

Lawn Care

A discussion of the vital problems of lawn making and maintenance

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Exterminating Earthworms

THE earthworm has long been classified as one of those helpful organisms with a mission in the world other than that of enticing hungry fish. There were supposedly no earthworms in Pandora's Box, yet in some instances they have become so objectionable that cruel methods of extermination now abound. Dispensers of various worm killers have vied with one another to determine who could qualify as the leading executioner. It is our purpose to describe herein the three most successful methods of ridding a lawn or any piece of turf of its earthworms, the evidence of which are unsightly castings.

In justice to the earthworm, which one of the lower grade text books told us loosened up the soil and benefited vegetation, it may be well to state that the wrong conclusion can be reached regarding it. For instance, it is likely to be assumed that worms injure grass because

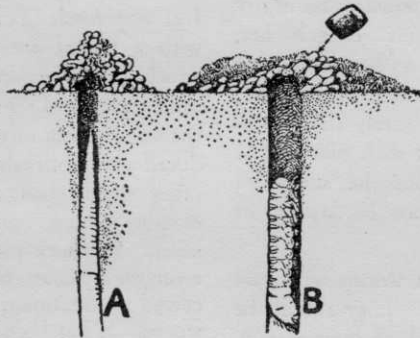
most castings appear where the turf is thin. This may be due to the fact that worms by choice locate in the dense shade of trees or shrubs where grass is growing thinly or not at all. They might be as plentiful in dense turf but not as noticeable. In other words, grass may be thinning out in spite of them. If the castings are not too abundant the surface may be brushed or raked occasionally to eliminate them without going to the trouble of killing the earthworms.

Furthermore, earthworm casts in the southern half of the eastern states may be mistaken for the boring of the grubs of the June Beetle. Grubs make larger burrows and throw greater quantities of earth than worms. Grubs also

may loosen the roots of grass sufficiently to kill it over a space several inches in diameter. Earthworms do not bring about such a condition. Consequently it is important to learn whether the damage is caused by grubs or by earthworms.

1. CORROSIVE SUBLIMATE.

Several poisons are used successfully but Corrosive Sublimate (bichloride of



Comparison of A, burrow, and castings of an earthworm, with B, burrow and castings of the green June beetle. About natural size.



mercury) is least expensive. Dr. R. A. Oakley of the U. S. Department of Agriculture is responsible for the following suggestion:

"Two or not to exceed three ounces of corrosive sublimate dissolved in fifty gallons of water are sufficient for 1000 square feet of lawn. After the solution is applied it should be followed with at least twice the quantity of water to wash it thoroughly into the soil. If it is desired to apply the corrosive sublimate dry, it should be mixed at the rate of two or three ounces to two cubic feet of dry sand and the mixture scattered evenly over 1000 square feet of lawn. Liberal watering should follow. When corrosive sublimate is applied in this way and at the rates suggested, especially if water is used freely afterward, no injury to the turf should result. In very hot, dry times, applications as suggested may cause a very slight burning of the turf; and furthermore, it is rarely that earthworms are in action at such times. The effect of burning from the suggested rates, however, will not be lasting or serious."

After this treatment worms will start coming to the surface. They should be swept up and disposed of immediately. If allowed to remain on the ground, birds may be killed by the poison which is left on the bodies of the worms.

2. ARSENATE OF LEAD.

A more recent remedy also found efficient in destroying earthworms is arsenate of lead. Five pounds per 1000 square feet is sufficient. To insure a uniform application mix with sand at the rate of one pound of dry arsenate of lead to a bucket full of sand or loam. Make your application when the grass is dry. Sprinkle it afterwards and repeat in

three weeks if there is still evidence of worms. The same treatment will also kill grubs.

3. SODIUM CYANIDE.

Another remedy is Sodium Cyanide. This may be used at the rate of ten ounces in fifty gallons of water. Of this solution use two and a half gallons per square yard of surface. In an hour this should be thoroughly washed off by sprinkling with the hose. Otherwise the grass is apt to be injured.

TESTS WITH LEAD ARSENATE.

Tests made at the New Jersey Experiment Station to determine the effect of arsenate of lead in connection with fertilizer treatments are quite interesting. Two applications of arsenate of lead each of five pounds per thousand square feet were made. This material was mixed with a liberal amount of top dressing which simply means soil, fertilizer and sand mixed and screened. The acidity of the soil was not affected. Weeds were reduced very noticeably and in addition to other slight changes in the growth of certain grasses, *earthworms were eliminated*. In check plots adjacent to those receiving arsenate of lead and which received no treatment there were 38 earthworms. It has been noted, however, that in certain types of soil arsenate of lead is not effective. We suggest it as the first remedy and if it does not do the work, one of the others, preferably corrosive sublimate, may be tried.

We shall be glad to receive the comments of any of our readers on their experience in ridding a lawn of earthworms. If you have used one of the remedies we have described won't you please tell us how effective it has proven? Perhaps in a later issue we shall then be able to give a majority opinion as to the one most reliable killer.