

QUEENSLAND DEPARTMENT OF PRIMARY INDUSTRIES

INCIDENCE OF COCHLIOBOLUS SATIVUS IN QUEENSLAND
WHEAT CROPS

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Environmental and soil conditions in Queensland are widely different from those in Saskatchewan, Canada, yet *Cochliobolus sativus* (Ito & Kuribay.) Drechsl. ex Dast., the dominant fungus pathogen responsible for common root rot of wheat in Saskatchewan, is also a component of the root and crown rot complex in Queensland.

During the 1964 wheat season a survey of 24 fields, comprising a variety of soil types, revealed that 22% of the wheat plants sampled were infected with *C. sativus*. In individual fields the incidence of *C. sativus* ranged from 0 to 76%. About half of the fields either were free of the organism or had a very low incidence. This possibly is a reflection of the great diversity of crops grown on the grey-black clays and brigalow soils of Queensland and demonstrates the possibilities of control of *C. sativus* through crop rotation.

It is extremely difficult to assess the damage in Queensland fields caused by *C. sativus*. This fungus is not as progressive a pathogen as *Fusarium graminearum* Schw. and in Saskatchewan *C. sativus* is best known for its debilitating effect on wheat. It seldom causes outright killing of plants. It thrives best and causes the most injury when soil temperatures are high and when moisture is limiting. The Queensland wheat crops, grown as they are over the winter season, are less subject to high soil temperatures, at least until nearing maturity, and for this reason they may well escape the worst effects of *C. sativus*.

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