

Section 7 with the same dose as section 6, but added in solution, had some root-knot, but markedly less than the check.

In section 4, check, all plants were so heavily infested with nematodes that they made very little growth.

#### EXPERIMENTS WITH WINTER TRUCK

In November, 1915, another series of thirteen plots, each containing a hundredth of an acre, was treated with cyanamid. The dose ranged from 420 to 3600 pounds per acre. To two of these plots the material was added in solution, and two were left untreated for checks. On the other nine plots, about half of each dose was broadcasted over the surface of the ground and the plot was then plowed deeply. The remainder of the dose was then applied as a top dressing to the plowed land and thoroly disked in. The soil was rather dry at the time of application and it was not irrigated.

Few nematodes were found on the plots that had received 1500 pounds or more per acre. But by June, 1916, a few of the truck plants on each of the plots, even on the one that had received 3600 pounds per acre, showed knots.

#### EFFECT IN PLOTS NOT IRRIGATED

Other plots were started on July 1, 1916, using doses varying from  $\frac{1}{2}$  to 3 tons per acre. This was applied as in the last experiment. No rain fell for a week after the application. Later examination showed that in none of the plots were the nematodes entirely exterminated, but there were very few in the plot that had received 3 tons of cyanamid per acre and they were in two spots only. Perhaps those spots had not received their proper proportion of the material. On this plot all crops planted three weeks after treatment ultimately showed serious scorching altho heavy rain had fallen before planting. Cowpeas, corn, okra, and beans were planted. English peas planted on October 21, nearly four months after the treatment, showed some scorching on plots that had received 2 tons or more per acre.

These experiments indicate that the application of the material to dry soil is not very satisfactory. The nematodes are not entirely eradicated with doses as heavy as 3 tons per acre, and the scorching effect on the plants is serious and long continued.

#### EXPERIMENTS ON SEED BEDS AT SANFORD

Some cooperative experiments were started with Mr. C. M. Berry, Agricultural Demonstration Agent for Seminole County.