

❧ Question Drawer. ❧

SHOT HOLE FUNGUS.

494. SIR,—My plum trees made a rapid growth during the first part of the season and were heavily laden with fruit, but, about the latter end, 6th July, the leaves appeared as if scorched and have since dropped, leaving the trees almost bare. The fruit, however, still remains on the trees, but has grown very slowly. Can you tell me the cause and cure?

R. TROTTER, *Owen Sound, Ont.*

The leaves enclosed by our correspondent are riddled with small, round holes, as if made with small shot, for which reason this disease has been called the shot hole fungus. It is known to scientists as *Septoria Cerasina*. It attacks the foliage of both the plum and the cherry, and, though not usually so serious as in the case before us, inflicts considerable injury by interfering with the proper function of the leaves, or by causing them to drop prematurely. The leaves attacked first show dark purple spots, visible on both sides, from one

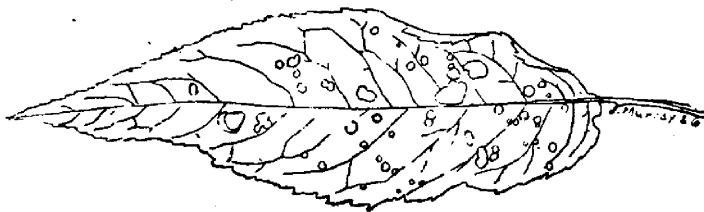


FIG. 83 —SHOT HOLE FUNGUS.

twenty-fourth to one-eighth of an inch in diameter. The tissue covering these spots soon becomes dead brown in color and finally drops off from the leaf entirely, leaving numerous clear-cut, round holes, such as are well shown in Fig. 83.

Under the microscope we may detect, upon the under surface, very minute black spots. These spots are the fruit of the fungus-like capsules in which the spores of the fungus are produced in great abundance. These are very slender, many times longer than broad, and quite transparent. Each spore is divided by cross walls into two or more cells, each of which is capable of producing a new parasite. The spores live through the winter on the old leaves, and thus serve to propagate the fungus in early spring.

In Vol. XIII, p. 316, may be seen an illustration of an highly magnified section through the leaf, including one of the spore capsules above described, and at *a* above are shown some spores still more highly magnified.

Nothing can be done at this season beyond destroying in some way, if possible, the old leaves. The best treatment, however, will be a preventive one.