

Identification and classification of plant viruses

Diagnosis of plant viruses



Plants with symptoms

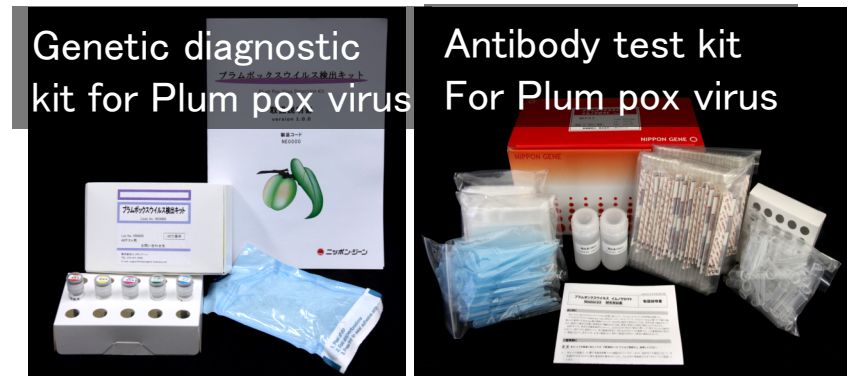
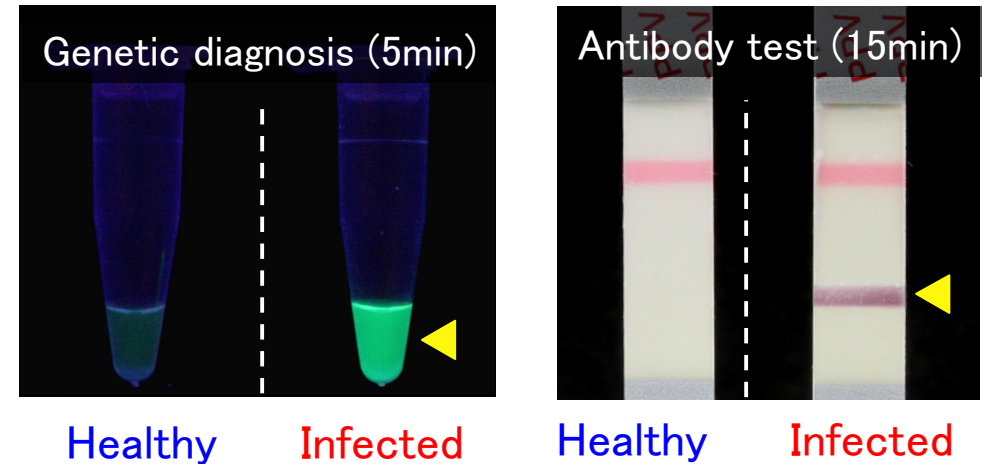
Sequencing analysis of viral genomic RNA

Comparison with available viral genome sequences

Identification of viral species



Development of rapid and sensitive diagnostic kit



Establishment of a rapid diagnostic techniques of plant viruses

Systemic necrosis shares several features with a conventional true resistance



True resistance

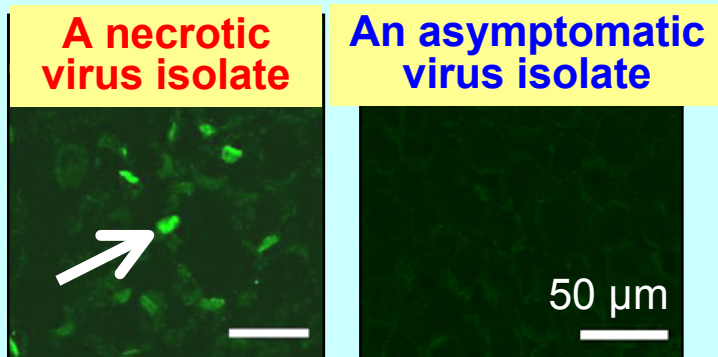


Continuous responses

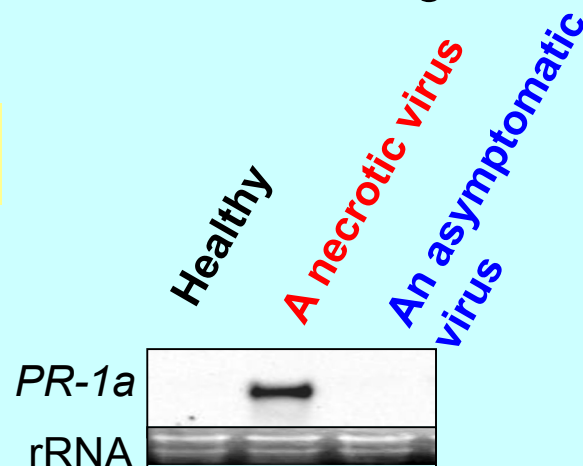


Systemic necrosis

- Induction of programmed cell death (green fluorescence)

