in September, followed by snow in early October, prevented harvesting of much of the flax crop in the fall.

Fifty-dne fields of flax were examined at various times in 1959. Seven fields were checked for the presence of aster yellows on July 15; 25 fields were searched for the same disease July 31 and August 1; 17 fields in the Elm Creek to Rathwell area were examined, primarily for rust, on August 26; and 2 fields were checked for pasmo development, on September 15.

Yellows (Aster yellows virus, California strain) was not significant on flax in 1959. The flax was too young for symptoms to be apparent in 3 of the fields examined in mid-July, and in 2 of the fields in late July. Yellows was present in trace amounts in 20 fields in the first two surveys; affected 1 to 3 per cent of the plants in 6 fields, and 8 per cent in 1 field, In the late August survey, 5 fields were free of yellows, 9 fields showed a trace, 2 fields had 5 per cent, and 1 field 10 per cent. All 4 fields with 5 per cent or more yellows were in the Haywood - St. Claude area.

Rust (Melampsora lini) was found in only 4 fields, all in the Haywood - St. Claude area, Only 1 rusted plant was fodnd in 1 field, and traces in 1 field, Forty per cent of the plants had some rust in 1 field, and 90 per cent of the plants were rusted in 1 field. Infections were not heavy on individual plants and all the rust was in the telial stage.

Pasmo (Septoria linicola) affected from trace to 5 per cent of the stem area in 9 fields, 10 to 20 per cent in 5 fields, and 30 to 40 per cent in 2 fields.

Boll Blight (physiologic) affected 5-15 per cent of the bolls in 5 fields, and 20-30 per cent in 10 fields.

Flax Diseases in Alberta in 1959

W. P. Campbell and J. S. Horricks

A limited flax disease survey was carried out in Alberta with the senior author surveying 14 fields in the north and central areas and the junior author observing 6 fields in the south.

Rust (Melampsora lini) was observed only at Fort Vermilion where it was severe in 1 field of Redwing. Resistant varieties planted nearby were unaffected.

Browning and Stem Break (Polyspora lini) occurred only in the northern areas. One field showed moderate browning near Grand Prairie and a trace of stem break was seen in a field near Peace River. Up to 10 per cent of the plants were affected in 6 fields near Fort Vermilion,

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.