were 5-sl. 4-mod. 7-sev./21 fields surveyed in the Peace River district of B.C. and Alta. and 2-tr. 1-sl. 2-sev./8 fields in c. Alta. where average damage was between 5 and 10% (B.B.). Scald was slight at Regina, Sask. (B.J.S.).

SPECKLED LEAF BLOTCH (Septoria passerinii) was slight in 1 field at Bishopric out of 33 surveyed in Sask. (R.D.T.). It was tr. on 'Charlottetown 80' at Nappan, N.S. (C.O.G.).

COVERED SMUT (Ustilago hordei). Infections were rated 4-tr. 3-2% 1-3%/32 fields surveyed in Sask. The average infection was 0.31%. A specimen was also received from Stenen, Sask. (B.J.S., R.J.L.). Four/51 fields examined in Man. had infections ranging up to 5% with a mean at 0.2% (J.J.N.).

LOOSE SMUT (Ustilago nuda, U. nigra). A specimen of U.nuda was received from Thorsby, Alta. (A.W.H., D.S.). Nine/32 fields examined in Sask. had 4-tr., 1, 2, 3, 6 and 8% infection with an average of 0.66% (B.J.S.). U. nuda was found in 18/51 fields in Man with infections ranging up to 8% and a mean of 0.6% while U. nigra occurred in 16/51 fields with infections up to 4% and a mean at 0.6% (J.J.N.). The variety 'Charlottetown 80' carried tr. infection at Nappan, N.S. and 'Vantage' less than 1% at St. John's West, Nfld. (G.A.N.)

BACTERIAL BLIGHT (Xanthomonas translucens) was rated 4-91. 5-mod./41 fields surveyed in n. and c. Alta. (W.P.S.). A mod. infection was seen at Eastend, Sask. (R.D.T.).

ASTER YELLOWS (aster yellows virus) was found in 18/20 fields examined in Man. Infection in farmers' fields ranged from tr.-4.3%. The highest rate of infection in experimental plots was 5% on 'Parkland' barley (C.C.G.).

BARLEY STRIPE MOSAIC (barley stripe mosaic virus) was trace in one and mod. in another experimental plot in Man. None was seen in farmers' fields (c.c.G.).

YELLOW DWARF (barley yellow dwarf virus) was trace at Kindersley, Sask. (R.D.T.). Trace infections were found in about half the fields surveyed in Man. Infection was sev. in one late-sown field. Symptoms were often difficult to distinguish from those caused by aster yellows virus (C.C.G.).

CHLOROTIC LEAF BANDING (high temperature). Specimens were received from Brownville, Edmonton and Pibroch, Alta. At Brownville, 10-30% of the seedlings were affected (A.W.H., D.S.).

RYE

STEM RUST (Puccinia graminis). Infection was slight at Virgil, Ont. (T.R.D.).

LEAF RUST (Puccinia recondita) caused slight damage to the varieties 'Tetrapetkus' and 'Prolific' at St. John's West, Nfld. (G.A.N.).

ERGOT (Claviceps purpurea). Infection was sl.-mod. in all rye fields in the La Pocatière region, Que. (H.G.).

DISEASES OF FORAGE AND FIELD CROPS

A. Forage Legumes

ALFALFA

BLACK STEM (Ascochyta imperfecta). Infection was 40% at Milo, fairly extensive at Spirit River and observed at Camp Creek, Alta. (A.W.H., D.S.). It was mod. at Regina and at Nipawin, Sask. (B.J.S., R.D.T.).

LEAF SPOT (Ascochyta imperfecta) was observed at Fort Vermilion, Alta. (A.W.H., D.S.).

SNOW MOLD (low-temperature basidiomycete). Ratings were 4-tr. 12-sl. 8-mod. 4-sev./28 fields surveyed in the Edmonton, Alta. area (E.J.H.).

BACTERIAL WILT (Corynebacterium insidiosum). Infections were 9-tr.-sl. 44-tr.-mod. 22-tr.-sev./86 fields examined in s. Alta. (E.J.H.).

