

# Bean blight

*Xanthomonas axonopodis* pv. *Phaseoli*



Brown spots with wide yellow halos caused by bean blight (V.R. Wallen, Agriculture and Agri-Food Canada, [www.bugwood.org](http://www.bugwood.org))



Spots, some water-soaked, others brown, on the pods. Roughly circular and joining together (Howard F. Schwartz, Colorado State University, [www.bugwood.org](http://www.bugwood.org))

Prevention	Monitoring	Direct Control
<ul style="list-style-type: none"> <li>● <b>Use seed that is certified/free from bacterial infection</b></li> <li>● Use tolerant or resistant varieties if available</li> <li>● For smallholders who save their own seed:                             <ul style="list-style-type: none"> <li>● Select plants for seed without marks on the leaves or pods (disease symptoms)</li> <li>● If most plants show symptoms, do not use them as a source of seed</li> <li>● Sterilize the seed. Use heat treatment (20 minutes at 52°C) and a certified antibacterial agent (try this on just a few seeds first)</li> </ul> </li> <li>● <b>Remove weeds, volunteer beans and other legume crops from the field before planting and as they appear. This eliminates sources of the bacterium and improves aeration</b></li> <li>● Do not plant new crops next to infested crops</li> <li>● Use maize as an intercrop; it reduces spread of the bacterium between bean plants by creating a physical barrier</li> <li>● <b>Allow plants to dry before allowing workers or machinery to enter the field to prevent the spread of the bacterium</b></li> <li>● Avoid over-irrigation</li> <li>● <b>Rotate crops of beans every 2-3 years with non-susceptible crops, e.g. maize</b></li> </ul>	<ul style="list-style-type: none"> <li>● Relevant crops: common bean (snap or French bean), <i>Phaseolus</i> spp., including <i>Phaseolus vulgaris</i>, and <i>Vigna</i> beans</li> <li>● Monitor for symptoms from seedlings to harvest, especially during favourable conditions (wet weather and temperatures between 28-32°C):                             <ul style="list-style-type: none"> <li>● Seedlings: spots which then produce spores to infect other leaves</li> <li>● Leaves: small angular spots that look water-soaked, expanding as large brown dead areas. Spots may continue to expand and the leaves appear burnt and become torn</li> <li>● Stems: dark streaks becoming lighter as they age</li> <li>● Pods: spots are water-soaked at first, becoming red-brown and sunken, mostly circular. A yellow liquid containing bacteria seeps out of the spots when plants are wet and humidity is high. In severe cases, the pods shrivel and die</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● <b>After harvest, collect and burn or plough back the diseased crop. The bacterium probably survives only a few months in soil in the absence of a host</b></li> </ul>

Note: Pesticides may be available to control this pest. Please check with the Ministry of Agriculture in your country to find out which pesticides are registered in your country and the local restrictions for their use.