Kent Co., and 2/8 in Prince Edward Co., and sl. in 2/3 fields in Durham Co., Ont. (A.A.R.).

DAMPING-OFF (Pythium spp. Rhizoctonia solani, and Fusarium spp.) occurred in tr. amounts in 1/5 greenhouses and 2/8 fields in Prince Edward Co., Ont. (A.A.R.).

LEAF SPOT (Septoria lycopersici) was rated tr. in 1/3 greenhouses in Essex Co. and sl. in 1/3 fields in hoth Wentworth and Norfolk counties, Ont. (A.A.R.).

STEM ROT (Sclerotinia sclerotiorum) affected 20% of the plants in 1 field at Homestead, N.B. (S.R.C.).

WILT (Verticillium dahliae). Tr. amounts were found in 1/6 fields in Essex Co. and sl. in 3/4 fields in Kent Co., Ont. (A.A.R.).

BACTERIAL SPOT (Xanthomonas vesicatoria) was reported in tr. amounts in 1/5 fields in Northumberland Co. and in 1/8 fields in Prince Edward Co.; 31-60% infection occurred in 1/3 fields in Northfolk Co., Ont. (A.A.R.).

MOSAIC (cucumber mosaic virus) was reported from Edmonton, Alta. (A.W.H.).

MOSAIC (tobacco mosaic virus). Incidence was 100% in a qreenhouse crop at Lincoln, N.B. (S.R.C.).

GRAY WALL (tobacco mosaic virus) was found in about 8% of the early fruit picked from 3/3 fields at Sheffield, N.R., but later fruit were free from this symptom. (S.R.C.).

BLOSSOM-END ROT (physioloqical) was common in n. Alta. (A.W.H.) and in Sask. was troublesome in locations where tomatoes were crowded or where tree roots comneted for available moisture (R.J.C.). In variety trials at La Pocatiere, Que., 4-6% of the fruit of 'Quebec 314', 'Boule de Feu', and 2 hybrids were affected (H.G.). Tr. incidence (1% fruit affected) was reported from fields in both Kings and Pictou counties N.S. and 1% of the fruit in a field in Antigonish Co. were affected (A.A.MacN.).

BLOTCHY RIPENING (physioloqical). Green streaks on the shoulders of fruit at the stem end were common in tomatoes produced in B.C. during a long hot summer; the flesh beneath such patches was unusually hard (H.N.W.T.). Tr. amounts were seen in 1 greenhouse in Lincoln Co. and in 2/3 qreenhouses and 3/6 fields in Essex Co; and 11-20% incidence was reported from 3/4 fields in Kent Co., Ont. (A.A.R.).

CAT-FACE (physioloqical). Tr. was reported from 1 field at Homestead, N.B. (S.R.C.).

CHEMICAL INJURY. 2,4-D injury was reported from 2 locations in Alta. (A.W.H.).

MAGNESIUM DEFICIENCY was observed in 40% of the crop in 2/3 fields at Waterboro, N.B. (S.R.C.).

FROST DAMAGE occurred in 2/4 fields in Kent Co., Ont.; damage was only tr. (A.A.R.).

HAIL DAMAGE caused sl. damaqe in 1 field examined in Kent Co., Ont. (A.A.R.).

WATERMELON

ALTRRNARIA ROT (Alternaria cucumerina) caused sev. damage to field-grown fruit in N.S. (C.O.G.).

DISEASES OF FRUIT CROPS

A. Pome Fruits

APPLE

CROWN GALL (Agrobacterium tumefaciens). In B.C. incidence was lower than usual in locally grown nursery stock (L.E.L.).

STORAGE ROT. Alternaria sp. was isolated from 60% of a sample of affected 'Golden Russet' apples from Gagetown, N.B., while 'Delicious' and 'Cortland' apples from the same source showed general breakdown (C.L.L.). Alternaria sp. also comprised 90% of the organisms isolated from zonated spots occurring in tr. amounts on apple seedlings in storage at Kentville, N.S. (C.L.L.).

ARMILLARIA ROOT ROT. (Armillaria mellea) affected 30% of the 'Gravenstein' and 'McIntosh' trees in an orchard at Falmouth, N.S.' The affected trees have been declining for the past 3 yrs. (C.L.L.).

FRUIT SPOT (Cylindrosporium pomi = Phoma pomi). Calyx-end rot affected about 5% of 'Northern Spy' fruit in storage at Greenwich, N.S.; Alternaria and Penicillium spp. were also isolated (C.L.L.).

BRULURE BACTERIENNE/FIRE BLIGHT (Erwinia amylovora). L'humidité et la chaleur du début de juin ont favorisé le développement de la brûlure bactérienne. Quelques Lobo et McIntosh ont été trouvées affectés par cette maladie dans un verger de Missisquoi, Qué. La variété McIntosh a également été trouvée atteinte par la maladie à Rougemont, Qué. Enfin, on nous a signal6 des attaques sur les variétés Alexandre et Wolf River (R.D.).

