

Plant Pathogenic Bacteria

A Basic Guide to Symptoms

Fen Beed

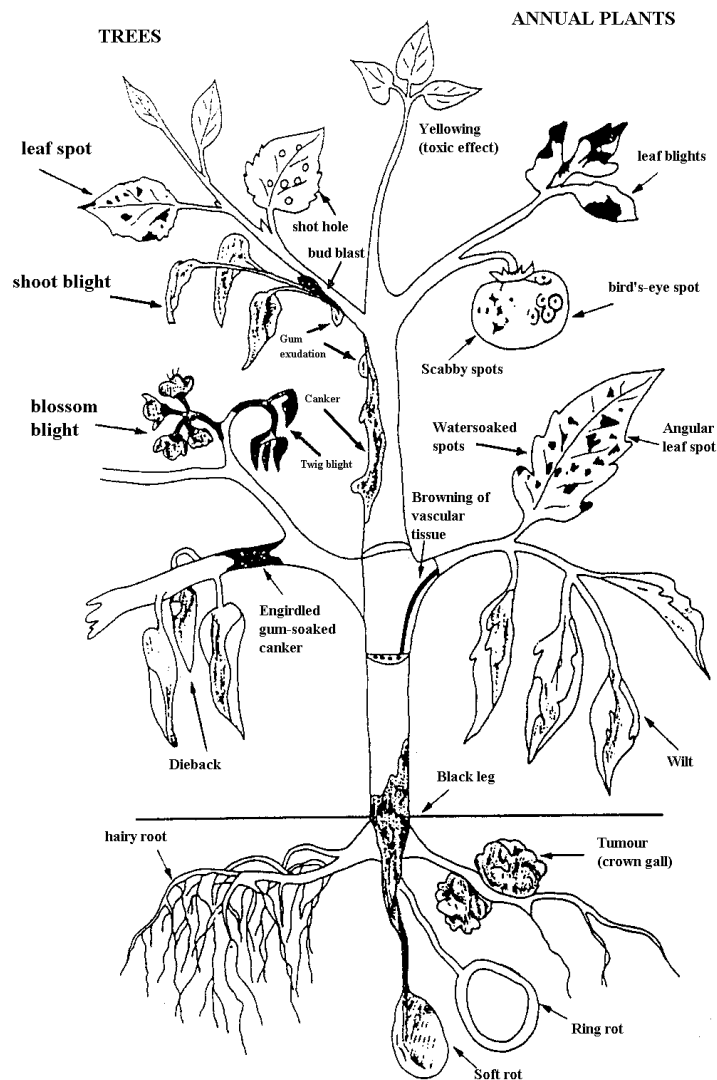
Regional Director for East and Southeast Asia and Oceania



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Module 1**

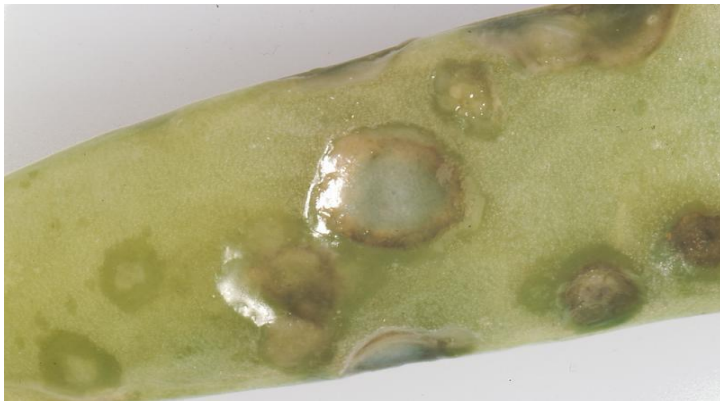


Types of symptoms



- Leaf stem and fruit spots and necrosis
- Cell poliferation
- Die back & cankers
- Wilts
- Soft rots

Leaf and pod spots and necrosis



Cell proliferations



Dieback and cankers



Wilt



Soft rot



Ralstonia solanacearum



Clavibacter michiganensis subsp. *sepedonicus*



Pectobacterium atroseptica



Dickeya [Erwinia] chrysanthemi



Xanthomonas fragariae

[Angular leaf spot]

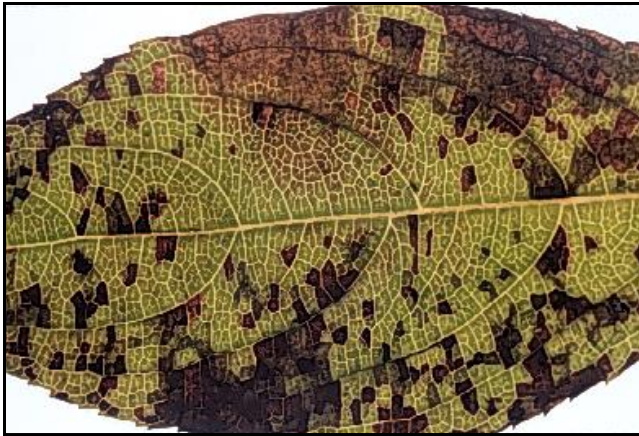


Xanthomonas arboricola pv. *fragariae*

[Bacterial leaf blight of strawberry]



Xanthomonas sp. on novel hosts



Xanthomonas cynarae



Pseudomonas syringae pv. *pisi*



Pseudomonas syringae



P. s. aptata on sugar beet



P. syringae pv. *viburni*

Pseudomonas syringae



Xanthomonas axonopodis pv. *citri*



Xanthomonas hortorum pv. *pelargonii*



Burkholderia pv. *alliicola*



Field and laboratory diagnosis – quick tests



Lateral Flow Device for Bacterial Wilt to aid field observations
[also used for *R. solanacearum* testing of Pelargonium in Kenya]

When you have a strong indication of the causal organism, quick diagnostic tests can be very useful

An increasing number of such kits are becoming available for bacteria and other plant pests

