

LEAF SPOT (physiological). This condition was observed in 2/13 fields examined in s. Alta. (J.S.H., T. G. A.).

WINTER KILLING. Winterbarley was completely killed out at Ottawa and considerable killing was encountered at Guelph, Ridgeway and Harrow, Ont. (R. V. C.).

### RYE

COMMON ROOT ROT (*Bipolaris sorokiniana*, *Fusarium* spp.) was slight in 1/2 fields examined nr. St. Catharines, Ont. (T.R.D.).

ERGOT (*Claviceps purpurea*) was found sparingly in hybrid 'Sangate' x 'Dakold' rye in plots at Edmonton (A. W. H.) and considerable amounts were observed, late in the season, at Lacombe, Alta. (L. J. P.). In s.w. Sask. ratings were 7-tr. 1-sl./9 fields surveyed (R.D.T.). Fifty percent of the heads of 'Tetra Petkus'

had 2-8 ergots per head at St. John's West, Nfld. (O. A. O.).

STEM RUST (*Puccinia graminis*). Infection was moderate at Edmonton (A. W. H.) and was trace in 6 fields examined in c. Alta. (L. J. P.). Slight infections occurred on fall rye at widely distributed points in Sask. (B. J. S.).

SCALD (*Rhynchosporium secalis*). Trace infections were recorded in 6 fields examined in c. Alta. (L. J. P.).

SPECKLED LEAF BLOTCH (*Septoria secalis*). Infection was rated slight in 4/9 fields surveyed in s.w. Sask. (R. D. T.).

STEM SMUT (*Urocystis occulata*). This rarely-encountered smut was present in 1 field and was observed on volunteer plants in another instance in s. Alta. (T. G. A., M. N. G.). It was last reported to the Survey in 1955 (C.P.D. S. 35: 16. 1956) (D. W. Creelman).

## DISEASES OF FORAGE AND FIELD CROPS

### A. Forage Legumes

#### ALFALFA

BLACK STEM (*Ascochyta medicaginis*). A high incidence of black stem was reported at High Prairie and specimens were received from Feisy and Edmonton, Alta. (A. W. H.).

WINTER CROWN ROT (low-temperature basidiomycete) caused damage to crops in the Edmonton, Alta. district (A. W. H.).

BACTERIAL WILT (*Corynebacterium insidiosum*) was rated 22-tr.-sl. 40-tr.-mod. 31-tr.-sev./93 irrigated fields in s. Alta. (E. J. H.). In another Alta. survey it was rated 2-tr./5 fields (J. B. L.).

DODDER (*Cuscuta* sp.) occurred in several alfalfa fields in the northern parts of the Okanagan Valley, B. C. (G. E. W.).

STEM NEMATODE (*Ditylenchus dipsaci*). Slight-severe infestations were found in 10/93 irrigated fields surveyed in s. Alta. (E. J. H.).

CROWN BUD ROT (*Fusarium* spp., *Rhizoctonia solani*, *Ascochyta imperfecta*). Ratings in irrigated fields in s. Alta. were 3-tr.-sl. 67-tr.-mod. 23-tr.-sev./93 (E. J. H.). Damage was 1-tr. 2-sl. 1-mod. 1-sev./5 other Alta. fields examined (J. B. L.).

YELLOW LEAF BLOTCH (*Leptotrochila medicaginis*). Minor damage was recorded in 1/5 fields surveyed in c. Alta. (B. B.).

DOWNY MILDEW (*Peronospora aestivalis*). Infection was rated 1-sl./5 fields examined in c. Alta. (B. B.).

COMMON LEAF SPOT (*Pseudopeziza trifolii* f. sp. *medicaginis-sativae*) was prevalent at High Prairie and it was also reported from Cherry Point and Edmonton, Alta. (A. W. H.). It was rated 3-sl./5 fields in c. Alta. (B. B.) and 2-tr./5 fields in s. Alta. (J. B. L.). Infections were general and mostly light on 'Vernal' in P.E.I. Moderate damage occurred in some crops where cutting was delayed (C. B. W.).

ROOT ROT (various organisms). Severe damage was general throughout P. E. I. (C. B. W.).

POTASSIUM DEFICIENCY. Slight symptoms were observed at La Pocatière, Que. (C. A.).

