



# Bean root rot and wilt

*Fusarium oxysporum*; *Fusarium solani* In Sinhala – “Bonchi mul kunuweema ha melaweema”; In Tamil – Bonchi ver Alucal

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 Bean stem infected with the fungus (Photo – K.P. Somachandra, Research field RARDC, Bandarawela)	<ul style="list-style-type: none"> <li>• Avoid planting in waterlogged areas</li> <li>• Deep plough to improve soil drainage</li> <li>• Apply lime (2 t/ha) to increase soil pH at least two weeks before planting</li> <li>• Prepare narrow and raised beds for planting</li> <li>• Mix rice husk charcoal (3-5 kg/m<sup>2</sup>) at land preparation</li> <li>• Use treated seeds (see yellow direct control)</li> <li>• Use well decomposed organic manures</li> <li>• Avoid excessive use of fertilizers, especially nitrogen</li> <li>• Crop rotation with non-legumes can help prevent the disease</li> <li>• Avoidance of drought stress also helps to prevent the disease as drought stressed plant are more susceptible</li> </ul>	<ul style="list-style-type: none"> <li>• Initially the margins of mature leaves become yellowish green</li> <li>• Then the whole leaf will turn into yellow and drop off</li> <li>• These symptoms appear progressively on older leaves and sometimes the whole vine may die</li> <li>• Look for dark brown discoloration of the vascular system in a split stem</li> <li>• In severely infected plants the pith and cortical tissues are invaded by the fungus</li> </ul>	<ul style="list-style-type: none"> <li>• Improve soil drainage</li> <li>• Over irrigation should be avoided.</li> </ul>	<ul style="list-style-type: none"> <li>• Use protective clothing when applying pesticides</li> <li>• Don't eat or drink while using pesticides and take suitable precautions when disposing of materials</li> <li>• Thiophanate methyl seed treatments ((2 g of Thiophanate methyl 70% WP with 1 kg of seeds)</li> <li>• Apply Thiophanate methyl 70% WP; 30 g/50 l of water for 10m<sup>2</sup></li> <li>• Apply Thiram 80% WP 70 g/50 l for 10 m<sup>2</sup> as a soil drench at the onset of disease</li> </ul>	<ul style="list-style-type: none"> <li>• Very toxic to aquatic animals. WHO class U (unlikely present to acute hazard)</li> <li>• Do not drench when rain imminent. Very toxic to aquatic animals. WHO class U (unlikely present to acute hazard)</li> <li>• Do not drench when rain imminent. WHO class II (moderately hazardous)</li> </ul>
 External symptoms ((Photo – K.P. Somachandra, Research field RARDC, Bandarawela)					

## Sri Lanka

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