I. DISEASES OF CEREAL CROPS

WHEAT

ERGOT (Claviceps purpurea). See special report for Prairie Provinces. Trace infection was found in Queens Co., P. E. I. (R. R. Hurst).

POWDERY MILDEW (Erysiphe graminis) was present as 4-tr. 5-sl. 2-mod. 1-sev. /25 fields near Creston, B. C. In s. Alta. 19/99 winter wheat fields were affected: 15-tr. 4-sl. In a survey of spring wheat results were 18-tr. 9-sl. 6-mod. 1-sev. /176 (J. S. Horricks). Ontario records were 17-tr. 11-sl. /58 from Kent Co. (S. G. Fushtey), and sl. on 75% of Reward, 95% of Cascade, 95% of Richmond and sl. -mod. on 100% of Rideau wheat at C. E. Farm, Ottawa, Ont. (R. V. Clark). Moderate infection caused sl. damage in Kamouraska Co., Que. (R. O. Lachance).

HEAD BLIGHT (Fusarium spp.) Fusarium chlamydosporum was isolated from Dakar wheat grown at Winnipeg, Man. F. graminearum was found on wheat from Guelph, Ont. (W. L. Gordon). In Kent Co. ratings were 26-tr. 28-sl. (about 1% of heads) /58 fields (S. G. F.). Scab was of general importance in Essex and Kent Counties, Ont. Eight widely separated fields were examined in each county. An average of 3.8% of the wheat heads were diseased and severity ranged from slight to severe. Gibberella was isolated from duplicate samples from each field (N. J. Whitney). F. culmorum was found on McMurachy wheat from Lennoxville, Que. (W. L. G.).

COMMON ROOT ROT (Helminthosporium sorokinianum and Fusarium sp.). Near Creston, B. C. ratings were 19-tr. 3-sl. /25 fields. In s. Alta. all 99 winter wheat fields examined were affected: 90-tr. 8-sl. 1-mod. A survey of spring wheat revealed 134-tr. 34-sl. /176 fields (J. S. H.). Near Edmonton 4/32 fields had sl. infection (W. P. Campbell). For Sask. crop districts 1 to 9 the disease ratings and September yield-estimate (in brackets) were: 9.3(16.4) 9.3(15.6) 15.5(13.7) 14.0 (14.9) 8.3 (18.8) 11.8 (14.2) 9.0 (15.1) 5.4 (21.9) 10.5(13.1 bu./ac.). The average rating from 202 fields was 10.7. The prematurity blight phase of the disease occurred as 2-tr. 5-sl. and 1-mod. /203 fields (B. J. Sallans). Specimens were received from Indian Head, Avonlea and Regina, Sask. The last two were durum wheat (T. C. Vanterpool).

GLUME BLOTCH (H. sorokinianum and Alternaria sp.) affected 25% of Reward heads slightly and gave sl. -mod. infection of 50% of Cascade spring wheat heads at the C. E. Farm, Ottawa, Ont. (R. V. C.).

LEAF BLIGHT (Helminthosporium triticirepentis). A trace was present in 1/99 winter wheat fields in s. Alta. In the spring wheat survey only 2/176 fields had tr. infection (J. S. H.). Traces were observed on Richmond and Rideau winter wheats but not on Cascade or Reward spring wheats at C. E. Farm, Ottawa, Ont. (R. V. C.).

SEEDLING YELLOWING (Lagena radicicola) was found in rootlets of plants grown in Regina Clay in Sask. (T. C. V.).

TAKE-ALL (Ophiobolus graminis) was less common than usual, 6-tr. 1-mod. /176 spring wheat fields and 21-tr. 15-sl. 2-mod. /99 winter wheat fields (J.S.H.). Near Edmonton 3 fields had tr. infection /32 (W. P. C.). Traces were found at Lestock, Quinton and Shipman for 3/202 fields in Sask. (B. J. S.).