WHITE SPOT (physiological). Symptoms were observed at Edmonton, Peavine and Wetaskiwin, Alta. (A. W. H.).

#### COMMON CLOVER

BLACK STEM (*Ascochyta imperfecta*). Infections were rated 1-sl. 3-mod./7 fields of alsike in the Peace River district of B. C. and Alta. and 2-mod./13 alsike fields in c. Alta. On red clover it was rated 3-tr. 2-mod./12 fields in c. Alta. and 2-mod./6 fields in the Rimby-Bluffton area (B. B.).

SOOTY BLOTCH (Cymadothea trifolii). Traces were seen in 1/7 alsike fields in the Peace River district and ratings were 1-tr, 2-mod./13 fields in c. Alta. (B.B.). Infections ranged from 75-100% and damage was moderate on alsike throughout P.E.I. (C.B.W.).

POWDERY MILDEW (Erysiphe polygoni) was rated 2-tr, 1-mod./7 alsike fields in the Peace River district of B.C. and Alta. and 3-sl, 1-mod./13 fields in c. Alta. Infections on red clover were 3-tr./11 fields in the Peace River district, 1-sl, 1-mod./12 in c. Alta. and 3-mod./6 in Rimby-Blufon area (B.B.). Infections of 20-40% were general on alsike, red and white clovers in P.E.I. They were particularly heavy on alsike. Average damage was slight (C.B.W.).

ROOT ROT (Fusarium spp.). Alsike clover in mixed stands was affected in the Lower St. Lawrence and Lake St. John areas of Que. F. oxysporum was the species most frequently isolated but F. avenaceum proved to be the most pathogenic to alsike. F. culmorum was intermediate as to frequency of occurrence and pathogenicity (C.A.).

NORTHERN ANTHRACNOSE (Kabatiella ~~S~~vora). Infections were 3-sl, 1-sev./11 red clover fields in the Peace River district of B.C. and Alta. In c. Alta. it was rated 3-sl, 5-mod./12 and in the Rimby-Blufon district it was rated 2-sl, 1-mod./6 fields (B.B.).

COMMON LEAF SPOT (Pseudopeziza trifolii f. sp. trifolii-pratensis). Infections ranged from 0-40% on red clover throughout P.E.I. and the average damage was slight (C.B.W.).

CROWN ROT (Sclerotinia trifoliorum) caused up to 50% mortality in stands of 'La Salle' red clover in

P.E.I. Losses were heavy in some localities (C.B.W.).

GRAY LEAF SPOT (Stagonospora meliloti). Extensive infections were recorded at Derwent, Alta. (A.W.H.).

RUST (Uromyces trifolii). Infections were rated 3-sl, 5-mod./13 fields of alsike surveyed in c. Alta. (B.B.). It caused slight to moderate damage to alsike, red and white clovers in P.E.I. where infections ranged up to 25% (C.B.W.).

ROOT ROT (various organisms) was general and caused severe damage to alsike, red and white clovers in P.E.I. (C.B.W.).

PHYLLODY (Cloverphyllody virus). Light, general infections were observed in a number of clover fields in Kings Co., N.S. (A.A. MacN., C.L.L.). Infections of up to 5% were general in alsike, red and white clover fields in P.E.I. (C.B.W.).

OTHER VIRUSES. Bean yellow mosaic virus and pea streak virus were tentatively identified and shown to be widely distributed throughout c. Alta. (B.B.).

WINTER KILLING. Ladino clover was severely injured by freezing temperatures in December in coastal B.C. Red clover was affected to a lesser extent (H.N.W.T.).

#### SWEET CLOVER

ROOT ROT (Phytophthora cactorum, Fusarium culmorum, F. oxysporum f. redolens) caused slight to moderate damage in 1/4 irrigated stands examined in s. Alta. (E.J.H.).

## B. Oil-seed Crops

### FLAX

WILT (Fusarium oxysporum f. lini) killed about 60% of the plants of an unknown variety in a field nr. Regina, Sask. (J.A.H.).

RUST (Melampsora lini). Traces were found at Regina but none was observed at 5 other locations in Sask. (B.J.S.). Rust, mainly race 300, was widespread throughout Man. but was of less frequent occurrence in Sask. east of the line Saskatoon-Regina. One field, nr. Regina, suffered severe rust damage (J.A.H.).

