

stopped, and the glass should be kept in good repair. In medium climates the bottom ventilators can be kept closed till colouring begins, and this course is best. In warm districts it cannot be done, but in no case should they be opened before the foliage is dry. If these precautions are taken, and provided the aspect of the house and other conditions are suitable for grapes, mildew will not be a serious trouble. Mild attacks are always likely to occur, however, and should be watched for.

A dusting of dry flowers of sulphur, applied on the first sign of the disease, will control it. The sulphur must be quite dry, and, before use, should be placed between folded paper and well rolled with a dry bottle or rolling-pin. Sulphur-bellows may be necessary in large vineries, but for small houses the best plan is to carry the sulphur on a sheet of paper, and, holding the paper under a bunch or leaf—whichever has to be treated—lift a fair amount of sulphur and let it fall on the affected bunch or leaf. A slight jar will then cause most of the sulphur to fall back to the heap on the paper; but sufficient for the purpose will cling to the fungus. This method ensures an ample dusting being quickly applied; it arrests the progress of fungus not yet visible to the unaided eye, and no sulphur is wasted.

If mildew is not effectually checked in its early stages it may, during the stoning-period, become epidemic, involving the whole surface of the vine, fruit, leaves, and young bark. In such cases dusting with sulphur would have but little effect; more drastic treatment must be given. Mix a good handful of sulphur with sufficient milk (skim-milk will answer) to make a thin paste, beating out all lumps. Place the mixture in a kerosene-tin and fill up with tepid water; the water must not be more than tepid or the milk will curdle. About an hour before the sun leaves the roof of the house in the evening close all the ventilators and thoroughly syringe the whole of the vines and the walls of the house with the solution. The solution must be kept well mixed, this being done by discharging the syringe back into the tin now and again, and thrusting it nearly to the bottom of the tin each time of charging before pulling up the piston. Open the top ventilators before daybreak the next morning so as to dry the vines before the sun reaches them. On the evening of the second day after treatment close up the house again and thoroughly syringe the vines with clean tepid water. The writer has proved this method to be completely effective in getting rid of the worst attack of mildew. This treatment cannot, however, be recommended for use earlier in the season while the foliage is tender, as burning would be sure to result.

Vine Sclerotinia (Sclerotinia Fuckeliana).

The Department's Biologist has reported ripe grapes received from Auckland to be affected by this disease. On the leaves the disease shows as a mouse-coloured, fluffy mould. Ripe grapes are caused to shrivel to dark purple-coloured mummies, which remain attached to the stems. As the disease cannot occur except in a very damp atmosphere, which should not be allowed, it is not considered necessary to describe the fungus fully. Where it occurs, the conditions of the house should be altered by proper ventilation. The mould form of the disease can be checked by spraying with liver of sulphur at the rate