

The downy mildews represent a more difficult family of parasites to treat successfully, the tissues of the host plant being penetrated by the mycelium of the fungus. As in the former case, all dead leaves and prunings should be burned.

The following remedy has been used with considerable success: it is prepared by boiling 1 lb. of flowers of sulphur and 1 lb. of quick lime in 5 pints of water in an earthen pot for ten minutes, stirring constantly; when it has settled the clear liquid is poured off. The plants should be syringed with a mixture of this preparation in one hundred parts of water. This will kill the outside and fruiting threads, but the internal mycelium renders a thorough cure very difficult.

I had excellent results last season in treating downy mildew on outdoor grapes with the ammoniacal copper carbonate 2 oz. to 25 gallons of water, and would recommend a trial with this under glass. When it is not readily procurable, the Bordeaux mixture can be used with equally good results, as demonstrated by experiments by the Department of Mycology at Washington last year. Formula for preparation as given in Horticulturists' Rule Book: Dissolve 6 lbs. of sulphate of copper in 16 gallons of water. In another vessel slake 4 lbs. fresh lime in 6 gallons of water. When the latter mixture has cooled it is slowly poured into the copper solution, care being taken to mix the fluids thoroughly by constant stirring. Prepare some days before using. Stir before applying.

---

#### NUT TREES FOR WIND BREAK.

Would you oblige me with information as to the value of nut trees as a wind break. Do they grow well on sandy soil? Would the walnut or filbert screen an orchard from the wind as well as pine? Would the caterpillars that infest the walnut be likely to attack peach or other trees, when having destroyed all leaves on the nut trees? Please give me advice as to planting; and the distance apart the trees should be set?

WM. CLAPTON, Fenwick, Ont.

*Reply by Hon. H. J. Joly, Quebec.*

In answer to the enquiries of yours of the 10th inst, I do not think the Black Walnut fit for a wind break. Its leaves come out too late and drop too early, and its branches are too easily broken off by the wind, and even by very heavy summer rains; in fact, it requires shelter for itself against the storms instead of affording it to other trees. The spruce or pine are much better for the purpose.

You ask "if the Black Walnut would grow well on sandy soil?" I certainly would not select it for planting on such soil, except as an experiment which ought to be made. Its favorite home in the west is the deep alluvial soil. I have only tried it near Quebec, on clay soil and on some islands formed at the mouth of a river, by successive deposits containing, with a large proportion of sand, other elements of much richness, which make it very different from ordinary sandy soil.

We have found our young Black Walnuts very free from caterpillars at a season when the apple trees in the orchard close by, are covered with patches of