Seedling Blight (Rhizoctonia solani) was recorded in 4 of the 6 fields surveyed in southern Alberta, Two showed trace infections, 1 was slightly affected and one had a severe infection.

RAPESEED?

Rape Diseases in Saskatchewan in 1959

T. C. Vanterpool

Estimates place the rape acreage in Saskatchewan for 1959 at 171,000 acres with an average yield of 848 lb. per acre. Most of the acreage is situated in the parkbelt in the north and east portions of the province. The low soil moisture prevailing in May was largely responsible for uneven germination, especially in many fields on the open prairie. Continued drought during June and July, together with above-normal sunshine and temperatures, resulted in heat and drought damage in the same area, Fungus diseases were negligible on the prairie but were more prevalent in the parkbelt where moister conditions favor both the rape and the diseases which attack it. In general, because of the disease and frost hazards in the northern areas, prairie grown seed is superior. The early maturing Polish type of rape appears to escape some diseases which affect the later Argentine type.

White Rust (Albugo cruciferarum S, F. Gray = A, candida (Pers. ex Chev.) Kuntze) was present throughout the parkbelt, usually as trace infections but with a few fields showing moderate infection, The hypertrophies present were due entirely to A, cruciferarum, Moderately affected fields occurred at Brooksby, Armley, Shipman and in the Meadow Lake area, Trace to slight infections were recorded in 20 other fields. In the drier prairie area the disease was observed in only one field at Saskatoon. Here the variety Golden showed slight leaf lesioning while the earlier maturing Arlo had escaped infection.

Aster Yellows occurred as a trace in six fields and was slight in one field in the parkbelt, This latter field, at Meadow Lake, also contained stinkweed (Thlaspi arvense) with yellows.

Powdery Mildew (Erysiphe polygoni) developed on plants in the greenhouse at Saskatoon. It seems not to have been previously reported on this host from Saskatchewan.

Ring Spot (Mycosphaerella brassicicola), This fungus, which was first collected on rape stubble near Annaheim and Lake Lenore in Sept., 1958, has now been identified, The causal organism has been obtained in culture from diseased stems and seed, The finding of ring spot in east-central Saskatchewan is interesting in view of the fact that the disease is recorded as being limited to moist coastal areas of the world and that there is still uncertainty as to whether or not it may be seed-borne. (Nelson and Pound. Phytopathology 49: 633-640, 1959). This is the first report of this fungus from Saskatchewan and of its occurrence on rape in Canada.

Black Spot (Alternaria spp.) was observed as trace infections only in the August survey.

Black Mold (Alternaria spp.) developed in profusion on Albugo hypertrophies in late maturing fields in the north and northeast portions of the province. The hypertrophies were then very conspicuous and readily noticed by growers who may have missed them earlier, The development of black mold, following the late August and early September rains, suggests that black spot would increase the areas where it was present in traces earlier, thus increasing seed-borne infections by Alternaria.

Stem Rot (Sclerotinia sclerotiorum) was present in trace amounts in some fields in the Aylsham area, This disease must pass unnoticed in most years as it flares up suddenly in moist seasons, when it can become the most serious disease on rape in the province.

Seed samples from widely scattered points on the Canadian Prairies

obtained in culture: Alternaria spp., Botrytis cinerea, Fusarium acuminatum, F. poae, Mycosphaerella brassicicola, Penicillium spp., Rhizoctonia praticola, R. solani, Rhizopus nigricans and miscellaneous saprophytes,

A suspected mineral deficiency of unknown cause occurred in a crop on a podsol soil north of North Battleford. The leaves were pale yellowish-green with darker green areas near the veins.

SAFFLOWER

LEAF SPOT (Alternaria carthami). A sl, infection was seen on a specimen from the Edmonton, Alta. area (E.J. Hawn).

RUST (Puccinia carthami) was presept in irrigated test plots at Lethbridge, Alta, (E.J.H.).

SOYBEAN

Diseases and Disorders of Soybeans in Ontario in 1959

A, A, Hildebrand

Soybean pathology in southwestern Ontario in 1959 was highlighted by three points of more than usual interest and significance.

(a) the extremely low and variable germination of 1959-harvested seed,
(b) the widespread and frequently locally serious incidence of Phytophthora-incited stalk-and root rot.
(c) the localized high incidence of purple stain of seed.

Of the above phenomena, the first is by far the most important. In fact, the low germinability of 1959 seed is without precedent in Ontario and threatens