



Canker on Peach Branches

This trouble is due to the so-called Gummosis disease.

but further study and failure to get any fungus whatever in the wood beneath fresh gum masses has made me believe that while Brown Rot may have something to do with preventing the healing of some of these cankers, yet it does not account for the origin of all of them. There is also the difficulty of explaining why some orchards such as those at Grimsby should be almost totally free from the disease, though Brown Rot is frequently quite as destructive or even more so there than in the diseased orchards. It is also hard to explain why in many orchards without any change in methods of spraying there has been almost no new cases. A good instance of this is the large orchard of A. Onslow, near Niagara-on-the-Lake. It is quite possible that very unfavorable weather conditions interfering with the cells of the plants performing their proper function may be the real cause.

Much gumming of trees is, of course, frequently caused by small black beetles, known as Shot-hole Borers, but it is easy to determine whether these are the offenders by removing the gum masses and seeing whether there is a small hole through the bark made by the beetles. Sometimes the fungus *Valsa leucostoma* will produce gumming, but, so far as I can see, it seems usually to be a secondary cause and to enter at some dead area or wound and then gradually kill the living tissues around this area.

WHAT TO DO

With our present lack of knowledge as to the cause of the gumming of peach trees it is difficult to recommend any rational method of treatment. It would be wise, however, where a canker threatens to destroy a large and valuable limb to cut out all the dead tissues up to the perfectly healthy bark, disinfect the wound with formalin, one part diluted to about five with water, or with

corrosive sublimate one part to one thousand parts of water (this is a deadly poison), and cover it over well with

white lead paint free from turpentine. A second painting later in the season will usually be necessary.

Best Varieties of Small Fruits

Grant S. Peart, Burlington, Ont.

Soil adaptation is an important point to consider when selecting varieties of small fruits for cultivation. Certain varieties seem to do better on heavier soils than lighter soils and vice versa. The Williams strawberry, according to my experience, gives better results on a rich soil inclined to be heavier than that recommended for strawberries by some growers. On the other hand Bederwood seems to produce better berries on a well manured, lighter soil. In red currant culture the Fay seems to require a heavier and richer soil than the cherry, while among black varieties the Naples needs a richer and stronger soil than the Lees. The same relationship exists between the Marlboro and Cuthbert raspberries. The former must be fed more liberally with manure to get the best results. The foregoing includes a few of the many examples which may be brought forward as convincing evidence that soil adaptation is an important consideration when setting out a plantation of small fruits.

MARKET REQUIREMENTS

What the markets demand in small fruits in Ontario is of little importance to the grower unless he is producing strawberries for the canning factory. Although different qualities are represented among varieties, ordinarily speaking, no discrimination is made by the consumer as to quality. Berries are berries, and like prices are realized on

all varieties, with the exception of gooseberries (the English varieties generally command higher prices than American sorts). It is needless to say that white and purple raspberries, white currants, juneberries, and other extraordinary kinds of bush fruits so far have proven to be unsuccessful in a commercial way.

SELECT VIGOROUS STOCK

Very often after a variety has been grown for many years in a certain locality and no new stock of that variety is brought into the locality, the plants or canes become gradually weakened from year to year until that particular strain is unprofitable to grow. Thus the advisability of selecting vigorous stock. An example of this trouble is found in the Burlington district and others, where the Marlboro and Cuthbert raspberries do not yield as profitably or grow as vigorously as they did ten years ago. In fact, in some plantations they are now being entirely supplemented with the Herbert variety. The Herbert is practically a new berry in the district and promises well, but the writer believes that it is not as valuable a variety as the Cuthbert to the grower.

The culture of the Williams strawberry also has been given up by many Burlington growers because its stock has lost vigor. During the past few years it has been almost impossible to obtain good rows with this variety. To use a common phrase, the plants will not "run" sufficiently, and thus a ragged



Spraying With a Spramotor Power Machine in an Ontario Orchard.