

I. DISEASES OF CEREAL CROPS

WHEAT

LEAF SPOT (Ascochyta sorghi). Infection was 1-tr./14 spring wheat fields in s. Alta. (J.S. Horricks). It was present in abundance on Chinook wheat at the Exp. Farm, Swift Current, Sask. where it has been found annually since 1957 (B. J. Sallans). Collections from Swift Current were examined and although the conidial measurements varied somewhat from those given on other hosts by Sprague, (Diseases of Cereals and Grasses in North America, 1950), the organism is assigned for the present, at least, to A. sorghi (D. W. Creelman).

COMMON ROOT ROT (Bipolaris sorokiniana, Fusarium spp.) was 23-tr. 13-91. 1-sev./75 fields surveyed in c. - and n. Alta. (W.P. Campbell). Ratings in s. Alta. were 9-tr. 3-91. 2-mod./14 spring wheat, and 10-tr. 11-sl. 6-mod. 3-sev./31 winter wheat fields (J.S.H.). Common root rot was more prevalent in Sask. than in 1959. Only in crop district 7 was it lighter. Average disease ratings for crop districts 1-3 and 5-9 were 11.84, 10.91, 13.34, 10.62, 10.33, 9.37, 5.87, and 9.29 respectively. The average rating for the province was 10.64, compared with 9.14 in 1959 (B. J.S.),

SMUDGE (Bipolaris sorokiniana, Alternaria tenuis) was reported to be more conspicuous in n. -w. Sask. than in recent years. Both organisms were isolated from specimens received (T. C. Vanterpool).

STRIPE (Cephalosporium graminum) was found on winter wheat in Peel, York, Simcoe, Carleton and Renfrew counties, Ont, and seen in other locations for which no record was kept. Only a few diseased plants were found in the more vigorously growing fields but the disease was quite common in unthrifty, weedy fields. In 2 fields, 15-20% of the plants were affected (J. T. Slykhuis).

MOLDS (Cladosporium herbarum, Alternaria tenuis) were found on several varieties in plots at Fredericton? N. B. (G. B. Orlob, R. H. E. Bradley) (C. P. D. S. 40:2. 96. 1960).

ERGOT (Claviceps purpurea) was tr. in 2/171 fields in Sask. (B. J. S.), and tr, on winter wheat at Lawrencetown, N. S. (D. W. C.),

MOLD (Epicoccum nigrum) was found on leaves of winter wheat at Harrow, Ont. (W. E. Sackston) (C. P. D. S. 40:1, 44. 1960).

POWDERY MILDEW (Erysiphe graminis). Slight infections were seen on Ridd winter wheat at U.B.C., Vancouver, B.C. (H.N.W. Toms). Ratings on spring wheat in s. Alta. were 8-tr. 1-sl. 1-sev./14. The sev. infection was at Ardenville (J.S.H.).

HEAD BLIGHT (Fusarium spp.) was 1-tr./171 fields in Sask. (B. J. S.).

TAKE-ALL (Ophiobolus graminis). Ratings in c. Alta. were 4-tr. 1-sl. 1-sev./75 fields examined (W.P. C.).

STEM RUST (Puccinia graminis) was 7-tr. 1-sl./14 spring wheat and 1-tr./22 winter wheat fields in s. Alta. (J.S.H.). Traces were observed at Saskatoon but no stem rust was seen in the general survey of the province (B. J. S.). Infection was 1% in some plots at Fredericton, N.B. (G.B.O., R.H.E.B.) (C.P.D.S. 40:2. 96. 1960).

LEAF RUST (Puccinia'recondita). Ratings in e. -c. Alta. were 8-tr. 2-sl./75 fields. It was rated 6-tr./14 spring wheat fields in s. Alta. (J.S.H.). It was 39-tr. 21-sl. 18-mod. 6-sev./162 fields surveyed in Sask. Very little rust was found in areas of pronounced drought (B.J.S.). Infection in plots of Thatcher at London, Ont. increased from 1% on 6 July to 90% on 25 July. All leaves were dead by 5 Aug. (F.R. Forsyth). Leaf rust was 40% in nurseries, principally on winter wheat, at Fredericton, N.B. Little was observed in farmers' fields (G.B.O., R.H. E. B.) (C.P. D. S. 40:2. 96. 1960). Infection was tr. -mod., depending on variety, at Nappan, N. S. (R.V. Clark). It was tr. on Red Bobs, sl. on Marquis, mod. on Thatcher, and sev. on Canthatch in nurseries at Charlottetown, P. E. I. (J.E. Campbell). Winter wheat in plots at St. John's West, Nfld. was heavily infected (D. W. C.).

