

In addition to the sprays, soil-dressings were applied in the form of sulphate of iron, both in solution and pulverized form.

The main objects of the tests were as follows:—

With spring and summer cultivation: (1) To test autumn sprayings in conjunction with spring and summer sprays; (2) to test spring sprays in conjunction with summer sprays; (3) to test soil-treatment with sulphate-of-iron solution and powder.

With autumn cultivation followed by cover-crop throughout spring and summer: (1) To test spring sprays in conjunction with summer sprays; (2) to test autumn sprays in conjunction with spring and summer sprays.

The summer treatment in the several blocks was as follows:—

No. 1 orchard was reserved entirely for testing sulphur compounds—*i.e.*, commercial and self-boiled lime-sulphur.

No. 2 orchard for bordeaux followed by commercial lime-sulphur, and bordeaux followed by self-boiled lime-sulphur.

No. 3 orchard for bordeaux followed by commercial lime-sulphur, and for commercial lime-sulphur only.

No. 4 orchard was reserved entirely for testing self-boiled lime-sulphur only.

No cross-ploughing was carried out, all strips between the rows being dug.

The results obtained this season may be considered a distinct improvement on those achieved last season, but against this must be taken into consideration the fact that conditions were less favourable for the development and spread of the disease. As far as weather conditions were concerned, the experience of growers in the Auckland District during the season just past was quite the reverse of that of the previous season, fair weather having prevailed almost throughout the stone-fruit season. In a degree this is to be regretted, as the value of our tests is accordingly decreased.

At the conclusion of this year's tests I am in a position to endorse several statements made in last season's report—namely, that the intensity of attacks from brown-rot on stone-fruits is due firstly to existing weather conditions, secondly to soil and situation (especially with regard to shelter), and thirdly to variety.

Generally speaking, there was no blossom-bud infection from the disease this season, and practically throughout the district the disease was at a minimum while weather conditions remained favourable, but immediately northerly weather set in, bringing with it humid conditions favourable for spore-development, infection became very heavy on several of the more susceptible varieties which were near the ripening-stage at that time. Throughout the peach season, however, there were only two such spells of unfavourable weather, each of short duration.

My theory put forward in last report, that the probability of infection increases as the fruit approaches the ripening-stage, has been amply endorsed during these tests.

Close observation was made in stone-fruit orchards from time to time throughout the season, and much evidence (a good deal being