

Brown Patch From Compost

By FRED A. BURKHARDT, Greenkeeper, Westwood Country Club, Cleveland

THIS year seems to have been an unusual one for growing grass. In the spring I had a good color to my greens, a heavy growth and an even putting surface. In July brown patch set in. It started right after a heavy rain with a bright sun followed by very humid weather. I used most every chemical compound on the market to stop the spreading with little results. The grass failed to respond to fertilizer and it apparently was dormant.

Not until the late part of August did the grass seem to respond to treatment; then it came on fast so that when the time arrived to give the greens their fall top-dressing they were in fairly good shape. A good color came to the grass, responding to feed and rapidly filling in the vacant spaces left by brown patch.

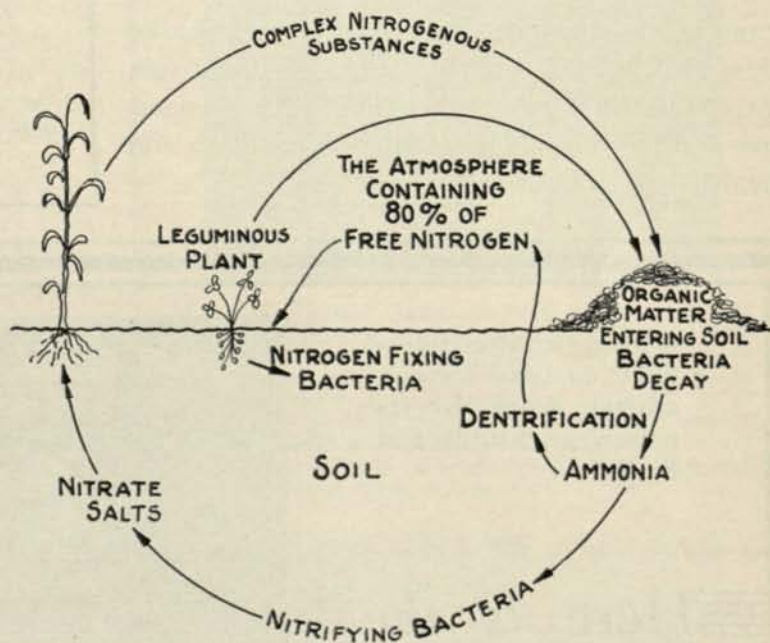
I TOP-DRESSED IN SEPTEMBER

I top-dressed the greens the first week in September and in a week more you would never have known that the greens had had brown patch. But then came those hot, yes, unusually hot October days when the thermometer climbed overnight from 65 to 88 degrees and my greens stopped their growing and started to turn yellow.

Again the dreaded brown spots started to show. The greens failed to respond to treatment. I was dumbfounded and sick, for twice in one summer good looking greens changed over night to ragged and rough looking spots. I thought the cold nights would help stop the ravages of the patch but even nature seemed to go back on me and I was lost, not knowing which way to turn. It was not until we started our monthly testing of the greens for their PH concentration that I got an inkling to what was causing the trouble.

Under the brown spots I found that the ground was very sour and found also small parts of manure, very small parts, that were not fully decayed. After all the greens were tested and showed the same results, I had the roots put under a microscope and found that the hair roots were all burnt and decaying.

Then I also located bacteria of decay on the roots and on the small pieces of manure. I had to do something to sweeten the soil and so I tried Nitrate of Soda but that was too slow, so I used something that was generally listed to



THE NITROGEN CYCLE

This diagram illustrates the idea of plant life itself furnishing a certain amount of nitrogen to other plant life through the help of the air and bacteria. The air absorbing the nitrogen given off by the leaves and the bacteria working on the decayed plant itself and returning to the soil nitrogen through a series of bacteria working on substances from original plant

greenkeepers as taboo on a golf course and that was lime water solution sprayed on the greens. I noticed it brought results so I sprayed the greens twice with the solution to fully check the bacteria from souring the soil with their acid secretions.

You probably know that the bacteria of decay are just starting organic matter on the way

to plant food in the nitrogen cycle and they are very necessary in plant life. But you must keep them at work where the soil is some place other than in the greens. The compost pile is the place for bacteria of decay and if the pile is too large it does not give them a chance to work because they want light and air the same as any other life.

HAVE SMALL COMPOST PILE

IF YOU are going to have a compost pile have it small enough so that you can turn it over every week. Another way is take a piece of land and cover it with manure then plow it under and keep working it all summer, giving it light and air. You might also plant some leguminous plants on it for their nitrogen-fixing qualities.

For my part I would rather have a soil poor in humus rather than one rich in organic matter. Be careful of tobacco stems; they will cause fermentation. Be sure you use tobacco dust as it is a safe way to put humus in the soil. From now on my motto is going to be less manure and more chemical fertilizers for clean and healthy greens.

To Golf Club Officials

It is often folly when a golf architect turns over a new course to a club to employ an inexperienced greenkeeper.

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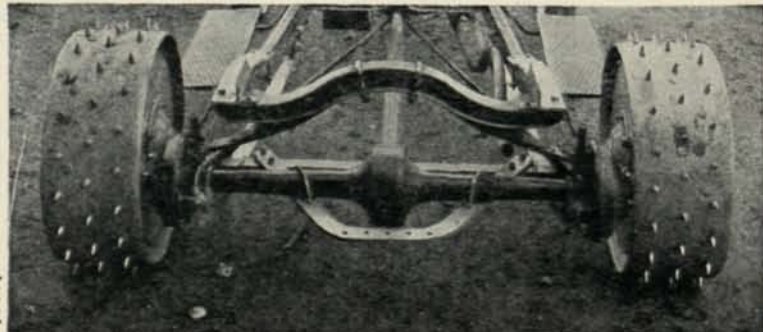
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