

MANITOBA WEEKLY VEGETABLE REPORT



Manitoba Agriculture, Food & Rural Initiatives

Crops Knowledge Centre

Vegetable Report

August 13, 2009

General Comments

Finally some heat, though it looks as though it may be short lived. Quite a treat to have water running down your brow and not have it be from the rain for a change. Several fields were scouted this week, though only in the Portage la Prairie area and included cabbage, cauliflower, broccoli, sweet corn, cucumber/pumpkins, onions (bulb) and carrots. With the heat though must come some more serious considerations for disease development: we haven't seen too much in the way of disease thus far this year even though it has been wet. This is largely due to temperatures remaining below normal. Now with increased heat and plenty of humidity the conditions for disease development have become rather more ideal so scouting for diseases should probably take a priority while we have this heat.

Carrots

Scouting was carried out this week on a limited number of fields. No symptoms of aster yellows were observed again this week, though some aster leafhoppers (*Macrostelus quadrilineatus*) were collected in the sweep net sampling. We collected six (6) and eighteen (18) leafhoppers in the two fields that were swept (100 – 180° sweeps per field) yielding aster yellows index (AYI) values of 24 and 72, both below the level of the economic threshold for resistant varieties of carrots but above or very near the levels for susceptible and intermediate varieties. We are using an estimate of 4% for the infectivity level this year. This may be high given the relatively low population of migratory leafhoppers, but it is what will be used for calculation. The statement below is a repeat of last week, but is worth including again.

Populations of aster leafhoppers are likely to remain low for the remainder of the season as we simply did not get a large migratory population again this year, similar to what happened in 2008. In 2008 the cause was a very large weather system that passed over the US Midwest just as the leafhoppers should have been making their way to our region. This year is different in the sense that there was no major weather system disrupting the migratory pattern. Instead there simply were not sufficient southerly winds to carry large numbers of the leafhoppers into the region.

One of the fields scouted had surprising numbers of aphids turn up in the sweep net. Not commonly a problem in carrots and with no economic thresholds established, it is difficult to assess whether this is a serious threat or not. Aphid damage in carrot usually comes from feeding and weakening of the tops, causing breakage during harvest. I didn't see many aphids colonizing the crop and the large populations may have come from a shelterbelt that was very close to where sweeping was carried out. At this point it probably is not a problem but checking the bases of the leaves for very high populations of aphids could be considered by growers just to double check.

No indications of plant disease were observed this week, but the heat and humidity are cause for concern.

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Crucifers

Cabbage butterflies (*Pieris rapae*) remain present and are definitely laying eggs on susceptible crops. Last week no eggs or larvae were observed but as can be seen in the picture below, both eggs and early larvae are now present and relatively abundant. Early control before the larvae make their way into the heads is the best bet. The adult butterflies lay eggs singly but there may be many on any given leaf, meaning the potential for damage is high. Eggs are usually on the underside of leaves where the first instar larvae also feed. As they grow larger they'll feed through the leaves and eventually crawl right into the head, particularly in cabbage where they are nearly impossible to get at. Broccoli and cauliflower tend to have somewhat less problems but are still susceptible to attack.



Cabbage Butterfly Adult Cluster



Cabbage Butterfly Egg and Young Larva

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Cucurbits

No disease or insect issues were observed this week but it is important to note that conditions are ideal for powdery mildew to develop.

Onions

Onion thrips (*Thrips tabaci*) remain present and generally low in the fields being scouted.

Sweet Corn

European corn borer (*Ostrinia nubilalis*) will continue to be active for another week or so and beyond that there will be no new eggs deposited on plants. So sprays should continue for a little longer, but after mid-August are not providing any control.

Plants were checked for the presence of corn leaf aphid (*Rhopalosiphum maidis*); none were observed in the two fields that were checked. It has been a year with plenty of aphids around, but thus far no problems with this species.