## 1. DISEASES OF CEREAL CROPS

### WHEAT

BLACK POINT (Alternaria spp.). Samples of common and durum wheat, examined at Winnipeg, were found to contain many "black point" kernels which were permeated to a greater extent than usual. Plating tests showed that the discolored seeds were usually infected with species of Alternaria only (H.A.H. Wallace).

LEAF SPOT (Ascochyta sorghi) was recorded in tr.-sl. amounts in wheat varieties at Kyle, Tugaske and Swift Current, Sask. (B. J. Sallans). E. Müller (Phytopath. Zeitschrift 19: 403-416. 1952) has described the perfect stage of A. sorghi Sacc. in Europe and assigned it to Didymella exitalis (Mor.) Müller. The perfect stage has not been recorded in North America (D.W. Creelman).

COMMON ROOT HOT (Bipolaris sorokiniana, Fusarium spp.) was sl.-mod, in a plot of Ridit wheat at Vancouver, B. C. (H.N.W. Toms); it was tr.-sl. at 19/19 illustration stations in n. Alta. and 43-tr. 18-sl, 7-mod, /68 farmers' fields in n. and c. Alta. Most of the mod. infections were in the Camrose area (W.P. Campbell). In s. Alta. it was rated 12-tr. 5-sl. 2-mod./22 spring wheat and 9-tr. 7-sl. 7-mod./25 winter wheat fields, F. culmorum was the dominant Fusarium species (J.S. Horricks, T.G. Atkinson). The incidence of common root rot in Sask. increased in 1961 co-incident with the drought, Average disease ratings for crop districts 1-9 respectively were 11.88; 16.46; 17.66; 11.96; 8.78; 12.36; 11.87; 8.77, and 8.83 for a provincial average of 12.08, compared with 9.14 and 10.64 for 1959 and 1960 (B. J. S.).

STRIPE (Cephalosporium gramineum) was collected on Jones Fife wheat at Hillspring, Alta. (J.S.H., T.G.A,). The specimen (DAOM 87351) agreed well with previous collections from N. B. and Ont. This is the first report, to the Survey, of Cephalosporium stripe of wheat from western Canada (D. W.C.). It was also seen in a few fields of winter wheat in western Ont. (D. W. C.).

ERGOT (Claviceps purpurea), Trace infections were observed in plots at Evansburg and Vegreville and it was 3-tr. 1- sev. in the Lloydminster area, Alta. (W. P.C.). Up to 10% of the heads of spring wheat in a field nr. Ottawa, Ont. were infected. It is suggested that infection may have come from a nearby heavily infected stand of Agropyron repens (R. V. Clark).

SEEDLING BLIGHT (Drechslera tritici-repentis). Lnfection was general and heavy on winter wheat in Renfrew Co., Ont. in May in fields where wheat had been planted for the second consecutive year, Bipolaris sorokiniana was present to a lesser degree (R. V. C.).

POWDERY MILDEW (Erysiphe graminis). Ridit wheat was slightly affected in plots at U.B.C. , Vancouver (H.N.W. T.). A sl. infection was seen north of Grande Prairie, Alta. (W. P.C.). In s. Alta. it was 3-tr./25 winter wheat and 2-tr. 3-sl. 2-mod./22 spring wheat fields (J.S.H., T.G.A.)

and tr. on winter wheat at Cardston (W. A. F. Hagborg). Infection was very heavy on winter wheat in the Ottawa, Ont. area affecting, in some varieties, even the head (R.V.C.).

TAKE-ALL (Ophiobolus graminis) was 1-tr. 1-mod./75 fields in c. Alta., both infections near Camrose (W. P. C.) and 1-tr./22 spring wheat fields in s. Alta. (J.S.H., T.G.A.).

HEAD DISCOLORATIONS (Nigrospdra sphaerica, Septoria nodorum). Isolations from mod. affected heads at Winnipeg, Man. yielded N. sphaerica which proved to be pathogenic on wheat heads, attacking chiefly the lemmas. Samples from Carman, Man,, where the condition was sev. in patches, with a shrivelling of grain, yielded S. nodorum. Several cultures were severely pathogenic on Pembina and Selkirk in controlled tests. A similar condition was observed in 1954 (C.P. D.S. 35:4. 1955) (W.A. F.H.).

BASAL GLUME ROT (Pseudomonas atrofaciens). Two tr. infections were seen north of Grand Prairie, Alta. (W. P. C.) and it was tr. on Selkirk at the Pas, Man. (W.A.F.H., G.J. Green).