STEM NEMATODE (Ditylenchus dipsaci) was rated 11-tr.-sev./86 fields in s. Alta. (E.J.H.).

CROWN BUD ROT (Fusarium spp., Rhizoctonia solani, Ascochyta imperfecta) was observed at Gibbons (A.W.H., D.S.) and was general in s. Alta. in irrigated alfalfa fields more than 1-year old. Ratings were 22-tr.-sl. 49-tr.-mod. 8-tr.-sev./86 fields surveyed (E.J.H.)

YELLOW LEAF BLOTCH (Leptotrochila medicaginis). Infections were 2-sl. 1-sev./5 fields observed in c. Alta. (B.B.).

DOWNY MILDEW (Peronospora aestivalis) was reported at Camp Creek, Alta. (A.W.H., D.S.).

COMMON LEAF SPOT (Pseudopeziza trifolii f. sp. medicaginis-sativae) was observed at Camp Creek (A.W.H., D.S.) and was rated 1-sl./5 fields observed in c. Alta. (B.B.). Infection was sev. in a field at Giffard, Que. (D.L.) and was rated 50% in one at Kentville, N.S. (C.O.G.).

POTASSIUM DEFICIENCY caused a sev., small, white spotting at St. Flavien, Lotbiniere Co., Que. A similar spotting was observed on clover in the same field the previous year (D.L.).

WHITE SPOT (physiological) was observed at Colinton, Foisey, Markerville, Red Deer, Wetaskiwin and Waskatenau, Alta. (A.W.H., D.S.).

WINTER KILLING occurred in a low-lying field at Sussex, N.B. (S.R.C.).

COMMON CLOVER

SOOTY BLOTCH (Cymadothea trifolii) was rated as mod.-sev. on red and alsike clovers in 6/6 fields visited on Ile Orleans, Que. (D.L.).

POWDERY MILDEW (Erysiphe polygoni) appeared late in the season on alsike, red and white clovers in the Okanagan and Thompson Valleys, B.C. but caused little damage (G.E.W.). It was rated 1-tr. 1-mod./5 fields of alsike and 1-sl. 1-mod./7 fields of red clover in the Peace River districts of B.C. and Alta. (B.B.). Powdery mildew was found as mod.-sev. infections in 6/6 fields surveyed on Ile Orleans, Que. (D.L.). Infection on red clover was light at Kentville, N.S. (C.O.G.).

NORTHERN ANTHRACNOSE (Kabatiella caulivora). Infection was rated 1-tr. 2-sl. 1-sev./7 red clover fields examined in the Peace River district of B.C. and Alta. Five/9 fields in c. Alta. showed 3-10% infection and infection was 20% at Sylvan Lake (B.B.).

BROWN ROOT ROT (Plenodomus meliloti) caused mod.-sev. damage to clovers at the Exp. Farm, Mile 1090, Alaska Highway, Yukon (W.P.S.).

COMMON LEAF SPOT (Pseudopeziza trifolii f. sp. trifolii-pratensis) was mod.-sev. in 6/6 fields of red and alsike clovers visited on Ile Orleans, Que (D.L.).

RUST (Uromyces trifolii) was sl. in 2/5 fields of alsike visited in the Peace River district of B.C. and Alta. and infection of alsike was 10% nr. St. Paul. Traces were seen on white clover at Breton in c. Alta. (B.B.), at Falher, Alta. (A.W.H., D.S.), and on red and alsike clovers on Ile Orleans, Que. (D.L.).

MOSAIC (virus). Traces were seen on white and alsike clovers in plots at Breton, Alta. (B.B.) and sl.-mod. infections occurred in all 6 fields of red and alsike clovers surveyed on Ile Orleans, Que. (D.L.).

PHYLLODY (clover phyllody virus) was less sev. than usual on Ladino clover in the La Pocatière region, Que. A sl. infection was observed in plots at Truro, N.S. (H.G.).