STRIPE RUST (Puccinia glumarum) affected 7/25 fields near Creston, B. C. Ratings were: 3-sl. 3-mod. 1-sev. In s. Alta. 3/99 winter wheat fields had tr. infection and of 176 spring wheat fields 1 had tr. and 1 sl. infection (J. S. H.).

STEM RUST (Puccinia graminis). Near Creston, B. C. 1 mod. and 4 sev. infected fields were found /25 fields. S. Alta. had the least stem rust since 1950: 16-tr. 3-sl. 1-sev. /176 spring wheat fields. There was more stem rust in winter wheat. Ratings were 15-tr. 2-sl. /99 fields (J.S.H.). In Sask. only tr. were recorded in 2/202. The first 1957 collection at Saskatoon was made July 26 (B. J. S.). One field /58 had a trace infection in Kent Co., Ont. (S. G. F.). Tr. to sl. amounts were found on 50% of Reward and Cascade plants at C. E. Farm, Ottawa, Ont. A few Richmond plants had tr., Rideau had none (R. V. C.). Stem rust was not found on wheat in Que. (R. O. L.). Traces were found in all 6 fields examined in Queens Co., P. E. I. (R. R. H.).

LEAF RUST (Puccinia triticina) affected 10-15% of a 1. 5-acre plot of Ridit wheat and 15% of another plot of Dawsons Golden Chaff at U. B. C., Vancouver (H. N. W. Toms). Near Creston, B. C. 11/25 fields were affected: 6-tr. 4-sl. 1-sev. In s. Alta. 8/99 fields of winter wheat were affected as follows: 6-tr. 1-sl. 1-mod. Spring wheat had less leaf rust than in any year since before 1948; 28-tr. 8-sl. 1-mod. 1-sev. /176 fields (J.S.H.). Near Edmonton ratings were 4-tr. 3-sl. 3-mod. /32 fields (W. P. C.). In Sask. leaf rust distribution was fairly uniform but rust was most frequently found in e. and s. -e. parts. Ratings were 58-tr. 15-sl. 4-mod. 2-sev. /202 fields examined. The first 1957 collection was made at Saskatoon July 30(B. J. S.). In Kent Co., Ont. it was rated 24-mod. 31-mod. to sev. and 3-sev. /58 fields of winter wheat (S. G. F.). The disease was common in Essex Co., also (R. W. Walsh). Mod. -sev. on all plants of Reward and Cascade and tr. to sl. on Rideau and Richmond at C. E. Farm, Ottawa, Ont. (R. V. C.). Selkirk wheat had a trace on a few plants at Kapuskasing, Ont. (F. Gfeller, R. V. C.).

GLUME BLOTCH (Septoria nodorum) was found in tr. amounts in 1/25 fields near Creston, B. C. (J. S. H.). Near Edmonton, Alta. 10/32 fields

were sl. infected (W. P. C.). Damage was negligible in Sask.; 5/203 fields were only sl. infected (R. C. Russell). Traces were found on Rideau and Richmond winter wheat at C. E. Farm, Ottawa, Ont. (R. V. C.).

SPECKLED LEAF BLOTCH (Septoria spp.) near Creston, B. C. affected 5-tr. 3-sl. 6-mod. /25 fields. Of 176 spring wheat fields there were 74-tr. 3-sl. infections in s. Alta. Winter wheat had 15-tr. 2-sl. /99 fields (J. S. H.). Near Edmonton 17/32 fields were affected as follows: 16-sl. 1-mod. (W. P. C.). In Sask. this disease appeared to be more conspicuous; 60/203 fields were affected and some were severely damaged (R. C. R.). Both Septoria nodorum and S. avenae f. sp. triticea were of common occurrence on wheat in Man. Of 16 specimens examined only one was free of infection. S. nodorum was identified on 5 of the specimens, S. avenae f. sp. triticea on 8, while the specific identity on the remaining 2 specimens was uncertain. Infection ranged from light to moderately heavy (T. Johnson). Trace infection was found on a few Selkirk plants at Kapuskasing, Ont. (F. G., R. V. C.). In s. Ont. 3/58 had merely tr. infection in Kent Co. (S. G. F.). Reward and Cascade plantings had sl. -mod. infection that resulted in sl. damage at C. E. Farm, Ottawa, Ont. Infection was sl. on Rideau and Richmond (R. V. C.).

