

MUCK CROPS RESEARCH STATION IPM 2009

This is the Muck Crops Research Station report and IPM Information for Tuesday July 28, 2009

DOWNY MILDEW ALERT !!!!!!!

-DOWNCAST has predicted onion downy mildew sporulation infection periods occurred in the last 4 days. Risk of downy mildew development is **high**.

We found downy mildew of onions at our station and onion fields around the Holland Marsh. Symptoms are not usually visible until infected areas of leaves sporulate. The best time to see early downy mildew symptoms is early in the morning when the leaves are still wet. Infections usually occur in patches within the field. A violet or greyish growth develops, and the tissue dies quickly, resulting in straw-coloured lesions and eventually plant death. The disease can spread by rain, by machinery or by people in the field when the leaves are wet. Quarantine the hot spot so that workers do not spread the spores.

At this time growers should spray for downy mildew control regularly by alternating Ridomil Gold MZ with Alliette, Pristine, Cabrio or Reason. Alliette should not be tank mixed with other products, especially not with micronutrients.

Temperatures for the coming three days will be closer to seasonal with a chance of showers for today, Wednesday and Friday. Taking into account the canopy size of the crops and weather conditions, risk of leaf diseases remains moderate to high.

A total of 23.3 mm rain has been accumulated between July 24 and 27.

Onion white rot has been found in few fields within the Holland Marsh. Periodically inspect your fields and check any yellowing, stunted or wilting plants carefully. If you find white fungal growth or black sclerotia, rogue out these plants and make sure they are disposed of carefully. Do not leave infected plants in the fields. Wash all implements used in infested area.

BOTCAST has a cumulative disease severity index (CDSI) of 32. Risk of developing botrytis on onion at this moment is moderate to high although lesion counts remain low. Growers should monitor their fields regularly for botrytis leaf blight and apply fungicide spray if their field has more than 1 lesion/leaf. Recommendations for fungicide use are listed on page 136 of the publication 363 (OMAFRA vegetable production recommendations, 2008-2009 edition).

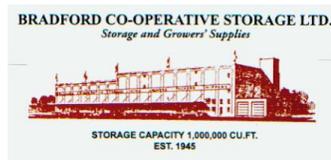
Onion thrips counts are low in most parts of the Holland Marsh. Today's count at our research station was 0.3 thrips per leaf, which is below the spray threshold. The threshold for pesticide application is 1 thrips per leaf. Regularly monitor your fields in particular the borders.

Onion flies activity may increase as we reached the degree day threshold for second generation emergence. Today onion fly count at our station was 2.8 flies/trap/day.

Apply foliar applications of manganese sulphate to onions for a total of 7.5 to 13 kg/ha for the season.

Aster leafhopper counts on station and fields around the Holland Marsh are currently low.





Carrot rust fly numbers are below spray threshold in most parts the Holland Marsh including our research station. Spray thresholds for fresh market carrots are 0.1 flies/trap/day and 0.2 for processing carrots.

Carrot leaf blight has continued to develop around the Holland Marsh. As canopies close, moisture and humidity levels increase, the risk of blight also increases. The spray threshold for carrot leaf blight is 25% disease incidence (i.e. 25% of the plants scouted show symptoms). Carrot disease control recommendations are listed on page 97 in OMAFRA's publication 363.

Continue to apply magnesium and boron to celery. Use Epson salt or other forms of magnesium and spray every 10-14 days. Foliar application of calcium in the form of calcium chloride or calcium nitrate reduces development of black heart.

In celery and lettuce fields, some damage from Tarnished plant bugs has been seen. To monitor for this pest, check 50 to 100 plants. The spray thresholds are 0.1 and 0.2 TPB per plant and/or 6% of the plants showing damage. Tarnished plant bug control recommendations are listed on pages 105 and 131 for celery and lettuce respectively in publication 363 of the 2008-2009 edition.

BREMCAST predicted a lettuce downy mildew sporulation infection period once in the last 4 days. Risk of downy mildew on lettuce at this time is moderate to high. A fungicide spray is recommended. The fungicides Ridomil Gold, Zineb, Aliette and Serenade Max are registered for downy mildew control.

Lettuce drop caused by *Sclerotinia* and botrytis grey mould continue to show up in lettuce. When spraying fungicides, good coverage of the bottom leaves is essential for good disease control.

ANY QUESTIONS OR COMMENTS? Call Michael, Kevin or Mary Ruth McDonald at 905-775-3783