RED CLOVER VEIN MOSAIC (virus) was observed, for the first time in B.C., at Point Grey in 1964. It is symptomless in Ladino clover and causes a yellow vein-banding to mosaic in red clover (M.J.P.)

SWEET CLOVER

ROOT ROT (Phytophthora cactorum) caused mod. damage in 1/10 fields surveyed in the Taber area, Alta. (E.J.H.).

RED CLOVER VEIN MOSAIC (virus) was observed on sweet clover at Point Grey, B.C. It caused a chlorotic vein-banding that disappeared by mid-summer (M.J.P.).

LUPINE

SEED SMUT (Thecaphora deformans Dur. & Mont.) was collected on lupine at Lacombe, Alta. Its identity was confirmed by D.B.O. Savile (B.B.). Its occurrence on Lupinus consitiutes a new record for Canada although Savile (Can. J. Bot. 35: 280-286. 1957) records it from Canada on Astragalus bisulcatus, Lathyrus ochroleucus and Vicia ?caroliniana). Fischer's "Manual of the North American Smut Fungi" records it on Lupinus from Wyoming and Colorado (D.W.Creelman)

B. Oil-seed Crops

FLAX

WILT (Fusarium oxysporum f. lini) occurred to a considerable degree in a few lines of 'Raja' at Ottawa, Ont **(R.V.C.)** . It was sev., about 50% infection, on 'Norland' in 7 fields in Laprairie Co., Que. where flax had been grown frequently in the last few years. 'Marine', the only variety grown commercially in Que. **was also** quite heavily attacked with 25-50% infection. Greenhouse tests of 12 varieties with soil from 2 of the fields showed 'Norland' and 'Marine' to be much more susceptible than 'Raja' and other Ottawa-produced varieties (W.E.S.) .

RUST (Melampsora lini) . Traces were observed on 7 July at St. Norbert, Man. (W.A.F.H.).

SEEDLING BLIGHT (Rhizoctonia solani) was present in plots at Macdonald College, Que. No losses were reported from the Laprairie region **where** losses of up to 10% occurred in 1963 (W.E.S.).

PASMO (Septoria linicola) . A specimen **was** received from Heward, Sask. (B.J.S.). It was found in plots at Macdonald College, Que. This is the first record from Que. but it has been reported from e. Canada at Ottawa (W.E.S.).

ASTER YELLOWS (aster yellows virus) was tr. in 2/13 farmers' fields visited in Sask. **and** in plots at Regina and Saskatoon **(B.J.S.).** Infections were rated tr.-5% in 20/20 fields surveyed in Man. (C.C.G.); **and it** was 1% in a field nr. Winnipeg (w.A.F.H.)

CHEMICAL **INJURY.** Plants received from Moose Jaw **and** Swift Current, **Sask. showed** herbicide injury consisting of killed main stems, 3-4 inches high, with several small branches **that** arose in the axils **of** the cotyledons (B.J.s.).

HEAT CANKER. Specimens showing constrictions and breaking near the soil line were received from Wiseton, Sask. (B.J.S.).

MUSTARD

WHITE RUST (Albugo cruciferarum). A 5-acre field at La Pocatière, Que. was sev. infected, though damage appeared light (H.G.).

RAPE

WHITE RUST (Albugo cruciferarum). Infection was about 5% in *3/6* fields visited in the n.w. Peace River area **and 20%** in 2/6 fields at Spirit River, Alta. (W.P.S.).

RING SPOT (Mycosphaerella brassicicola) **was** sev. in 1/5 fields observed in Sask. (R.J.L.).

SOYBEAN

BROWN STEM ROT (Cephalosporium gregatum) **was** common in s.w. Ont. The effect on individual plants **was** sev. but fewer than 1% were affected (J.H.H.) .

