

large seeds showing. On the check, section 4, there was a vigorous germination of both weed and tomato seeds; the tomato plants were heavily infested with nematodes and soon died.

Owing to unsatisfactory temperature conditions, the bench was abandoned during the summer, not even being watered except by rain which leaked thru the roof.

REPLANTING THE BENCH

On September 11, the bench was again planted to lettuce, cabbage, celery, carrots, cucumbers and tomatoes. And again, some of the plants in sections 1, 2 and 3, died. Evidently the plots being dry during the summer had prevented the decomposition of the cyanamid. A few cabbages in one plot only, section 1, lived. Replantings in that section showed scorching of the tomatoes as late as January, 1916. These recovered, however, and made good growth. Up to the present time all plants grown in this section have been free from nematodes, except those grown in the small portion where the September planting of cabbages was not killed. Apparently, by the insufficient mixing, this portion had failed to receive its share of cyanamid.

Section 2 has remained free from nematodes. Evidently a dose of $2\frac{1}{2}$ tons per acre on shallow soil will kill all nematodes. Of the seeds replanted in November, celery was not scorched at all, cabbage showed some scorching, lettuce considerable, and cucumbers and tomatoes scorched quite badly.

On section 3 the effects were about the same with a regard to scorching, but there were a few nematodes on the plants. These results coincide with those of other experiments, which indicates that one does not get as good results when the cyanamid is added in water. The top layer of the soil seems to absorb the material.

Section 5 showed one corner next to the check to be heavily infested, the remainder free. This uneven distribution led to the suspicion that the partition between plots had worked loose; a suspicion which was verified upon examination. The nematodes were exterminated in this section by a dose of 2 tons per acre.

In section 6, by May, 1916, a few knots became noticeable on tomatoes. Up to that time none had been noticed. Probably 1440 pounds per acre is a little too small a dose for thorough eradication, altho it greatly reduced the number of nematodes.