



## NECROSIS IN *SOLANUM TUBEROSUM* STEMS INFECTED WITH POTATO VIRUS Y BY GRAFTING

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This work examined the distribution of necrosis on stems of two cultivars of potato (*Anta*, *Glada*) with different levels of resistance to PVY infection. Potato virus Y particles and/or cytoplasmic (CI) and amorphous inclusions (AI) were identified in insert and offshoot potato cells of susceptible cv. *Glada*. Cytoplasmic inclusions were not observed in insert and offshoot stems of resistant cv. *Anta*, although there were numerous deformations, degeneration and tissue necrosis. It was found that (1) necrotic reactions were the form of plant cell response for both the PVY-resistant and susceptible cultivars, (2) development of necrosis in vascular tissue did not prevent the pathogen from spreading outside the necrotic region in the less resistant cultivar (*Glada*), and (3) extreme resistance to PVY in potato plants, determined by the  $Ry_{sto}$  gene, was manifested in the absence of virus particles and cytoplasmic inclusions in infected plant cells.

**Key Words:** Necrotic reaction, PVY inclusions,  $Ry_{sto}$  gene, cell ultrastructure, PVY spread.

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