BLAST (unfavorable weather condtions) was mod.-sev. in a 15-acre block at St. Blaise, Que. (R. Crête).

PEA

Pea Disease Survey in certain localities in Ontario, 1958

V.R. Wallen

In 1958, fifteen pea fields were surveyed as follows: twelve fields of canning peas, two fields of field peas and one field of garden peas. The canning peas, with the exception of two fields located near Markham, were all located in the Windsor area. The most prevalent and destructive disease found in the fields examined was pea streak.

Pea Streak (? pea streak virus) was present in slight to severe amounts infecting 20 per cent of the crop in a field of Alton garden peas at Ottawa. This field appeared yellow despite excellent growing conditions during pod formation. At maturity numerous plants did not set seed. Pea streak was also severe in a number of hybrid lines of field peas growing on the Central Experimental Farm. Some lines did not produce any seed. Pea streak was present in trace to moderate amounts in five fields of canning peas in the Windsor area.

Root Rot (Ascochyta pinodella, Fusarium sp.) was present in six fields of canning peas in the Windsor area in trace amounts. Ascochyta pinodella was the cause of the root rot in at least two of the six fields. In the Markham area extremely dry conditions had prevailed and the crop was light. Despite this condition root rot was present in 40 per cent of the crop. A species of Fusarium appeared to be responsible.

Common Mosaic (pea mosaic virus) was found in trace amounts in six fields of canning peas in the Windsor area. One field in the same area where aphid control had not been practiced was moderately infected with the disease.

Pea Enation Mosaic (pea enation mosaic virus) was found in trace amounts in six fields in the Windsor area. This disease was also present as a trace in a field of garden peas at Ottawa.

Pea Stunt (Red clover vein mosaic virus) occurred in one field in the Windsor area causing slight loss to the pea crop.

Bacterial Blight (Pseudomonas pisi). A moderate infection of the leaves and a trace infection on pods was found in a field of Arthur field peas at Ottawa

Mycosphaerella Blight (Mycosphaerella pinodes). A trace infection was located in one field of garden peas at Ottawa.

Leaf and Pod Spot (Ascochyta pisi) was found in trace amounts in one field of canning peas in the Windsor area.

Other Observations

FOOT ROT (Ascochyta pinodella) was sev. at St. Gabriel and St. Pierre Isle Orleans, Que. (L.J. Coulombe).

LEAF AND POD SPOT (Ascochyta pisi) was 1-mod./18 Alta. fields (J.E. Moffatt). In Man. 8/17 fields in the Portage la Prairie and Oakville areas had tr.-sl. infections (W.A.F. Hagborg). Pod infection was 20% at Colinet, Nfld. (O.A. Olsen).

POWDERY MILDEW (Erysiphe polygoni). Damage was generally sev. in gardens in the Saskatoon, Sask. area (R.J. Ledingham). It was tr. in 1/17 Man. fields (W.A.F.H.). Powdery mildew was widespread in N.B. but damage was light (S.R. Colpitts).

NEAR WILT (Fusarium oxysporum f. pisi. race 2). Traces of near wilt, first reported 3 years ago, have now been recorded in nearly all the areas of commercial pea production in s.w. Ont. A 10-acre field of Pride peas near Brantford which appeared to be badly affected with near wilt produced, according to the processor, only about 50% of the expected yield (B.H. MacNeill).

MYCOSPHAERELLA BLIGHT (M. pinodes). Infections were tr.-sl. in 4/17 fields examined in Man. (W.A.F.H.).

DOWNY MILDEW (Peronospora pisi) was 1-mod./18 fields in Alta. (J.E.M.). One field at Bridgetown, N.S. had a 2% infection in June (C.O. Gourley).

BACTERIAL BLIGHT (Pseudomonas pisi) was 11-tr./18 Alta. fields (J.E.M.). It was 4-sl. 1-mod. 1-sev./17 fields in Man. (W.A.F.H.).

LEAF BLOTCH (Septoria pisi) was 1-tr./18 fields examined in Alta. (J.E.M.).

ROOT ROT (various organisms) was 8-tr. 4-sl. 2-mod. 3-sev./18 fields in Alta. and caused an estimated 5% loss (J.E.M.). Specimens from Langham, Sask. were infected with Fusarium and Ascochyta (T.C. Vanterpool). It was 1-tr. 1-mod.-sev./17 fields in Man. (W.A.F.H.). Fusarium root rot was seen at New Richmond, Que. (D. Leblond). Infection was 60% at Fredericton, N.B. and damage was mod. (S.R. Colpitts).

RUST (Uromyces fabae). A 5% infection occurred in a small garden plot at Salisbury, N.B. (S.R.C.). At Kentville, N.S. a light late infection caused negligible damage (K.A.H.).

MOSAIC (Pea mosaic virus). Heavy aphid infestations in Kings Co., N.S. were followed by outbreaks of mosaic in fields where aphids were not controlled early (K.A.H.).

PHYLLODY (? virus). Typical symptoms were observed on a single plant in a garden at Ste. Anne de la Pocatiere, Que. (R.O. Lachance).

MARSH SPOT (Manganese deficiency). Two samples of split peas from carload lots, one grown at Aylesham, Sask. and the other purchases at Morris, Man. but of unknown origin, had the central internal necrosis typical of marsh spot (W.A.F.H.).

PEPPER

VERTICILLIUM WILT (V. ? dahliae). Two pepper fields at Harrow, Ont. were sev. affected. The variety Vinedale has proven to be highly susceptible to Verticillium wilt (C.D. McKeen).

BACTERIAL SPOT (Xanthomonas vesicatoria). At Harrow, Ont. most of a planting of 56,000 pepper plants grown for processing had leaf and fruit symptoms of this disease. Fruit spotting was sufficiently sev. for the processor to reject the field and it was disced under (R.W. Walsh).

VIRUS DISEASES. In 1958 most of the pepper crops in s.w. Ont. became infected with one or more aphid-borne viruses. Losses ranged from 10-15%. The following viruses were isolated and identified: Potato Y, Cucumber mosaic, Alfalfa mosaic and Tobacco etch. Tobacco mosaic virus was also found affecting a few plants in 1 crop. Tobacco etch virus appeared in Ont. in 1950 and since that time has recurred each year in tobacco and pepper crops in the Harrow-Leamington area (C.D.McK.).