

## BIPOLARIS IRIDIS ON IRIS IN BRITISH COLUMBIA

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In May, 1968, P. Froese and B. Lawson of the Vancouver office of the Plant Protection Division submitted diseased specimens of the bulbous iris (*Iris xiphium* L.) of cultivars 'Wedgewood', 'Imperator' and 'Blue Ribbon' to the Divisional Central Identification Laboratory, Ottawa, for confirmation of the causal organism, which had been identified in the field as *Heterosporium iridis* (Fautr. & Room.) Jacques. *H. iridis* was found on some of the leaves. However, the most frequently observed fungus was *Bipolaris iridis* (Oudemans) Dickinson, which was reported on bulbous iris in the Netherlands and Ireland (1). This fungus has not been reported previously in North America. Illustrations are provided from specimen DAOM 119240 (Fig. 1).

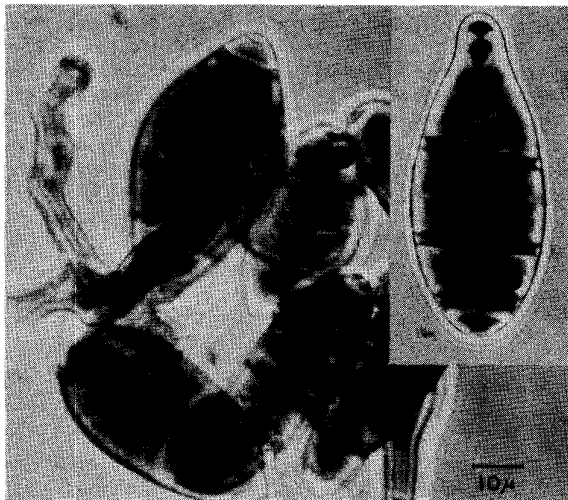


Figure 1. Conidio and conidiophores of *Bipolaris iridis*, DAOM 119240,

Approximately 15% of a one-acre field of iris grown for cut flower production at Richmond, British Columbia, was infected. An examination of numerous diseased plants showed that both fungi were generally present. The disease was first noticed on heavily infected 'Wedgewood' volunteers, and was then observed as a light infection on current

crop 'Wedgewood', as well as on 'Imperator' and 'Blue Ribbon' growing near the volunteers. The source of the 1968 infection appears to have been the 'Wedgewood' volunteers, which carried the fungus over from the previous year on the dry outer bulb scales. There were no other iris fields in the vicinity and the grower had maintained the same 'Wedgewood' stock for 15 years. The grower stated that he had observed a similar disease in his iris crop in previous years, but it had never caused as much injury as in 1968.

The disease made its appearance as the plants approached maturity. *B. iridis* grew most profusely on the older leaves but was also found on the younger leaves, on the flower stalks and occasionally on the flowers. The first symptoms were chlorotic streaks of various lengths that became brown before conidia were produced. Darkening of the chlorotic streaks was not observed on the floral parts. Fusoid, glossy, brown-black conidia were produced in large numbers on the lower leaves but less profusely on the upper parts of the plant and vary sparsely on the flowers. At the time of conidium production, the original streak lesions had broadened and coalesced, so that up to 50% of some lower leaves was covered with conidia. The color of these massed conidia is of some assistance as an aid in distinguishing this fungus from *H. iridis* in the field, since the latter produced masses of conidia that are olive-brown as compared with the brown-black conidia of *B. iridis*.

### Literature cited

1. Dickinson, C. H. 1966. *Bipolaris iridis* (Oudemans) Comb. Nov. Trans. Brit. Mycol. Soc. 49:577-578.

## DISEASES OF POTATO IN MANITOBA IN 1968<sup>1</sup>

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*Verticillium albo-atrum* Reinke & Berth. was the principal pathogen of 'Irish Cobbler' potato in a field near Winkler, Manitoba, in 1968. Approximately 25% of the plants in the 40-acre field showed symptoms of wilt. Potatoes had been grown in this field in 1964 and 1966, and the inoculum level apparently increased rapidly as a result of the short crop rotation. In 1966 the senior author isolated *V. albo-atrum* from 'Kennebec' potatoes in another 10-acre field near Winkler that showed 8% wilt. The fungus from the latter field produced typical resting mycelium and conidiophores with pigmented bases.

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