C. Root Crops

SUGAR BEET

BLACK ROOT (Aphanomyces cochlioides). In July in experimental plots at Acadie, Que., seedlings of cultivars Kuhn–R, Monogerme, H.C-11, and Cercopoly were severely infected. Infection of Polykuhn was mod. (L.J.C.).

ROOT ROT (Fusarium, Phoma, Pythium, Rhizoctonia, Rhizopus). In June, seedlings of Kuhn–R, Polykuhn, H.C–11, Monogerme and Cercopoly growing in experimental plots at Acadie, Que. were examined and found to be severely infected by Rhizoctonia solani (L.J.C.). At Taber, Alta. a sl. necrosis to the tap roots due to Rhizoctonia was observed in 1 field: a root rot affecting the tips of a few maturinq beets caused by Pythium and Fusarium was observed in another: a wet rot (Rhizopus?) of the lower part of the tap root of young beets was found in a portion of 1 field where irrigation water had stood for several days: root rot, Fusarium, Pythium, Rhizoctonia and Phoma was sev. In low areas of several fields in the area. On the mature beets there was no evidence of rot, only the stand was reduced. Damage corresponded to the occurrence of flooding caused by heavy rains in the seedling stage (F.R.H.).

BORON DEFICIENCY was It.–mod. in a 15 acre field at St. Edouard, Que. (R.C.).

CHEMICAL INJURY. A 15 acre field near Sherrington, Que, exhibited spray injury on the foliage (R.C.).

D. Miscellaneous Crops

FIELD CORN

ROOT AND STALK ROT (Fusarium graminearum) was prevalent in Essex Co., s.w. Ont. Drought after mid–July led to early dying of lower leaves and deterioration of stalks in Aug. and Sept. Heavy rains and winds in early Oct. resulted in much lodging and stalk rot. Throughout southwestern Ont. the delay in harvest caused by rain in Oct. and early Nov. increased problems from stalk breakage (C.G.M., L.F.G.).

SMUT (Ustilago maydis (D.C.) Cda., [U. zeae (Beckm.) Ung.]). Trace amounts of infection caused by U. zeae were found in Sask. where this disease is rare (R.S.). U. maydis was present in Oxford, Essex and Norfolk counties in s.w. Ont. (A.A.R.). and was observed also in the area of St. Jean, Que. (R.C.).

STREAK MOSAIC (wheat streak mosaic virus). Individual corn plants and annual grass plants infected with WSMV were seen in several fields in the Harrow, Ont. area. The virus was found in occasional plants in many fields of winter wheat in the spring and again in the autumn (C.G.M., L.F.G.).

KERNEL RED STREAK (Red striped pericarp), observed in s.w. Ont. since 1964, developed in 14 var. of corn in experimental plots at Ottawa but affected only mature ears into which wheat curl mites (Aceria tulipae [K]) from wheat were introduced manually on Aug. 11th. The condition was induced by nonviruliferous mites as well as by mites carrying either wheat streak mosaic virus or wheat spot mosaic virus (J.T.S.). This condition, caused by the feeding of the wheat curl mite on the kernels, was common in s.w. Ont. and easterly to Port Hope, Ont. (L.F.G.).

TOBACCO

LEAF SPOTS (Alternaria spp.) in combination with physiological leaf spot increased significantly in Ont. due to the extremely wet weather. In individual farms with imperfectly drained soils losses were sev. (S.K.G.).

ANGULAR LEAF SPOT (Pseudomonas angulata) in Ont. was observed in numerous fields near Delhi and the Port Hope area. Wet weather stimulated 'water soaking' of the leaves and facilitated infection. Losses were not apprecialbe (S.K.G.).

DAMPING–OFF (Pythium spp., Rhizoctonia solani and Fusarium spp.) was common in flue-cured seed beds. Although the seedlings were adequate for supplying the field, choices in each pulling were limited. Longer periods for transplanting occurred in Ont. where sev. cases of damping–off were recorded (S.K.G.).

SORE–SHIN (Rhizoctonia solani) was sev. in s. Ont. due to wet conditions. Infection was up 10–15% in certain fields. No chemical control has been recommended (S.K.G.).

POLE ROT (Rhizopus spp. other fungi and bacteria) of leaves in Ont. during curing was less frequent than last year as the leaves were riper and smaller. Leaves of the 3rd and 4th primings showed sl. rotting (S.K.G.).

BLACK ROOT ROT (Thielaviopsis basicola). Prevailing weather conditions and improved sterilization of seedbeds in the greenhouses at Delhi, Ont. reduced the amount of infection that occurred in 1966. On heavy soils in the field losses were sev. and greater than in 1966 due to the wet cold weather prevalent after planting (S.K.G.). Two tobacco fields in N.S. were found to be