

MB Sunflower Crop Report

“Thistle caterpillars are causing noticeable but low levels of defoliation. The sunflower crop is going to welcome the forecasted heat.”

Friday June 22, 2012

Crop

Crop staging is from V-2 to V-12. Development has been slow due to cool and wet conditions, with moisture stress evident in some areas.

Disease

The early stages of rust have developed across the province. Rust aecia (orange cups on the underside of the leaf) have developed in some fields. The aecia produce spores that cause the typical rust pustules filled with cinnamon-brown spores. Keep rust in mind as the season progresses.

Downy Mildew is most prevalent in later planted fields due to the recent cool and damp conditions, however levels of infection remain low compared to last year. Plants are most susceptible during early growth stages when the roots are young and tender. Cool, water saturated soil during the early stages of plant development favors infection. The symptom to confirm infection is the appearance of white cottony spores on the leaf underside. The white cottony masses are spores. Once these spores become airborne they cause secondary infections in plants that escaped early infection via the roots. The resultant lesions are small, angular and chlorotic with white cottony masses directly opposite on the underside of the leaf. Secondary infections generally have minimal impact on yield.

Insects

Thistle caterpillars have been spotted across the province in low numbers. Thistle caterpillars are the larval stage of the painted lady butterfly which is blown in from southern U.S. annually to northern U.S. and Canada. The larvae feed on sunflower foliage for two to four weeks until reaching maturity in late June or early July. Defoliation due to feeding by thistle caterpillar rarely approaches the economic threshold of 25% defoliation when larvae less than 1.25 inches long.

The larvae are brown or black, with a yellow stripe on each side and spiny. The larvae create a loose webbing during feeding and black fecal pellets can often be found in the webs.

Weeds

It is important to scout fields within 2 weeks of a herbicide application to determine the efficacy of the treatment. Look for patches that have escape damage. Unaffected plants may be resistant to the herbicide (s) applied.

Limiting Factor Moisture



Figure 1. Thistle caterpillar larvae are black, spiny and have a yellow stripe along each side. The larvae damage plants by feeding on leaves.



Figure 2. Thistle caterpillar create a loose webbing while feeding. Black fecal pellets are often in the webbing.



Figure 3. Sunflower flower infected by downy mildew via the root (left) versus a sunflower plant infected by airborne downy mildew spores.