COMMON BUNT (Tilletia caries) was found in tr. amounts in 1/25 fields near Creston, B. C. In s. Alta. 4/99 winter wheat fields had a trace of bunt (J. S. H.). In Sask. the average damage was tr., slightly more than usual. Two fields had tr. infection, 1 field had 1 to 2%, and 1 field had 6% of the heads affected (R. C. R.). No common bunt was observed in 58 fields surveyed in Kent Co., Ont. (S. G. F.) or in the Ottawa Valley (R. J. Baylis). In Simcoe Co. 16/40 fields (100/500 ac.) were affected. Infections were 12-tr. 1-sl. 3-sev. (0.5-1.0%) (R. J. B.).

DWARF BUNT (Tilletia contraversa) was recorded as 2-tr. 1-sl. 1-sev. /25 at Creston, B. C. (J. S. H.). Sev. damage on one farm also near Creston was recorded (W. R. Foster). Of 99 fields surveyed in s. Alta. 4 fields of Jones Fife near Hillspring had tr. infection (J. S. H.). In Kent Co., Ont. 58 fields surveyed were free of dwarf bunt (S. G. F.). In Simcoe Co., ratings were 6-tr. 4-sl. 3-sev. /40 fields with a total acreage of 500. The average infection rating was tr. (R. J. B.).

LOOSE SMUT (Ustilago tritici). Near Creston, B. C. 3/25 fields had tr. infection. In s. Alta. of 176 spring wheat fields surveyed 5 were tr. 1 was sl. No infection was reported from 99 winter wheat fields (J. S. H.). In Sask. 12/203 fields had loose smut. Ratings were 11-tr. and 1-sl. This disease occurred mainly on durum wheat (R. C. R.). In Kent Co., Ont. ratings were 30-tr. 12-sl. 5-mod. /58 fields (S. G. F.). In Kamouraska Co., Que. 1/10 fields examined had smut. This field of Huron had 2% infection (R. O. L.).

BASAL GLUME ROT (Pseudomonas atrofaciens) was found in 3/203 fields surveyed in Sask. Infection ranged from tr. to 2% (R. C. R.).

BACTERIAL BLACK CHAFF (Xanthomonas translucens). A sl. infection was noted at Jordan, Man. in a field of Selkirk (W. A. F. Hagborg).

WHEAT STREAK MOSAIC (virus) was found in s. Alta. Ratings were 3-tr. 1-mod. 1-sev. /99 fields of winter wheat and 2-tr. /176 fields of spring wheat (J. S. H.).

HEAD DISCOLORATION (cause unknown) was observed in mod. amounts in 1 field of Selkirk wheat near Homewood Man., but not at Jordan where basal glume rot occurred (W. A. F. H.).

APHID INJURY was evident in spring wheat plots at Saskatoon, Sask. near grass roadways. Affected plants were dwarfed and brittle (T. C. V.).

FORMALIN INJURY caused poor emergence of wheat at Zchner, Sask. (T. C. V.).

LEAF SPOT. A leaf spot was severe on Chinook wheat in an experiment on cultural treatments of stubble land at the Swift Current Experimental Farm, Sask. in 1956. It was present again in 1957, but was held in check by the drought of mid-summer. A fungus resembling Ascochyta sorghi Sacc. was found in abundance on over-wintered straw. This straw appeared to be the source of infections of the seedlings growing close by. A similar leaf spot collected in 1956 by R. C. Russell at Wimmer contained a fungus tentatively determined by D. B. O. Savile as A. sorghi (B. J. Sallans, R. D. Tinline).

OATS

ERGOT (Claviceps purpurea). Some varieties showed sl. infection at C. E. Farm, Ottawa, Ont. Certain interspecific crosses in a breeding nursery were severely infected (R. V. Clark).

