P.H.W.). Insect transmission of BYDV in Man. in 1967 was discussed in CPDS 47:101-103, 1967. Tr.-light infections were found in e. Ont. (R.V.C.).

WHEAT STREAK MOSAIC (wheat streak mosaic virus) was found in tr. amounts in 1/10 fields of barley near Lethbridge, Alta. (C.C.G., P.H.W.).

CHLOROTIC BANDING (physiological), possibly due to low temperature injury, was noted at Barrhead, Athabasca, Millet, and Evansburg, Alta. (A.W.H.).

RYE

ERGOT (Claviceps purpurea). Trace amounts were reported in 1 commercial field and in plots at Saskatoon and in plots at Melfort, Sask. (R.D.T.). Sl.-mod. infections were found in 2 fields in s. Ont. (T.R.D.). and in a 2-acre field near La Pocatière, Que. (H.G.).

POWDERY MILDEW (Erysiphe graminis) occurred as a tr. in plots near Vancouver, B.C. (H.N.W.T.) and was reported from Fort Vermilion, Alta. (A.W.H.) and Saskatoon, Sask. (R.D.T.).

STEM RUST (Puccinia graminis). Trace infections occurred in plots near Vancouver (H.N.W.T.) and in all 3 fields examined in s. Ont. (T.R.D.). In the rust nurseries 'Prolific' rye was affected at only 10/36 nurseries across Canada (G.J.G.).

LEAF RUST (Puccinia recondita). Light infection was found in plots near Vancouver (H.N.W.T.) and in 3 fields in s. Ont. (T.R.D.). Puccinia sp. was reported on Russian wild rye at Fort Vermilion, Alta. (A.W.H.).

TRITICALE

ERGOT (Claviceps purpurea) was found on triticale (Secale X Triticum) in experimental plots at Lacombe, Alta. (W.B.B.).

LOOSE SMUT (Ustilago nuda) was found in specimens of triticale grown in central Alta. (B.B.).

DISEASES OF FORAGE AND FIELD CROPS

A. Forage Legumes

ALFALFA

BLACK STEM (Ascochyta medicaginis Pk. = Phoma medicaginis Malbr. & Roum. var. medicaginis Boerema). In c. Alta. 11/15 fields examined were affected (8-tr. 3-mod.) (W.B.B.). It was general in all areas of P.E.I. but damage was sl. (C.B.W.).

WINTER CROWN ROT (low-temperature basidiomycete). In the Lethbridge, Calgary, Edmonton areas of Alta. 16 fields were rated I-tr. 7-sl. 4-mod, 4-sev. (J.B.L., J.E.M.).

BACTERIAL WILT (Corynebacterium insidiosum) was found in 3/15 fields in tr. amounts in c. Alta. (W.B.B.), and was found in all 16 fields examined in the Lethbridge, Calgary, and Edmonton areas (11-tr. 3-mod. 2-serv.) (J.B.L., J.E.M.). In s. Alta. 5/10 fields were rated tr.-sl. (E.J.H.).

BULB AND STEM NEMATODE (Ditylenchus dipsaci) was reported in tr.-mod. amounts in 6/10 in s. Alta. (E.J.H.).

CROWN BUD ROT (Fusarium spp., Rhizoctonia solani, Ascochyta medicaginis) was present in the 16 fields surveyed in c. Alta. (10-tr. 3-mod. 3-sev.) (J.B.L., J.E.M.). In s. Alta. tr.-sev. disease was found in the 10 fields examined (E.J.H.).

YELLOW LEAF BLOTCH (Leptotrochila medicaginis) was present in 8/75 fields (4-sl. 4-mod.) in c. Alta. (W.B.B.).

DOWNY MILDEW (Peronospora trifoliorum). A tr. of mildew affected 1/15 fields in c. Alta. (W.B.B.).

COMMON LEAF SPOT (Pseudopeziza trifoli f. sp. medicaginis-sativae) occurred generally in P.E.I., where up to 75% infection and mod. defoliation was observed (C.B.W.). In c. Alta. 7/15 fields had tr. infections (W.B.B.).

ROOT ROT (Fusarium spp., other fungi) caused mod. damage to alfalfa in P.E.I., where the disease was widespread and caused up to 60% infection (C.B.W.).

SCLEROTINIA CROWN ROT (Sclerotinia trifoliorum) caused sl. damage and 0-15% infection in May throughout P.E.I. (C.B.W.).

LEAF RUST (Uromyces straitus) was general throughout the Niagara Peninsula, Ont. (T.R.D.).

FOLIAGE BLIGHT. Second-growth alfalfa in the Niagara Peninsula, Ont., was severely affected by a combination of leaf spot (unidentified agent), black stem (Ascochyta medicaginis) and leaf rust (Uromyces striatus). In 6 fields examined, 50 to 100% of the top growth was killed or severely

damaged and affected fields were of little value for either seed or hay. Similar damage was reported by extension specialists in other areas of Ont. The unusually serious problem was brought about by climatic factors that provided ideal conditions for foliage diseases (T.R.D.).

