

Fall Fertilizing Gives Turf Spring Health It Needs

By LEONARD LIPMAN

LET A husky man and a thin man go with little food for three months. At the end of this time the thin man, poor fellow, will be weak and in poor shape, while "Fatty," who started with a large food reserve, may be as thin as his friend was at the beginning. As soon as Fatty starts eating again his normal healthy condition will reappear, but his thin companion probably has become a permanent invalid.

So it is with turf. A large healthy plant has more and larger water holding cells. A weak, undernourished plant cannot hold the moisture found in a vigorous, healthy one. A turf plant in prime condition will have larger roots enabling it to obtain more of the moisture present in the soil.

Until recent years, fertilizer was only applied in the spring. We assumed that because most things were planted then, and because growth was more vigorous, spring fertilization was best.

We have since learned that perennial crops require a little different treatment. Many golf courses have adapted a fall fertilization schedule with the result that they have obtained healthier turf the following year. This does not mean that spring fertilization should be stopped. It does mean that if fertilizer be applied both in the spring and fall, that turf will come through the arid summer in much better condition, and in the following year it will be in even better shape.

We often hear greenkeepers lamenting the fact that there is insufficient organic material in their fairways. If they were to adopt a fall feeding program they would soon be growing much of the organic material needed. A vigorous healthy turf grows at the rate of 100 pounds of dry

matter per acre per day. In two weeks we increase the organic content more than our budgets would permit us to apply in the form of topdressing in several years.

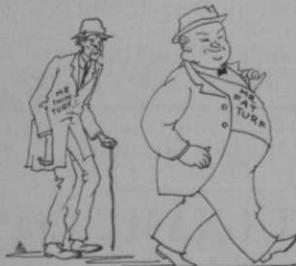
We must realize that after a dry summer, turf is undernourished and frequently has no attention until the following spring. Many golf courses don't fertilize their fairways even then. Under such conditions it is hopeless to expect to have our fairways as satisfactory as our greens.

Healthy Turf Retains Moisture

A thick, healthy turf will act as a soil mulch, thus enabling the soil moisture to remain in larger quantities. A thin turf will permit more evaporation of soil moisture resulting in drying out of the soil particles.

We have learned that in the fall, cool nights and sufficient moisture soon color up our turf. Before it becomes dormant and prepares for its winter sleep it is trying to store-up a sufficient food supply for a quick start in the spring. Here is where we can help our turf assure its "spring time look."

It is readily admitted that fall fertilizing pays, but we wonder about the expense, the proper fertilizer to choose and when to apply it. Our problem is really quite simple, if a few fundamental facts be observed. Mr. Webster, in his well-known dictionary says, "Fertilizer is the agent that carries the fertilizing principle." The fertilizing principle is the food supply for the plant. What do plants eat? Nitrogen for vigorous growth and luxuriant color. Phosphorus for root and stem growth. Potash for root and stem development and early maturity. Then, there are about seven other elements necessary, but usually found in sufficient quantities, in most soils so



Before fasting



After fasting

no difficulty in obtaining the money for fall and spring fairway fertilization.

The last few years have seen tremendous improvement in the appearance and playability of our golf courses. The United States Golf association, golf course superintendents, organizations, and state experiment stations have all been stressing the importance of a uniform healthy turf. With all this progress we have seen increased interest in golf as a national pastime. As our courses improve, our players will increase in number and our club revenues will be ample to enable us to make our courses even more playable and attractive.

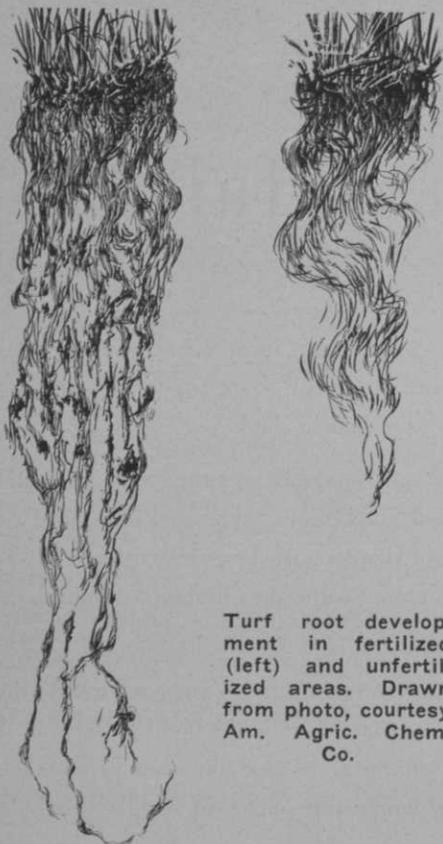
IDEAL POWER GREENS MOWER HAS BRUSH ATTACHMENT

Lansing, Mich.—Several months ago the Ideal Power Lawn Mower Company placed on the market a light weight, high speed, close cutting power putting green mower, which has not only helped to meet a trying situation at a time when many clubs



find it necessary to operate with the very minimum in the way of labor, but from the comments of greenkeepers it is also apparent that this little machine does a fine job of mowing.

Due to the fact that certain strains of bent and Bermuda grass tend to become matted and form a nap, making an uneven putting surface, many greenkeepers brush their greens lightly before mowing. To meet this demand, the Ideal putting green mower is now offered with a brush attachment quickly and easily attached to the mower. Teeth of the greens brush are of spring steel, and a small chain attached to the brush is adjustable to regulate the pressure of the brush on the green. It raises the brush from the ground when mower is tipped back for turning, and when brush is not in use the chain holds it up off the green.



Turf root development in fertilized (left) and unfertilized areas. Drawn from photo, courtesy Am. Agric. Chem. Co.

that they do not concern us here.

There are numerous fertilizers we can use for fall fertilizing, among them are the newer, concentrated products containing 15 per cent nitrogen, 30 per cent phosphoric acid and 15 per cent potash. Another contains 20 per cent nitrogen and 20 per cent phosphoric acid. These fertilizers are excellent for fall fertilization, because they are water soluble and give up their plant food quickly enough for the turf to take advantage of the short fall growing season. They are economical, because their high plant-food content permits us to apply very small quantities per acre.

Fall Fertilization Thrifty

The cost of fall fertilization should not be prohibitive. From \$300 to \$500 will give us enough fertilizer to do a good job. When we consider the large amounts of money spent on other maintenance items, and when we realize that fine turf is a golf course's most valuable asset, we will have