DOWNY MILDEW (Sclerophthora macrospora). A 1% infection was found in a field in Victoria Co., N.B. (G.B.O., R.H.E. B.) (C.P.D.S. 40:2. 96. 1960). This disease of cereals has not been previously reported to the Survey. The identity of the fungus was confirmed by J.A. Parmelee and D.B.O. Savile (D. W.C.).

GLUME BLOTCH (Septoria nodorum) was 4-tr. in c. Alta. (W.P.C.). A specimen was received from the Pas, Man. (W. A. F. Hagborg). It was prevalent along the eastern shore of N.B. and was found in 2 fields in Victoria Co. (G.B.O., R.H. E. B.) (C.P. D. S. 40:2. 96. 1960).

LEAF BLOTCH (Septoria tritici). Ratings in c. Alta. were 5-tr. 9-sl. 1-mod/75 fields (W.P.C.),

SPECKLED LEAF BLOTCH (Septoria spp.) was 1-tr./14 spring wheat fields in s. Alta. (J.S.H.). Trace infections were found at Lipton, Raymore, Copeland and Floral in Sask. out of 171 fields surveyed (B.J.S.). Infection was sl. -mod. at Nappan, N. S. (R. V.C.).

COMMON BUNT (Tilletia caries, T. foetida) was 4-tr./22 s. Alta. winter wheat fields. Two infections of each species were found (J.S.H.). No bunt was found in 133 fields surveyed in Sask. (R.C. Russell).

DWARF BUNT (Tilletia contraversa). Infection was 2-tr./22 winter wheat fields in s. Alta. (J.S.H.). Specimens were received at Ottawa from an undisclosed area in Ont. (I.L. Connors).

LOOSE SMUT (Ustilago tritici) was 1-tr./133 fields in Sask. This incidence is much below the normal (R. C. R.).

BACTERIAL BLACK CHAFF (Xanthomonas translucens). Slight leaf infections developed in several fields of Pembina in Man. but no infection was seen on Selkirk (W.A. F.H.).

SOIL-BORNE MOSAIC (virus). Nineteen /43 fields examined in Essex, Kent, Huron, Wellington, Peel, York and Simcoe counties in w. Ont. were infected. Infection was 100% in 6 fields, but normally only a few infected plants were found in patches in the field. This disease has not been previously known in Ont. (J.T.S.). (C.P. D.S. 40:1, 43. 1960).

YELLOW DWARF (virus) was present in nurseries at Fredericton and at other localities in N.B. (G.B.O., R.H.E.B.) (C.P.D.S. 40:2, 96. 1960).

HEAD DISCOLORATION (various organisms) was 9-tr./15 fields of Pembina wheat in s. Man. (W.A.F.H.).

LEAF FLECKING (physiological) was tr. -mod. in several fields of hard red spring wheat in the Peace River district of Alta. (W.P.C.).

LEAF BLOTCH (physiological). This disease, sometimes conspicuous on the variety Golden Ball, was sl. at Revenue, Swift Current and Saskatoon, Sask. (B.J.S.).

CHEMICAL INJURY. Injury from 2, 4-D caused root distortion and dull, shrivelled grain at Cavalier and Longbank, Sask. (T.C.V.).

DROUGHT INJURY, Badly shrivelled kernels due to poor filling were commonly observed at Carlyle, Estevan, Weyburn, Assinaboia, Loreburn, Biggar, Plato and Rosetown, Sask. (B.J.S.).

OATS

SEEDLING BLIGHT (Bipolaris sorokiniana). Considerable seedling blight occurred on some late-seeded Fundy oats at Fredericton, N.B. (R.V. Clark).

COMMON ROT (Bipolaris sorokiniana, Fusarium spp.) was 1-tr./16 fields in s. Alta. (J.S. Horricks), and 3-tr. 1-sl./32 in c. Alta. (W.P. Campbell).

ANTHRACNOSE (Colletotrichum graminicola) was sev. on all 16 test varieties, particularly Q.O. 1.2, Q.O. 1.6 and Fundy at St. Charles de Caplan, Que. It was also tr. on Shefford at Thetford Mines (D. Leblond). Infection was 5% in a field in Westmorland Co., N.B. (G.B. Orlob, R.H.E. Bradley) (C.P.D.S. 40:2, 94, 1960).