In Alta., fireblight was reported from Olds and Edmonton (A.W.H.) and caused mod. damage to about 20% of the trees in an orchard at Lacombe, where dry weather in

early summer reduced spread to healthy trees (M.D.S.); at Lethbridge fireblight was sev. on trees at a number of private residences (F.R.H.). In Sask. fireblight made no great gains from the previous year, but it was common and caused mod. damage, particularly in ornamental crabs (R.J.L., M.D.S.). In N.S. fireblight was found in only one apple tree, adjacent to a severely affected pear orchard. (C.L.L.).

In Essex County, Ont., fireblight was of moderate severity, comparable with 1966, but definitely less severe than in 1964 and 1963. Blossom blight was observed on apples within 1 week of petal fall (mid-May) and was followed by twig blight from June to August. Apple varieties affected, in order of increasing severity, included 'Red Delicious', 'McIntosh', 'Ida Red', 'Lodi', and 'Jonathan' (R.E.C.L.).

STORAGE ROT (Gloeosporium album) affected 500 bu. of 'Golden Russet' in storage at Allendale, N.S. (C.L.L.).

BULL'S-EYE ROT (Neofabraea perennans), stat. conid. Gloeosporium perennans) was generally light in all areas of central B.C., but at Naramata it was sev. on fruit of young 'McIntosh' trees interplanted among older 'Newtown' trees that were heavily affected by perennial canker (L.E.L.) .

PERENNIAL CANKER (Neofabraea perennans, stat. il Gloeos orium rer light in t fol a very mild winter (L.E.L.).

QUINCE RUST (Gymnosporangium clavipes). At La Pocatiere, Que. incidence was 2-3% on most varieties and 6% on 'Osilda' and 'Anponovska' (H.G.) .

FRUIT ROT (Mucor sp.) was sev. in one shipment to the Kelowna, B.C. packing house. The fungus entered affected fruit at the stem end and soft, watery rot developed in cold storage; sporangia on agar were unbranched (L.E.L.).

CORAL CANKER (Nectria cinnabarina) caused tr. damage to 'Melba' trees in 1 orchard at Gagetown, N.B. Canker was sev. on about 60 trees and reduced yield by more than 50% in a large orchard at Aylesford, N.S., where the disease was been troublesome for a number of years. It was also reported in tr. amounts at Lower Canard, N.S., and caused sev. twig infections at Sheffield Mills, following tr. infection of twigs in 1966 and despite a spray program with dichlone and dodine (C.L.L.).

CROWN OR COLLAR ROT (Phytophthora cactorum) was observed in MM104 and MM111 rootstocks in orchards at Kelowna, Summerland, and Penticton, B.C. (D.L.McI.).

POWDERY MILDEW/BLANC (Podosphaera leucotricha) was more sev. in all fruit-growing districts of B.C. than in the past few years (D.L.McI.) but was apparently less prevalent in the Vancouver area (H.N.W.T.). Mildew was sev. on new growth of 'Cortland' at Greenwich, N.S. and was controlled only after three applications of Karathane (C.O.G.). Des traces de l'oidium du pommier ont été notées sur 'Cortland' dans un verger de Frelighsburg, comté de Missisquoi, Qué. C'est la première fois que cette maladie est mentionnée sur des pommiers adultes au Québec (R.D.).

CALYX-END ROT (probably Sclerotinia sclerotiorum) caused tr. damage in 2/3 orchards at Burton, N.B. (S.R.C.).

FRUIT SPOT (Stemphylium spp.) occurred in a controlled-atmosphere storage at Kelowna, B.C. Only fruit at the top of the bins were affected, always on the upper surface; the rot was firm, black and slightly sunken and did not develop further at room temperature. Infection probably followed low temperature damage (L.E.L.).

SCAB (Venturia inaequalis) was reported on a few fruits of 'Spartan' at Summerland, B.C. (D.L.McI.) and the dry summer resulted in little infection in the Vancouver area (H.N.W.T.). Scab was reported from Olds, Alta., (A.W.H.) . Au Québec, les conditions climatiques ont été très favorables au developpement de la tavelure en 1967. A la fin de juin, la maladie sévissait dans la plupart des regions pomicoles. Les dommages étaient visibles surtout sur les feuilles quoique, dans plusieurs vergers, les pommes étaient atteintes plus ou moins gravement. Un grand nombre de pomiculteurs ont subi des pertes appréciables. On peut dire, toutefois, d'une facon générale que la recolte est commercialement exempte de tavelure, du moins dans certains districts (R.D.). However, sprayed orchards at La Pocatière, Que., were practically free from scab and infection was light on unsprayed trees (H.G.). In N.B. scab was general in most orchards (47/55) but in only 7 did appreciable losses occur (up to 20%). The extremely wet, cool spring resulted in many ascospore discharge periods, making control difficult. Pinpoint scab was of no consequence (S.R.C.).

LEAF PUCKER (virus). Fruit symptoms were mild-mod. on 'McIntosh' in the Okanagan Valley, B.C. ; temperatures were low immediately prior to full bloom but rose to fairly high levels the following week (M.F.W.).

