

# Bean rust

*Uromyces phaseoli*, local name: Kutu ya maharagwe (Swahili)



Bean rust spots on bean leaf (Photo by AgrEvo)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> <li>Practice two year crop rotation with non-leguminous plants.</li> <li>Remove and burn old crop residues since the disease can live for one year on the material left in the field.</li> <li>Plant resistant varieties like GLP-X 1127 new mwezi moja, New rose coco, Kutuleless (J12).</li> <li>Use clean bean seeds originating from non-diseased plants or from certified seeds dealers.</li> <li>Deep plough to about 45 cm to turn residues into the soil to encourage rotting of the plant remains and reduce the amount of fungal disease carried over to the next bean season.</li> <li>Plant bean seeds during the end of the rainy season and not at the start of rainy season because bean rust thrives during the wet conditions.</li> <li>Maintain weed free field in particular remove alternate host crops e.g. <i>Oxalis spp.</i></li> </ul>	<ul style="list-style-type: none"> <li>Monitor for small orange to yellow halo like powdery pustules on the upper side and orange to red circular pustules on the lower leaf surface.</li> <li>Lesions are found on the petioles, pods and the stem but more abundant on the leaves.</li> <li>Consider applying chemicals when two to three leaves per plant get affected.</li> </ul>	<ul style="list-style-type: none"> <li>Pick affected leaves, place in a plastic bag and destroy as soon as possible to prevent spores from spread</li> <li>Avoid walking through the field during wet weather to prevent disease spread from one plant to another.</li> <li>Pick affected leaves into the polythene bags (prevents spread) and burn them.</li> </ul>	<ul style="list-style-type: none"> <li>Hexaconazole (e.g. Anvil)</li> </ul>	<ul style="list-style-type: none"> <li>Slightly hazardous (WHO Class III)</li> </ul>
			<ul style="list-style-type: none"> <li>Chlorothalonil (e.g. Daconil)</li> </ul>	<ul style="list-style-type: none"> <li>Unlikely to cause harm in normal use (WHO Class U)</li> <li>FRAC mode of action 3.</li> <li>Toxic to aquatic organisms.</li> <li>Do not spray near surface water or empty into water drains.</li> </ul>
			<ul style="list-style-type: none"> <li>Mancozeb</li> </ul>	<ul style="list-style-type: none"> <li>Unlikely to cause harm in normal use (WHO Class U)</li> <li>FRAC mode of action 3.</li> <li>Toxic to aquatic organisms.</li> <li>Do not spray near surface water or empty into water drains.</li> </ul>
			<ul style="list-style-type: none"> <li>General</li> </ul>	<ul style="list-style-type: none"> <li>Always use PPE and follow the instructions on the product label (dosage, timing of application and pre-harvest interval)</li> </ul>



## Kenya

CREATED: July 2013

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