*STEM RUST (Puccinia graminis) was tr. at Kyle and Adanac and sl. at Glidden, Sask. Its incidence was at an all time low in the province (B. J.S.). It was mod. -sev. on both winter and spring wheat at Ottawa (R. V. C.), and was sev., but appearing late in the season, at Ste. Anne de la Pocatiere, Que. (R. O. Lachance).

LEAF RUST (Puccinia recondita). Slight infections occurred in plots at U.B. C., Vancouver (H.N, W. T.), It was tr. on 2 varieties in plots at Vegreville and was 8-tr. 2-sl. e. and n. -e. of Edmonton, Alta. (W.P. C.). Traces were found in 11 fields in w. and n. -w. Sask. (B. J.S.). It was mod. - sev., on both winter and spring wheat at Ottawa (R.V.C.).

BROWNING ROOT ROT (Pythium arrhenomanes). One mod. infection occurred in 22 spring wheat fields surveyed in s. Alta (J.S.H., T.G.A.).

GLUME BOTCH (Septoria nodorum) was 15-tr. 6-sl. 1-sev./75 fields surveyed in n. and c. Alta. It was also tr. -sl. at 5/19 illustration stations (W. P. C.). A perfect stage of S. nodorum in Europe, Leptosphaeria nodorum Müller, was described in 1952 (Müller, E., Phytopath, Zeitschrift 19: 403-416. 1952.) (D. W. C.).

SPECKLED LEAF BLOTCH (Septoria tritici). Trace -sl. infections were recorded at Wanham and Cheddarville, in n. Alta. and it was 2-tr. 3-sl. in c. Alta, (W.P.C.). Infection was 1-tr./22 spring wheat fields in s. Alta. (J.S.H., T.G.A.). Sl. -mod. infections were general in the area Big River - Green Lake to Reford and Biggar in Sask. (B. J. S.). It was 2-tr./7 fields visited in Man, (G. J. G.), and light but general in the Ottawa, Ont. area (R. V. C.).

*For a more complete account of the distribution of this and other cereal rusts in Canada in 1961, the reader is referred to the article "Cereal Rusts in Canada in 1961" by Green and Samborski. (Can. Plant Dis. Survey 42:1:1 1962)

COMMON BUNT (Tilletia caries, T. foetida) was 1-sl./25 winter wheat fields in s. Alta. The infected field—was at the Research Station, Lethbridge (J.S.H., T.G.A.). No bunt was found in 193 fields examined in Sask. (R.C. Russell). Bunt was apparently not widely distributed in the 1961 crop in western Canada, since only 0.05% of wheat carloads graded in the three months, Aug.-Oct. graded "smutty" (W. **Popp,).**

LOOSE SMUT (Ustilago tritici) was sl. on 1 variety in plots at Buffalo Head Prairie and was 1-tr. 1-5% in the Peace River district, Alta. (W. P. C.). It was sl. in a field at Dewberry and mod. in one nr. Calgary, Alta. (W. P. Skoropad). Five /193 fields in Sask. showed tr.-1% infection (R.C.R.). Most fields examined in Man. were free of loose smut. Tr. infections were seen in durum and 2-6% in Lee (W. P.).

BARLEY YELLOW DWARF (Barley yellow dwarf virus), Infection was 3-tr. 1-sl./25 winter wheat and 1-sev./22 spring wheat fields in s. Alta. (J.S.H., T.G.A.). It was tr. on 1-5% of the plants in a field at Whiskey Gap and sl. on 18% of the plants in another at Fort McLeod, Alta. A single affected plant was seen at Swift Current, Sask. (W.A.F.H., J.T, Slykhuis), and it was tr. on Ramsey at the Pas, Man, (W.A.F.H., G.J.G.). Trace infections were seen on durum and common wheat at Winnipeg (W.A.F.H., H.A.H.W.). Fora complete review of BYDV incidence in Canada in 1961 see "Smith, H.C., Can. Plant Dis. Survey 41:5, 344. 1961." (D.W.C.)

**SOIL-BORNE** MOSAIC of winter wheat occurred again extensively north, west, and southwest of Toronto, Ont. (J,T.S.). **For** a complete account of this disease see: Slykhuis, J. T. "The cause and distribution of mosaic diseases of wheat in Canada in 1961" Can. Plant Dis. Survey 41:5. 329. 1961)D.W.C.).