SEEDLING BLIGHT (Rhizoctonia spp., Pythium spp.) caused severe damage in 2/3 fields surveyed in s. Alta. (J.S.H., T.G.A.). It was general in the Red River valley of Man. and caused appreciable damage (J.A.H.).

PASMO (Septoria linicola). Specimens were received from Dauphin, Man. where the loss was reported to be over 50%. Most bolls were empty or

contained shrunken seeds (W.C.McD.).

ASTER YELLOWS (aster yellows virus). Trace amounts were observed in plots at Saskatoon, Sask. (B.J.S.).

FROST CANKER. At Oak River, Man., 5% of the plants in a field were dead or showed a typical stem canker believed to be caused by frost 10 days earlier (W.C.McD.).

### MUSTARD

WHITE RUST (Albugo cruciferarum) occurred on mustard at Vulcan, Alta. (A.W.H.).

POWDERY MILDEW (Erysiphe polygoni) was observed, often in association with white rust at Vulcan, Alta. (A.W.H.).

RAPE

WHITE RUST (Albugo cruciferarum) was observed in Sask. most frequently in the northeast region of the province. Infections were rated 10-tr. 10-sl. 4-mod. 2-sev./40 fields surveyed (G. A. P., T. C. V.).

WHITE RUST-DOWNY MILDEW COMPLEX (A. cruciferarum, Peronosporaparasitica) was moderate to severe at Smokey Lake, St. Paul and Vegreville and moderate at Fabyan and 100 miles north of Edmonton. It was also reported from Legal, Fairview, Westlock, Morinville, Stony Plain, Ponoka and Sedgewick, Alta. (A. W. H.).

STEM AND POD SPOT (Alternaria spp.). Incidence was surprisingly low in 1965 (G. A. P., T. C. V.).

RING SPOT AND BLACK BLIGHT (Mycosphaerella brassicae) was rated 4-sev./7 fields examined in c. Alta. Early-maturing stands were severely infected with stems almost completely covered with fruiting bodies but later crops were clean. It appeared to cause little yield reduction (B.B.). In Sask. it was rated 4-tr. 5-sl. 14-mod. 3-sev./40 fields surveyed. It was present in 80% of the fields in the Meadow Lake area (G. A. P., T. C. V.).

DAMPING-OFF (Pellicularia praticola) was moderate to severe in a field nr. North Battleford and in one at Melfort, Sask. in June (G. A. P., T. C. V.).

DOWNY MILDEW (Peronosporaparasitica). Trace infections were seen in 1/5 fields examined in the Peace River district and it was rated 5-sl./7 fields in c. Alta. In the latter area almost all the distortions of the seed heads were overgrown with an Alternaria sp. that was not found elsewhere on the plant or on plants unaffected by downy mildew (B.B.). In Sask. it was observed most frequently in the northeastern part of the province. Infections were strikingly severe in a few fields nr. Melfort and Nipawin. Ratings in the province were 1-tr. 1-sl. 2-sev./40 fields examined (G. A. P., T. C. V.).

BLACKLEG (Phoma lingam) is becoming more widespread in the east-central rape-growing area of Sask. (G. A. P., T. C. V.).

STEM ROT (Sclerotinia sclerotiorum) was seen scattered in many fields nr. Melfort and Nipawin, Sask. It was rated 5-tr. 2-sl. 2-mod. 2-sev./40 fields surveyed (G. A. P., T. C. V.). The disease was prevalent and caused some concern in Man.

where losses of up to 10% occurred in individual fields (W. C. McD.).

ASTER YELLOWS (aster yellows virus). Infections were uniformly distributed throughout Sask. where ratings were 10-tr. 2-sl. 1-mod./40 fields examined. Affected plants were taller and were a darker green than were healthy ones (G. A. P., T. C. V.).

CHEMICAL INJURY. Damage from drift of the herbicide 2,4-D was observed in 6/40 fields surveyed in Sask. (G. A. P., T. C. V.).

ROOT ROT (cause undetermined). Specimens were received from Peace River, Sexsmith and Spirit River, Alta. (A. W. H.).