POWDERY MILDEW (Erysiphe graminis) was present in tr. amounts on 5% of plants in a 1. 5-acre plot of Eagle oats at U. B. C., Vancouver. Victory oats in a 1. 5-acre plot had tr. infection on 5-10% of plants (H. N. W. Toms). At Creston, B. C. 1/10 fields examined had tr. infection (J. S. Horricks).

COMMON ROOT ROT (Fusarium spp.) infection was 9-tr. 1-sl. /10 fields examined at Creston, B. C., and 14-tr. /29 examined in s. Alta. (J. S. H.). Premature blight caused mod. damage in 1 field at Rosetown and 8% loss in 1 field at Val Marie, Sask. (B. J. Sallans).

LEAF BLOTCH (Helminthosporium avenae) affected 10 fields examined at Creston, B. C.: 3-tr. 6-sl. 1-mod., and 8-tr. 7-sl./29 examined in s. Alta. (J. S. H.). Seedlings had sl. infection at Ottawa, but this disease caused negligible damage in older plants. At Kemptville, Ont. Rodney and Lanark seedlings in plots were heavily infected and the crop yield was reduced (R. V. C.). In P. E. I. tr. infection occurred in all 10 fields surveyed in Prince, Queens, and Kings Counties (R. R. Hurst). In Nfld. 20-30% of leaves were infected in 7/7 fields examined, but damage was not severe (O. A. Olsen).

CROWN RUST (Puccinia coronata). A few Shield plants had trace infections at Kapuskasing, Ont. (F. Gfeller, R. V. C.). At Ottawa all varieties were infected from tr. to 25%. Rodney, Shield and Garry oats had traces on 50% of plants. Previously resistant varieties had trace infection caused by the new race 276 (R. V. C.). Rust was sl. on most varieties tested by Quebec Seed Board, and mod. on Abegweit and Fundy. Infection ranged from mod.-sev. at Macdonald College and Riviere Ouelle, Que. (D. Leblond). Tr.-sev. infection in Queens Co., P. E. I. caused sl.-sev. damage to Abegweit oats. Late-seeded crops in Queens, Kings, and Prince Counties were heavily infected and sev. damaged (R. R. Hurst).

STEM RUST (Puccinia graminis) affected only a few varieties in tr. to sl. amounts at Ottawa, Ont. Most varieties were not affected (R. V. C.).

SPECKLED LEAF BLOTCH (Septoria avenae) was found in tr. amounts in 1/29 fields surveyed in s. Alta. (J. S. H.). Out of a total of 22 Manitoba specimens of oats examined for the presence of Septoria avenae f. sp. avenae 17 were found to be infected. Five showed severe, 5 moderate and 5 slight infection. In 2 samples the amount of infection was not recorded. The distribution of the samples and the amount of infection were as follows; severe: Winnipeg (2), Carman, Gladstone (2); moderate: St. Agathe, Morden, Brandon, Neepawa, Manitou; slight: Winnipeg, Darlingford, Birtle, Erickson, Dauphin (T. Johnson). Trace infections were noted on Shield oats at Kapuskasing, Ont. (F. G., R. V. C.). All varieties grown at Ottawa were more susceptible. There were differences in tolerance but no variety showed marked resistance. The leaf blotch phase caused considerable loss in yield. The stem blackening phase did not cause much lodging at Ottawa, Ont. At Kemptville, Ont. the damage was similar to that observed at Ottawa. Test plots at Morrisburg, Merrickville and Williamstown, Ont. had mod.-sev. infection of all varieties. Leaf blotch and stem blackening were sev. on most varieties. Lodging was not sev. but low soil fertility prevented lush growth and the plants had less tendency to lodge (R. V. C.). At Macdonald College, Que. all varieties grown had mod.-sev. infection and sl. damage by leaf blotch and stem blackening but lodging was sl. Extensive damage was observed at the Experimental Farm, L'Assumption, Que. Some varieties were completely

lodged and sev. affected by leaf blotch and stem blackening. No variety showed marked resistance (R. V. C.). In Quebec Seed Board variety test plots mod. infection was observed; Rodney was most susceptible. Sev. damage was recorded at Caplan and Notre Dame du Lac, Que. (D. L.). Septoria disease was quite severe in P. E. I. Black stem and consequent lodging occurred especially in Abegweit and Rodney. Sev. infection of Abegweit at Charlottetown caused mod. damage (J. E. Campbell). In Nfld. only 1/7 fields examined was affected but 20% of the leaves of Fundy oats were diseased at St. Johns (O. A. O.).