STREAK MOSAIC was 3-tr./25 winter wheat and 1-tr. 1-mod./22 spring wheat fields in s. Alta, (J.S.H., T.G.A.). It was tr, in winter wheat at Cardston, Barrons, and Bassano, Alta. (W.A.F.H., J.T.S.). See **also:** Slykhuis, J. T., Can. Plant Dis. Survey 41:5, 329. 1961 (D,W. C.).

STRIATE MOSAIC. A trace infection was seen in 1/22 spring wheat fields in s. Alta, **(J.S.H.,** T.G.A.) and on durum wheat at Winnipeg, Man. (W.A.F.H.). See also: Slykhuis, J. T., Can. Plant Dis. Survey 41:5. 329. 1961 (D. W. C.).

CHLOROSIS (possibly of virus origin), An account of this previously undescribed disease is given by J. T. Slykhuis, Can, Plant Dis. Survey 41:5. 329. 1961 (D.W.C.).

CHEMICAL INJURY, Negligible damage, consisting of a branching of heads, was caused by 2, 4-D at Quinton, Sask. (T.C. Vanterpool).

HAIL DAMAGE was moderate at Glenwood, Alta. (W.A.F.H., J. T.S.).

LEAF BANDING (high surface-soil temperatures) was very sev. in Sask. in June (T.C.V.) (Can. Plant Dis. Survey 41:5, 306-309, 1961). Many fields were affected in the Kindersley-Merid areas of Sask. (B. J. S.).

LEAF BLOTCH (physiological) was 1-mod./25 winter wheat fields in s. Alta. (J.S.H., T. G.A.). It was 2-mod. 2-sev./12 fields of Ramsey surveyed in Sask. (B. J. S.).

TIP BURN (heat and drought) caused sl. damage in a field at Reford, Sask. (B. J. S.).

## OATS

SEEDLING BLIGHT (Bipolaris sorokiniana). A 1%infection was seen at Indian Head, Sask. (B. J. Sallans).

COMMON ROOT ROT (Bipolaris sorokiniana, Fusarium spp.) was 4-tr. /19 illustration stations and 4-tr./65 farmers' fields in n. and c. Alta. (W.P. Campbell). It was 1-tr./10 s. Alta. fields (J.S. Horricks, T.G. Atkinson). At Winnipeg, Man., Garry was sev. affected while Exeter in an adjacent plot was not. The Fusarium spp. involved were F. poae, F. equiseti and F. oxysporum var. redolans (H.A. H. Wallace, W. L.' Gordon).

ANTHRACNOSE (Colletotrichum graminicola) was mod. on Fundy, Glen, M.C. 6846, Q.O. 1-6, Q.O. 3-1, Q.0.3-2 and Shefford, and sl. on Ajax, Garry, G.A.82, G.A.85 and G.A.91 in plots at St. Charles de Caplan, Que. (D. Leblond).

LEAF BLOTCH (Drechslera avenacea) was tr. -sl. at 9/19 illustration stations and 8-tr. 9-sl. in 65 fields in n. and c. Alta. (W.P.C.). Infection was 2-tr. 1-sl. 1-mod. in s. Alta. (J.S.H., T. G.A.). Mod. infections occurred on Fundy at the Exp. Farm, St. John's West, Nfld. (O.A. Olsen).

BROWN STRIPE (Passalora graminis). A report from N. B. (C. P. D. S, 41:2, 44. 1961) was incorrectly designated as the first report of this disease on oats in Canada. It had previously been reported from Ont. (C. P. D.S. 25: 7, 1949) and Alta. (C.P.D.S. 30: 9. 1952) (D. W. Creelman).

HALO BLIGHT (Pseudomonas coronaficiens). Trace -sl. infections were recorded at 14/19 illustration stations and it was 12-tr. 3-sl./65 fields in c, and n. Alta. (W. P. C.). It was recorded in 2/10 fields in Sask. (B. J. S.), and was noted, in varying degrees of intensity, in plots in the Ottawa, Ont. area. Infection was obviously seed-borne (R. V. Clark).

CROWN RUST (Puccinia coronata) was light but general in the Ottawa, Ont. district (R.V. C.) and was sev. in a late-planted field at Berwick, N.S. (K.A. Harrison), Light infections were general in Aug. west of Summerside, P.E.I. (J.E. Campbell).

