

wet ground lumps tend to form as the material absorbs water readily. If stored for some months, particularly during the rainy season, cyanamid absorbs water from the air and forms hard lumps. These must be broken before the material can be used. All cyanamid used should be sufficiently fine to pass thru an 18-mesh wire mosquito-screen. Chunks of the material added to the soil not only are useless for killing nematodes, but they remain in the soil for a long time before they entirely disintegrate, and have a very harmful effect on subsequent plant growth. When fresh, the material is a very fine powder which works well.

#### IRRIGATE THE FIELD

When cyanamid has been thoroly mixed with the soil, the field should be at once irrigated. Enough water should be used to wet the soil thoroly to the depth ordinarily reached by nematodes, which is 15 or 18 inches in the usual loose sandy soils of our State, or to ground water. Altho the greater number of worms is in the first 8 or 9 inches of soil, it is necessary to kill the few below that depth, otherwise they will in a few weeks' time restock the upper layers of soil.

This thoro irrigation is very important for at least two reasons. It completes the distribution of the cyanamid begun by the plow and disk harrow so that more of the nematodes are reached and killed, and it hastens the decomposition of the cyanamid, shortening the time that must elapse before the crop can safely be planted. Altho a heavy rain immediately after application is equivalent to an irrigation, the use of the cyanamid method of dealing with nematodes is not advised except on land that can be irrigated. One cannot safely depend upon the weather, and the material is too costly to lose.

#### VERMICIDAL EFFECT NOT DUE TO NITROGEN OR LIME

Early in the work the question arose: Can the killing of the nematodes be due to the nitrates or to the lime in the cyanamid rather than to the calcium cyanamide? To throw light on this question, four 1/100 acre plots were laid off. One was treated with cyanamid at the rate of a ton per acre. Another was treated with hydrated lime. The amount used was equal to that contained in 20 pounds of cyanamid, 14½ pounds. A third plot was treated with nitrate of soda. The amount used, 27 pounds, corresponds with the amount of nitrogen, figured as ammonia, contained in 20 pounds of cyanamid. A fourth plot was left untreated as a check.