LEAF BLOTCH (Drechslera avenacea) was 1-tr./16 s. Alta. fields (J.S.H.). Infection averaged 10% and ranged from tr. -80% in N. B. fields early in July. Later in the season infections of 100% were common (G.B.O. R.H.E.B.) (C.P.D.S. 40:2, 93, 1960). It was mod. -sev. on all varieties at Nappan (R. V. C.) and sl. -mod in 4/4 fields in the Berwick, N. S. district (D. W.C.). Moderate-sev. infections were found in all plots and fields examined in P.E.I. where it was much heavier than in previous years. (R. V. C.). It was mod. -sev. in plots and commercial fields at St. John's West and Colinet, Nfld, (D. W. Creelman, O.A. Olsen).

POWDERY MILDEW (Erysiphe graminis) was sl. -sev. on Victory and tr. on Eagle in plots at U. B. C., Vancouver, B.C. (H.N.W, Toms).

BROWN STRIPE (Passalora graminis) was tr. in 1 field nr. Fredericton, N.B. (G.B.O., R.H.E.B.) (C.P.D.S. 40:2, 94, 1960). This is the first report, to the Survey, of this organism on oats (D. W. C.).

NEMATODES. A field of stunted oats nr. Thamesville, Ont. contained high populations of Pratylenchus penetrans and P. minyus as well as the stunt nematode, Tylenchorhynchus claytoni (W.B. Mountain, R. M. Sayre).

HALO BLIGHT (Pseudomonas coronofaciens) was 6-tr. 1-sl./7 fields in c. Alta. (W.P.C.). A tr. of infection occurred at Winnipeg, Man. early in the season but failed to develop (W. A. F. Hagborg). Infection was 25% at Fredericton and 15% in a field at Chatham, N. B. (G.B.O. , R. H. E. B.) (C.P.D. S. 40:2, 93, 1960). Slight amounts were seen in 1/4 fields in the Berwick, N. S. district (R.G. Ross, D. W. C.).

CROWN RUST (Puccinia coronata) was mod. -sev. on Ajax, Glen, Shefford and M. C. 6846 in Quebec Seed Board plots at Ste. Anne de la Pocatiere and Riviere Ouelle, Que. (D.L.). By mid-Aug, most fields in e. - and c. N.B. were infected. Only a few fields were infected in w. N.B. (G.B.O. , R. H. E. B.) C.P. D. S. 40:2, 94, 1960). It was extremely heavy on Erban at Pokiok, N.B. (S.R. Colpitts). It was tr. -sl. throughout P.E.I. (J.E. Campbell); was tr. at Nappan (R. V. C.), and 1-sev./4 fields at Berwick, N.S. (D. W.C.).

STEM RUST (Puccinia graminis) was sl. on Eagle nr. Abbotsford and tr. on 20% of the plants of the same variety in plots at Vancouver, B.C. (H. N. W. T.). It was mod. -sev. in Quebec Seed Board plots at Riviere Ouelle, Thetford Mines and St. Hyacinthe, Que. (D.L.). Stem rust was scarce in farmers' fields in N. B. but was abundant in a late-planted experimental plot at Fredericton (G.B.O., R.H. E. B.) (C.P.D.S. 40:2, 94, 1960). (S.R. C.).

It was tr. -sl. in most P. E.I. fields and was sev. in 1 field (R. V. C.). Clinton was the only variety affected in nurseries at Charlottetown, P. E.I. (J. E. C.). It was tr. at Nappan, N.S. (R. V. C.).

SPECKLED LEAF BLOTCH (*Septoria avenae* f. sp. *avenae*).

Infection was 4-tr./32 c. Alta. fields (W. P. C.), and 2-tr./16 in s. Alta. (J. S. H.). It was found in 10/18 fields examined in Man. in tr. -sl. amounts. Traces of the disease have frequently been reported from Man. but the "black stem" symptoms observed this year at Morden and Keyes appear not to have been previously reported from the province (G. J. Green). Infection in N. B. was rated 4-tr. -sl, 4-mod. 12-sev./20 fields. Individual plants showed 10-30% infection (G. B. O., R. H. E. B.) (C. P. D. S. 40:2. 94. 1960). Speckled leaf blotch and stem break were quite general throughout P. E. I. but the intensity was not as sev. as in recent years. Slight-mod. infections were seen in all 7 fields examined between Borden and Charlottetown (J. E. C., R. V. C., D. W. C.). Infection was sev. on most varieties, especially late-planted material, at Nappan (R. V. C.) and was rated 4-mod, 7-sl, 1-tr./12 fields examined in the Annapolis Valley, N.S. (D. W. C.). It was sl. in fields and plots at St. John's West, Nfld, (D. W. C.).

