Southern California Turfgrass Culture

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TURFGRASS FIELD DAY

John J. Stark
Farm Advisor · Los Angeles County

Plans have been completed by a committee of the Research Advisory Committee, appointed by Chairman Colin C. Simpson, for a Field Day and discussional program for the turfgrass industry in Southern California. This field day will be held on Tuesday, October 11, starting at 12:OO noon, at the turfgrass plots at UCLA. These plots are located at 300 Veteran Avenue, about a quarter mile south of Sunset Boulevard, and a mile north of the intersection of Veteran Avenue and Wilshire Boulevard. The UCLA campus is half a mile east of Sepulveda Boulevard, between Sunset and Wilshire, in West Los Angeles.

The activities of the day will start with an inspection of the turfgrass plots on the UCLA campus. There will be shown tests for control of soil compaction by the use of proper soil mixes, the elimination of weeds by the use of chemicals, and disease control plots. Following this, a tour by automobile will visit salt-tolerant grasses at the seashore, turfgrass grown on pure sand at the Hyperion sewerage treatment plant, and fertilizer plots at the Meadowlark Country Club at Huntington Beach.

After the tour, there will be a social hour at the Meadowlark Country Club, followed by dinner and an evening program. Speakers on the evening program will discuss the experimental plots maintained in different counties of the state by the Agricultural Extension Service, liquid application of fertilizers, turfgrasses for the seashore and salty areas, and possible methods of avoiding compaction through the use of proper soil mixtures and soil preparation. In addition, there will be panel discussions and a question and answer period.

During the day the group will hear from Professor Pierre Miller of the Department of Plant Pathology, Dr. 0. R. Lunt of the Department of Irrigation and Soils, Dr. Victor Youngner, in charge of turfgrass research in the Department of Floriculture and Ornamental Horticulture, all of UCLA; M. H. Kimball, Ornamental Horticultural Specialist with the University, on Extension Service cooperation in turfgrass testing; John J. Stark, Farm Advisor of Los Angeles County, on weed control; and Gomer Sims of Meadowlark Country Club on his fertilization and aeration problems.

This turfgrass field day and evening program are open to all interested in the raising and management of turfgrass in Southern California. All groups are cordially invited. There will be no registration fee.

Remember: The field trip will begin at 12:00 noon, Tuesday, October 11, 1955 at 300 Veteran Avenue, on the UCLA Campus.

EFFECTS OF TREATMENTS ON TURFGRASS PLOTS AT UCLA WILL BE SEEN ON FIELD DAY TOUR

This publication "Southern California Turfgross Culture" is sponsored and financed by the Research Advisory Committee. Communications should be sent to the Secretary. or to Dr. Victor B. Youngner, Department of Floriculture and Ornamental Horticulture, University of California, 300 Veteran, Los Angeles 24, California.

GREEN SECTION OPENS LOS ANGELES OFFICE

William H. Bengeyfield will succeed Charles G. Wilson as Western Director of the United States Golf Association Green Section on July first. At that time the Western office will be moved from Davis, California, to Los Angeles.

Through the very generous cooperation of the Southern California Golf Association, the Green Section's Western office will be located in the quarters of the Southern California Association, 1709 West Eighth Street, Los Angeles 17, California.

Mr. Bengeyfield attended Alfred University, Alfred, New York, until his education was interrupted by wartime service as a navigator of an American Air Force B-25 in the Pacific theater. Following his discharge he entered Cornell University and graduated in 1948 from Cornell's College of Agriculture.

During his summers at Cornell Mr. Bengeyfield did maintenance work on the University Golf Course and in the University Arboretum. He served as Assistant County Agent in Westchester County, New York, before being recalled to active duty in the Air Force as a navigator with the Strategic Air Command. Upon his release last year, he joined the staff of the USGA Green Section and has served in all five of the Regional offices.

He brings to his new position of Western Director a broad experience in both research and practical extension work. The heart of the Regional Turf Service is the provision of direct, on-the-spot scientific information to golf course superintendents.

Mr. Wilson leaves the Green Section to become an Agronomist for the Sewerage Commission of the City of Milwaukee, Wisconsin.

