RHIZOPUS ROT (R. nigricans) destroyed a third of the fruits in a packed basket at St. Catharines, Ont. (G.C.C.).

The Post-Harvest Treatment of Peaches for Processing

T. B. Harrison

Fruit rots can cause serious losses in harvested peaches held at the farm until soft ripe for the processor. Infection generally appears at the stem end which is occasionally torn at picking.

In 1958 fruit was available from Elberta trees which had been sprayed with sulphur and DDT three weeks before harvest. Fruit dips were prepared using three commercial fungicides at the following rates in 100 gallons of water (a) captan, 2 lbs., (b) Cyprex, 1 lb., and (c) wettable sulphur, 6 lbs. A water dip served as a control. Harvested fruits were dipped for one minute in each of the preparations and were then stored in either (1) the orchard, (2) the packing shed, or (3) a darkened potato cellar.

After seven days the stored fruit was examined for the presence of rots and infected fruits were set aside of positive identification of the organism concerned. Rot in unprotected fruits held in the orchard exceeded 50 per cent. The fungicidal dips reduced this wastage by one half. Unprotected fruits stored in the packing shed were about 25 per cent rotted and those receiving the fungicidal treatment showed less rot. In the cellar, under uniform day and night temperatures of about 62°F, the differences between treatments were negligible. Sulphur treated fruit did not become infected. The cellar, in contrast to the packing shed and particularly the orchard, was not infested with fruit flies Drosophila spp.

Rhizopus sp. was the causal organism most frequently encountered with some brown rot, Monilinia fructicola, evident on sulphur treated and unprotected fruits. This trial demonstrated that environmental conditions are of considerable importance in the post-harvest ripening of peaches, that fungicidal dips will reduce post-harvest losses from rots under adverse conditions, and that Rhizopus sp. rather than Monilinia fructicola may be the principal rot organism involved.

POWDERY MILDEW (Sphaerotheca pannosa) affected the shoot tips of a dozen trees in the University orchard, Vancouver, B.C. and was seen on fruit from a home garden in Vancouver (H.N.W.T.). It caused blotchy spotting on 50% of the fruits of several varieties at Beamsville, Ont. in a low area where air drainage was poor (G.C.C.). Powdery mildew was seen for the first time in N.S. All varieties in all orchards examined at Woodville and Kentville were affected to the extent of 1-5% of the fruit. Application of sulfur fungicides checked its development (R.G. Ross, C.O.G.).