D I S E A S E S O F F O R A G E A N D F I B R E C R O P S.

ALFALFA

LEAF SPECK - Pseudopeziza Medicaginis (Lib.) Sacc.

Alta. -
This disease is frequently observed, but it causes slight if any damage. Specimens were collected at Beaverlodge, Peace River district.

Sask. -
Moderate to heavy infections were observed in two locations. Usually the infection is light.

Ont. -
A very heavy infection developed in a 3 year old cover crop in a cherry orchard. This fact suggests that this disease may prove a real factor in the use of alfalfa for such a purpose.

This disease caused only slight infections in Quebec, N. B. and P. E. I.

OTHER DISEASES

ROOT ROT - Sclerotinia Sclerotiorum (Lib.) de Bary.
This disease is reported on alfalfa from Alberta. Not usually serious on this host.

ROOT ROT - Plenodomus Meliloti Dearn. & Sanford.
Common on alfalfa in Alberta. May cause serious damage.

DOWNY MILDEW - Peronospora Trifoliorum de Bary.
Infection was noted only in low lying areas in York county, N. B.

WINTER INJURY - Non-pathogenic.
Injury occurred in some localities in the winter 1928-29, in B. C.

COMMON CLOVER.

RUST - Uromyces Trifolii (Hedwf.) Lev. and U. Trifolii-repentis Liro.

Alta. -
The aecial stage of U. Trifolii-repentis was collected at Wabumun, Alta. Infection light and patchy.

N. B. -
A slight general infection of U. Trifolii was observed in York county.

Common Clover.

N. S. -
A moderate infection of U. Trifolii was reported on second growth of red clover in a field at Annapolis causing slight leaf wilting.

P. E. I. -
As rust is said to be common on all clovers in P. E. I., it is probable that both species have been seen there.

LEAF SPOT - Pseudopeziza Trifolii (Biv.-Bern.) Fuck.

P. E. I. -
Common about Charlottetown, but not important.

N. B. - Slight infection was reported in York county.

SOOTY SPOT - Lothidella Trifolii (Pers.) Bayl.-Elliott & Stansf. (Polythrincium Trifolii Kunze).

Que. -
General south of Montreal on white clover. A collection of sooty spot was made at Murray Bay on alsike clover. Infection light.

N. B. -
Slight infection of sooty spot in York county.

P. E. I. -
Common on clovers at the Experimental Farm, Charlottetown.

POWDERY MILDEW - Erysiphe Polygoni DC.

B. C. -
Mildew was general on red clover.

Que. -
Reported on white clover from Rougement.

N. B. -
Slight general infection in York county.

N. S. -
Most of the second growth in hayfields showed scattered to general infection of mildew.

P. E. I. -
Mildew reported as general throughout the province on red clover.

DOWNY MILDEW - Peronospora Trifoliorum de Bary.

This disease occurred generally over Prince Edward Island, but it caused very little damage.

MOSAIC - Virus disease.

B. C. -
This trouble occurred to a slight extent throughout the Okanagan Valley on white clover.

N. B. -
Only isolated specimens were observed to be diseased in York county.

P. E. I. -
Plants affected with mosaic were recorded at several places near or on the Experimental Farm, Charlottetown.

SWEET CLOVER.

STEM CANKER - Ascochyta Meliloti (Trel.) Davis.

Alta. -
Light infection of stem canker was present. Specimens were collected at Edmonton.

Sask. -
Stems of the first crop stubble were found rather heavily diseased at Clavet.

Man. -
Collected at Dauphin on yellow sweet clover.

ROOT ROT - Sclerotinia Sclerotiorum (Lib.) de Bary.

This root rot caused some damage in Alberta, principally on sweet clover.

ROOT ROT - Plenodomas Meliloti Dearn. & Sanford.

This disease was common in Alberta especially on sweet clover, on which crop the damage was often severe. Certain of the experimental plots at Saskatoon were heavily diseased probably by the same fungus.

CORN.

COMMON SMUT - Ustilago Zeae (Beck.) Unger.

Ont. -
Specimens sent for determination from Maitland and Vankleek Hill.

Corn.

Que. -
Up to 4 per cent of the plants were found infected in six home gardens at Ste. Anne de Pocatiere. It was reported as not very common in Iberville township, St. Johns county.

N. B. -
Infection was reported as slight in York county.

RUST - Puccinia Sorghi Schw.

