Outbreak of tomato late blight in Ontario

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A serious outbreak of tomato late blight caused by ***Phytophthora infestans*** is reported in Ontario in 1976 for the first time in 16 years.

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On signale la premiere apparition en 16 ans d'un grave foyer de mildiou de la tomate ***(Phytophthora infestans)*** en Ontario.

Early in August 1976, a serious disease was noted on field tomatoes (***Lycopersicum esculentum*** Mill.) cultivars Heinz 1350 and Rideau in Prince Edward County, Ontario (Fig. 1). It was diagnosed as late blight caused by ***Phytophthora infestans*** (Mont.) de Bary. The symptoms observed were dark, water-soaked spots on the leaves and stems and dark olivaceous, greasy-appearing spots on the fruits. Downy-white mycelial growth was easily located on the lower surfaces of lesions on the leaves and sporangia and sporangiophores of ***P. infestans*** were readily obtained.

Of five fields ranging from **20** to 40 ha. visited in Prince Edward County on August 10, 1976, two were severely affected by ***P. infestans*** (more than ***50%*** infected plants); the others were only mildly affected.

During the first week of August in Prince Edward County the weather was generally warm (max. 26°C) during the day and cool (min. 9°C), humid, and very foggy at night. These conditions favor late blight (1) and we believe they were responsible for the severity of the outbreak this year.

In 1940 an outbreak of late blight was reported for the first time in Ontario when P. ***infestans*** caused serious rot on tomato fruits during the early part of the canning season (2). According to Conners and Savile (3). tomato late blight was again epidemic in 1946. The last late blight outbreak in Ontario occurred in 1960 (4).

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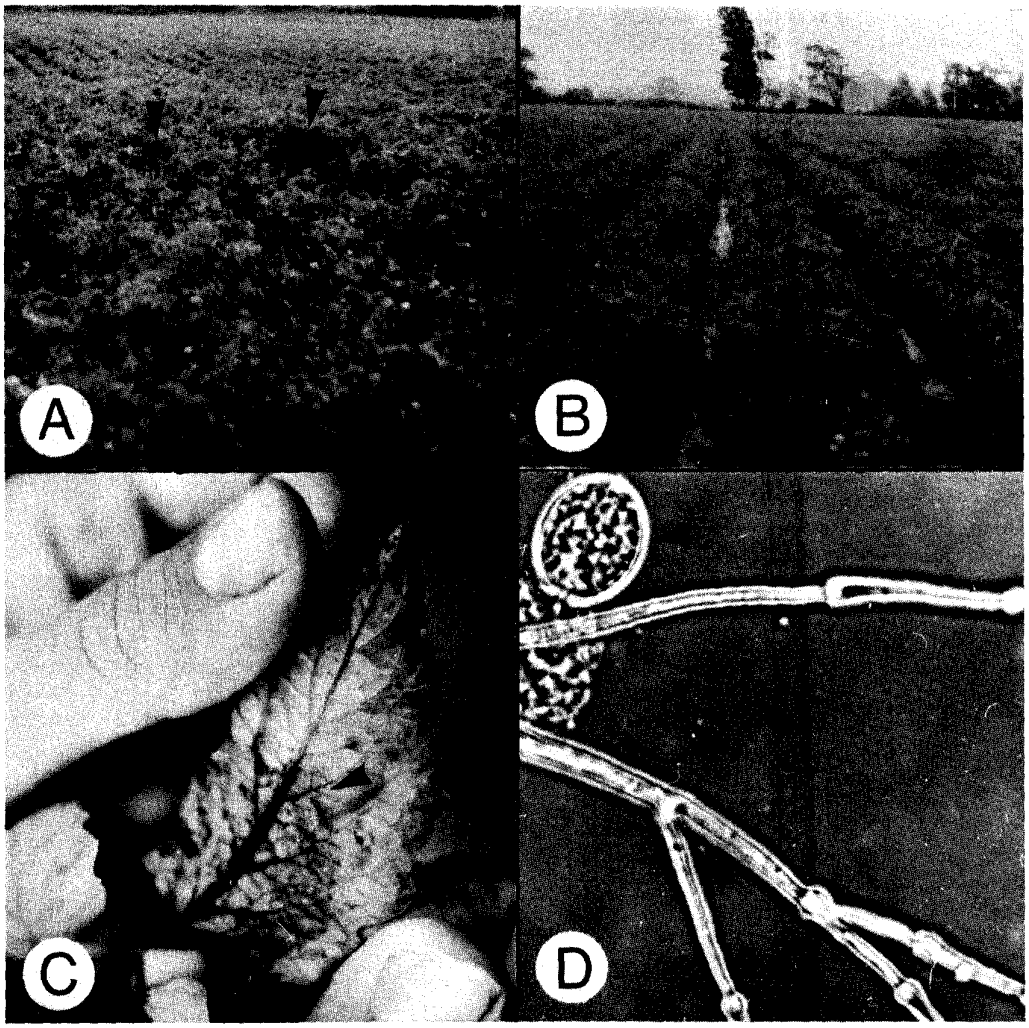

Figure 1. Tomato late blight. A) A spot in a field of 'Heinz 1350' tomatoes (arrows) severely affected by *P. infestans*. B) Normal, symptomless field tomatoes. C) Dark, water-soaked lesion (arrow) caused by *P. infestans* on a tomato leaf. D) Sporangium (arrow) and sporangiophore of *P. infestans*.