

### Disease Development

Disease is vectored by corn flea beetles:

- Bacteria overwinter in insect gut
- Beetles feed on plants in spring
- Insect "etches" leaves (whitish areas in photos)

Two Phases of Disease:

- Early season systemic wilt
- Later season foliar blight



### Symptoms: Early season systemic wilt

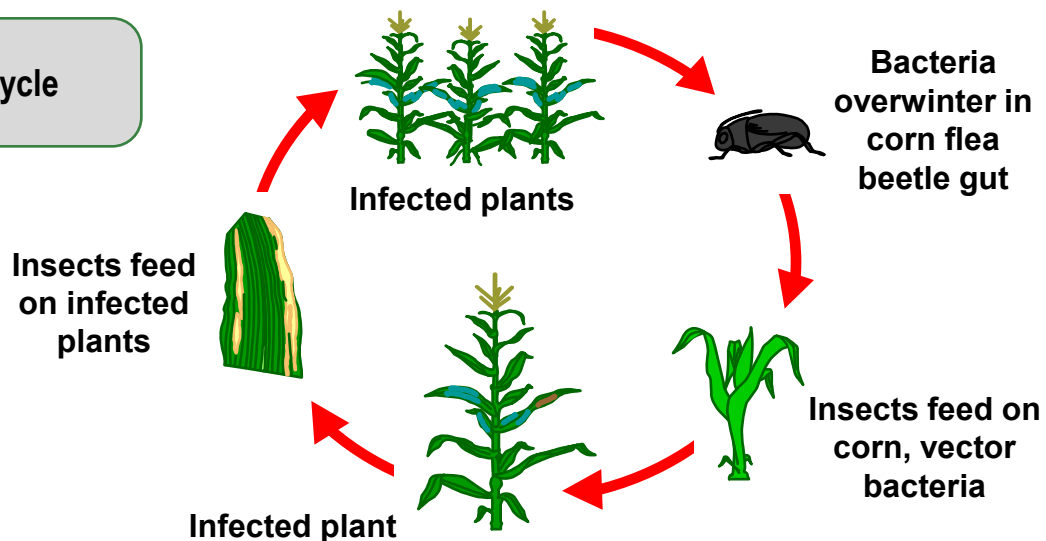
- Occur soon after plant emergence
- Yellowed or bleached leaf streaks (above)
- Internal vascular discoloration, crown decay, rot (below)
- This phase of disease may result in plant death



Flea beetles (small black insects) feeding on young corn plants



### Disease cycle





### Symptoms: Later season foliar blight

- After tasseling
- Fully developed typical elongated lesions
- Lesions are long, narrow and have a wavy margin
- Yellowish border may be present
- Note blackish appearance of lesions (saprophytic fungal spore production)
- This disease phase rarely results in plant death, but may pre-dispose for stalk rots



### Stewart's Wilt Impact on Crops

Yield loss from this disease may occur for a number of reasons:

- Early season systemic wilt reduces stands and weakens plants
- Foliar symptoms reduce functional leaf area, reducing photosynthesis and sugar production
- Stalk rot potential is increased
  - When demand for sugars to fill the ear exceeds supply from damaged leaves, the plant takes available sugars from stalks instead, increasing stalk rot potential

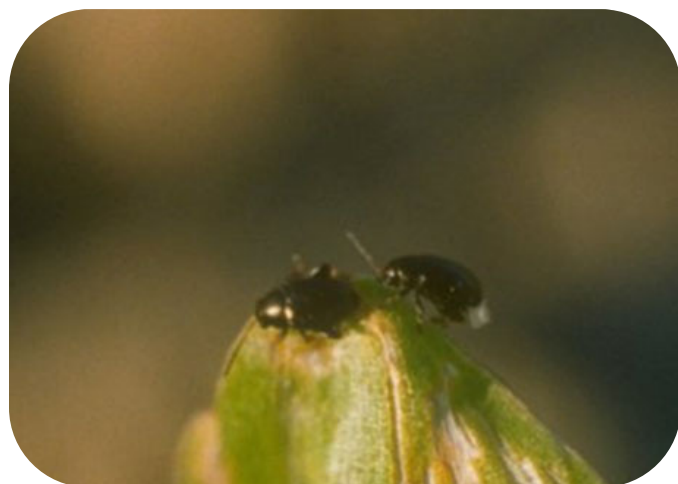
### Management

#### Plant resistant hybrids

- Pioneer rates its hybrids for resistance
- Contact your local Pioneer sales professional

#### Control Flea Beetles

- Systemic insecticide seed treatments help to reduce flea beetle populations
- Foliar insecticides may be needed in some cases
  - Scout for flea beetles and apply insecticides if insect populations exceed thresholds established by your state
- Predict flea beetle / Stewart's wilt occurrence
  - Sum the mean temperature for the months of Dec, Jan and Feb
  - Risk increases with the sum of mean temperature – See extension materials from your state



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