WILLIAM H. BENGEYFIELD

"UREA - FORMALDEHYDE" FERTILIZER

0. R. Lunt and Victor Youngner

The introduction this year of a new type of nitrogen fertilizer, "urea-formaldehyde" represents a special achievement of the fertilizer industry and one of importance to turf and ornamental interests. Urea-formaldehyde or methylene urea as it is sometimes referred to is the first synthetic nitrogen source in which the nitrogen availability may be controlled within wide limits during the manufacturing process. The particular advantage of U-F materials is that they have low initial solubility and release nitrogen at a relatively slow rate for a prolonged period under favorable environmental conditions. pH values in the range from about 5 to 8 have little effect on rate at which nitrogen in U-F is converted into available forms.

Prior to the introduction of U-F materials all the synthetically produced nitrogen fertilizers were very soluble. Often this characteristic is not considered a disadvantage, but during warm weather even most skilled turfmen prefer using an organic source of slight solubility when dry fertilizing.

When climatic conditions are favorable most organic fertilizers will release about 85% of the nitrogen which would become available during a growing season during approximately the first three weeks after application. While the release of nitrogen from organic sources is much faster than is commonly believed, the low initial solubility and mineralization (conversion to available forms) over periods of several weeks represents a very important safety factor to the turfman. Figure 1 shows mineralization rates for various organic materials as well as U-F formulations.

U-F materials compare very favorably with the best organic materials with which they have been compared. However, only research quantities have been available and so much is yet to be learned regarding their use. Limited information has been obtained on two questions of practical importance:

1. How much can be applied in one application?

Two formulations containing U-F are on the market. One, a 6-10-4*, has been applied at rates of 200 pounds per 1000 square feet without apparently any injury to the grass when watered in. It should be pointed out that this application was not to a putting green and that safe applications to putting greens may be less.

Another formulation containing 38%** nitrogen has been applied to putting greens at rates of 20 pounds per 1000 square feet with no burning. Small plot data indicates that applications up to about 100 pounds, when watered in, per 1000 square feet should be safe under most conditions. However, applications of 50 to 80 pounds may well represent the upper safe limit for putting greens should it be desirable to make applications that heavy.

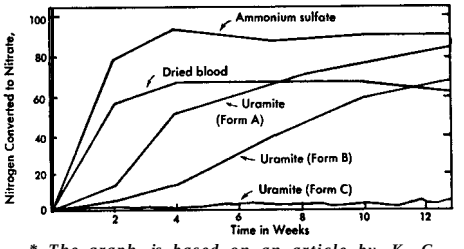
2. How long will a single application maintain turf in a desirable condition in regard to nitrogen requirements?

Here there is need for much more detailed information under Southern California conditions. Twenty pounds per 1000 square feet of 38% formulation applied to a putting green early in March showed the need for additional nitrogen late in June.

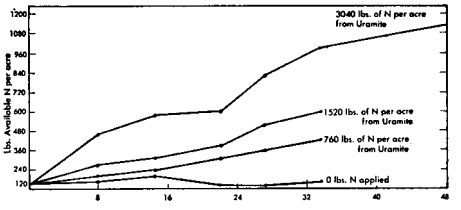
As was indicated above, the U-F materials show great promise. Only extensive use and comparisons can show what the relative advantages or disadvantages U-F and other organic nitrogen sources for turf may be. Finally, it is of interest if not importance to point out that U-F materials do not have a disagreeable odor.

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.

Conversion to Nitrate of Various Sources of Nitrogen During Periods Indicated."



** The graph is based on an article by K. G. Clark, Bureau of Plant Industry, U.S.D.A., in the June-July 1952 issue of* Crops and Soils.



Conversion of Insoluble Nitrogen in Uramite to Water-soluble Forms.
(Moist soil was incubated at 76° F ± 2°)

* **"Golden Vigoro"**
** **"Uramite"**

Mr. C. Gordon Wyckoff has left the University of California to become a representative of the J. C. Nees Turf Supply Company, 1055 East Macy Street, Los Angeles 33. Mr. Wyckoff was outstandingly successful in the conduct of turfgrass experimentation on the plots at 300 Veteran Avenue, and had also established a number of grass breeding projects. We all join in wishing him much success in his new position.

