and Associates, of Los Angeles, this mower was tried on our turf plots. The air movement which makes the collection of the clippings possible is generated by the cutting blade. The receiver is a metal frame covered with a plastic net.

One instance in which the rotary mower has been outstandingly successful is on a local cemetery where

the invasion of Dallisgrass is so extensive that no eradication is attempted. Previously a reel mower had failed to cut the stems of this grass properly which resulted in an unkept appearance all too familiar to those who have had to contend with this pest. A large Whirlwind rotary mower was purchased from Pacific Toro which has given an excellent cut of all the grasses present. The change to this type of mower has apparently solved this problem. The present appearance of the turf is about equal to that of Alta fescue. The rotary mower also promises to solve the difficult problem of mowing Kikuyu grass.

All types of lawn mowers are capable of causing accidents. The rotary mower, in particular, is not safe in the hands of careless or irresponsible operators. Doubtless, progress can be expected in the direction of greater safety.

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ROTARY MOWER WITH GRASS CATCHING ATTACHMENT

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THE ROTARY MOWER IN CALIFORNIA

(Continued from page 1)

The rotary mower seems to have a definite place in some specialized phases of turf culture in California. The future trend in competition with other types of mowers is difficult to predict and will perhaps depend on mechanical developments. Large rotary mowers with power take-off from a tractor are now available. One very important development in rotary mowers has been the leaf mill attachment which eliminates leaf raking or disposal and at the same time adds valuable organic material to the soil.

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.

BOOK REVIEW

Western Fertilizer Handbook. First edition, 1953. Published and distributed by the Soil Improvement Committee, California Fertilizer Association, 475 Huntington Drive, San Marino 9, California. Price \$1.00 per copy.

This book of 160 pages will be of great usefulness to all plant growers, including those responsible for the maintenance of turf grasses. A wide variety of fundamental topics on water, soils and fertilizers are discussed concisely. Many illustrations, including color plates of nutrient deficiency symptoms, are provided. Abundant tables of reference data are provided. The preparation of this book obviously required a great amount of labor and is worth far more than the very moderate price, which is undoubtedly below the cost of publication.

Prof. H. L. Lantz of Iowa State College has just completed a survey of turf areas in that state. He estimates that there are about one and three-quarter million acres in turf in Iowa distributed along the highways in state and city parks, in school yards, athletic fields, lawns, cemeteries and golf courses. There are about sixteen to twenty thousand acres in golf courses, and they have about 225 acres of putting greens. It will be interesting to compare these figures with those for California.

The many California friends of Mr. Charles K. Hallowell will be pleased to learn that a testimonial dinner in his honor, following the completion of 30 years of service, was given last September. It is hoped that he will be able to appear on the program of the Conference on Turf Culture to be held October 4.

DOLLAR SPOT CONTROL

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Dollar spot is the most prevalent fungus disease of bentgrass turf in the coastal regions of California. The straw-colored spots up to 2 inches in diameter may be observed from May to October. In severe attacks these spots merge, producing large irregular areas of withered grass.

This disease can be controlled with spray applications of some fungicides at 14-day intervals. This was demonstrated by comparative trials on the U.C.L.A. turf plots in 1951 and 1952. In the 1951 trials, Calo-Clor, Calo-Cure, Cadminate, Puraturf 177, Crag 1025, and PMAS all gave satisfactory control. The first two were used at 2 ounces, the second two at 1.6 ounces, the fifth at 3 ounces, and the last at 0.1 pint in 10 gallons of water per 1000 square feet of turf area. Orthocide 406 at 3 ounces was relatively ineffective. Cadminate gave the **most** rapid response in reducing counts of dollar spots. It likewise was most effective in retarding the recurrence of the disease after the spray treatments were discontinued.

The 1952 fungicide plots were laid out on an area of turf to which nitrogen fertilizer was being applied monthly at three different rates. A total of 6, 12, and 24 pounds of nitrogen per year per 1000 square feet was applied to replicated plots. Sulfate of ammonia was used as the source of nitrogen. Thus, data on both the fungicidal spray treatments and nitrogen fertility levels in relation to disease control could be obtained from the area.

Calo-Clor and Calo-Cure at 2 ounces, PMAS and Mercadmine at 0.1 pint, and Cadminate and Ferrated Actidione at 0.5 ounce in 5 gallons of water per 1000 square feet all gave effective control. The control was complete on the plots receiving nitrogen at 12 and 24 pounds per 1000 square feet per year. The plot sprayed with Cadminate again had the least number of dollar spots 10 weeks after the last spray treatment.

