DISEASES OF SUNFLOWERS IN WESTERN CANADA IN 1964

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The sunflower acreage in western Canada in 1964 was about 80,000 acres of which 48,000 were planted in Manitoba, and the balance in Saskatchewan and Alberta. Nearly 70% of the total acreage in Manitoba was planted to Peredovik, a variety excelling in yield and oil content compared with the older variety Mennonite and the hybrids Admiral and Advent, Almost the entire acreage in the other provinoes was planted to Peredovik.

Disease surveys in Manitoba on September 3 and 10 were made in 21,12 and 7 fields of Peredovik, Mennonite and hybrid varieties, respectively. The spring and summer in Manitoba were cool and precipitation was above normal in June. The average yield per acre in Manitoba is estimated to be less than 600 lbs. A much higher average yield of 900 - 1000 lbs was estimated in early September but two days with below-freezing temperatures in mid–September caused severe reductions in yield as well as in oil content.

Rust (Puccinia helianthi Schw.) was not found in fields of hybrid varieties and occurred in all fields of the other two varieties. Of the latter, 23 fields showed only traces of rust and in the other 10 fields 50–100 per cent of the plants were only lightly infected. Damage duo to rust was negligible.

Leaf mottle (Verticillium albo-atrum Reinke & Berth,) caused less damage this year than in the previous three seasons. Symptom expression was mild in general. Differences in susceptibility botween Peredovik on the one hand, and Mennonite and hybrid varieties on the other hand were suggested by the proportions of fields with different disease incidences (Table 1).

Table 1. Incidence of leaf mottle in fields of different varieties

Diseases plants in field	Peredovik	Mennonite	Hybrid
0%	8/21*	1/12	1/7
less than 1%	5/21	2/12	3/7
5–20%	8/21	4/12	2/7
50–100%	0/21	5/12	1/7

* Proportion of fields

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Sclerotinia wilt (Sclerotinia sclerotiorum (Lib,) DeBy) caused little damage. It was absent in 23 fields and affected a few to 2% of the plants