PROBLEMS OF MOWING THE WARM SEASON STOLONIFEROUS GRASSES

V. T. Stoutemyer
Department of Floriculture and Ornamental Horticulture
University *of California, Los Angeles*

Makers of equipment have apparently not yet solved adequately all of the special problems of mowing and maintenance posed by the stoloniferous warm season or southern grasses, unless several different pieces of equipment are used on a special schedule.

First of all these grasses - the bermudagrasses, zoysias, bahias, and St. Augustine - are all rough grasses which take more power and heavier equipment to handle well than do the cool season grasses. A bermudagrass lawn, kept under control, can be handled easily by a hand mower, but we would be most unwilling to face the prospect of maintaining any kind of zoysia lawn without a good power mower. In particular, those unfortunates who have Kikuyu grass may not find the reel and bed mower adequate, and they should consider the special qualities of the new rotary mowers which can readily deal with this problem. Even a bermudagrass lawn which has become badly overgrown can scarcely be handled by a conventional reel and bed mower. However, the rotary mower, the several vertical mowing devices, or even the standard renovator can all be used to cut off the piled up, matted material.

Most of those who know bermudagrass well in Southern California agree that is should be mowed closely. However, many of the mowers sold here are designed for mowing bluegrass in eastern United States, and are not good for bermudagrass. One nurseryman in the San Fernando Valley attempts co persuade his clients to use a putting green mower on their lawns of this grass and thus avoid the necessity of periodic renovation. Some of the estate type power mowers are close to meeting the requirements. One locally made power mower is sold largely to the numerous professional maintenance gardeners in the Los Angeles area, because it has several desirable features and will mow closely.

The trend on golf course fairways has likewise been toward lower mowing, although naturally a thick cushion of grass will be desired to give a good lie to the ball.

Generally, the stoloniferous grasses should be kept growing directly on the soil surface and should be prevented from forming any appreciable mat of stolons. Removal of clippings, where practicable on small areas, is a practice which also should be favored, since it will delay the build-up of the surface mat. However, extra nutrients should always be applied when this is done. Comb and brush attachments are available for certain mowers, but have limitations. Some of these devices tend to wear out too rapidly to be practical.

From the standpoint of effectiveness, the present available apparatus for vertical mowing leaves little to be desired. The investment is too great for the average homeowner, although the equipment doubtless will become available on a rental or custom basis in certain localities. The extra operation also requires labor, which is another drawback.

We believe that the need will be met eventually through the design of a really efficient, inexpensive mower designed specifically for the mowing of the stoloniferous, southern grasses. Such a mower would probably have the reel speed and number of blades of a putting green mower.

Suspended in front of the reel there might be small adjustable wheels or rollers which would help to maintain an even height of cut. These would support a small rotor to which teeth, hooks or knives turning on a small axis would be attached. These would not necessarily have to cut the stolons which lay on the ground, but might merely raise them so that the mower would remove them. The level of operation of this machine would be closely adjustable. Probably the grass catcher would need to be located in the rear.

Although adjustments should be provided which would allow low mowing, the design would not need to resemble a conventional greens mower. The old timers among us will remember the first hand greens mowers which looked much like the conventional hand lawnmower of the present time. Although crude in appearance, they did good work.

Possibly the ultimate solution will be along entirely different lines from those suggested above. Until that time we shall continue to maintain that we do not have available a good “one-package” outfit which is entirely adapted to the needs of the warm season stoloniferous grasses. This lack is one of the chief sources of trouble with our bermudagrass lawns, which we eventually acquire regardless of whether we wish to have them or not.

A machine for removing surface water from grass has been developed at The Sports Turf Research Institute, St. Ives, Bingley, Yorkshire, England, and was described in a recent issue of “Gardeners’ Chronicle.” This strange looking machine, which is known as the "Sisis," consists of a revolving felt-covered drum which comes in contact with the grass and absorbs the moisture which is removed and collected in a metal tank. It was used with success at Headingley, Leeds, in cricket matches between English and Australia teams.

The 16 mm. film “Merion Bluegrass - its Discovery and Development.” is available to organizations free, except for return transportation. Reservations should be made at the Turf Research Foundation offices, 208 South Lasalle Street, Room 633, Chicago, Illinois.