

(2.) It has long been observed, that with many crops certain varieties are more liable to fungous diseases than others. The reason for this, in many cases, is not well understood, but the fact will lead the careful cultivator to select such varieties as prove most resistant in his locality. Injurious fungi may be largely destroyed by keeping farm and orchard premises clean and free from weeds and rubbish. Burning potato tops, old tomato vines, and similar refuse, will destroy millions of spores of fungi attacking those plants. The same may be said of apples and pears infected with scab of the fruit, which are too often left hanging on the trees or lying on the ground, to propagate their spores the following season.

Selection of Resistant Varieties.

(3.) With diseases like the brown-rot of plums and cherries, much may be done in reducing injury by persistent hand picking of infected fruit, which should be burned.

Hand Picking.

(4.) The most practical way of preventing the majority of the fungous diseases of plants, is by the use of "fungicides" or fungus killing mixtures. These act either by directly destroying any fungus spores present at the time of application, or by remaining on the surface, in a condition to destroy, either before germination or during that process, any spores that may alight upon the plant treated.

Use of Fungicides.

As treatment is preventive, great care must be exercised to have the work done at the proper season, and to be sure that all parts of trees or plants sprayed are wetted with the fungicide used. Drenching is not necessary, and sometimes results in injury to the foliage or fruit. The aim should be to deposit a thin film or coating of the spray upon the entire surface treated. To accomplish this, the Vermorel nozzle should be used to distribute the spray used.



APPLE SCAB or BLACK SPOT OF THE FRUIT (*Fusicladium dendriticum*).

Reported from all parts of the Lower Province, causing great loss to fruit-growers by rendering the fruit useless or unsaleable.

There is probably no fungous disease of fruit so familiar as the apple scab or black spot of the fruit. The fungus which produces the well-known black spots or scabs on the fruit also attacks the leaves and young shoots. It first appears on the leaves in the shape of smoky, greenish spots, more or less circular in outline. These gradually enlarge and run together, so as to form good sized blotches; as they grow older the colour darkens, finally becoming almost black. The young fruit is attacked almost as soon as formed, and sometimes shrivels up and drops off.

Apple scab.

The spores or reproductive bodies of the fungus are produced in immense numbers on the blackened spots on the leaf and fruit, forming most abundantly during cool, wet weather. They are disseminated by the wind, etc., and when they light upon a moist leaf or fruit they germinate, sending out a little tube or root, and thus form a new centre of disease. The spores pass the winter on the bark, twigs, and stored fruit, as well as on the fallen leaves and fruit. The mycelium or vegetative portion of the scab fungus develops just beneath the skin of the leaf or fruit, but as a rule does not penetrate deeply into the tissues. After a while it pushes outwards, rupturing the skin and developing fresh spores.

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