

Lawn Care

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THE PROBLEMS OF SHADED LAWNS

PART III

Some of the problems confronting the person attempting to develop a lawn in the shade were discussed in the two preceding issues of LAWN CARE. In them we attempted to point out a few of the important factors including deficiency of moisture and plant food, absence of sunlight, and unfavorable soil conditions. Some other phases of the problem are considered here.

Other Factors

Failure of grass to thrive directly adjacent to tree trunks may be the result of the heavy wash of water down tree trunks during rains. This is particularly noticeable in winter. The excess water collects in pools at the base of the trunk and may smother the grass, at the same time puddling the soil.

Such a condition may be overcome by mounding a shallow layer of soil at the tree base to provide immediate carry-off of the excess water. This soil mound should not be deep enough to smother the tree roots.

Another solution is to have a cultivated area at the base of the tree, extending out four or five inches. This should be of fairly light soil which will permit ready absorption of water. This treatment is suitable only for use around medium sized trees.

Rainfall adds still another difficulty in that water collects on tree limbs and falls to the ground in large drops. These tend to wash away the soil and expose the grass roots. This is particularly bad in winter when such exposed roots will be subject to severe heaving. Nothing can

be done to prevent falling of these large drops but if a lawn under trees is built and maintained properly the turf developed should be sufficiently thick and solid so that the large drops will not wash the soil.

Soil Often Toxic or Acid

There are still other unfavorable soil conditions that may interfere with growth of grass under trees. For example, the soil may be extremely acid or may contain toxic substances which have been exuded from tree leaves and washed into the soil. Extremely acid soils are improved by liberal applications of lime. However, the soil should be subjected to test before lime is added as it is not advisable to use it unless it is actually needed. By sending a sample of soil to us or to your own experiment station you can ascertain the actual amount of lime needed.

An ordinary surface application of lime does little good as the lime is usually washed off before any benefit results. The lime must be incorporated into the soil. Many folks still think that an early spring "whitewash" of their lawns is necessary. Actually it may do more harm

than good because too much lime encourages certain types of weeds.

Certain Bacteria Essential

Enormous quantities of certain types of bacteria must be present in soils if they are to support a good growth of grass. These bacteria break down soil organic matter into humus, at the same time liberating certain chemical food elements to grass roots.

So often soils in shaded areas are very unfavorable to the development of soil bacteria. They may be water-logged during winter and early spring, and excessively dry in summer. Or, the soil may be extremely acid. An unfavorable bacterial environment is another cause of lawn failures in shady places.

Remove Leaves When They Fall

After good turf is established in shade, care must be exercised to prevent losing it when leaves are falling. They should be removed promptly else the grass may be smothered. It is a mistake to place leaves or other materials over grass as a winter covering. They do more harm than good. To keep them from harming grass, leaves should be removed at least once weekly.

Certain kinds of oaks and other trees hold part of their leaves all through the winter. This means that some of them are falling during winter months, particularly during heavy rains. If these are not removed frequently they will become packed down against the ground, sometimes even becoming frozen, and thus smother grass in spots. By spring the lawn may present a sorry sight.

As with other phases of the shade problem, a sturdier stand of turf will be better able to withstand smothering. The turf will hold up the leaves and prevent their packing against the ground.

In this issue we have concluded our consideration of what we regard as the most important problems of growing

grass in heavy shade. This series of articles will be continued in September, at which time we will attempt to give some specific recommendations about treatment of shaded lawns as well as the trees causing the shade. Your comments on this subject will be welcomed.

Counsel on Watering

AFTER office hours Mr. H. LeBaron Sampson, partner in the well-known law firm of Hutchins & Wheeler, 49 Federal Street, Boston, devotes some attention to his lawn. Readers of *LAWN CARE* are indebted to him for the following observations:

How Long to Sprinkle

"I have received your last issue of *LAWN CARE* with suggestions for sprinkling. I find that a good way to determine the length of time that my lawn sprinkler should run is to take a small tin can or drinking glass having the same diameter at the bottom as at the top and set it within range of the sprinkler. The depth of the water in the can will show the amount of precipitation corresponding to the familiar figures issued by the weather bureau."

This is a good suggestion and would prove reasonably accurate if the sprinkler used threw a relatively even spray. To check this point we suggest using several cans or tumblers at various intervals under the spread of the sprinkler.

The amount of water to apply depends upon many factors. Type of soil, rate of evaporation, wind velocity, humidity, and degree of heat must all be considered. The heavier soils require much less water than sandy or gravelly soils because there is loss from evaporation and percolation.

Where golf course fairway watering systems have been installed it has been discovered that, on clay soils, an inch of water applied weekly is sufficient. Two inches proved excessive there but might

not on lawns. As a general rule it is better to make a single weekly application or at the most divide the amount to be applied in two treatments. Frequent light sprinklings are harmful.

Water should be applied in a sufficiently fine stream so the soil can immediately absorb it. Standing water tends to injure grass roots because it excludes air.

Cost of Watering

For an average dry summer natural rainfall would need to be supplemented with artificial irrigation to the extent of about ten inches for the season. This would be the equivalent of about 850 cubic feet per each 1000 square feet of area. This amounts to a little over six thousand gallons of water which at 30c per thousand gallons would figure just under two dollars. Such a cost for keeping a lawn area of 1000 square feet green during the summer months could hardly be considered excessive. It would be much less than the expense of replacing a burned-out lawn.