Nitrogen fertilization alone had a marked effect upon the severity of disease attack. Plots receiving nitrogen at the 6 pound rate showed the most severe dollar spot injury throughout the trial period. Substantial reductions in the numbers of dollar spots were recorded on plots receiving nitrogen at the 12 and 24 pound rates. The results show that moderate to liberal nitrogen fertilization of turf will reduce the severity of dollar spot attacks. It can not be depended upon, however, to give adequate control during periods of severe disease attack. Use of an effective fungicide must then be relied upon to get complete control of dollar spot.

We would like to publish from time to time in "Southern Turf Culture" a directory of those who are able to supply stolons of U-3 bermudagrass or other improved strains of this grass, vegetative strains of Zoysia japonica or Zoysia matrella, and the various standard vegetative strains of bentgrass. We wish to hear from all who are growing any of these grasses for sale, in order to make our listings complete.

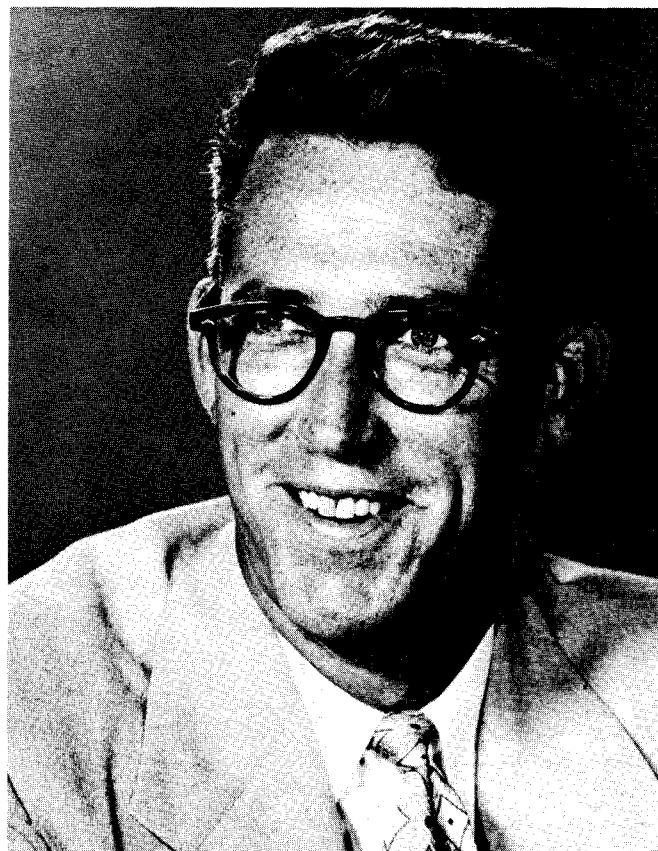
NEW EXTENSION APPOINTMENT

Those interested in the field of turf culture may expect to become acquainted soon with Mr. Robert M. Hoffman, newly appointed Extension Specialist. He will cover the two fields of turf culture and home grounds improvement. Mr. Hoffman, or "Bob" as his friends know him, will be stationed with the Department of Landscape Management on the Davis Campus.

He is a horticulturist who studied both on the Berkeley and the Davis campuses, and for the past seven years has served as a County Farm, Advisor. He leaves this post at Red Bluff, where he has made a fine record.

Mr. Hoffman has a son, 2, and a daughter, 4. He is a son of State Senator Verne Hoffman of Lodi, where a 400-acre family-operated farm continues to produce peaches, cherries, grapes, hogs and sheep.

The creation of this new position is another important milestone toward the development of an adequate extension program in turf culture in the State of California.



ROBERT M. HOFFMAN

RECENT GIFTS

H. L. Wagner & Sons
Imbler, Oregon
13 lbs. grass seed

Sensation Mower, Inc.
Ralston, Nebraska
Loan of Mow-Blo mowers

THE BAHIAGRASSES

C. Gordon Wyckoff and V. T. Stoutemyer

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Bahiagrass, (*Paspalum notatum*) in the common strain has been used for pastures in Florida for some years with success. This type is too coarse for turf use, but the finer textured types such as the Pensacola and the Paraguay, have recently come into such popularity in Florida and adjacent states that seed has been difficult to obtain and very expensive. However, recently the seed of the Pensacola strain has become quite reasonable in price, and small scale trials are suggested in California. Preliminary testing at U.C.L.A. has shown it to be a slow-growing stoloniferous grass requiring less maintenance and water than most turf grasses. The winter color has been somewhat superior to that of common bermudagrass at Los Angeles. It is a low cost maintenance grass. It does not form the tight, dense mat produced by the stoloniferous grasses. It is grown either from seed, or from vegetative planting.

Seeding at the rate of 3 pounds per 1,000 square feet has provided satisfactory coverage in our trials. This is considerably heavier than has been used for pastures, and we have also obtained good eventual coverage with lighter seeding, using 2 pounds.

