



*“A lot of producers would like to know what to look for when scouting for rust in their fields... please see the special report on the how to identify stages of **Sunflower Rust**. (page 2)”*

## Manitoba Sunflower Crop Report 7

Crop Stage

V-8 to R-2. Cool, wet soils across most of the province last week, 9-15°C.

Weeds

None to light weed pressures in fields where in-crop tillage was practiced. On lighter soils where conservation tillage is practiced, moderate to heavy weed densities are competing with the sunflowers. Biennial wormwood, lamb’s quarters, Canada thistle and wild sunflowers are among the most commonly found.

Insects

Sunflower Bud Moth and grasshoppers still being found in many fields, grasshopper defoliation a concern in some fields. Sunflower beetle adults and larvae present in most fields, levels of economic concern have not been found. A picture below illustrates the potential damage sunflower beetle larvae can cause.

Diseases

Early and economical stages of rust being found in fields. A number of fields have rust present, but at early stages and only being found on <5% of plants. Rust may or may not develop into economical levels in these fields. Producers should not panic but continue to monitor the situation as we progress through the growing season. **Headline® has been approved for Emergency use only on sunflowers**. Economic stages have been observed in the *R.M's of Brenda and Winchester*. Please visit [www.canadasunflower.com](http://www.canadasunflower.com) for a link to product label or contact your local BASF representative.

Sclerotinia wilt has been observed at very low incidence in some fields. Distinct symptoms include lone plants wilted and dead. At the soil level, the stem is soft and rotted, often with white fungal growth visible.

Current Crop Limiting Factors

Weeds and Disease.

Scouting Images



R-2 <1” between leaves and immature bud



Sunflower Beetle Larvae Defoliation



**Sclerotinia Wilt** - leaves wilt, at base of plant, stem is soft with white fungal growth



## Special Report on SUNFLOWER RUST



### 1st - *Pycnia*

This is the earliest visible stage of rust. The bright orange lesion is called *pycnia* and is found on the upper surface of the leaf. These bright orange lesions are easily spotted and are often surrounded by a yellow halo.

Note: Wild and volunteer sunflowers can play host to early rust infections. It is important to control these weeds to reduce the chance of a severe outbreak in cultivated fields.



### 2nd - *Aecia*

The pycnial stage gives rise to the aecial stage. Directly below the bright orange lesion, *aecia* form on the underside of the leaf. When looked at very closely, they are 3D upside down cups filled with spores. These spores give rise to the economical stage of rust.

Note: Most years, these early stages of rust are not observed. Rather, the cinnamon brown pustules appear first, later on in the season.



### 3rd - *Uredia*

The most recognizable and devastating stage of sunflower rust is the uredial stage. This stage appears as cinnamon red/brown pustules which *protrude from the upper leaf surface*. This is the economical stage of rust which can cause significant yield losses and should be treated and/or prevented.

Note: Many older leaves have many spots of dead tissue which should not be mistaken for rust pustules. Looking closely, these spots cause indentations into the leaf surface where as rust pustules protrude from the leaf surface.



Leaf scarring

Rust pustules

A lot of producers have been asking about resistant varieties -currently, there are no sunflower varieties resistant to rust. The Seed Manitoba guide provides **susceptibility ratings** for each variety to a range of diseases. Ratings include Susceptible (S), Moderately Susceptible (MS), Highly Susceptible (HS) and Moderately Resistant (MR).

<http://www.seedmb.ca/pdfs/2008/Non-Oil%20Type%20Sunflower%20Summary->