ANTHRACNOSE (Colletotrichum truncatum (Schw.) Andrus & Moore) occurred, frequently in association with Septoria glycines **on** leaflets but alone in tan-colored, necrotic streaks on petioles, on the varieties 'Merit' **and** 'Lincoln' at the Central Exp. Farm, Ottawa, Ont. Acervuli developed on plant tissue in a moist chamber. The curved conidia, averaging 23.4 **x** 3.2 µ , appear to fit C. truncatum (W.L.S.). This disease has not been previously reported to the Survey (D.W. Creelman) .

ROOT INFECTION (Corynespora cassiicola) was again prevalent on roots of mature plants of all varieties at the Central Exp. Farm, Ottawa, Ont. in field plots in which soybeans had been grown in rotation with corn for several years (W.L.S.).

STEM CANKER (Diaporthe phaseolorum var. ~~caulivora~~) . Incidence **was** negligible in s.w. Ont. in 1964 (J.H.H.) .

POD AND STEM BLIGHT (Diaporthe phaseolorum var. sojae) was present on **almost** 100% of the senescent stems in s.w. Ont. but caused no apparent yield reduction (J.H.H.) . It; **was** prevalent on early varieties at maturity at Ottawa, Ont. (w.L.s.).

DOWNY MILDEW (Peronospora manshurica) . Heavy infections occurred in s.w. Ont. but caused no economic losses (J.H.H.) . A 1-acre field of the variety 'Blackhawk' at Strathroy, Ont. had tr.-mod. foliar infection. Infection was mod. ***only*** in low-lying areas in the field and near bush (V.R.W., **M.D.S.).**

STEM AND ROOT **ROT** (Phytophthora megasperma var. sojae). Symptoms were negligible on 'Harosoy' **and** completely absent on 'Harosoy 63' planted in the same fields in s.~. Ont. (J.H.H.).

LEAF SPOT (Septoria glycines) **was** present in epidemic proportions in fields in s.

w. Ont. but did not result in defoliation (J.H.H.). It was widespread and sev., especially on 'Merit' at Ottawa, Ont. Large areas of leaf were non-functional due to coalescing of numerous lesions. Infection was less sev. on 'Lincoln' (w.L.s.).

SUNFLOWER

DOWNY MILDEW (Plasmopara halstedii) was tr. in 1 field of 'Peredovik' in s. Alta. (J.S.H.). It affected a few to 2% of the plants in 14 fields and 10-15% of the plants in 4 fields out of 40 inspected in Man. None was seen in Sask. (J.A.H., E.D.P.). It is found regularly in plots at La Pocatière, Que. (W.E.S.).

RUST (Puccinia helianthi). Traces were seen in 3 fields in s. Alta. (J.S.H.). No rust was found in 7 fields of 'Admiral' and 'Advent' in Man. but it occurred in all 33 fields of 'Peredovik' end 'Mennonite' inspected. Fifty-100% of the plants were lightly infected in 10 fields and the other 23 showed trace infection. Losses were negligible. Rust was tr. in a few fields in Sask. (J.A.H., E.D.P.). Rust was found in plantings at Vankleek Hill and Kemptville in e. Ont. Preliminary tests indicate the presence, in this region, of races other than the common race 1 encountered in most farm fields in Man. Rust in e. Ont. was present even in areas where sunflowers had not been grown before. It is possible that some wild species of Helianthus may occur in the region and serve as a source of inoculum (W.E.S.).

HEAD ROT (Rhizopus sp.) affected 2-3% of the plants in 1 field in Sask. (J.A.H., E.D.P.).

SCLEROTINIA WILT (Sclerotinia minor Jagger) was found in 1 field in e. Ont. The reporter has collected this species on sunflower in South America but not previously in Canada (W.E.S.).

SCLEROTINIA WILT (S. sclerotiorum) caused little damage in Man. where it was rated tr.-2$ in 17/40 fields surveyed. It was tr. in 50% of the fields visited in Sask. (J.A.H., E.D.P.). Some .infected plants were found in e. Ont. (W.E.S.).