STEM RUST (Puccinia graminis). Infection was sl. on Eagle and Victory oats at Oyster River, Vancouver Island, B. C. (H.N. W. Toms). Stem rust was generally light in the vicinity of Ottawa, Ont., but was heavy in areas near barberry (R.V. C.). Late-sown fields in the lower St. Lawrence district of Que. had mod. infections. It was sl. on early-sown fields (R. O. Lachance). A 7-acre field at Coldbrook, N. S. was 100% infected (C. L. Lockhart). It was sev. on late-planted crops in n. -w. Queens Co., **(J.E.C.),** and mod. on Fundy and sev. on Victory at Charlottetown, P.E.I. (J.D.E. Sterling).

SPECKLED LEAF BLOTCH (Septoria avenae f. sp. avenae) was present in 2/10 Sask. fields (B. J.S.), Infection was 100% and damage mod. in a field of Shield (Foundation) oats at the C. E. F., Ottawa, Ont. (M. D. Sutton, M.E. Elliott). It was considerably heavier in the Ottawa district than in 1960 although less sev. than in some preceeding years (R.V. C.), Infection was general in P.E.I. and levels were extremely variable depending on planting dates. Early-planted fields were sev. affected and late-planted ones only slightly. The average damage was mod. (J.D. E. S.).,

STUNT NEMATODE (Tylenchorhynchus maximus) was recorded on oats from Finch, Ont. and Buckingham, Que. (R.H. Mulvey) **(C.P.D.S. 41:5,** 357. 1961).

SMUTS (Ustilago avenae, U. kolleri) were 3-tr. 1-20%/65 fields in n. and c. Alta. The sev. infected field was north of Elk Point (W. P.C.). Only 1/11 fields examined in Sask. was affected (R.C. Russell) and only a trace was seen in 1 field in Man, (W. Popp.). Many fields in P.E.I. showed 1-2% infection (G. W. Ayers). Sl. infections were seen at Doyles on the west coast of Nfld. (O.A.O.).

RED LEAF (barley yellow dwarf virus) was tr. in a field n. -e. of Dawson Creek, B.C. (W. P. C., D. W. C.). Trace infections were seen at The Pas, Portage la Prairie and Winnipeg, Man. (W.A.F. Hagborg, H.A.H. W., G.J. Green), Red leaf was sev. and caused heavy damage in late-sown fields in the Lake St. John, Lower St. Lawrence and Gaspé regions of Que. Frequently heading was suppressed, Experimental plots at St. Charles de Caplan were rendered completely useless (R. O. L.). See also: Smith, H. C., Cdn. Plant Dis. Survey 41:5. 344. 1961) (D. W. C.).

WHEAT STREAK MOSAIC was seen in one oat field adjacent to an infected wheat field in s. Alta. **(J.S.H.,** T.G.A.).

BLAST (physiological) was tr. -sl. at 17/19 illustration stations and 20-tr. 20-sl. 4-mod. 4-sev./65 farmers' fields in n. and c. Alta. (W. **P.C.).** In s. Alta it was 2-tr. 1-sl./10 fields (J.S.H., T.G.A.) Two/10 fields were sl. affected in Sask. (B. **J.S.).** It was tr. on Fundy at Nappan, N.S. (K.A.H.) and sl. on Abegweit in Queens Co., P. E.I. (J.E. C.).

CHEMICAL INJURY (probably 2, 4-D). Sev. injury occurred in a field nr. Waskatenau, Alta. Florets were sterile and the nodes, especially the lower ones, were enlarged (W. **P.** C.).

GRAY SPECK (Manganese deficiency) was rated as 3-tr. 5-sl. 1-mod. 2-sev. on high-organic soils in the Peace River District of B.C. and Alta. The most sev. symptoms seen were at High Prairie, Alta. (W.P.C.). Slight symptoms were more observed at McGrath, Alta. (W.A.F.H., J.T. Slykhuis). The occurrence of gray speck in s. Alta. is largely restricted to pockets of organic soil in the foothills region where sev. symptoms are often observed. Mod. symptoms were seen in 1961 on oats grown on silty-sandy loam at Wardner, B.C. Eagle was sev. affected whereas Glen showed no symptoms (J.S.H., T.G.A.). Symptoms were seen on low-lying land west of Spalding, Sask. (T.C. Vanterpool).

LEAF BANDING (high surface-soil temperatures) was sev. in June in Sask. (T.C.V.).