SMUTS (*Ustilago avenae*, *U. kolleri*) were 1-tr./16 fields in s. Alta. (J. S. H.) and were unusually scarce in Sask. (R. C. R.). Trace amounts were seen in 30% of N.B. fields examined and 1 field nr. Hartland showed 1-5% (G. B. O., R. H. E. B.) (C. P. D. S. 40:2. 94. 1960). One /4 fields in the Berwick, N. S. area was 2% infected (D. W. C., R. G. R.). Smuts were more prevalent in P. E. I. than in the past few years (J. E. C.).

RED LEAF (virus) was 1-sl, and 1-sev./16 s. Alta. fields, the sev. infection being at Duchess (J. S. H.). It was rated 3-tr. 1-2%, 1-10%, 1-30%, 3-40%, 1-95% between Sprague and Brandon, (H. A. H. Wallace) (C. P. D. S. 40:2. 63. 1960), and was mod. in plots at Morden, Man. (W. A. F. H.). Infection was sev. in late oats in Kamouraska Co., Que. but did little apparent damage (R. O. Lachance). Red leaf was found in all 76 fields surveyed in N. B. in late July. It was mod. -sev. in plots at Fredericton but mostly a trace in farmers' fields (G. B. O., R. H. E. B.) (C. P. D. S. 40:2. 93. 1960). Infection was tr. -sl. at Nappan, N.S. and in P. E. I. (R. V. C.).

BLAST (physiological) was rated 8-tr. 3-sl. 3-mod. 1-sev. in c. - and n. Alta. (W. P. C.), and 4-tr. 5-sl, 1-mod./16 in s. Alta. (J. S. H.). It was 3-tr. 3-sl./12 Sask. fields (B. J. S.), and tr. -1% in many N.B. fields with one 30% occurrence in Charlotte Co. (G. B. O., R. H. E. B.) (C. P. D. S. 40:2. 93. 1960). It was 4-sl./4 fields in the vicinity of Berwick, N.S. (D. W. C., R. G. R.). Two fields at St. John's West, Nfld. were sl. affected (D. W. C.).

GRAY SPECK (Manganese deficiency) was rated as 7-tr, 6-sl. 2-sev. in n. - and c. Alta. (W. P. C.), and 3-sl. 1-mod. 2-sev. in s. Alta. where it was found on the black organic soils of the foothills region. Ajax, a variety tolerant to this disorder, developed sev. symptoms when grown on one of

these manganese-deficient soils in the greenhouse (J.S.H.). It was 2-mod./4 fields in the Berwick, N. S. district (D. W. C., R.G. R.).

LEAF SPOT (physiological). This condition was found only in plots and only on certain hybrids at Charlottetown, P. E. I. Similar symptoms were prominent in plots at Ottawa. The condition is thought to be caused by a sudden change in moisture and temperature conditions (R.V. C.).

LODGING. A form of lodging, distinct from that usually encountered in Garry oats was encountered at Zealandia, Sask. Up to 90% of the stems were broken over 4-8 inches above soil level. Drought was sev. in the district but areas in the field which were not drought-stricken showed little or no lodging. The weakness of the straw seemed to result from quick growth, early in July, that was halted by severe drought in the succeeding fortnight before the crop matured normally (B. J. S., P. M. Simmonds).

BARLEY

SPOT BLOTCH (Bipolaris sorokiniana) was 2-tr./10 fields in s. Alta. (J.S. Horricks) and was seen at Eston, Sask. (B. J. Sallans). It was found in trace amounts in Man. (H. A. H. Wallace) (C. P. D. S, 40:2, 64. 1960). Spot blotch infection was up to 40% in plots at Fredericton and was found in most fields of 6-rowed barley in N. B. (G. B. Orlob, R. H. E. Bradley) (C.P.D.S. 40:2, 95. 1960). It was mod. -sev. on most varieties at Nappan, N. S. and was quite plentiful in P. E. I. (R. V. Clark).

