ALFALFA DISEASES IN CENTRAL BRITISH COLUMBIA IN 1961

E.J. Hawn

The alfalfa disease picture in south-central British Columbia has changed considerably in certain aspects during the last five years.

The expanding use of alfalfa varieties resistant to bacterial wilt (<u>Corynebacterium insidiosum</u>) has relegated that disease from one of major to one of minor importance in British Columbia's irrigated stands. It was found in **34** per cent of the fields examined in the Creston, Glenwood, Midway, Boundary, Osoyoos, Kelowna, Vernon, Armstrong, and Kamloops districts in 1961. This compares favorably with an incidence of 78 per cent recorded for 1956.

Crown bud rot (<u>Rhizoctonia solani</u>, Fusarium roseum, Ascochyta imperfecta) was the most prevalent disease in 1961, particularly on irrigated land in the above-mentioned areas. Alfalfa, especially in the ranching areas north of Kamloops, was severely thinned out after four years of growth. A comparison of such stands with those on the Tranquille Farm at Kamloops (where no grazing is permitted) strongly indicated that grazing and tramping contributed materially to cold injury and hence to an accelerated development of crown bud and crown rot during the growing season.

Other diseases noted included downy mildew (<u>Peronospora aestivalis</u>), common leaf spot (<u>Pseudopeziza trifolii</u> f. sp. <u>rnedicaginis-sativae</u>), yellow leaf blotch (<u>Leptotrochila medicaginis</u>), black stem (<u>Ascochyta imperfecta</u>) and witches' broom (virus). The importance of these diseases was assessed as slight, placing them in the same general category as that recorded in 1956.

CANADA AGRICULTURE RESEARCH STATION, LETHBRIDGE, ALTA.