LOOSE SMUT (Ustilago avenae) affected 4/29 s. Alta. fields: 3-tr. 1-sl. (J. S. H.). In Sask. where this disease is usually scarce only a tr. amount was found in 1/36 fields examined (R. C. Russell). A 5-acre field at Ste. Anne de la Pocatiere, Que. had 5% infection (J. A. Parmelee). In Kamouraska and L'Islet Counties 24/26 fields were infected at from 5-10% of loose or covered smut (R. O. Lachance). Tr. infection caused sl. damage in all 15 fields examined in Prince, Queens, and Kings Counties, P. E. I. (R. R. H.).

COVERED SMUT (Ustilago kolleri) affected 3/36 Sask. fields examined. A smaller proportion of fields showed smut this year than last but infection was heavy in one. Ratings were 1-tr. 1-7%, 1-25% (R. C. R.). Traces were found in 7/15 fields examined in P. E. I. (R. R. H.).

HALO BLIGHT (Pseudomonas coronafaciens) occurred in 11/11 fields near Edmonton, Alta. Ratings were 1-tr. 9-sl. 1-mod. (W. P. Campbell). Traces were present in 4/36 fields examined in Sask. where this disease is considered to be of minor importance (R. C. R.). Certain lines were sev. infected in the oat nursery at Ottawa, Ont. but the disease was not general in oat fields (R. V. C.). Six acres of Rodney oats were sl. damaged by a mod. infection at New London, P. E. I. (D. B. Robinson).

RED LEAF (Cereal yellow dwarf virus) was observed causing sl. damage in 1/29 fields surveyed in Alta. (J. S. H.). It occurred in tr. to sev. amounts in plots at Ottawa, Ont. It was more sev. in spaced plantings and near to barley (R. V. C.).

BLAST (Non-parasitic) occurred in all 10 fields examined at Creston, B. C.: 1-tr. 9-sl. (J. S. H.). In s. Alta. 23/29 fields were affected; 14-tr. 9-sl. (E. J. H.). Near Edmonton, Alta. 8/11 fields were affected; 2-tr. 6-sl. Blast was mod. on Victory and Abegweit, sl. on Shield, Fundy, Eagle, Garry and tr. on Rodney in plots at Lacombe. (W. P. C.). In Sask. 7/36 fields were infected but only in trace amounts and the disease was relatively unimportant this year (R. C. R.).

LEAF SPOT (Cause not determined) was sev. on Victory and Eagle, sl. on Abegweit and Shield, tr. on Fundy, Rodney and Garry at Lacombe, Alta. (W. P. C.).

BARLEY

ERGOT (Claviceps purpurea). A trace occurred in 1/93 fields examined in s. Alta. (J.S. Horricks). Nine fields /68 examined in Sask. had trace amounts (R.C. Russell). Traces were observed in 2 fields in P.E.I. (R.R. Hurst).

POWDERY MILDEW (Erysiphe graminis). Leaves of 80-90% of plants in 1.5 acres of Vantage barley were severely disfigured at Vancouver, B.C. (H.N.W. Toms). Three/93 s. Alta. fields were affected: 2-tr. 1-mod. (J.S.H.). Sl. infection occurred at C.E. Farm, Ottawa, Ont. (R.V. Clark). In Quebec Seed Board Tests traces occurred on most varieties. Parkland had mod. infection at Honfleur and sev. at Notre Dame du Lac, Que. (D. Leblond).

KERNEL SCAB (Fusarium sp.). Several varieties had tr. infection in a nursery at St. John's West, Nfld. (O.A. Olsen).

