

# ARC-Roodeplaat develops its Gene banks strategy

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A new variant of PVY namely PVY<sup>NTN</sup> was recently identified in South Africa. Although it is not a wide spread problem yet, it emphasises the importance of virus control measures.

In a publication by the Economic and Social Council of the United Nations (TRADE/WP.7/GE/2004/12, 5 January 2004) the occurrence and biology of the virus is discussed. The disease was first reported in Hungary in 1980 and over the past 10 years it has been recorded in most European countries.

As with the other PVY strains, the virus is transmitted non-persistently by aphids. A high infection pressure results from high aphid numbers and a high incidence of infected plants in a potato crop or in adjacent potato crops or volunteer potatoes. The use of non-certified seed (farm saved seed) is especially a risk.

This virus is also detected by the ELISA test. It is however a greater threat than

PVY in that it not only causes leaf symptoms but also tuber symptoms which result in yield losses. The skin of the tuber shows irregular brownish coloured rings, which turn necrotic and sink into the tuber, forming necrotic arcs in the flesh and cracking the skin at the surface. These symptoms led to it being called potato tuber necrotic ring spot disease (PTNRD).

Cultivars react differently to infection. Symptoms in the growing plant may vary from very mild to severe mosaic and in the tuber from strong tuber necrosis to none. There is often a poor relationship between the development of symptoms on the growing plant and on the tubers of a cultivar. Consequently there is not a strong correlation between the level of virus disease in the growing crop and the incidence of necrotic symptoms on the tubers.

## **Tolerances in the South African Potato Certification Scheme**

The regulation with regard to PVY<sup>NTN</sup> is discussed in the article "Die bestuur van die virusprobleem" in CHIPS.



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