COMMON ROOT ROT (Bipolaris sorokiniana, Fusarium spp.) was 32-tr. 20-sl. 2-mod. 2-sev./120 fields surveyed in n. - and c. Alta. (W.P. Campbell), and 5-tr. 1-sl. 4-sev./10 s. Alta. fields (J. S. H.) Twelve fields examined in Sask. showed an average disease rating of 11.9, similar to 1959 (B. J. S.). Plots at Fredericton, N.B. showed some evidence of root rot (R. V. C.).

ANTHRACNOSE (Colletotrichum graminicola) was sl. in plots at St. Charles de Caplan, Que. (D. Leblond).

NET BLOTCH (Drechslera teres), Infection was rated 39-tr. 24-sl. 23-mod. 19-sev./120 fields in n. - and c. Alta (W.P.C.) and 5-tr. 1-mod./10 fields in s. Alta. (J. S. H.). It was sl. in 4/12 Sask. fields, at Kerrobert, Glidden, Wimmer and Yorkton (B. J. S.). It was rated sl. in 65% of the fields in the southern part of the Prairie Provinces and mod. -sev. in 50% of the fields in northern Man. and Sask. and varied from tr. -sev. in n. Alta. (H.A.H. W.) (C.P.D.S. 40:2, 64. 1960). Infection ranged from 20-60% in N. B. in late July (G.B.O., R.H. E. B.) (C.P.D.S. 40:2, 95. 1960).

POWDERY MILDEW (Erysiphe graminis) was mod. -sev. on all plants in a plot of Vantage at Vancouver, B.C. (H.N. W. Toms). It was 2-tr. 1-sl./10 s. Alta. fields (I.S. H.). In plots at Saskatoon, Sask. varieties were affected as follows: very sev., Swan; sev., Vantage, Jubilee; mod.,

Warrior; sl., Montcalm, Parkland, OAC 21, Olli, Titan, Wolfe, Husky; tr., Betyes, Hannchen, Compana, Herta (B.J.S.). It was tr. in 1/89 fields in Man., at Homewood (H.A.H. W.) (C.P.D.S. 40:2, 64. 1960), and tr. with lesions mostly of the resistant-type reaction in P.E.I. (R.V.C.).

STEM RUST (Puccinia graminis). Infection was sl. -mod. in 7/89 Man. fields (H.A.H. W.) (C.P.D.S. 40:2, 64. 1960). It was tr. at Fredericton, N.B. and tr. -sl. on late-maturing material in P.E.I. (R.V.C.). Vantage was the only variety affected in nurseries at Charlottetown, P.E.I. (J.E. Campbell).

LEAF RUST (Puccinia hordei) was rated as tr. -sl. in 5/89 fields in Man. (H.A.H. W.) (C.P.D.S. 40:2, 64. 1960). It was mod. -sev. on Montcalm, M. C. 247 and Q.O. 4.13 in plots at St. Sebastien, Que. (D.L.) and tr. in 2 fields in Carlton Co., N.B. (G.B.O., R.H. E.B.) (C.P.D.S. 40:2, 95. 1960). Leaf rust was fairly plentiful on late-maturing material in P.E.I. (R.V.C.). All varieties in the rust nurseries at Charlottetown were heavily infected (J.E.C.). Infection was heavy in plots at St. John's West, Nfld. (O.A. Olsen, D.W. Creelman).

SCALD (Rhynchosporium secalis) was rated 49-tr. 13-sl. 6-mod. 1 sev. /120 fields in n. - and c. Alta. (W.P.C.) and 1-tr./10 s. Alta. fields (J.S.H.). It was 20 sl. -mod. /24 fields in n. Sask. and was tr. in 2 fields in n. Man. (H.A.H.W.) (C.P.D.S. 40:2, 64. 1960).

SPECKLED LEAF BLOTCH (Septoria passerinii). Traces only were seen in 120 n. - and c. Alta. fields at the time they were surveyed (W.P.C.). It was sl. in 7 fields in the Fairholms to Cater area of Sask. and sl. at Swan River and scattered points in s. Man. (H.A. H. W.) (C.P. D. S. 40:2, 64. 1960).

COVERED SMUT (Ustilago hordei). The following amounts were observed in barley fields in the Prairie Provinces: Alta. - Sylvan Lake, 10%; Sask. - Mont Nebo, 10%. Fenton, 6%. Kenal and Kelstern, 5%. Stenen, 4%; Man. - Ashville, 5% (H.A.H. W.) (C.P.D. S. 40:2, 65. 1960). It was 2-tr. 1-1%/8 N.B. fields (G.B.O., R.H. E.B.) (C.P.D.S. 40:2, 1960).

