SUMMARY OF THE PREVALENCE OF PLANT DISEASES IN CANADA IN 1967

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The information presented here on the occurrence of plant diseases has been compiled from reports to the Canadian Plant Disease Survey by plant pathologists, crop specialists, and representatives of regulatory agencies in various reqions of Canada. These contributors are identified by their initials following each report, and their names and locations are listed in the Index of Contributors.

This summary is published to provide a continuing record of the prevalence and severity of plant diseases in Canada that will be readily available to pathologists and regulatory specialists throughout the country. Some of the reports are based on chance encounters and on diseased specimens submitted for diagnosis and do not always reflect the results of intensive or widespread surveys. However, the recording of these reports should be helpful in attracting attention to newly recognized diseases and to changes in the level or distribution of pathogen populations. Hopefully a continually updated inventory of existing diseases will assist pathologists in recognizing the new and the unusual.

Noteworthy diseases and weather conditions

British Columbia

Lower Fraser Valley.--The 1966-67 winter was exceptionally mild and, although temperatures were lower in outlying agricultural districts, frosts were rare in the Vancouver area and such tender plants as fuchsias, marguerites and geraniums survived. The spring was cooler than normal but was favorable to grass and pasture production.

During the five months April to August, sunshine was much above and rainfall much below average. Mean temperatures were well above normal in June and August. The CDA Research Station at Agassiz reported a 6.48 inch rain deficiency and a total of 174.8 hours extra sunshine (the equivalent of a whole month) for the above five month period. After the dry summer months rainfall returned to normal in September, but temperatures remained above normal and pastures recovered from the summer drought. In October, however, Agassiz recorded 14.33 inches of rain, better than double the long term average. The first killing frost occurred in November. Some 3 to 5 inches of snow fell immediately before Christmas but lasted no more than a few days.

The warm, dry summer prevented much of the usually prevalent damage to berry fruits from gray mold caused by Botrytis cinerea. The incidence of foliar diseases on all crops was of minor importance, as it had been in 1966. Late blight of potatoes did not occur generally in August, as is usual, but where growers neglected the routine spray schedule and were careless about irrigation, some foliar damage resulted. Irrigation was also blamed for a few severe cases of tuber rot in the field; Phytophthora infestans, P. erythroseptica, and Pythium spp. were all contributory. Where irrigation was used, rough potato tubers were present, especially in 'Netted gem.'

Xanthomonas pelargonii (N.A. Brown) Starr & Burkh. was detected in Pelargonium cuttings imported from California, and losses of up to 20% were sustained in some shipments.

Puccinia pygmaea Erikss. was identified on Mahonia aquifolium for the first time in Canada at a nursery near Vancouver, B.C., but its alternate grass hosts were not found.

Southern interior valleys.--For the second successive year, weather conditions were very favorable for growth of crops, and unfavorable for development of many diseases. The 1966-67 winter was mild, with temperatures below 20F recorded at Summerland on only 3 days, the lowest being 18F. There was snow on the ground for only a few days in December 1966 and during the first half of January 1967. All months from February to September, except May, had unusually low rainfall. Summerland recorded approximately 1 inch in the 3 months February-April, 1 inch in May, and 1 inch in the 4 months June-September. The higher rainfall in May provided two apple scab infection periods; and the Kootenays had an additional heavy rainfall in late June, providinq a third infection period. However, no serious commercial losses from apple scab were reported. There were mild and scattered occurrences of peach leaf curl. The blossom blight phase of brown rot was absent on all stone fruits, even in orchards with abundant overwintering inoculum. Brown rot on fruits was reported in a few scattered orchards but losses were negligible. Rhizopus rot of peaches reached normal levels in fruit lots that were not treated, demonstrating that its incidence is less dependent on weather conditions. Pear fire blight incidence was reduced to a few late season infections in several orchards.

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