# DISEASES OF FIELD BEANS IN WESTERN ONTARIO IN 1961

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Surveys were conducted in western Ontario during 1961 to determine the incidence of bean diseases and estimate the damage they caused. The diseases encountered, and their relative importance, are listed below.

Sunscald (nonparasitic). When most bean varieties are approaching maturity, sunscald may occur on any parts of the plant exposed to the sun. On some bush-bean varieties this disorder may appear as early as two to three weeks before maturity. In 1961 sunscald was most severe on the early-maturing varieties, Sanilac and Seaway, planted in late May or early June, and least severe on the late-maturing variety, Michelite. The prevalence of sunscald and the consequent defoliation and abortion of the upper pods was responsible for most of the concern expressed by bean growers this year, On the basis of field observation and reports from bean growers, an estimated loss of ten bushels per acre was incurred in iields severely affected by this disorder,

White Mold (Sclerotinia sclerotiorum) caused more damage than usual in Ontario in 1961; humid conditions in July and August being conducive to its development in some areas. It was most severe where vine growth was heaviest. An estimated loss of five to ten bushels per acre occurred in severely diseased fields, The bacterial blights, (Xanthomonas phaseoli and Pseudornonas phaseolicola) were widespread on all varieties in Ontario and most apparent on the early-maturing variety, Sanilac. However, in the aggregate, they did not cause appreciable damage.

Root Rot (Fusarium solani f. phaseoli) was present in many fields but was generally of only slight economic importance, It occurred chiefly on beans grown in heavy clay soils or in low areas which were flooded during the growing season. An estimated loss of fifteen to twenty bushels per acre occurred in a few severely affected fields.

Rust (Uromyces phaseoli) was found only rarely and infections were not severe.

Mosaic (virus) was of rare occurrence and was seen mainly on Michelite and several unlicensed varieties. The low incidence of mosaic in 1961 may be attributed to the paucity of vectors,.

The results of these surveys indicate that sunscald and Sclerotina wilt and rot caused the most reduction in yield of white beans. Although root rots and bacterial blights continue to threaten, they were not the most important diseases of beans in western Ontario in 1961.

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