STRIPE (Helminthosporium gramineum) affected only 2/93 s. Alta. fields examined and these had only tr. infections (J.S.H.).

SPOT BLOTCH (Helminthosporium sorokinianum) was found on 9/93 fields examined in s. Alta.; 8-tr. 1-sl. (J.S.H.). In the Winnipeg-Morden-Brandon area of Man. 10/15 fields were affected; 2-tr. 4-sl. 2-mod. 2-sev. This is about the same amount of infection as in 1956 (H.A.H. Wallace). Traces were found on a few Nord plants at Kapuskasing, Ont. (F. Gfeller, R.V.C.). Noted on kernels in cereal nursery at St. John's Nfld. (O.A. Olsen).

COMMON ROOT ROT (Helminthosporium sorokinianum and Fusarium spp.) was present in 71/93 fields surveyed in s. Alta. Ratings were 67-tr. 4-sl. (J.S.H.). Near Edmonton 11 fields were sl. affected /59 surveyed (W.P. Campbell). A survey of 63 barley fields in Sask. gave an average disease rating of 14.5. As in other years this exceeds the average in wheat (10.7) (B.J. Sallans).

NET BLOTCH (Helminthosporium teres) was more prevalent than usual in s. Alta. Ratings were 43-tr. 18-sl. 2-mod. /93 observed (J.S.H.). Near Edmonton ratings were 11-tr. 17-sl. 10-mod. 11-sev. /59 (W.P.C.). Infection varied from tr. to sev. in Sask.; 34/68 fields were affected. Damage was more sev. in n.-e. Sask. (R.C. Russell). In Man. the infection level was similar to the 1956 level; 2-tr. 1-sl. 6-mod. 5-sev. /16 in the Winnipeg-Brandon-Morden area (W.A.F. Hagborg). Traces occurred on 5% of Nord plants at Kapuskasing, Ont. (F.G., R.V.C.).

STRIPE RUST (Puccinia glumarum). One field sl. /93 in s. Alta. (J.S.H.).

STEM RUST (Puccinia graminis). Two tr. infections /93 s. Alta. fields (J.S.H.). One tr. and 2-sl. infections were noted /63 Sask. fields (B.J.S.). In the Ottawa district of Ont., rust was tr. to sl. in fields. In cereal nurseries rust was more sev., especially on late-maturing varieties (R.V.C.). A sl. infection was noted in Queens Co., P.E.I. (R.R. Hurst).

LEAF RUST (Puccinia hordei). A 1.5-acre plot of Vantage barley at U.B.C., Vancouver, B.C. had tr. infection (H.N.W. Toms). In s. Alta. 1/93 fields had tr. infection (J.S.H.). Only trace amounts were observed on crops near Ottawa, Ont. (R.V.C.). Varieties in Quebec test plots had sl. infection. Nord was most susceptible. Sev. infection noted at Macdonald College, Que. (D. Leblond).

SCALD (Rhynchosporium secalis) affected 40/93 s. Alta. fields. Ratings were 32-tr. 5-sl. 1-mod. 2-sev. (J.S.H.). Near Edmonton ratings were 14-tr. 13-sl. 4-mod. 4-sev. /59 (W.P.C.). Scald caused trace amounts of damage in Sask. Only 3/63 fields were affected, and in these it was chiefly the lower leaves that were infected (R.C.R.). Nord barley had slight infection on 50% of plants in 1 field at Kapuskasing, Ont. (F.G., R.V.C.). Only one variety (G.B. 61) was infected /7 tested by Seed Board in Que. (D.L.).

SPECKLED LEAF BLOTCH (Septoria passerinii) was noted in 5/93 s. Alta. fields in tr. amounts (J.S.H.), while near Edmonton ratings were 5-tr. 19-sl. 7-mod. /59 (W.P.C.). Damage was sl. in 10/68 Sask. fields (R.C.R.). This disease was present in most Man. fields. It probably caused very little damage because its development was restricted by hot weather in July and an early harvest. Ratings were 2-tr. 7-sl. 3-mod. 4-sev. /25 fields (H.A.H. Wallace, G.J. Green).

