

Bacterial stalk rot

Erwinia chrysanthemi pv. *zear*, syn. *Erwinia carotovora* f. sp. *zear*

This pathogen appears in areas with high temperatures and high relative humidity. It spreads rapidly in the host plant and quickly kills it.

Infected plants show a dark color and water soaking at the base of the stalk (Photos 80, 81) and lodge, dying shortly after tasseling.

The bacterial decomposition produces a characteristic, unpleasant odor.



80

81





82

83



Stewart's wilt

Erwinia stewartii, syn. *Pantoea stewartii*

The pathogen is reportedly transmitted by maize flea beetles (*Chaetocnema pulicaria*) and also at very low frequency through infected seed. With early infection, lesions are first water-soaked, turning long and pale yellow with irregular margins running the length of the leaves (Photo 82). Infection may move into the stem, causing a general stunting, wilting, and plant death. Severely infected plants that set seed develop small nubbins with few kernels. Late infection can cause severe leaf necrosis but does not lead to wilting (Photo 83).

Feeding wounds from the insect vector serve as points of entry for the pathogen, which is carried from one season to the next by the flea beetle.

Bacterial leaf stripe

Pseudomonas rubrilineans, syn. *P. avenae*, *Acidovorax avenae* subsp. *avenae*

No substantial crop damage has been reported from this disease, although it may be of concern where susceptible germplasm is being utilized in certain hot and humid areas.

Bacterial stripe affects susceptible maize plants from seedling to post-flowering stages. Leaves develop several small, pale-green lesions. Under optimum weather conditions, lesions expand along veins producing a conspicuous striping, mainly in the youngest leaves; stripes later dry and brown (Photo 84), often with shredding of the infected leaf tissue. Severe damage of the top leaves results in tassel rotting, when dead leaves enclose the tassel (Photo 85).

84



85



