

**THE SPREAD OF BACTERIAL WILT (*PSEUDOMONAS SOLANACEARUM*)
OF POTATO THROUGH THE USE OF DISEASED SEED**

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Bacterial wilt of potatoes in cooler climates and higher elevations is caused by *Pseudomonas solanacearum* biovar 2 of Hayward² or race 3 of Buddenhagen¹. At higher temperatures and lower elevations, it is caused by Hayward's biovar 3 or Buddenhagen's race 1. In Sri Lanka, only biovar 2 occurs in the cool up-country wet zone of the Nuwara Eliya District while biovar 3 is found at lower elevations³.

SECTION B

In an investigation of a recent outbreak of bacterial wilt in the Jaffna District in fields around Urelu, Kopay, Urumpirai, Uduvil and Chankanai, isolates of the pathogen were obtained from diseased plants and their biovars determined. Sixteen of twenty-two isolates examined were of biovar 2, the typical cool temperature type, and the remaining six biovar 3.

The commerce of seed potatoes is a lucrative business. Farmers in the Jaffna and Badulla Districts, who are unable to obtain their requirements of certified seed potatoes from official sources, purchase potatoes for use as seed from private dealers who trade uncertified seed potatoes obtained from growers in the Nuwara Eliya and Badulla Districts.

It is evident that this outbreak of bacterial wilt in the Jaffna District has been caused by the use of uncertified seed, infected with *Pseudomonas solanacearum*, purchased from private dealers, a recognised means of spread of the disease to areas where it was not previously known.

This outbreak of bacterial wilt is both a warning and a challenge. Farmers must not use uncertified seed potatoes, the health status of which is uncertain. Also, the need for farmers to obtain uncertified seed potatoes must be prevented by an effective programme of seed potato production recognising disease aspects which is long overdue.

References

1. Buddenhagen, I. W., et al. (1962). Designation of races of *Pseudomonas solanacearum*. *Phytopathology*, **52**, 726.
2. Hayward, A. C. (1964). Characteristics of *Pseudomonas solanacearum*, *J. Appl. Bact.*, **27**, 265-77.
3. Seneviratne, S. N. de S. (1969). On the occurrence of *Pseudomonas solanacearum* in the hill country of Ceylon, *J. Hort. Sci.*, **44**, 393-402.