## BARLEY

COMMON ROOT ROT (Bipolaris sorokiniana, Fusarium spp.) was tr. at most of the 19 illustration stations visited in c. and n. Alta., with mod. infections at Olds, Vermilion, Vegreville and Athabasca. Ratings were 33-tr. 27-sl. 11-mod./106 farmers' fields (W.P. Campbell). In s. Alta. ratings were 5-tr. 1-mod./11 fields (J.S. Horricks, T.G. Atkinson). The average disease rating in 30 Sask. fields was 11.5. Ratings were high on the open plains but lower in the north (B.J. Sallans). Slight infections were general on Charlottetown 80 in P.E.I. (J.D.E. Sterling).

SPOT BLOTCH (Bipolaris sorokiniana). Trace infections were occasionally found in late-maturing fields in Man. (H.A.H. Wallace).

ERGOT (Claviceps purpurea) was tr. in plots at Vegreville, Alta. (W.P.C.) and was tr. in a field at Meadow Lake, Sask. (B.J.S.).

NET BLOTCH (Drechslera teres) was found at 16/16 illustration stations in c. and n. Alta. ranging from 3-tr./9 varieties at Buffalo Head Prairie to 4-mod. 5-sev./10 varieties at Vermilion. It was rated 24-tr. 22-sl. 29-mod. 23-sev./106 farmers' fields. Net blotch seems to have been favored over scald by the above-normal summer temperatures and was more serious in c. than in n. Alta. (W.P.C., W.P. Skoropad). Mature ascocarps (Pyrenophora teres) were found, for the first time in Alta., on overwintered barley straw (L.J. Piening) (Can. Plant Dis. Survey 41:5. 299-300. 1961). Two tr. infections were recorded in 11 fields in s. Alta. (J.S.H., T.G.A.). Ratings were 2-tr. 5-sl. 5-mod. 2-sev./30 fields in Sask. The disease was confined to the n.-w. areas of the province (B.J.S.). In Man., it was 4-tr. 1-sl. 1-mod./11 fields (G.J. Green).

POWDERY MILDEW (Erysiphe graminis). Slight infections occurred on Vantage in plots at Oyster River, B.C. (H.N.W. Toms). Infection was light but general in the Ottawa, Ont. district (R.V. Clark). A 90% infection was seen in July at Ste. Anne de Bellevue, Que. (R.O. Lachance).

STEM RUST (Puccinia graminis). Infection was heavy but late at Ottawa, Ont. (R.V.C.) and was sl. on Vantage at Charlottetown, P.E.I. (J.E. Campbell).

LEAF RUST (Puccinia hordei) was hesvicr than normal at Ottawa, Ont, (R. V. C.). Mod. infections were recorded on Parkland, Montcalm and Vantage at Charlottetown, P.E.I. (J.E. C.).

SCALD (Rhynchosporium secalis) was found at 15/16 illustration stations in c. and n. Alta., ranging in intensity frorn 1-tr./7 varieties at High Prairie to 1-mod. 7-sev./9 varieties at Cheddarville and Vermilion. In farmers' fields, it was 2-tr, 20-sl, 12-mod. 5-sev./106. Its incidence was lower than usual; this may be associated with higher summer temperatures in 1961 (W. P. C.). Ratings were 2-sl./30 fields' in n.-w. Sask. (B.J.S.). In Seed Board tests' at St. Sebastien, Frontenac Co., Que. it was tr. on O.A.C. 21 and Parkland; sl. on Q.B. 12, Q.B. 13, Q.B. 16 and York and mod. on Montcalm. No infection was seen on M. C. 247 and Ott, 5069-40 (D. Leblond).

SPECKLED LEAF BLOTCH (Septoria passerinii) was mod,-sev. on 6/10 varieties in plots at Vegreville and 1-tr./8 at Keg River and High Prairie, Alta. and was, 3-tr. 3-sl. 2-mod./106 farmers' fields in c. and n. Alta. (W.P. C.). In n.-w. Sask. it was 1-tr. 2-sl./30 fields (B.J.S.), while ratings in Man. were 1-tr, 2-mod,/8 fields (G.J.G.).

COVERED SMUT (Ustilago hordei). Only 6 trace infections were seen in 106 fields in n. and c. Alta. One field s.-w. of Edmonton had 2070 smutted heads (W. P.C.). One sl. infection in 11 fields was seen in s. Alta. (J.S.H., T.G.A.). Only 2/34 Sask. field were infected? but both with high percentages, 1-10% and 1-15%. Obviously this seed was not treated (R. C. Russell). It was more prevalent in Man, than in 1960 (W. Popp).