SOYBEAN

BROWN STEM ROT (Cephalosporium gregatum) was observed, though rarely, in s. w. Ont. (J. H. H.).

BACTERIAL BLIGHT (Pseudomonas glycinea) was seen in mid-season in all fields surveyed in s. w. Ont. (J. H. H.).

DAMPING-OFF (Rhizoctonia solani). Post-emergence damping-off occurred in scattered locations in s. w. Ont. (J. H. H.).

STEM ROT (Sclerotinia sclerotiorum) was present in a few fields in s. w. Ont. (J. H. H.).

LEAF SPOT (Septoria glycines) occurred in all fields examined but its effect on yield was minimal. Infection was restricted to the primary leaves (J. H. H.).

SUNFLOWER

HEAD ROT (Botrytis cinerea) was severe at Deschambault, Que. (D. L.).

RUST (Puccinia helianthi) was extremely scarce in Man. and caused no significant damage (J. A. H.).

LEAF MOTTLE (Verticillium albo-atrum) was of minor importance in Man. due partly to the inherent tolerance of 'Perodovik', currently the most widely planted variety (J. A. H.).

**C. Root Crops**SUGAR BEET

BLACKLEG (Phoma betae). Damage was estimated at 5% in a 20-acre field at St. Barnabe and the disease was also seen at Ste. Rosalie, Que. (L. J. C.).

BLACK ROOT (Rhizoctonia solani). A field at St. Hughes, Que. suffered 80% damage in the seed-

ling stage. A few plants continued to die during the season and the remaining ones were poorly developed (L. J. C.).

WINTER KILLING. As a result of sub-zero temperatures in Dec., 1964 in the lower Fraser Valley, B. C., over 600 acres of sugar beet stocklings were killed outright (H. N. W. T.).

## D. Miscellaneous Crops

### FIELD CORN

PINK EAR ROT (*Fusarium graminearum*) was more severe than usual in s.w. Ont. with damage ranging up to 15% in some crops. Most hybrids were affected. There were some reported cases of live-stock poisoning due to feeding moldy grain (R.E.W.).

ROOT AND STALK ROT (*Fusarium graminearum*). Although stalk rot was less severe in s.w. Ont. in 1965 than in previous years, root damage and stalk breakage due to other causes ranged from 5-30% (R.E.W.).

KERNEL ROT (*Fusarium moniliforme*). The hybrid 'Seneca 2851' suffered about 15% loss at Adelaide, Middlesex Co., Ont. This hybrid has upright ears that contribute to poor drying of the grain. Kernel rot was occasionally observed in other areas of s.w. Ont. (R.E.W.).

OAT-CYST NEMATODE (*Heterodera avenae*) caused appreciable damage, mainly by retarding crop development by about 3 weeks, nr. Bowmanville, Ont. This appears to be a new host record for North America (S.G.F.). For a more complete account of this occurrence see Can. Plant Dis. Surv. 45: 105-106, 1965 (D.W. Creelman).

MOSAIC AND STUNTING (wheat streak mosaic virus) was observed in several hybrids in Essex and Kent Counties, Ont. Incidence was very low and only the occasional plant in weedy, border areas of the fields was affected although one field in Sandwich West Twp., Essex Co. had nearly 10% of the plants infected (Y.C.P., R.E.W.).

RED-STRIPED PERICARP (cause unknown) was more intense and more widespread in s. Ont. than in 1964 (R.E.W.).

### HOP

HOP-CYST NEMATODE (*Heterodera humuli*) was found in hop roots from Sardis, B. C. (M.W.).

### TOBACCO

LEAF SPOTS (*Alternaria* spp.) increased significantly in flue-cured tobacco in Ont. in 1965 probably because of favorable weather conditions. They were more severe in poorly drained fields (S.K.G.). They were observed, along with some spots of unknown origin, in several burley fields in Essex and Kent Counties, Ont. Some reduction in the quality of cured leaf was expected (C.D. McK.).

DAMPING-OFF (*Pythium* spp., *Rhizoctonia solani*, *Fusarium* spp.) was the most common seedbed disease of flue-cured tobacco in Ont. in 1965. Plant losses were estimated at 2% and it occurred in patches in beds during the later stages of growth. It is attributed to the recolonization of sterilized soil by the damping-off organisms (S.K.G.). It was also common in burley seedbeds in s.w. Ont. but overall damage was slight (C.D. McK.).

