answers the purpose. At least it does so in this district, although conditions may be different in the North Island and necessitate the use of side ventilators. Many of the commercial growers in Christchurch have no side or bottom ventilators in their tomato-houses, but rely solely on top ventilation, occasionally making use of the end doors in very warm weather. This fact speaks for itself, and bears out the above contention that side ventilators, unless used very carefully, are better left alone, and that it is better to rely solely on the method adopted in the above experiment.

"Sleeping disease" as known in this district is not the true "sleeping disease," which is due to the attack of a soil fungus known as *Fusarium lycopersici*.

TEMPERATURE.

The average maximum temperature, taken daily at 1.30 p.m., from the 8th October, 1912, to the 1st January, 1913, ranged from 61° to 104°, the average daily maximum for this period taken daily being 81·5°. The average minimum temperature for same period ranged from 40° to 61°, the average minimum taken daily being 50°.

It was suggested that a maximum working-temperature of, say, 75° to 90° was desirable, but with a variable season and severe changes in temperature almost constant attention to ventilation was required to keep the atmosphere anywhere near this range. However, the average maximum temperature of 81·5° proved a very fair working-temperature for tomato-houses.

WATERING.

To test for humidity of the atmosphere in the house a Lloyd's hygrodeik was used. This instrument, having a carefully graduated chart, makes the matter of ascertaining the degree of moisture per cubic foot in the atmosphere a simple one, and particular attention was given to ascertaining the most favourable degree of humidity for fertilization. It was noticeable that when the humidity was over 70° the pollen was inclined to become pasty, whereas under this reading it was freer, and the lower the humidity the more easily the pollen moved, thus becoming more useful for fertilization purposes.

MULCHING.

To test the question as to whether plants succeed without a mulching of stable manure, no manure or mulching of any description was used. A light raking of the surface soil answered the purpose. The use of stable manures as mulching can easily be abused, resulting in many cases to injury to the plants by too much forcing, and also creating a condition favourable to development of fungoid diseases. For these