Traces of rust were observed and collected at the Experimental Station, Charlottetown, P. E. I.

FLAX.

WILT - Fusarium Lini Bolley.

Alta. -
In a varietal test at Vermilion, Premost was susceptible while North Dakota 52, Crown and Novelty were partially resistant.

Sask. -
Specimens sent from the Dominion Experimental Station, Swift Current were affected with wilt, but the extent of the damage was not reported.

RUST - Melampsora Lini (Pers.) Desm.

Traces of rust were reported from Saskatchewan.

SUNFLOWER

WILT - Sclerotinia Sclerotiorum (Lib.) de Bary.

Alta. -
Observed on sunflower. Caused some damage.

Sask. -
Caused the death of a dozen plants in a small planting on the Experimental Station, Rosthern.

Que. --
Four per cent infection observed in one field at Ste. Anne de la Pocatiere. The disease did not seem to spread rapidly this year. Infected plants were very scattered.

N. B. - Slight infection was reported in York county.

N. S. -
The disease was present in 2 fields at Hortonville, infection being trace and 5% respectively. This disease was found only in Kings county. Not over 2 per cent of the plants were affected in any one field except at Kentville.

Sunflower.

RUST - Puccinia Helianthi Schw.

Sask. -
Traces of the aecial stage were reported from Indian Head and Saskatoon, on July 2 and July 16 respectively. Only a trace of the uredinial stage was present on Aug. 23 at Indian Head.

N. B. -
Slight infection recorded for York county.

N. S. -
Rust was present on Mammoth Russian at the Experimental Station, Kentville.

LEAF SPOT - Septoria Helianthi Ell. & Kellerm.

Alta. -
This leaf spot was collected at Edmonton.

N. S. -
This disease was prevalent on several pure lines and varieties of sunflower.

DOWNY MILDEW - Plasmopora Halstedii (Farl.) Serl. & de Toni.

This disease was observed at Hortonville, N. S., where the diseased plants were very dwarfed and stunted. About one per cent of the plants were infected. This is the first report of the disease from Nova Scotia.

CHLOROSIS - Cause unknown.

A chlorosis of sunflower was observed at Melfort and on the Experimental Station, Rosthern, Sask., by R. C. Russell. The symptoms as described by him are as follows:-
Rosthern - Some plants were stunted to half the average height of the healthy and were entirely chlorotic. Others were only partially chlorotic and slightly or not at all stunted, chlorosis being largely confined to the upper leaves. Roots were normal.
Melfort - In addition to the above symptoms some of the chlorotic plants were dead and in some cases one side of a plant or a leaf was chlorotic while the remaining portion was green.

CULTIVATED GRASSES.

Awnless Brome (Bromus inemis).
Ergot (Claviceps purpurea (Fr.) Tul. was found at Cardston, Alta.

Cultivated Grasses.

Broom Millet (Panicum miliaceum).
Smut (Sorosporium Panici-miliacei (Pers.) Takah.) A trace of this smut was observed at Indian Head, Sask.

Sudan Grass (Holcus Sorghum sudanensis).
Bacterial leaf spot (Bacillus Sorghi Burr.) was collected at Edmonton, Alta.

Timothy (Phleum pratense L.)

Stem rust (Puccinia graminis Pers. var Phlei-pratenis (Erikss. & Henn.) Stakm. & Piemeisel) scattered infections of stem rust were observed, especially from Edmonton southward. Less frequent than last year. Caused no loss. Traces of rust were also reported from P. E. I.

Leaf spot (Heteropsorium Phlei Gregory) was present in Alberta, but it was of very slight importance.

Western Rye Grass (Agropyron tenerum)
Smut (Ustilago bromivora (Tul.) Fisch.) caused severe damage in small plots at Edmonton and Claresholm, Alta.

Ergot (Claviceps purpurea) was collected at Wembly, Alta.

MISCELLANEOUS CROPS

Hemp.
Specimens of hemp affected with a Fusarium were collected at Vermilion, Alta.

Soy Bean.
Mosaic (virus) was severe in the plots at the Summerland Experimental Station, B. C.

Buckwheat.
Leaf spot (Ramularia rufomaculans Pk.) was of general occurrence at St. Cesaire, Que.

Vetch.
Leaf spot (Ascochyta sp.) was recorded on vetch at the Experimental Station, Charlottetown, P. E. I.