LEAF SPOT (Septoria helianthi) affected 50-70%of the plants in 22/40 fields seen in Man.; in 7 of these it was mod.-sev. on 100% of the plants. Yields in these 7 fields were undoubtedly affected (J.A.H., E.D.P.).

LEAF MOTTLE (Verticillium albo-atrum) caused less damage in 1964 than in the 3 previous years. Symptoms in 1964 were generally mild. Observations indicate that 'Peredovik' possesses more resistance than 'Mennonite' or the hybrid varieties. No leaf mottle was observed in Sask. (J.A.H., E.D.P.).

CHEMICAL INJURY caused by 2,4-D was 3-tr. 1-sl. 1-mod. in s. Alta. (J.S.H.). All fields examined in Sask. showed injury suggestive of drift of 2,4-D or a similar herbicide (J.A.H., E.D.P.).

FROST INJURY. Two days of below-freezing temperatures in mid.-Sept. caused yield reductions in Man. from an estimated 900-1000 lb./acre to 600 lb./acre. Oil content was also reduced (J.A.H., E.D.P.).

PREMATURITY BLIGHT (cause unknown) was sl. in 1 field in s. Alta (J.S.H.).

C. Root Crops

SUGAR BEET

LEAF SPOT (Ramularia beticola) was mod. but general in several acres of young plants grown for seed on Westham Island in the Lower Fraser Delta, B.C. (H.N.W.T.).

BORON DEFICIENCY. Slight-sev. injury was seen in several sugar beet fields in the St. Jean, Que. area (R.C.).

D. Miscellaneous Crops

FIELD CORN

NORTHERN LEAF BLIGHT (Bipolaris turcica (Pass.) Shoem.). A trace infection was recorded on an inbred line of hybrid corn at Morden, Man. (J.A.H.). All previous reports of this organism in Canada have been from Ont. (D.W.Creelman). This disease, which reached epidemic proportions in Essex and Kent Counties, Ont. in 1961 and 1962 has been virtually absent in 1963 and 1964. The decline may have been due to the absence of prolonged

wet peri ds in Aug. in the ast 2 years and to increased planting of blight-resistant hybrids (R.E.W.). (The organism has been previously reported in the Survey under the binomial B. turcicum. However, in making the new combination, Shoemaker, Canad. J. Bot. 37: 879-887. 1959, did not change the specific epithet to agree gramatically with the new generic name. Bipolaris turcica (Pass.) Shoem. is the correct name (D.W. Creelman).

MOLD (Cladosporium cladosporioides). Ears in some cribs in s.w. Ont. were completely overgrown and blackened by C. cladosporioides. Affected ears had a high moisture content, probably well over 30%. The infection resulted in pockets of moldy and heating corn in the center of the crib (R.E.w.).

SEED ROT (Fusarium graminearum). Seed rots and damping-off, though largely controlled by seed treatment, were found in a few instances in s.w. Ont. The Harrow selection 632-335 was heavily infested with F. graminearum (R.E.w.).

STALK ROT (Fusarium graminearum) was serious and infection approached 100% in some s.w. Ont. fields planted to susceptible hybrids. In 60-90% of the cases stalk rot could be traced to previously rotted roots. Five-20% of the infections were associated with above-ground nodes and 2-10% with corn borer tunnels. Stalk breakage was further aggravated by heavy frosts during the first week of Oct. (R.E.W.).

EAR AND KERNEL ROTS (Fusarium moniliforme) were more prevalent than in previous years in s.w. Ont. and much of the kernel rot was associated with bird damage. There was also considerable superficial growth of F. moniliforme on cobs of late-maturing varieties (R.E.w.).

RUST (Puccinia sorghi) was rarely found in field corn in Ont. and was not sev. in any field (R.E.W.)

SMUT (Ustilago maydis) was found in most fields visited in s.w. Ont. It was serious in only one field, nr. Tilbury, where about half the plants had smut galls on the lower stalks (R.E.w.).

LEAF SPOT (cause undetermined). A new leaf spot, characterized by circular or oblong spots with brown margins and gray, almost transparent centers appeared in a few fields in s.w. Ont. late in the growing season. Its cause is not yet known (R.E.w.).