SORE SHIN (*Rhizoctonia solani*) was reported in a few flue-cured crops but it was generally not serious (S.K.G.).

POLE ROT (*Rhizopus* spp.). Rotting of leaves during curing was frequently encountered in Ont. Humid weather conditions and overcrowding of leaves in the kilns favored its development (S.K.G.).

BLACK ROOT ROT (*Thielaviopsis basicola*) caused an estimated 1% loss in seedbeds of the flue-cured crop due to improper sterilization. It was severe in the field on poorly drained soils in all tobacco growing areas of Ont. The overall financial loss was estimated at 5% with some individual growers having up to 30% losses. Relatively cool weather during the growing season favored the disease (S.K.G.). It was found in many burley fields in Essex and Kent Counties, Ont. Plants of the variety 'Green Briar' in plots at Harrow showed a remarkable growth response following a fumigation treatment with Vorlex (C.D. McK.).

TOBACCO VEINAL NECROSIS VIRUS was found in tobacco growing adjacent to an affected potato crop nr. Delhi. It had apparently been transmitted by aphids from the potatoes and had spread to a neighboring farm by the end of the season (S.K.G.). This is the first report of the occurrence of this virus in Canada (D.W. Creelman).

OTHER VIRUS DISEASES. Mosaic, ringspot and streak virus were observed in the flue-cured crop in Ont. though their incidence was negligible (S.K.G.). Tobacco etch developed in burley crops in s.w. Ont. late in the season and was found in only 2 fields. Tobacco mosaic, streak, ringspot, alfalfa mosaic and potato Y viruses were observed in trace amounts (C.D. McK.).

CHEMICAL INJURY. Improper application of agricultural chemicals, either in the greenhouse or in the field, caused considerable losses in the flue-cured tobacco crop on individual farms in Ont. (S.K.G.).

WEATHER FLECK (atmospheric pollution). Losses in flue-cured tobacco in Ont. were estimated at 1-2% and occurred mostly in areas bordering Lake Erie (S.K.G.).

## E. Cultivated and Other Grasses

### AGROPYRON - Wheatgrass

ERGOT (Claviceps purpurea). An occasional head of A. desertorum in an isolation plot in native prairie at Beaver Creek, Sask. was heavily infected. Ergot also caused slight damage in A. cristatum at Saskatoon (J.D.S.).

POWDERY MILDEW (Erysiphe graminis) was seen on A. cristatum in plots at Saskatoon and caused trace to moderate damage in A. trachycaulum in plots at Scott, Sask. At Scott, strains '1679', '1269', '1179' and '1556' were moderately affected (J.D.S.). A. repens was 100% infected at St. John's West, Nfld. (O.A.O.).

SLIME MOLD (Phyisarum sp. (prob. cinerea). An affected specimen of A. cristatum was received from Moose Jaw, Sask. (J.D.S.).

BASAL ROT (Rhizoctonia solani, Fusarium sp.) caused moderate to severe damage to a few spaced plants of A. intermedium in a breeding nursery at Saskatoon, Sask. (J.D.S.).

DOWNY MILDEW (Sclerophthora macrospora). A specimen of infected A. repens collected at Winnipeg, Man. was received from Dr. G. Semeniuk of Brookings, South Dakota. He also reports collecting it on A. cristatum at Lang, Sask. in 1962. See under Bromus (D.W.C.).

CHAR SPOT (Septogloeum oxysporum) was moderate on strain '1227' of A. trachycaulum on plots at Scott, Sask. Strains '1188', '1258', '1673' and '1697' showed trace infections (J.D.S.).

STEM SMUT (Ustilago spengazzinii) was general on A. repens nr. Summerland, B.C. Ten-25% of the plants showed distinct symptoms (G.E.W.).

WHITE HEADS (physiological). Five % of the heads of the variety 'Summit 62' of A. desertorum were affected in a field at Indian Head, Sask. (J.D.S.).

BRITTLE DWARF (aphid injury) was severe on the occasional spaced plant in plots at Saskatoon, Sask. (J.D.S.).

