

pending 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 height 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 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 two 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 on 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 on your locality.

1951 NATIONAL FIELD DAYS

The USGA Green Section announced the 1951 National Field Days for October 7, 8 and 9.

Sunday evening will be devoted to progress reports by Turf research workers and graduate students and a discussion of plans for further research to meet current needs.

Monday will be the big day, during which our visitors will see the experimental plots at Beltsville as well as practical demonstrations of new grasses and new practices at a local golf course. Monday evening again will be devoted to a dinner and talks by leading turf authorities. Details of the arrangements will be published in the USGA Journal, in the Golf Course Reporter, in Golfdom, and in the various News Letters published by local associations.

Tuesday, October 9, will be a "free" day for anyone's choice. Some visitors will wish to review the turf plots; others may wish to visit golf courses in the area; still others may wish to go home. We hope the latter will be in the minority.

Reservations for rooms should be made directly. The tourist cabins near the Plant Industry Station include:

Del-Haven White House Cottages, Berwyn, Md.
Canary Cottages, Beltsville, Md.
Stewart Cottages, Beltsville, Md.

Downtown hotels, of course, are always available and are anyone's choice.

COMING EVENTS

Sept. 10-11, Golf Course Superintendents of America Tournament and Midwest Regional Turf Foundation Field Day at Purdue University.

Sept. 17, Joint meeting of Midwest Association of Golf Course Superintendents and Wisconsin Greenkeepers Association at Fox Lake, Ill.

Oct. 1, Pro-Superintendent Tournament at St. Andrews Country Club.

Oct. 7, 8 and 9, 1951 National Field Days at Beltsville, Maryland.

Oct. 15, Midwest Annual Fall Tournament at Chicago Golf Club, at Wheaton, Illinois

IS ORGANIC NITROGEN NECESSARY?

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Until very recent years, the answer was an unqualified "Yes" from such specialized users of plant food as Florida orange growers, North Carolina tobacco producers and those interested in turf management. It was the long-entrenched belief that such sources of nitrogen as cottonseed meal, tankage, dried blood, and other natural organic materials released their nitrogen slowly in the soil, since they were not water soluble. But some of these materials were found to be useful as animal protein feed supplements and brought a much higher price as such than they did before these values were found. Agronomists began to wonder if the organics were really necessary. It did not take them very long to find out that they were not, though custom prescribed their use in large quantities.

Much less costly substitutes were right under the noses of growers and agronomists alike. In fact, they were nothing more than the usual synthetic sources of nitrogen in the form of various ammonium compounds which provide nearly all of the nitrogen in today's plant foods.

In Florida it was found that if adequate amounts of minor elements were supplied, ammonium sulfate and sodium nitrate produced citrus fruits in quantity and quality equal to or better than that produced where organic nitrogen only or mixtures of organic and inorganic were used. Says Dr. J. W. Sites of the Citrus Experiment Station: "While two decades ago it was wrong to use inorganic mixtures of nitrogen, phosphorus and potassium it does not necessarily follow that they may not be used to advantage today so long as they are supplemented with adequate amounts of the other required nutrients."

Meanwhile in North Carolina, Drs. W. E. Colwell and S. L. Tisdale were investigating the rate at which the nitrogen in mixed fertilizers containing organic materials nitrified, that is, changed into the nitrate form used by plants, in comparison with the rate at which sulfate of ammonia broke down into the nitrate form. They found that with controlled incubation in the laboratory, by the end of three weeks practically all of the nitrogen that was going to become available in usable quantities had done so, whether the nitrogenous material was tankage, cottonseed meal, castor pomace or ammonium sulfate.

A further testimonial to the value of ammonia nitrogen was forthcoming from the Indiana Experiment Station in their bulletin No. 482. The bulletin states that as long as nitrogen is in the ammonium form, it cannot leach out of the soil in periods of excessive rainfall or move to the surface, out of reach of the roots in dry periods. High organic matter helps keep the nitrogen in the ammonium form because it supplies energy for bacteria that use up free oxygen in the soil, thus preventing ammonium nitrogen from too rapidly oxidizing it to nitrate nitrogen.

On turf experiments at State College, Pennsylvania in 1947 and 1948 the rate of availability of the nitrogen as reflected in amounts of clippings did not significantly differ between sewage sludge and sulfate of ammonia. However, the new synthetic "plastic", urea formaldehyde, was most promising as a slowly-available, evenfeeding nitrogen material. Unfortunately the raw materials constituting it are on the national defense critical list and there is no commercial production.