RED STRIPE (cause unknown). A longitudinal red striping of kernels, not previously seen in the area, was found in all fields visited in Essex and Kent Counties, Ont. The kernels nearest the tip of the ear were the most intensely colored (R.E.W.). Dr. A.J.Ullstrup, plant pathologist at Purdue University, Lafayette, Indiana reports in a personal communication that "red stripe" has been reported from s.e. Michigan, n.e. Indiana, Ohio, Idaho, Maryland and Wisconsin. It first came to the attention of the seed trade in 1963. He further states that, to his knowledge, the cause or the conditions influencing its appearance are as yet unknown (D.W.Creelman).

SILK CUT (?genetic). This condition, characterized by a transverse rupture of the pericarp appeared in many samples submitted from s.w. Ont. to the Seeds Research Laboratory, Plant Products Division, C.D.A., Ottawa. In a high proportion of the affected kernels, Fusarium moniliforme was growing from the rupture. (T.F.C., V.R. W.). According to Dr. Ullstrup (see above) certain inbred lines of corn show a tendancy to develop "silk cut" in some years, but not every year. Some of them tend to transmit the weakness to their hybrid progenies. The condition is illustrated in Dr. Ullstrup's 1961 bulletin on corn diseases (U.S.D.A. Handbook 199, p. 14, plate 3) (D.W.Creelman).

DROUGHT was the most important factor in losses in field corn in s.w. Ont. in 1964 (R.E.w.).

FROST. Early frosts in s.w. Ont. arrested maturity and contributed to stalk breakage (R.E.W.). Reports from the Seeds Research Laboratory, Ottawa, suggest that frost injury may have also adversely affected germination (D.W.Creelman).

SUNSCALD was widespread in Essex and Kent Counties in July, appearing on flag leaves shortly before tassel break (R.E.W.).

WIND DAMAGE. Severe damage to seedlings was caused by high winds in s.w. Ont. in 1964 (R.E.W.).

TOBACCO

LEAF SPOTS (Alternaria spp.), combined with spots of unknown origin, were mod.-sev. in s.w. Ont. in 1964. They caused some reduction in grade (Z.A.P., L.W.K.).

DAMPING-OFF, BED ROT (Pythium spp., Rhizoctonia solani) was the most common seedbed disease in s.w. Ont. in 1964. It occurred in patches in most greenhouses and overall losses were estimated at 5%. A measure of control was obtained. by the use of soil drenches (Z.A.P., L.W.K.).

SORE SHIN (Rhizoctonia solani, Pythium spp.) was sev. in s.w. Ont. fields immediately after transplanting (Z.A.P., L.W.K.).

BLACK ROOT ROT (Thielaviopsis basicola) caused some damage in improperly sterilized seedbeds in s.w. Ont. Field losses were extremely heavy in 1964, in some instances as high as 30%. Weather conditions in the area generally favored disease development (Z.A.P., L.w.K.).

TOBACCO ETCH (tobacco etch virus) developed late in the season in s.w. Ont., was comparatively light in affected fields, and damage was sl. (C.D.McK.).

OTHER VIRUS DISEASES observed on flue-cured and burley tobacco in s.~Ont. were: tobacco mosaic, cucumber mosaic, streak, ring spot, alfalfa mosaic, curly top, potato Y and mottle. Losses from these diseases were insignificant (Z.A.P., LW.K.).

WEATHER FLECK (air pollution) became quite sev. in s.w. Ont. toward the end of the season and caused mod. losses (Z.A.P., L.W.K.).

YELLOW PATCH (excess nutrients) caused only negligible losses in s.w. Ont. in 1964 (Z.A.P., L.W.K.).

E. Cultivated and Other Grasses

AGROPYRON-Wheatgrass

TAR SPOT (Phyllachora graminis). A sev. infection was observed on A. repens at Giffard, Que. (D.L.).