### BROMUS - Brome grass

ERGOT (Claviceps purpurea). A severe infection of B. inermis was recorded at Vilna, northeast of Edmonton, Alta. Other grasses also were heavily infected in a 5-10 mile area along the highway (B.B.).

LEAF BLOTCH (Drechslera bromi). Infection on B. inermis was heavy at Willingdon and specimens were received from Cherhill and Hughenden, Alta. (A.W.H.). It was rated 1-tr./4 fields in the Peace River district, 2-mod./2 in the Rimby-Blufton area and 1-sl./4 in c. Alta. (B.B.). Ratings were 11-tr. 26-sl. 12-mod. 2-sev./89 stands of B. inermis in Sask. (J.D.S.).

\* For a complete account of diseases of brome grass in Saskatchewan in 1965, see Smith, J.D. Can. Plant Dis. Surv. 45: 118-119. 1965.

POWDERY MILDEW (Erysiphe graminis) caused severe damage to B. inermis growing as a weed in a wheat crop at Big River, Sask. (J.D.S.).

SCALD (Rhynchosporium secalis). Trace infections were recorded in 2/4 fields of B. inermis in the Peace River district of Alta. (B.B.). Slight infections were seen at Saskatoon and Wierdale, Sask. (J.D.S.).

DOWNY MILDEW (Sclerophthora macrospora). Specimens of infected B. inermis from Cardston, Alta. and Winnipeg, Man. were received from Dr. G. Semeniuk, Plant Pathology Department, South Dakota State University, Brookings, S.D. He also reported collecting it nr. North Battleford, Sask. where he had previously collected it in 1963. Other collections of this pathogen on B. inermis in Western Canada cited by Dr. Semeniuk (G. Semeniuk and C.J. Martin. Phytopathology 54: 409-416. 1964) are: at Fort Saskatchewan, Alta., at Moosomin and nr. Lang, Sask. and at Brandon, Man., all in 1963 (D.W.C.).

LEAF SPOT (Selenophoma bromigena) was present in all fields of B. inermis examined in c. Alta. between May and Sept. It appeared early and maintained a limited infection throughout the season (B.B.). Ratings in Sask. were 31-tr. 25-sl. 12-mod. 11-sev./89 fields surveyed (J.D.S.).

LEAF SPOT (Septoria bromigena). This pathogen was isolated from B. inermis from 11 of the 89 localities surveyed in Sask. Infection was never severe (J.D.S.).

LEAF SPOT (Sporotrichum sp.). An undetermined species of Sporotrichum was associated with linear, gray leaf lesions on B. inermis at Saskatoon, Sask. in Sept. (J.D.S.).

ROOT ROT (pathogen undetermined). White rhizomorphs of an unidentified fungus were found in two nurseries and roadside B. inermis nr. Saskatoon, Sask. Affected plants were low in vigor and seed yields were low. One small fruiting body, associated, indicated that the fungus was an abasidiomycete (J.D.S.).

### ELYMUS - Wild rye

LEAF BLOTCH (Drechslera erythrospila (Drechs.) Shoem.) affected 75% of the plants of the variety 'Sawki' at Swift Current and lesser infections were observed at Regina, Saskatoon and Indian Head, Sask. D. erythrospila, as determined by R.A. Shoemaker, was isolated from lesions on plants at Saskatoon (J.D.S.). According to Dr. Shoemaker, this fungus has not been previously recorded on Elymus (D.W.C.).

HEAD SMUT (Ustilago bullata). Trace infections were seen on 'Sawki' at Regina, Sask. (J.D.S.).

### FESTUCA - Fescue

NET BLOTCH (Drechslera dictyoides) caused slight damage to F. arundinacea, variety 'S62-5244' at Saskatoon, Sask. (J.D.S.).

HORDEUM

FLAG SMUT (*Urocystis agropyri*). Specimens of *H. jubatum* bearing a trace infection were collected by A. Fuchs at God's Lake, Man. (J.J.N.).

LOLIUM - Ryegrass

WINTER KILLING was extensive in *Lolium* spp. in coastal B.C. and the lower Fraser Valley following the mid-December freeze of 1964 (H.N.W.T.).