LOOSE SMUT (Ustilago nuda, U. nigra). Infection ratings were 42- tr. 2- 1%. 3- 3%. 2- 5%. 1- 6%/120 fields in n.- and c. Alta. (W.P.C.) and 1-tr./10 s. Alta. fields (J.S.H.). Thirteen/23 fields in Sask. had an average of 1% infection (R.C. Russell). In Man., infection at High Bluff was 12%, at Manson, 6%, at Ashville, Headingly and Ste. Agathe, 5% (H.A.H.W.) (C.P.D.S. 40:2, 64. 1960). Eight fields of York barley nr. Guelph, Ont. had 6-20% infection. Other varieties were free or had only tr. infections (S.G. Fushtey) (C.P. D, S. 40:2, 65. 1960). In N. B. infection was 5-tr. 1-1%/8 fields (G.B.O, R.H. E.B.) (C.P. D, S. 40:2, 95. 1960). There was slightly more than in recent years in P.E.I. (J.E. C.) and it was 1-mod./4 fields in the Berwick, N.S. district (D. W. Creelman, R.G. Ross),

BACTERIAL BLIGHT (Xanthomonas translucens) was 6-tr./120 fields in c. Alta. (W.P.C.); mod. in plots at Riviere Ouelle, Que. (D.L.), and 5-10% on most varieties in plots but not in farmers' fields in N.B. (G.B.O., R.H.E.B.) (C.P.D.S. 40:2. 95. 1960).

STRIPE MOSAIC (virus). Mod infections were seen in plots in Man, but it was scarce in farmers' fields, possible due to the widespread use of Parkland which is comparatively resistant (W. A. F. Hagborg).

YELLOW DWARF (virus) was tr. at Carman, Treesbank and Pigeon Lake and sl. at Stead, Man. (H.A.H. W.) (C.P.D.S. 40:2. 63. 1960). It was tr. in plots at Ste. Anne de la Pocatiere, Que. (R.O. Lachance). Yellow dwarf was found in 90% of the fields surveyed in N.B. (G.B.O. R.H. E.B.) (C.P.D.S. 40:2. 95. 1960). and was tr. -sl. in plots in P. E.I. (R.V.C.).

RYE

COMMON ROOT ROT (Bipolaris sorokiniana). A sev. infection was seen in 1 field in Sask. (B. J. Sallans).

ERGOT (Claviceps purpurea). Infection was 5% in a field nr. Vegreville, Alta. (W.P. Campbell) and mod. in a field at Duck Lake, Sask. (B. J. S.). It was tr. in 4/4 fields examined in N. B. (G.B. Orlob, R.H. E. Bradley) (C.P.D.S. 40:2. 97. 1960) and was 5% on Prolific in the rust nurseries at Charlottetown, P. E.I. (J.E. Campbell).

POWDERY MILDEW (Erysiphe graminis) was sev. on 90% of Storm rye in plots at Vancouver, B. C. (H.N.W. Toms). It was tr. -20% in plots at Fredericton, N.B. and tr. in 2 farmers' fields (G.B.O., R.H.E.B.) (C.P.D.S. 40:2. 97. 1960) and tr. -sl at Nappan, N.S. (R.V. Clark).

STEM RUST (Puccinia graminis) was tr. in nurseries at Fredericton, N.B. (G.B.O., R.H. E.B.) (C.P. D. S. 40:2. 97. 1960) and was observed on Prolific rye in nurseries at Charlottetown, P.E.I. (J E. C.).

LEAF RUST (Puccinia recondita) was mod. -sev. in plots at Vancouver, B.C. (H.N.W. T.). It was rated at 50% in some plots at Fredericton, N.B. but was light in farmers' fields (G.B.O., R.H.E.B.) (C.P. D.S. 40:2. 97. 1960)., and was very heavy at Nappan, N. S. (R. V.C.). Prolific was infected in nurseries at Charlottetown, P. E. I. (J.E. C.) and leaf rust was heavy in plots at St. John's West, Nfld. (D.W. Creelman, O.A. Olsen).

SCALD (Rhynchosporium secalis) was tr. in 1/4 N.B. fields (G.B.O., R.H.E.B.) (C.P.D.S. 40:2. 97. 1960).