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IRRIGATION

Proper Nitrate of Soda Use in Greenkeeping

By D. T. CROAL

Grand River Country Club, Kitchener, Ontario,
Canada

THE only way to be successful with fertilizers is to study the crop which is intended to be grown and in the greenkeeper's case it is grass. To any plant there are three essential elements of food—nitrogen, phosphoric acid and potash. These elements are all found naturally in good soil in varying amounts. The element nitrogen is the element that makes leaf in a plant and as the greenkeeper is striving to grow grass (leaves), nitrogen must therefore predominate in all fertilizer mixtures used.

There are different sources of nitrogen, and the most commonly used today on the golf course are sulphate of ammonia, nitrate of soda, blood meal or tankage.

There has been a great deal of controversy about the use of nitrate of soda on putting greens, and most greenkeepers stick solely to sulphate of ammonia. This is due to ignorance and indiscriminate use of nitrate of soda as nitrate certainly has its place on the putting green as well as sulphate of ammonia.

When using any fertilizer the greenkeeper should always remember that it must be in solution before it is available. In the case of nitrogen it must not only be in solution but must be in the nitrate form before it is available.

Nitrate of soda is already in the nitrate form and as it is extremely soluble is available immediately it is applied.

Spring Tonic

In the early spring therefore a few pounds of nitrate of soda (about 5 lbs. per 1,000 sq. ft.) will start a green growing and act as a spring tonic.

Sulphate of ammonia and blood meal



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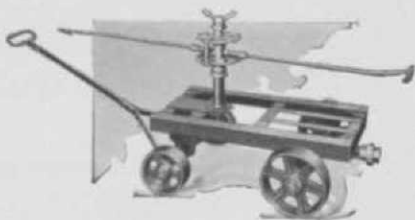
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on the other hand are not available until natural nitrification of the soil has commenced. By that I mean the soil has to be warmed up to a certain temperature until the soil bacteria which converts fertilizers into an available state for plant food become active. Greenkeepers often make the remark that nitrate of soda will "burn" a green.

This is due to using too heavy an application and not having the nitrate ground fine enough. It should always be pulverized very finely and should always be washed in with the sprinkler. Small application should always be used as better results are got with small applications at regular intervals.

I have introduced a system to our course which was in a very impoverished state when I took it over and I find I get good results.

As early as possible in the spring we apply nitrate of soda to the greens at the rate of 5 lbs. per 1,000 sq. ft. As soon as the weather gets warm and natural

nitrification has commenced we give the greens their first top dressing of sifted compost, sulphate of ammonia and bone meal. This is well raked in and lightly rolled. After the green has become established again and fit for play, we use nitrate of soda every two weeks till mid-summer. The greens then get another dressing of sifted compost, sulphate of ammonia and bone meal.

The nitrate of soda is then discontinued for the rest of the season. In the early fall the greens are again top dressed with compost mixture and after the ground has frozen and the greens out of play we give them a dressing of clean sharp sand of a fairly rough texture.

Fertilizers on a farm were never intended to take the place of stable manure and on a golf course were never intended to take the place of compost, but to be used in conjunction.

The secret of greenkeeping today may be summed up in a few words—good compost, nitrogen, air, water.

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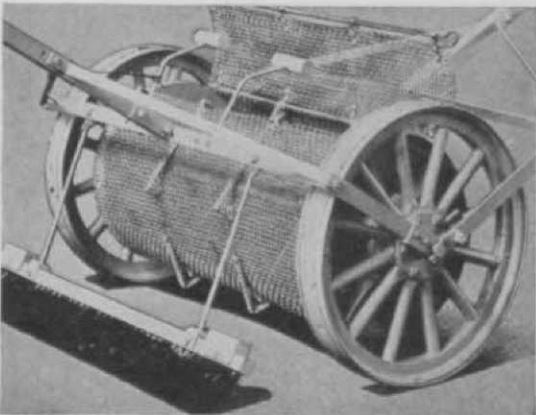
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