Bahiagrass is a large seed and gives the best stand when raked in to a depth of about one-half inch. It is a warm-season grass and should be sown only in late spring or summer when the ground is warm. Occasionally seeds of Dallisgrass may be found in seed of this grass, and if seedlings appear, they should be eradicated immediately from the turf.

Some sources of seed are:

O. S. Baker- 358 Northwest 27th Avenue, Miami 35, Florida

Bingham Seed Co., P.O. Box 116 Jacksonville 1, Florida

Jackson Grain Company, P.O. Box 1290, Tampa 1, Florida

Whether the Pensacola or Paraguay strains are best adapted here is not known. The latter is more dwarf, but the former is probably hardier. One other strain which might deserve trial is the Wilmington. The Argentine strain is possibly too coarse for turf purposes. The so-called common strain is not suitable for turf purposes.

Nothing is known about the ability of bahiagrass to combine with cool-season grasses. Also, the ability of the bahiagrasses to compete with bermudagrass in southern California is uncertain. These grasses are suggested for trial in parks, athletic fields, playgrounds, heavy duty lawns or other areas receiving severe usage, and where the maintenance budget is limited. They are considered to be wear-resistant and fairly tolerant of shade. They do not stand salt spray at the seashore.

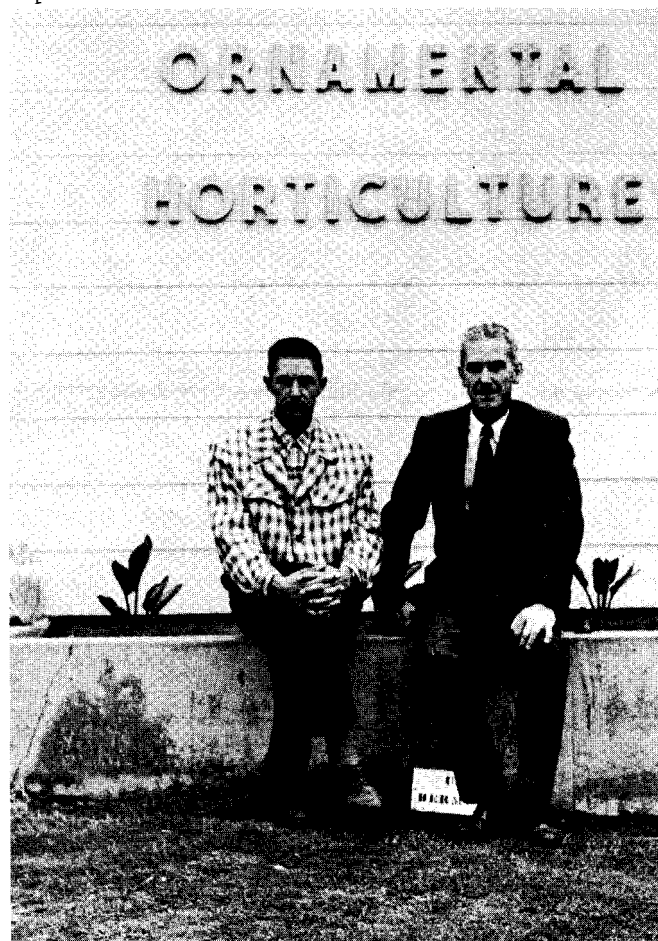
The most satisfactory height of cut for our conditions is not known, but probably is higher than would be desirable for bermudagrass. In Florida, the seedheads

MR. ARNE HOVIN

The first holder of the new Research Assistantship in the Department of Floriculture and Ornamental Horticulture is Mr. Arne Hovin. This position was created to hasten progress of the experimental program in turf culture.

Mt. Hovin is a native of Norway and was engaged in plant breeding work in Denmark at the time of the German Occupation. He now has a brother living in the area. He recently married a local girl.

Mt. Hovin has had European experience in breeding of grasses and agronomic crops and plans to obtain a doctorate in the field of plant breeding. His experimentation will be conducted on turf grasses, and we are fortunate to have a person with his specialized training and experience on this work.



ARNE HOVIN AND V.T. STOUTEMYER

are reported to be difficult to mow and a rotary type mower has been recommended. Our observations indicate that the seedheads are more objectionable on some bahias than on others. Bahiagrass has a lower nitrogen requirement than bermudagrass, but probably will respond to light applications of fertilizer, perhaps up to 5 pounds of nitrogen per 1,000 square feet per year. We were able to maintain established turf by watering only once a month.

Notes on the turf quality, drought resistance, winter color, weed, insect, and disease resistance, and other features of behavior will be greatly appreciated from those who grow the bahiagrasses in various regions of California.