

Cleistothecia of *Sphaerotheca macularis* on strawberry leaves in Nova Scotia¹

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Cleistothecia of the powdery mildew fungus, *Sphaerotheca macularis*, were found on leaves of the strawberry cultivar Micmac in September 1978. This is a new record for Nova Scotia and the only previous report of cleistothecia on this host in Canada was from British Columbia.

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Des cleistothèces de *Sphaerotheca macularis* champignon de l'oidium (blanc) du fraisier, ont été observées en septembre 1978 sur les feuilles du cultivar Micmac. C'est la première fois qu'on constate cette forme en Nouvelle-Ecosse; auparavant la seule autre province au Canada où l'on avait signalé la présence de cleistothèces était la Colombie-Britannique.

In Nova Scotia the *Acrosporium* (= *Oidium*) conidial state of the powdery mildew fungus, *Sphaerotheca macularis* (Wallr. ex Fr.) P. Magn., occurs annually on many of the strawberry cultivars used for commercial production. Mildew symptoms are most noticeable on the foliage and infections often become severe during August and September. Cleistothecia, the ascocarps of *S. macularis*, have been reported on strawberry leaves in Canada only from British Columbia, DAOM 118253, (2).

Strawberry cultivars vary in their susceptibility to powdery mildew and in the expression of symptoms on leaves. On some cultivars the first evidence of mildew is a reddish or necrotic, generally circular area on the surface of the leaf resulting from aggregated subsurface infections. On other cultivars the only evidence of infection is fungal mycelium ramifying over the undersurface of the leaf. The mycelium may aggregate on the undersurface and produce conidia in the vee areas formed by the junction of leaf ribs. On the most susceptible cultivars, conidia may form anywhere on the undersurface of the leaves.

In September, 1978, throughout the province, cleistothecia of *S. macularis* occurred in abundance on the undersurface of powdery mildewed leaves of Micmac, a recently introduced cultivar from the Kentville breeding program (1). Micmac foliage provided an ideal substrate for the formation and maturation of the cleistothecia of this obligate parasite, a phenomenon not observed on other cultivars in this province. Although the conidial state of *S. macularis* occurs wherever strawberries are grown, this is the first report of the formation of cleistothecia on strawberry leaves in Nova Scotia.

Specimens were deposited in the mycological herbarium at the Biosystematics Research Institute, Ottawa, as DAOM 170962 and 170963.

Literature cited

1. Craig, D. L., L. E. Aalders and G. W. Bishop. 1978. Micmac strawberry. *Can. J. Plant Sci.* 58: 903-904.
2. Parmelee, J. A. 1977. The fungi of Ontario. II. Erysiphaceae (mildews). *Can. J. Bot.* 55: 1972.

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