

would probably be quite so in Leeds. However, our District Fruit list, as published in our reports, recommends neither of these four, but only Golden Russet, Pewaukee, La Rue, Ben Davis and Red Canada.

In Leeds County, probably apple trees of most varieties could be planted 30 feet apart each way, and at this distance fifty trees would be required per acre.

Powdery Mildew on Raspberry Leaves.

682. SIR,—We have about one acre of Turner raspberries, that in the early part of the season were affected with a sort of mildew, and which greatly decreased the yield. Since fruiting, the young canes have died back from 6 to 8 inches and is still creeping downward, while some of the more tender canes are completely dead. Enclosed you will find some leaves taken from the canes of this last spring's planting. What is the trouble, and can anything be done to prevent it? Rows are planted north and south, and are exposed to the full heat of the sun. Is this the right way to plant?

WILLIAM DOAN, *Newmarket, Ont.*

Reply by Prof. John Craig, Ottawa.

The raspberry leaves forwarded for examination are affected by what is known as the mildew of the raspberry; a genuine powdery mildew, technically called *Sphaerotheca humuli* (D.C.)

This frequently attacks wild raspberries, but, to my knowledge, has not been destructive in cultivated plantations. It is questionable whether it could be satisfactorily treated if it has secured a good hold on the plants. Flowers of sulphur may be successful in combatting this. It should be applied to the canes and upon the ground, in the same manner as used to prevent the powdery mildew of the grape. Where plantations are severely attacked, it will probably be best to cut off the canes and burn them after the fruiting season in autumn.

Leaf-Blight of the Rose.

683. SIR,—I enclose a sample of rose leaves taken from a Marechal Niel rose in my glass house. Please tell me what is the pest, and prescribe a remedy.

J. H. SINCLAIR, *New Glasgow, N. S.*

Reply by John Craig, Horticulturist, Ottawa.

The enclosed rose leaves are affected by two fungous diseases. The one causing the black, irregular blotches on the upper surface is known as the "Leaf-blight of the Rose" (*Actinonema rosea*, Fries). The leaves are also affected by a rust more or less common to roses, both under glass and out of doors. This rust is called *Phragmidium mucronatum*, Winter. When roses grown under glass are affected by these diseases, the trouble can usually be prevented by applying flowers of sulphur, or subjecting the plants to the fumes of sulphur. Outdoor plants may be successfully treated with a weak formula of