COVERED SMUT (Ustilago hordei). In s. Alta. only 1-tr. 1-sl. infections were noted in 93 fields examined (J.S.H.). Near Edmonton ratings were 1-0.5%, 2-3% / 59 fields (W.P.C.). Average damage in Sask. was estimated at 0.5%. Ratings were 11-tr., 5- 1 to 2%, 3-3 to 9%, 1-14% (R.C.R.). All 19 fields examined in Kamouraska Co., Que. were infected from 1-15% (R.O. Lachance).

LOOSE SMUT (Ustilago nuda) ratings for s. Alta. were 1-tr. 2-sl. 1-sev. /93 fields (J.S.H.). Near Edmonton infection was 15-tr., 9-0.5%, 2-1%, 1-5%/59 fields (W.P.C.). In Sask. average infection was 1%. Ratings were 38-tr., 13-1 to 2%, 1-6%, 1-10%, 1-28%. Some false loose smut (U. nigra) was present but less prevalent than U. nuda (R.C.R.). Five acres of Kennate had moderate (2%) infection at Centerville, N.S. (I.V. Hall, D.W. Creelman).

BACTERIAL STREAK (Xanthomonas translucens) was found in traces in 2/93 s. Alta. fields (J.S.H.). Infection ranged from tr. -mod. in 6/6 fields examined in the Red River Valley of Man. (H.A.H.W.).

BARLEY YELLOW DWARF (virus) was noted causing sl. damage in 1/93 s. Alta. fields (J.S.H.). A slight infection was noted in plots at C.E. Farm, Ottawa, Ont. (R.V.C.).

BARLEY FALSE STRIPE (virus) occurred in tr. amounts in 3/93 s. Alta. fields (J.S.H.).

LEAF SPOTTING (physiological) appeared in some varieties grown in sandy soil of s. of Saskatoon, Sask. (T.C. Vanterpool).

RYE

ERGOT (Claviceps purpurea) was present as tr. in 7/21 Alta. fields (J.S. Horricks). In Sask. 5/7 fields were affected. The infection was in tr. amounts, confined to the perimeter of the fields (B.J. Sallans). Most of the fields in Riviere du Loup Co., Que. had tr. infection (R.O. Lachance). Traces reported from Queen's Co., P.E.I. (R.R. Hurst), and 5% infection in the rust nursery at Charlottetown (J.E. Campbell). Although ergot is not usually severe in N.S., Tetra Petkus rye at Nappan had 3-5% infection and 15 ergot bodies were collected from one head (K.A. Harrison).

POWDERY MILDEW (Erysiphe graminis) affected only 3/31 Alta. fields examined: 2-tr. 1-sl. (J.S.H.).

COMMON ROOT ROT (Fusarium spp. and Helminthosporium sorokinianum) damaged 17/21 s. Alta. fields. Ratings were 8-tr. 7-sl. 2-mod. (J.S.H.). In Sask. ratings were 3-sev. 2-tr./5 examined (B.J.S.).

TAKE-ALL (Ophiobolus graminis) was observed in only 2/21 fields in Alta.: 1-tr. 1-sl. (J.S.H.).

STEM RUST (Puccinia graminis). One field at Preeceville, Sask. had sl. infection (B.J.S.).

LEAF RUST (Puccinia secalina) was noted on 15% of a 1-acre plot of Storm rye at Vancouver, B.C. Damage was slight (H.N.W. Toms). In s. Alta. 3/31 fields were found infected; 2-tr. 1-mod. (J.S.H.). Slight infection was noted at Preeceville and Saskatoon, Sask. (B.J.S.).

SPECKLED LEAF BLOTCH (Septoria secalis) occurred in 4/31 fields in s. Alta: 3-tr. 1-sl. (J.S.H.).

BACTERIAL BLIGHT (Xanthomonas translucens). A moderate infection was noted in 1 field at Morden, Man. (W.A.F. Hagborg).