Pome Fruit Virus Diseases in British Columbia

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The apple virus investigations initiated at Summerland in 1953 have produced results in 1958 that indicate the common occurrence of several viruses in commercial apple plantings in British Columbia. The virus that causes stem pitting in a number of hardy apple body stock varieties has been demonstrated to be carried in commerical apple trees of Golden Delicious, Rome Beauty, Red Delicious and Red Winesap.

The presence of the rubbery wood virus has been demonstrated in Red Delicious in commercial orchards and is strongly suspected in clones of several other varieties. A virus obtained from a clone of Rome Beauty when transferred to Virginia Crab caused dwarfing and decline, and another virus from two clones of Viriginia Crab caused a leaf mottle in Prunus tomentosa. Evidence has been obtained that would indicate that the rubbery wood virus is distinct from the stem pitting virus.

Transmission tests have shown that a fruit pitting condition in Flemish Beauty pear is caused by a virus distinct from the stony pit virus, since it could not be transmitted to the variety Bosc.

PEAR

FIRE BLIGHT (Erwinia amylovora) was generally mod. in the Creston Valley, B.C. but sev. in some orchards where proper control practices were not carried out (J.M. Wilks). It was not a problem in the Niagara Peninsula, Ont. but specimens of diseased wood from the Georgian Bay district were seen (G.C. Chamberlain).

LEAF SPOT (Septoria pyricola) caused some defoliation at Toronto, Ont. (G.C.C.).

SCAB (Venturia pirina) was mod. in Flemish Beauty at St. Catharines, Ont. and caused blemishes on 15-20% of the fruit (G.C.C.). Sl.-mod. infections were seen in Kamouraska Co., Que. (R.O. Lachance). Specimens were received at Kentville from Pictou and Halifax Counties, N.S. (J.F. Hockey).

ANJOU PIT (cause unknown). This disease, also known as cork spot was sev. on d'Anjou pears in the Okanagan and Similkameen Valleys of B.C. Industry officials estimated that one-quarter to one-third of the d'Anjou crop was affected. This fruit pitting occurs in varying degrees of

severity in a few scattered orchards each year. In most orchards it occurs in only some seasons with crops of normal fruit in the intervening years. In 1958 it was more common and more sev. than in any previous season, especially in districts from Kelowna north. Two lines of investigation have been in progress at Summerland for several years: (1) to determine the effect of rootstock type on disease incidence and, (2) to determine whether or not the disease is of virus origin (M.F. Welsh).

LEAF SCORCH (physiological) is a fairly common condition in the St. Catharines district of Ont. where it affects only the variety Bartlett. Foliage assumes a reddish-brown coloration and leaves eventually dry out and die. It is considered to be related to shallow rooting and the occurrence of hot, dry weather (G.C.C.).

B. STONE FRUITS

APRICOT

BLOSSOM AND TWIG BLIGHT (Monilinia laxa). A small percentage of trees in a few orchards at Osoyoos, Okanagan Falls, Penticton and Summerland were affected (D.L. McIntosh).

VERTICILLIUM WILT (V. albo-atrum). All the trees in a newly planted block of 3-year old stock were affected at Trout Creek Point, B.C. (G.E. Woolliams).

Twisted Leaf of Cherry and Ring Pox of Apricot

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Twisted leaf of cherry and ring pox of apricot have, for some years, been spreading slowly in the Okanagan and Similkameen Valleys of B.C. The two diseases frequently occur together in the same locations. It was shown experimentally that inoculum from diseased cherries often produced ring pox on apricot, and inoculum from ring pox infected apricots produced twisted leaf in cherry. It was also shown that the common native chokecherry could be a symptomless carrier of the twisted leaf virus. Chokecherries growing in locations where one or both of the diseases were present in commerical orchards were indexed on Bing cherry and on apricot. Ring pox appeared on some but not all of the apricots and twisted leaf on some but not all of the cherries. This work confirmed the fact that the viruses causing twisted leaf and ring pox were present in chokecherries growing adjacent to infected orchards. Further work is in progress to test for the presence of the viruses in chokecherries growing at some distance from commerical orchards.