

## Cabbage

Black rot caused by *Xanthomonas campestris* pv. *campestris* is one of the most damaging diseases of crucifers wherever they are grown. Susceptible hosts include broccoli, Brussels sprouts, cabbage, cauliflower, kale, rutabaga, and turnip, as well as weeds in the cruciferous family such as shepherd's purse and wild mustard. Yield and quality losses may be high when environmental conditions are conducive for disease development. On seedlings, cotyledons may turn black and drop off. Lesions appear on leaves as yellow, V-shaped spots along the leaf edge, with the base of the V usually directed along a vein. As the lesions expand, the tissue wilts and becomes necrotic. The infection may move up or down the petiole and spread through the stem into the roots. The veins of infected leaves, stems, petioles, and roots become black as the bacterium multiplies and shuts off the flow of nutrients to plant parts. When affected stems are cut crosswise, the vascular ring appears black. Yellow bacterial ooze may exude from cut tissues. The use of clean seed is important in preventing the disease. Seedling rates should not be too high as the dense foliage aids in disease development. Sprinkler irrigation should be avoided. Fields should only be worked when the foliage is dry. Transplants or seed should not be grown in a spot that has been in crucifers the last 3 years. Plants with visible symptoms should be pulled up and removed from the vicinity of the field. Deep plowing helps break down crop residue faster and should be practiced where practical.

## Cabbage Black Rot- *Xanthomonas campestris* pv. *campestris*

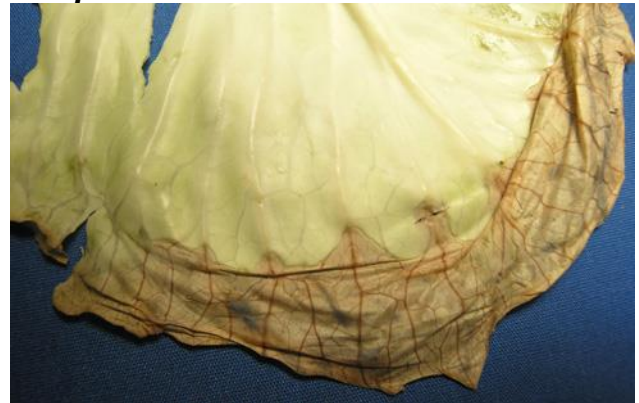


Photo by Sherrie Smith, University of Arkansas  
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