Appreciate Lawn Care

"I appreciate your March-April bulletin on shaded lawns as I have a 40x100 area on which are two beech and three oaks 15 inches in diameter, over 50 years old, I judge. We love these trees and we also love our sloping lawn beneath them. Have a fairly good stand of grass from your seed—free from weeds—started in the fall of 1930—getting better each year.

"I give it in March about a ton mixture of rotted leaves and soil which I rake in. Then 50 lbs. of your Turf Builder in April, and 50 pounds in August. Have to cut grass twice a week up to July 1 and once a week thereafter."—COL. FLETCHER AGNEW, 64 Woodland Rd., Bloomfield, N. J.

Ants Active Again

THE dry weather in late spring started ants on a rampage. Letters seeking help in combating them, however, were not much more numerous than those telling how victories had been won.

From Mr. I. G. Amsler, 818 Warrington Avenue, Pittsburgh, comes the following:

"In your recent issue of *LAWN CARE* I notice what Mr. F. G. Bee says about the extermination of ants and thought my remedy might be of some use. I use Tartar Emetic (Antimony and Potassium Tartarate) 1 ounce and of powdered sugar 8 ounces. Mix these thoroughly and then put a small amount on each ant hill. The grass is not disturbed and the ants disappear. I had considerable trouble with ants but this formula turned the trick."

Another faithful reader of *LAWN CARE* offers this suggestion:

"I think I have found a satisfactory remedy for ant hills in the lawn. 'Evergreen,' which is, as I understand it, a pyrethrum extract, mixed according to directions and used in an ordinary watering pot, stops them from working, immediately and usually permanently. The grass is not injured. If, as occasionally happens, they start again after a few weeks, a second application can be used. The cost, if one buys the six ounce can, is about twenty-five cents for each ant colony."

A more drastic destroyer is proposed by Mr. Ralph Oceti of Ithaca, New York, who digs deeply around the burrows, pours in kerosene and burns it. This he reports, not only kills the ants but the eggs as well.

"Would like to add that your *Turf Builder* does a marvelous job on my lawn. I'm all for it."—C. L. BARKER, Henning, Minn.

Home-Made Weed Killer

"I want to thank you for the papers on lawn care and I notice some articles on ridding lawns of dandelion and buckhorn so I will explain how I rid my lawn of these pesky things.

First, I took a piece of steel angle iron $\frac{3}{4}$ by $\frac{3}{4}$ inches, about 30 inches long, and by grinding the back on one end until it leaves two prongs or tines like an old fashion boot-jack, this makes a fine tool to pull the roots out of the ground. But I found that after I had pulled out several thousand in a few weeks in many places where the roots would break off I had two plants growing where there had been one before. Then I tried another and best one yet, as follows: I took a piece of $\frac{3}{8}$ inch galvanized pipe about 30 inches long and threaded both ends and placed a regular pipe cap on each end. Drill a small hole in pipe near one end as a vent, in the other pipe cap drill a hole to fit the stem of an old inner tube, place a small gasket on top and bottom of cap and screw down with the regular nuts found on inner tubes. Grind off about $\frac{1}{2}$ inch of the end of valve stem in order to let the small needle air release stem extend out of end of valve stem, and then fill the pipe with gasoline and it is ready for action. It is an easy way to walk over your lawn using this instrument as a cane and every time it is placed on the top of the plant with just a slight touch the valve releases just a drop or if more pressure and time it will release a quantity of gasoline into the hearts of the weeds. In a day or two, examine the plants treated and I have found very stubborn buckhorn plantain roots that were down in the ground six or eight inches on the third day black and decayed."—CHAS. C. DAWSON, Coshocton, Ohio.

Endorsement

"As you know I rebuilt a large shaded lawn last fall using your Shade Mixture and Turf Builder exclusively. It went through the winter very well and after a spring application of Turf Builder it is becoming very beautiful indeed.

"When building the lawn I left a small area without Turf Builder and found to my satisfaction that this spring the grass that had been fed with Turf Builder was much stronger and growing much more vigorously."—JOHN C. GOODWIN, 1115 Audubon Road, New Castle, Ind.

Knock-Out Drops for Weeds

Here's an idea for chronic dandelion stabbers:

"If one must spear weeds with a stick dipped in acid, the acid to use is nitric, not sulphuric or hydrochloric as previously suggested. Nitric acid is not only more potent, but the by-products are all soluble nitrates, of real utility in promoting plant growth."—PHILIP GILBERT, 425 Oakwood Ave., Wester Groves, Mo.

Previous Issues of Lawn Care

There have been thirty previous issues of *LAWN CARE* and the following lawn pests have been discussed: Plantain, Crab Grass, Dandelions, Moss, Grubs and Beetles, Chickweed, Buckhorn, Ground Ivy, Yarrow, Earthworms, Heal-all, Ants, Speedwell, Creeping Buttercup, Sod Web-Worms, Moles, Knot-Grass, Sorrel, Quack-Grass, Spotted Spurge, Yellow Trefoil, Goose Grass, Nimble Will, Krawell, Shepherd's Purse, Chinch Bugs, Sedge, Terraces, and the Shade Problem. For the complete series please allow 10 cents to cover mailing costs.

For 50c postage paid you may secure a ring binder containing a full set of bulletins and with adequate capacity for issues of the next five years.