PHALARIS - Canarygrass

LEAF SPOT (cause undetermined). The variety 'S-5573' of *P. arundinaceae* breeders' plots at Melfort, Sask. was 90% affected with infections ranging from trace to severe. A "*Helminthosporium*", possibly *H. leucostylum* Drechs. and a species of *toria* were present. The *Septoria* was not *S. bromi* var. *phalaricola* (J.D.S.).

PHLEUM - Timothy

ERGOT (*Claviceps purpurea*). Infections were rated 2-tr. 1-mod./6 stands in the Peace River district, 2-mod./3 fields in the Rimby - Blufon area and 2-mod. 1-sev./5 stands in c. Alta. (B.B.).

EYE SPOT (*Heterosporium phlei*). Slight infections were seen in 2/5 fields examined in c. Alta. (B.B.).

DOWNY MILDEW (*Sclerophthora macrospora*) was collected on *P. pratense* at Bremner, Alta. by G. Semeniuk in 1962. See *Bromus* (D.W.C.).

SETARIA - Foxtail

DOWNY MILDEW (*Sclerophthora macrospora*) was collected in 1963 at Portage la Prairie, Man. by G. Semeniuk. See *Bromus* (D.W.C.).

LAWNS AND TURF

NEMATODES (*Aphelenchoides sacchari* Hooper) were found in association with *Bipolaris sorokiniana* in a lawn at Lethbridge, Alta. (E.J.H.).

SNOW MOLD (low-temperature basidiomycete). Damage was rated 4-tr. 3-mod. 2-sev./14 lawns examined in Alta. (J.B.L.).

MELTING-OUT (*Bipolaris sorokiniana*) was ob-

served in a lawn at Lethbridge, Alta. (E.J.H.).

RED THREAD (*Corticium fuciforme*) affected *Festuca rubra* in lawns and golf courses in widely separated areas of Alta. High air temperatures combined with high relative humidity favored the disease (W.P.S.). *F. rubra* was moderately to severely damaged in a bowling green at Saskatoon, Sask. Small stromata of the pathogen were present (J.D.S.).

NET BLOTCH (*Drechslera dictyoides*) caused a moderate killing-out of *Festuca rubra* in a fescue-bluegrass lawn at Saskatoon, Sask. (J.D.S.).

LEAF BLOTCH (*Drechslera poae*) caused slight damage in several bluegrass lawns at Lacombe, Alta. (B.B.). Leaf lesions caused by this fungus were seen in every one of 30 lawns and turfgrass plots containing *Poa pratensis* that were closely examined in Sask. Leaf spotting was most apparent in August and September at Saskatoon, later than usual. Damage was slight to moderate (J.D.S.). Infection was 100% on 'Merion' bluegrass at St. John's, Nfld. Little damage was apparent (O.A.O.).

POWDERY MILDEW (*Erysiphe graminis*). Damage from mildew was moderate to severe on bluegrasses in turf plots at Saskatoon, Sask. It was more severe on 'Kentucky' than on 'Merion' and 'Park'. Chains of conidia were still present on specimens from Saskatoon in early November (J.D.S.).

SNOW MOLD (*Fusarium nivale*) caused moderate damage in 2/14 lawns examined in Alta. (J.B.L.).

FAIRY RING (*Marasmius oreades*). Damage was rated 1-sl. 10-mod. 3-sev./14 lawns examined in Alta. (J.B.L.).

SLIME MOLD (*Physarum cinereum*). Several specimens were received from lawns from Saskatoon, Sask. (J.S.D.).

LEAFBLIGHT (*Pleospora* sp.). An undetermined species of *Pleospora* was recovered several times from leaves of *Poa pratensis* in lawns at Saskatoon and North Battleford, Sask. and in a bowling green at Saskatoon. Perithecia were first noted in April and last observed in the inflorescence of *Poa annua* in September (J.D.S.).

SNOW MOLD (*Typhula itoana*) was severe on much of the fine turf consisting of *Poa pratensis*, *Festuca rubra* and *Agrostis* spp. in Saskatoon, Sask. and in other parts of the province. In the 10 cases investigated in Saskatoon, sclerotia typical of *T. itoana* were recovered. The resulting turf damage was still apparent in July and August in Saskatoon (J.D.S.).