STEM RUST (Puccinia graminis) was sev. on A. repens at St. Perrre, Ile Orleans, Que. (D.L., M.F.) and on the same host at Kentville, N.S. (C.O.G.).

LEAF RUST (Puccinia recondita) was sev. on A. repens and heavily parasitized by Darluca filum at Ste. Famille, Ile Orleans, Que. Leaves were bleached while the stems were still green (D.L.).

STEM SMUT (Ustilago spegazzinii) occurred commonly at Trout Creek Point, B.C. (G.E.W.).

AGROPYRON MOSAIC (agropyron mosaic virus) was recovered from A. repens from Redvers, Sask. (C.C.G.) and it was observed in many areas of w. Ont. (J.T.s.).

BRITTLE DWARF (aphid injury). A few plants of intermediate wheatgrass, A. intermedium, were affected at Saskatoon, Sask. (B.J.S.).

BROMUS-Brome

ERGOT (Claviceps purpurea). About 5% of the clones of B. inermis at Regina, Sask. bore numerous sclerotia while the remainder were largely free of infection (B.J.s.).

LEAF BLOTCH (Drechslera bromi). A severely infected specimen was received from Halfway River Valley, B.C., 17 miles w. of Mile 143, Alaska Highway. It was reported to be serious in a 50-square mile area. Trace amounts only were seen in plots at Lacombe, Alta. (B.B.).

LEAF SPOT (Selenophoma bromigena) was prevalent, but of minor importance, in plots at Lacombe, Alta. throughout the season (B.B.). Slight infections occurred at Regina and traces at Saskatoon, Sask. (B.J.s.).

DACTYLIS-Orchard grass

ERGOT (Claviceps purpurea) was heavy on D. glomerata on the University Campus, Point Grey, B.C. (H.N.W.T.) and was sl. on the same host at St. Laurent, Ile Orleans, Que. (D.L.).

ANTHRACNOSE (Colletotrichum graminicola). Infection was sev. on D. glomerata at St. Pierre, Ile Orleans, Que (D.L.).

RUST (Uromyces dactylidis). Moderate infections were seen on D. glomerata at St. Laurent, Ile Orleans, Que. (D.L.).

ELYMUS-Wild rye

LEAF SPOT (Alternaria tenuis) was mod. on E. junceus at the Exp. Farm, Swift Current, Sask. (J.B.L.).

ROOT ROT (Fusarium culmorum) was mod. in a field at Swift Current, Sask. (J.B.L.).

LEAF SPOT (Septoria ?elymi). Infection was mod. on E. junceus in a plot at Regina, Sask. (B.J.S.).

LOLIUM-Ryegrass

RYEGRASS MOSAIC (ryegrass mosaic virus) was found on L. perenne on roadsides nr. Ladner, B.C. (J.T.S.). This is the first report of this disease to the Survey (D.W.C.).

PHLEUM-Timothy

EYE SPOT (Heterosporium phlei) was mod.-sev. on P. pratense in the St. John's area, Nfld. (O.A.O.).

STEM RUST (Puccinia graminis). Slight-mod. infections were seen at St. Pierre and a mod. infection at St. Laurent, Ile Orleans, Que. (D.L., M.F.).

STRIPE SMUT (Ustilago striiformis). Infection was tr. on P. pratense at St. Pierre, Ile Orleans, Que. (D.L.).

SMUT CONTAMINATION. A sample of timothy seed from the Plant Products Seed Laboratory at Saskatoon, Sask. was found to be contaminated with spores of Ustilago reticulata, probably from Polygonum scabrum according to D.B.O.Savile (B.J.S.).

POA-Bluegrass

STEM RUST (Puccinia graminis) was extremely heavy in a lawn of pure Merion blue grass at Ottawa, Ont. (A.E.S.).

LAWNS AND TURF

SNOW MOLD (low-temperature basidiomycete) was fairly extensive at Drumheller (A.W.H., U.S.) and was rated 2-tr. 6-sl. 2-mod. 14-sev. in the Red Deer and Edmonton areas, Alta.. (J.B.L.).