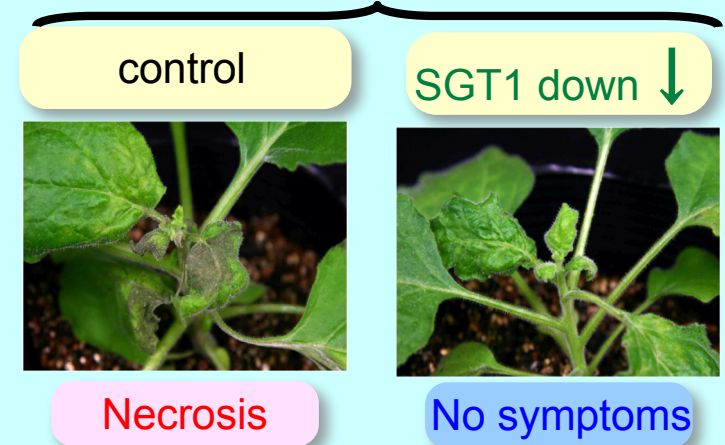


- Induced expression of defense-related genes

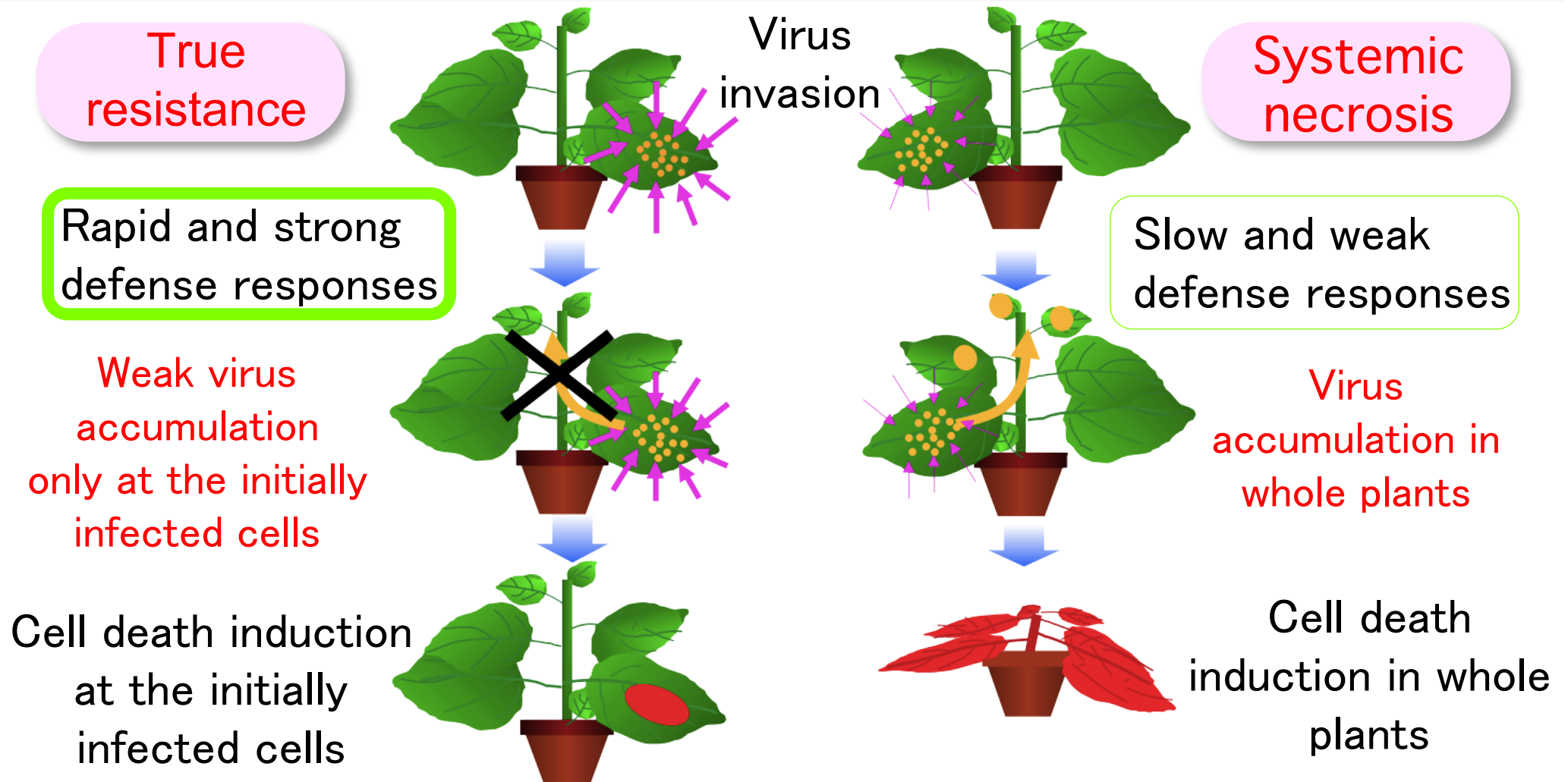


- Involvement of host factors required for true resistance

Infection with a necrotic virus



Mechanisms underlying induction of systemic necrosis



More rapid and strong induction of plant defense responses may confer plants resistance against viruses