LOOSE SMUT (Ustilago nuda, U. nigra) was tr. at 8/16 illustration stations in c. and n. Alta. The variety H53-1409 had 5-10% infection at 3 stations. In farmers' fields it was rated 19-tr, 2-1%. 2-2%. 2-3%. 1-4%. 3-5%. 1-6%. 1-7%. 2-8%. and 1-10%/106. (W.P.C.). Eighteen /34 Sask. fields showed infections ranging from tr.-10% (R. C.R.). In Man., U. nigra was more prevalent and U. nuda less prevalent than in 1960 (W. P.). Some varieties, including York, were quite heavily infected at Ottawa, Ont. (R. V. C.).

BACTERIAL BLIGHT (Xanthomonas translucens) was recorded at 5 illustration stations in c, Alta, and was rated 6-tr. 3-sl. 1-mod./106 farmers' fields in c. and n. Alta. The heaviest infection was at Vegreville (W. P,C.).

ASTER YELLOWS (Callistephus virus 1). Severe infections occurred on a few plants of Parkland at Portage la Prairie and Morden, Man, It was also found on Sask-5653 at Winnipeg. The virus was artifically transferred to Callistephus by P.H. Westdal (W.S. Chelack, W.A.F. Hagborg). This is the first record of natural infection of barley by aster yellows in Canada (D. W. C.).

STRIPE MOSAIC (barley stripe mosaic virus) was 1-tr./11 s. Alta. fields (J.S.H., T.G. A.). It was tr. at Aldersyde, Alta. (W.A. F.H.). All plots of 0.A.C.21 in the Co-operative Test at Morden, Man., were infected (H.A. H. W.).

YELLOW DWARF (barley yellow dwarf virus). One field nr. Fort St. John, B.C. showed sl. infection (W. P.C.). It was 3-sl./11 s. Alta. fields (J. S.H., T.G.A.). In tests at Brandon, Man., all plots of Keystone, Fort, NDB-117, OB-1310 and 5748-52 were infected. OB-23-3, OB-23-4, OB-13-10 5750, UM57-959 and UM58-256 were usually infected. Husky had less and Keystone more infection than in 1960. Sl. infections were also observed on several varieties at Winnipeg and Morden (H.A.H. W.). See also: Smith, H.C. (Can. Plant Dis. Survey 41:5. 344. 1961).

CHEMICAL INJURY. An application of the herbicide, Carbyne (4-chloro-2-butynyl-N-(3 chlorophenyl carbamate), on a field in Man. caused serious injury, The appearance of the injury resembled spot blotch (H.A.H. W.).

LEAF BANDING (high surface-soil temperature) was especially sev. in Sask, in 1961. Barley was the most severely affected of the cereals (T.C. Vanterpool),

WEATHERING, Due to severe lodging, weathering was very severe in the Ottawa Valley. The condition of all grain; barley, oats and spring wheat, was very poor and some fields were not harvested (R.V.C.).

## RYE

COMMON ROOT ROT (Bipolaris sorokiniana, Fusarium spp.). Three fields in crop district 8 in Sask. were moderately affected (B. J. Sallans).

ERGOT (Claviceps purpurea) . Infection was 4% on Prolific in Rust Nursery plots at Ste. Anne de la Bocatiere, Que. (R.O. Lachance). Tetra Petkus was 15% infected at Nappan, N. S. A nearby plot of Dominant had a mere trace of infection (K.A. Harrison). Infection was 3-5% on Prolific at Charlottetown, P.E.I. (J.E. Campbell).

POWDERY MILDEW (Erysiphe graminis) was sev. on Storm at the University, Vancouver, B. C. (H.N. W. Toms).

STEM RUST (Puccinia graminis) was sl. -mod. on Prolific in plots at Charlottetown, P. E.I. (J.E. C.).

LEAF RUST (Puccinia recondita), Slight-mod. infections developed in a 1-acre plot of Storm at the University, Vancouver, B, C. (H. N. W. T.). It was sl. on Prolific in plots at Charlottetown, P.E.I. (J.E.C.).

YELLOW DWARF (barley yellow dwarf virus) was found at Ottawa, Madoc and Norwood, Ont, (H.C. Smith) (Can. Plant Dis. Survey 41:5. 344. 1961).