MELTING-OUT (Bipolaris sorokiniana) occurred at Vulcan, Alta. (A.W.H., D.S.).

ANTHRACNOSE (Colletotrichum graminicola) caused fairly extensive damage in one lawn at Edmonton, Alta.. (A.W.H., D.S.).

LEAF SPOT (Drechslera poae (Baudys) Shoem. = D. vagans (Drechs.) Shoem.) was sev. in a lawn at Lethbridge, Alta. (J.B.L.).

POWDERY MILDEW (Erysiphe graminis) was fairly extensive at Mannville, Alta. and was also conspicuous in lawns at Edmonton (A.W.H., D.S.).

FAIRY RING (Marasmius oreades) was sev. in 7 lawns at Lethbridge, Alta. (J.B.L.) and was common but not damaging in lawns at Saskatoon, Sask. (B.J.S.).

SLIME MOLD (Physarum cinereum). Specimens were received from a lawn at Nicholsville, Kings Co., N.S. (R.G.R.).

DISEASES OF VEGETABLE CROPS

ASPARAGUS

DIE-BACK (Fusarium sp.) was sev. in a large, old planting nr. Milton, Ont. that has shown a decline for several years. The disease was patchy in the field with 5-10% of the plants showing symptoms. Fusarium sp. was isolated from the crowns of several affected plants (J.F.B.).

BEAN

GRAY MOLD (Botrytis cinerea). Infection on pole beans in the Lower Fraser Valley was generally light, about 3-5% kill. Two extremely wet fields, however, were reported to have suffered 50% damage (H.N.W.T.). All 7 fields visited in the Florenceville, N.B. area were affected with the average damage estimated at 4% (S.R.C.). Mod. infections were common in home gardens in P.E.I. (J.E.C.).

ANTHRACNOSE (Colletotrichum lindemuthianum). A large field of green beans nr. Woodbridge, Ont. was 90% infected and loss was sev. Earlier plantings were free nf the disease (J.F.B.). It was tr.-sl. in e. Ont. (R.V.C.). It was tr. in 7/7 fields observed at Florencevible, N.B. (S.R.C.). Fields of 'Jacob's Cattle' beans at Morristown and Grafton, N.S. had 75-100% infection with consequent sev. losses. Tops were dead by mid.-July (K.A.H.). It was widespread in home gardens in P.E.I. (J.E.C.).

HALO BLIGHT (Pseudomonas phaseolicola) is not common in coastal B.C. It was found in 1964 in 1 field in the Matsqui region (H.N.W.T.). Infection was mod. in 1/4 fields of garden beans nr. Bow Island and sl. in 2/2 field bean plantings nr. Burdett, Alta. (F.R.H., J.S.H.). Some centers of slight infection were observed in 2 plantings of 'Michelite' field beans in the Ste. Martine region, Que. (E.L.). Infection was sev. on 50% of the plants in a field of 'Jacob's Cattle' beans also affected by anthracnose at Morristown, N.S. The field was ploughed under to protect an adjacent field of canning beans (K.A.H.).

STEM CANKER (Rhizoctonia solani) affected 2% of the plants of 'Golden Wax' in a home planting at Ottawa, Ont. (D.W.C.)

WILT (Sclerotinia sclerotiorum). Infection of mature pole beans in the Lower Fraser Valley, B.C. was generally light. However, one field at Queensborough on Lulu Island and one on Barnston Island had 100% and 95% kill respectively. Infection was greater on young plants before climbing (H.N.W.T.). It was seen on the variety 'Saginaw' in 1/27 field bean plantings surveyed in s.w. Ont. (M.D.S., V.R.W.). Wilt was tr. in 7/7 fields visited at Florenceville, N.B. (S.R.C.).

RUST (Uromyces phaseoli var. phaseoli) was mod.-sev. in pole bean fields in B.C. where the poles or posts had not been treated. Where they had been dipped in formaldehyde