

University turf grass varietal trial plots. The varieties that were most severely damaged were those that remained green into October. Varieties that became semi-dormant in October were not seriously affected by rust but some of these varieties showed considerable Septoria infection.

In late October 1971, small circular dead patches were observed in the University bentgrass greens. Fusarium nivale (Fr.) Ces. was isolated from the diseased grass.

Several other diseases of only occasional occurrence were identified during the survey period. Red thread caused by Corticium fuciforme (Berk.) Wakef. was observed at a Winnipeg golf course in July 1968. This disease was likely favored by the cool moist weather prevailing at the time. In June 1970 brown patch caused by Rhizoctonia solani Kühn was observed in the University bentgrass plots.

FIRST RECORD OF SEPTORIA DIGITALIS IN CANADA

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In July 1972, seedsman F.O. Blake of Milner, British Columbia, applied to the B.C. Department of Agriculture for inspection of a crop of Digitalis lanata Ehr. being grown for seed on Southern Vancouver Island. The potential buyer in England requested certification that the crop was free of Septoria digitalis Pass. and Colletotrichum fuscum Laub., as a requirement for possible re-export to Australia.

A field inspection carried out by the Victoria office of the Plant Protection Division, Canada Department of Agriculture, revealed that up to 75% of the plants in the 0.5 acre field were affected by a conspicuous leaf blotch. Microscopic examination by R.G. Atkinson, Canada Department of Agriculture Research Station, Saanichton, showed the causal organism to be a Septoria. Final identification as S. digitalis Pass. was made by J.A. Parmelee, Plant Research Institute, Canada Department of Agriculture, Ottawa, who found good comparison with a fungus exsiccatus in DAOM from Italy (Sacc., Myc. Ital. 558).

By inquiring into the history of this planting, it was found that the seed originated from a nearby farm where the crop had been grown for approximately 30 years. As the disease is known to be seed-borne (1), it is presumed that it has occurred in the

area for many years but had not been previously recognized. Examination of young seedlings ready for planting out showed no apparent infection, thus it seems likely that, under our conditions, the crop must remain in the field over the wet winter and spring seasons before infection becomes extensive.

Septoria leaf spot can be an important disease in crops grown for leaf as it has been shown to reduce the yield of cardiac glycosides (used in the treatment of heart disease) from approximately 0.473% in healthy leaves to 0.121% in severely infected leaves (2). Because S. digitalis is carried as pycnidiospores on the surface of the seed, it seems likely that appropriate seed disinfection procedures would help to reduce spread to new areas. Seed treatment with captan or thiram has been reported as successful (1).



Figure 1. Leaves of Digitalis lanata showing irregular lesions with purple borders and pale centers, typical of infection by Septoria digitalis.

Literature cited

1. Kljajic, R. 1958. Septoria digitalis Pass. parazit lekovitih Digitalis spp. u Jugoslaviji. Spec. Edit. Inst. Plant Prot., Beograd, 52 p.
2. Petricic, J., and R. Kljajic. 1959. Über den Einfluss des Parasitenpilzes Septoria digitalis Pass. auf die Menge der Wirkstoffe in folium Digitalis Pass. Pharm. 98 Zentralh. 98(12):647-651.

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