



# GOSS'S WILT IN CORN

Pioneer has been screening and breeding for Goss's wilt resistance for decades in the Central US. Pioneer Canada researchers have been able to leverage this US experience and knowledge to diagnose, characterize and select resistant early maturity genetics locally.

Goss's wilt is a bacterial disease in corn that originated in Nebraska and has recently moved east across the corn belt. It has been confirmed in upper mid-west corn belts, which includes parts of Western Canada.

Goss's Wilt has been confirmed in Manitoba, East Central Saskatchewan and Southern Alberta.

## Symptoms of the Disease

1. Freckles. Dark green to black water-soaked spots, often near lesion edges.
2. Shiny exudate. Bacteria ooze to leaf surface and may appear shiny after drying.
3. Vascular bundle discoloration. This indicates systemic wilt, less common than the later season foliar blight symptoms. Vascular bundles may have orange coloration that turns brown to black after disease progresses.



Goss's Wilt infected ears



Healthy ears

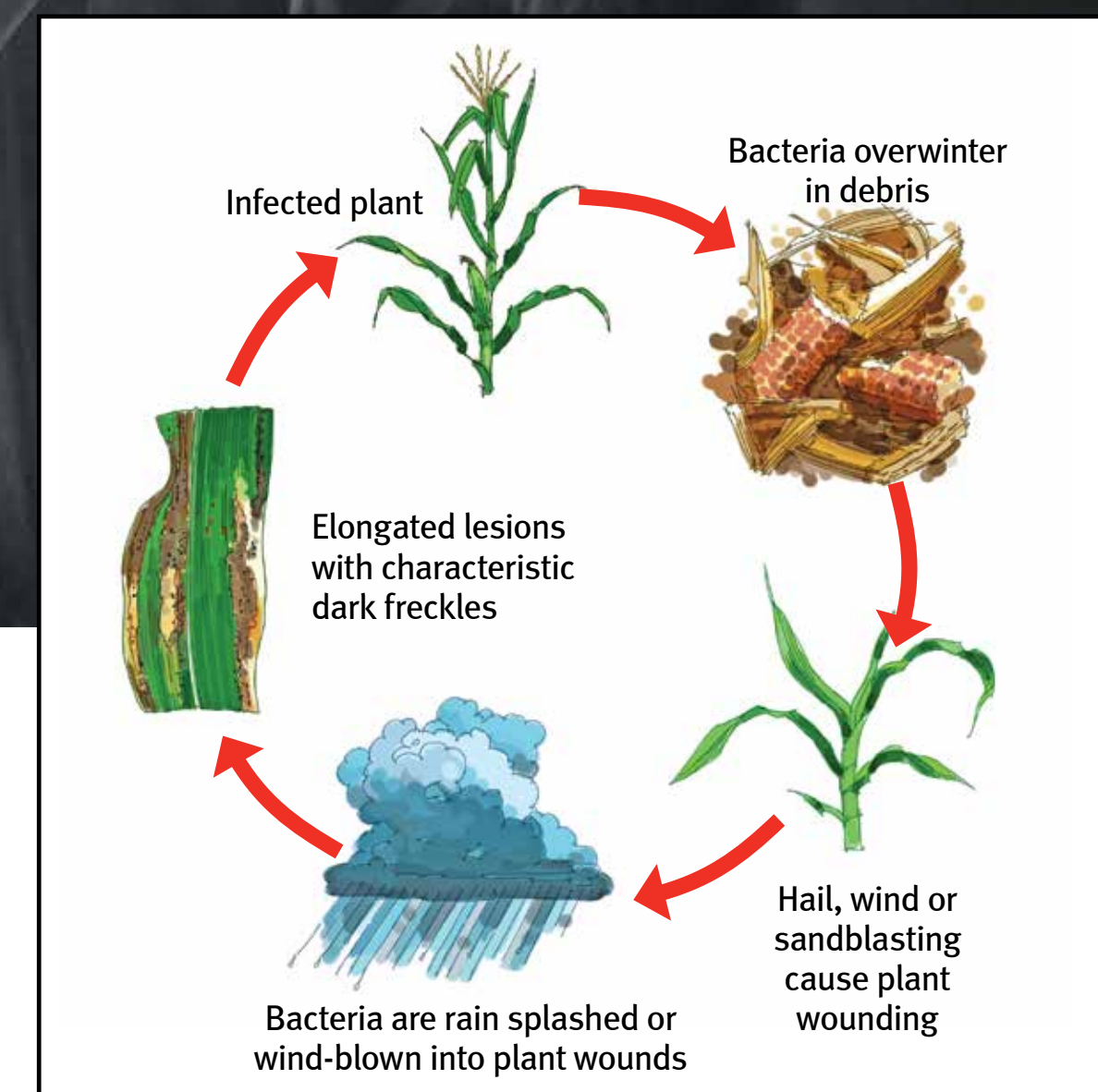


## The Impact

Varies from minor damage to up to 50% loss of grain corn yield.

## The Causes

- A bacterial pathogen which overwinters in infected corn and grass residue
- Plant wounding from wind, sandblasting and especially hail, provides openings for bacteria
- Wet weather and high humidity encourage disease; insects are a non-factor



## Management Tips for Goss's Wilt

**Genetic resistance** is the primary management method. Canadian Pioneer researchers are screening material and developing products with resistance to Goss's wilt ranging from a resistance rating of 1 to 9 for the trait.

**Reduce corn residue.** Corn-on-corn, high-residue fields are more at risk. Crop rotation, tillage and grassy weed control can help reduce residue.

Pioneer® brand Products	Heat Unit	Technology Segment	Goss's Wilt Rating**
P6909R	1950	RR2	4
P7455R	2100	RR2	5
P7417AM™	2125	AM,LL,RR2	5
P7527AM™	2150	AM,LL,RR2	5
P7574AM™	2150	AM, LL, RR2	4
P7861R	2200	RR2	6
P7844AM™	2225	AM,LL,RR2	5
P7861AM™	2250	AM,LL,RR2	6
P7958AM™	2275	AM,LL,RR2	5
P8294AM™	2400	AM,LL,RR2	5
P8407AM™	2450	AM,LL,RR2	5
P8537AM™	2550	AM,LL,RR2	6
P8588AM™	2550	AM,LL,RR2	6
P8736AM™	2550	AM,LL,RR2	6
P8581R	2575	RR2	5
P8820AM™	2575	AM,LL,RR2	6
P8858AM™	2600	AM,LL,RR2	5
P8989AM™	2650	AM,LL,RR2	5
P9188AM™	2600	AM,LL,RR2	5

**NEW** = New  
Pioneer researchers select corn hybrids for resistance to Goss's Wilt. Corn hybrids are rated against known susceptible and resistant hybrids using Pioneer's rating system  
\*\*Rating Scale: 8-9 = Highly Resistant; 6-7 = Resistant; 4-5 = Moderately Resistant; 1-3 = Susceptible

