

Fusarium oxysporum isolated from potato tubers in Newfoundland¹

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Fusarium oxysporum was isolated from lesions appearing at harvest on potato tubers grown in central and eastern Newfoundland in 1974 and 1975.

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Fusarium oxysporum a été isolé de lésions apparaissant à la récolte sur des tubercules de pommes de terre cultivées, en 1974-1975, dans le centre et l'est de Terre-Neuve.

Potato tubers bearing small sunken lesions at harvest were submitted for examination at the Agriculture Canada Research Station, St. John's, Newfoundland. The potato specimens originated in fields in central and eastern Newfoundland. It was reported that similar lesions appear on all types of potatoes yearly in the higher, well drained parts of the affected fields (M. Stapleton, personal communication).

In tubers submitted in 1974 and 1975 the sunken areas were smooth with darkened skin devoid of pycnidia and averaged 2 mm in depth and up to 15 mm in diameter. Occasionally brown, powdery cellular masses lined the skin. The edge of the lesion was crenulated or serrated. Tissue bits removed aseptically from the lesion borders and incubated on potato dextrose agar yielded pure colonies of *Fusarium* sp. Subcultures submitted to the Biosystematics Research Institute, Ottawa, were identified as *Fusarium oxysporum* Schlecht (R.A. Shoemaker, personal communication).

Dry rot caused by *Fusarium* spp. has been reported in Newfoundland as a storage problem (1). However the tubers under consideration were taken from fields in early harvest. Elsewhere in Canada wilt attributed frequently to *F. oxysporum* has been reported from many potato growing areas (1), and *F. oxysporum* has also been isolated from rotted tubers in storage (2,3). In Ontario *Fusarium* spp. have been associated with small shallow lesions surrounding the lenticels of potato tubers at harvest (4) This note is the first report in the literature of *F. oxysporum* affecting potato crops in Newfoundland.

Literature cited

1. Conners, I.L. 1967. An annotated index of plant diseases in Canada. Can. Dep. Agric. Publ. 1251. 381 p.
2. Gordon, W.L. 1941. Page 44 in Conners, I.L. [Compiler]. 20th Annu. Rep. Can. Plant Dis. Surv. 1940.
3. Hurst, R.R. 1942. Page 44 in Conners, I.L. [Compiler]. 21st Annu. Rep. Can. Plant Dis. Surv. 1941.
4. Richardson, F.K. 1954. Page 70 in Conners, I.L. [Compiler]. 33rd Annu. Rep. Can. Plant Dis. Surv. 1953.

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