



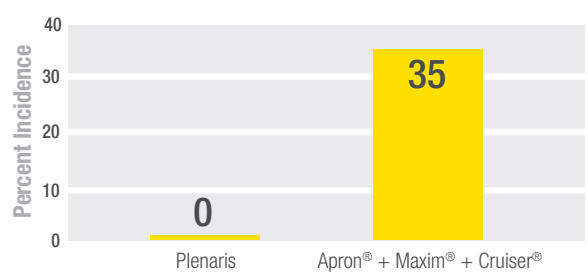
# Next-generation seed treatment for downy mildew protection

Plenaris® fungicide is the latest addition to CruiserMaxx® Sunflower, the most comprehensive seed treatment on the market. CruiserMaxx Sunflower with Plenaris, a combination of separately registered products, provides multiple modes of action, delivering the most sustainable, best-performing downy mildew management program in the industry. It also provides the broadest disease and insect protection available to maximize the genetic potential of sunflowers.

## Plenaris Benefits

- Provides excellent protection against all downy mildew races
- Outstanding activity on susceptible and resistant sunflower varieties
- Used in combination with Bion® or Dynasty® seed treatments for resistance management and additional control

## Enhances Downy Mildew Protection



All Plenaris treatments included a base treatment of Maxim 4FS mg ai/seed + Cruiser 5FS 0.25 mg ai/seed



North Dakota State University Trial, 2014

## Downy Mildew Disease Profile

- Oomycete (*Plasmopara halstedii*)
- Infects sunflowers with primary infection in seedling roots
- Water-saturated soils soon after planting favor systemic infection
  - Low-lying areas in fields are most susceptible to infection
  - Infection can lead to large bare spots and/or areas with little to no yield



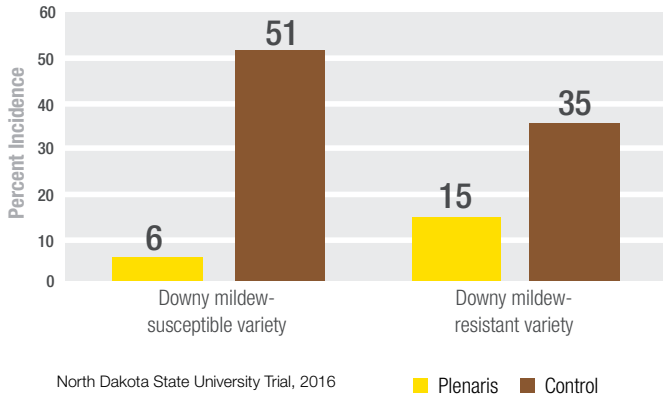
Sunflower systemically infected with *P. halstedii*



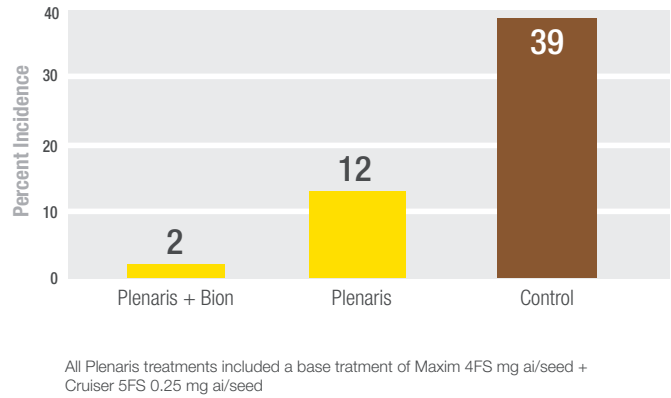
Healthy, non-infected sunflower

Source: Plant Health Progress article: [Prevalence and Incidence of Sunflower Downy Mildew in North Dakota Between 2001 and 2011](#)

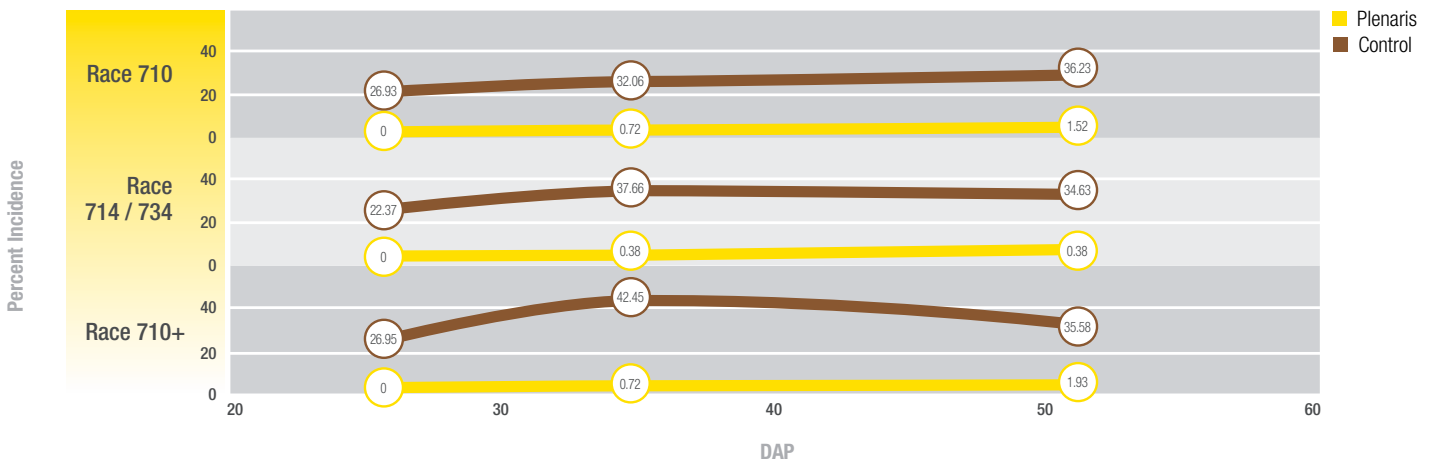
## Protects Susceptible and Resistant Varieties



## Bion Boosts Level of Control



## Controls Key Downy Mildew Races



Race 714/734: virulent on PI1, PI2, PI5 and PI6 resistance genes; Race 710: virulent on PI1, PI2 and PI5 resistance genes; Race 710+: virulent on PI1, PI2, PI5 and PI8 resistance genes. North Dakota State University Trial, 2015. Reported as a percentage; systemically infected plants divided by total plants in 25' of plot. Plenaris treatments included a base treatment of Maxim 4FS 0.0025 mg ai/seed + Cruiser 5FS 0.25 mg ai/seed

## Technical Attributes

**Chemical Group:** ..... Piperidinyl thiazole isoxazoline

**Active Ingredient:** ..... Oxathiapiprolin

**Mode of Action:** ..... Lipid homeostasis and transfer/storage inhibition; FRAC Group F9. New, no cross resistance.

**Registered Crop:** .....Sunflower

**Seed Treatment Use Rate:** .....0.0094 mg ai/seed

For more information, visit [www.syngenta-us.com/seed-treatment/cruisermaxx-sunflower](http://www.syngenta-us.com/seed-treatment/cruisermaxx-sunflower).



Product performance assumes disease presence. All photos are either the property of Syngenta or are used with permission.

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SLC 8659A 05-2017