RING RUSSETING (virus). Fruit symptoms on 'Newtown' were mild in the Okanagan Valley, B.C. (M.F.W.).

STEM PITTING (virus). At Bowmanville, Ont. 20-30 trees in a 20-yr-old orchard were found to be in an advanced stage of decline. The affected 'Virginia Crab' trees had been top-worked at 7-8 years of age with 'Spy' scions. Very severe pitting was observed on the trunks and main branches up to the graft

union line. Similar trees top-worked at the same time with 'LaSalle' scions were free from stem-pitting symptoms. The virus was apparently carried by the 'Spy' scions (W.R.A., T.R.D.).

FRUIT DEFORMITY. Inspection of 2210 apple trees in 7 orchards in the Niagara Peninsula at harvest did not reveal any fruit deformity attributable to virus infection. Malformations caused by the rosey apple aphid were unusually prevalent in 3 orchards (T.R.D.). In N.B. fruit deformity of unknown causes occurred in varied incidence from tr. to 28% in 53/55 orchards examined; the 'McIntosh' variety was most frequently affects (S.R.C.). Note also the following from Quebec orchards.

MALFORMATION DES POMMES (Cause inconue). Une malformation chez la pomme 'McIntosh' s'est avérée presque générale dans les regions pomicoles du Québec. Il s'agit ici de sillons originant à l'oeil du fruit et l'apparition de protuberances entre ces derniers. Une enquête révélé un fort pourcentage de ces pommes dans quelques districts, notamment dans le comtk des Deux-Montagnes. On a noté 80%, 70%, 40%, 75%, 80%, etc. de fruits affectés au cours de nos observafions. La malformation a été remarquee à partir du debut de la saison sur la toute petite pomme. Cette malformation résulte vraisemblablement de l'action des basses temperatures que ont sévi au cours du déroulement très lent cette année des divers stades végétatifs. (R.D.).

BITTER PIT (Physiological) was reported sev. on one tree at Gagetown, N.B. (S.R.C.).

MAGNESIUM DEFICIENCY was observed in tr. amounts in 27/55 orchards examined in N.B., and defoliation occurred in trees in a few scattered orchards (S.R.C.).

RUSSETING (spray damage) caused 30% damage in an orchard at Burton, N.B. (S.R.C.).

TACHE AMERE (Physiogenique). Des pommes 'Cortland' et 'Délicieuse' en provenance de deux vergers de Franklin centre, comté d'Huntingdon, Qud., ont été trouvées gravement affectées par la tache amère (R.D.).

WATER CORE (Physiological) was sev. in overripe fruit of early varieties in 2 orchards at Gagetown, N.B. (S.R.C.).

PEAR

LEAF SPOT (Botryosphaeria obtusa). A scattering of infected leaves were observed in an orchard of 'Clapp' and 'Bartlet' pears at Kentville, N.S. (C.O.G.).

FIRE BLIGHT (Erwinia amylovora). In B.C. light infection occurred in some orchards at Summerland after harvest: elsewhere in the Okanagan Valley fire blight was at a very low level (L.E.L.). In N.S. fire blight was active in 21/24 orchards examined and 13 had current active infections. (C.L.L., R.P.L.). In Essex Co., Ont., no blossom blight was observed on pears, but twig blight appeared in June and continued throughout the summer (R.E.C.L.).

CANKER (Nectria cinnabarina). Trace infections were found on 'Clapp' pears at Canard and Bridgetown, N.S. (C.L.L.).

PHYTOPHTHORA FRUIT ROT (Phytophthora cactorum) affected fruit as high as 10 ft. above the ground in an orchard at Lower Canard, N.S. (C.O.G., R.G.R.).

SCAB (Venturia pirina, stat. conid. Fusicladium pyrorum) caused 3% damage in 3/3 orchards examined in N.B. (S.R.C.). At Vancouver, B.C., scab was reported frequently in home gardens (H.N.W.T.).

ANJOU PIT (Cause unknown). Anjou pit or cork spot of 'Anjou' pear caused mod. losses in a number of orchards in several districts throughout the Okanagan Valley, B.C., where it was the first serious occurrence of the disease since 1962. The condition characteristically appears in hot summers and is considered to be a physiological disorder (M.F.W.).

QUINCE

LEAF SPOT (Fabraea maculata) disfigured the leaves of one tree, and fruit spot was seen on locally grown fruit at Vancouver, B.C. (H.N.W.T.).

B. Stone Fruits

APRICOT

CANKER (Cytospora sp.). Cytospora canker was severe on apricots at the Research Station, Harrow, Ont., orchard in 1966 and 1967. Symptoms included the appearance of gum at cankers in spring, dead branches on which buds failed to expand and also, in early summer, of a severe wilt of long shoots that had cankers at their base. (B.N.D.).

FIRE BLIGHT (Erwinia amylovora). A few infected trees were observed in Essex Co., Ont. (R.E.C.L.).

BROWN ROT (Monilinia fructicola) developed in fruit left unpicked in orchards at Summerland, B.C., but carry-over of mummified fruit to the 1968 season was expected to be very light (L.E.L.).