BIRDSFOOT TREFOIL

LEAF SPOT (*Stemphylium loti*) was found in one field in c. Alta. (W.B.B.). This is a new record of the fungus on *Lotus corniculatus* in W. Canada; the first report for Canada was in Que. in 1966 (Ed.).

COMMON CLOVER

BLACK STEM (*Ascochyta ? medicaginis*) was reported from 9/21 red clover fields (3-mod. 3-sl. 3-tr.) in c. Alta. (W.B.B.).

SCOTY BLOTCH (*Cymadothea trifolii*). Trace infections were observed in 1/18 fields of alsike clover and 1/5 fields of red clover in c. Alta. (W.B.B.).

POWDERY MILDEW (*Erysiphe polygoni*) was rated 2-sl. 2-tr. in 18 fields of alsike clover and 5-tr. I-mod. in 21 fields of red clover in c. Alta. (W.B.B.). Up to 20% infection of red clover was general in P.E.I. (C.B.W.).

ROOT ROT (*Fusarium* spp. and other fungi) affected up to 100% of the plants in red clover stands in P.E.I., and as many as 60% of the plants in some fields were killed between the spring and fall of 1967 (C.B.W.).

NORTHERN ANTHRACNOSE (*Kabatiella caulivora*) affected 14/21 red clover fields in c. Alta.; the fields were rated 8-tr. 4-sl, 2-mod. (W.B.B.). In P.E.I. it was widespread on red clover, affecting up to 25% of the plants and causing mod. damage, especially in older plantings (C.B.W.).

BLACK STEM (*Phoma trifolii*). Tr.-sl. infections were reported in 3/18 fields of alsike clover in c. Alta. (W.B.B.).

CROWN ROT (*Sclerotinia trifoliorum*) was general throughout P.E.I. in May and caused up to 60% infection and mod. damage in red clover (C.B.W.).

LEAF BURN (*Leptosphaerulina trifolii* (Rostr.) Petr. = *Sphaerulina trifolii* Rostr.) was found on senescent leaves of red clover and white and Ladino clovers in experimental plots and roadsides at Vancouver, B.C. in Oct. 1966; damage was sl. (M.J.P., H.S.P.).

RUST (*Uromyces trifolii*) was rated tr.-sl. in 4/18 fields of alsike clover in c. Alta. (B.B.). In P.E.I. infection was general on red clover but caused only sl. damage; older plantings were most often affected (C.B.W.).

PROLIFERATION (clover proliferation virus) was found in 2/18 fields of alsike clover in c. Alta. (W.B.B.).

BEAN YELLOW MOSAIC (bean yellow mosaic virus) was noted in 1/18 fields of alsike clover and in 2/21 fields of red clover examined in c. Alta. (W.B.B.).

VIRUS DISEASES IN EASTERN CANADA. The distribution of viruses affecting clover in eastern Canada was studied in 1967 (M.J.P.). Eight viruses were identified, some for the first time in this area, and were distributed on red, white, and alsike clovers as follows:

CLOVER PHYLLODY VIRUS - P.E.I. (red, white, alsike), N.S. (red, white), N.B. (red, white, alsike);

PEA STREAK VIRUS - N.S. (red), N.B., (red, white, alsike), Que. (red), Ont. (red, white);

RED CLOVER VEIN MOSAIC VIRUS - P.E.I., (red, white), N.S. (white), N.B. (red), Que. (red, white, alsike), Ont. (white);

BEAN YELLOW MOSAIC VIRUS - Que. (red), Ont. (red);

PEA MOSAIC VIRUS - N.S. (red), Ont. (red);

CLOVER YELLOW VEIN VIRUS - P.E.I. (white), N.B. (white, alsike), Que. (red, white, alsike);

ALFALFA MOSAIC VIRUS - P.E.I. (red, white), Que. (red, white);

WHITE CLOVER MOSAIC VIRUS - N.S. (white), Que. (white); Ont. (white).

SWEET CLOVER

DOWNY MILDEW (*Peronospora* sp.) was found as a tr. infection in experimental plots in c. Alta. (W.B.B.).

BROWN ROOT ROT (*Plenodomus meliloti*) caused 20% loss in test plots at Lacombe, Alta. (W.B.B.).

BEAN YELLOW MOSAIC (bean yellow mosaic virus). A tr. was found in experimental plots in c. Alta. (W.B.B.) and in 1 field in Ont. (M.J.P.).

VETCH

RUST (*Uromyces* sp.) was reported on *Vicia* sp. in 2 locations in c. Alta. (W.B.B.).