




Common bacterial blight on Bean

Xanthomonas axonopodis pv. *phaseoli* Chiwawu cha nyemba

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 Symptoms on bean crop (Howard F. Schwartz, Colorado State University, Bugwood.org)	<ul style="list-style-type: none"> • Use disease free certified seed • Practice crop rotation with non host crops like maize and groundnuts for at least 2-3 years to break disease cycle • Remove volunteer bean plants after harvest and before planting as they act as a source of inoculum • Deep ploughing after harvest to bury the infected crop debris and encourage decomposition • Suspend field operation when plants are wet to avoid spreading the disease • Do not save and use seeds from the previous infected fields 	<ul style="list-style-type: none"> • Start monitoring two weeks post seedling emergence and weekly until pod formation • Look for water soaked dark spots under the leaf • Leaf spots enlarge and merge to form a large brown irregular lesion with a yellow margin • Stems rot at the first node where cotyledons are attached causing the plant to break • On pods look for sunken lesions with reddish brown boarder • Under wet conditions look for yellow slimy bacterial exudates that ooze out of the lesion • Carry out direct controls as soon as symptoms are seen 	<ul style="list-style-type: none"> • Uproot and burn all infected plants • Spray recommended insecticides indicated in the Yellow Direct Control section 	<ul style="list-style-type: none"> • Use personal protective equipment when handling and applying pesticides, follow the label recommendations. Do not eat, drink, smoke when mixing or applying pesticides. • Foliar application of Copper oxychloride 860g/Kg WP (Kocide) at 300-400g per 100 litres of water. Copper oxychloride is a bactericide with contact, multisite action. FRAC group: M1 	<ul style="list-style-type: none"> • WHO Class II (Moderately Hazardous). Apply at 14 day intervals. Do not breathe spray. Harmful if swallowed. Very toxic to aquatic organisms.
 Symptoms on bean leaf (Phil Taylor, CABI)					
 Symptoms on pods (Howard F. Schwartz, Colorado State University, Bugwood.org)					



Malawi

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