



MUCK CROPS RESEARCH STATION IPM 2010

This is the Muck Crops Research Station Report and IPM Information for Friday July 30, 2010

DOWNY MILDEW ALERT

DOWNCAST has predicted sporulation infection period in the last 3 days. Risk of downy mildew on onions is moderate to high. If growers are having onions on onions and the field has a history of onion downy mildew, the risk of developing downy mildew is higher.

Downy mildew has been confirmed on onions in the Holland Marsh east of high way 400. Growers should monitor your fields regularly for downy mildew. 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.

At this time growers should spray for downy mildew control regularly by alternating mancozeb (available as Dithane, Manzate or Penncozeb), Ridomil Gold MZ with Alliette, Pristine or Cabrio. Alliette should not be tank mixed with other products, especially not with micronutrients. Refer page 138 of the OMAFRA's publication 363 for registered fungicides.

The weather for the weekend forecasted relatively cooler nights. The relatively cool nights could result in extended leaf wetness at night and through the early morning. Taking into consideration that the canopies in all crops are getting larger the risk of leaf disease symptoms appearing in your crops will increase.

Purple blotch, caused by *Alternaria* has been found in onion fields. Infection occurs when warm temperatures (18-30°C) coincide with prolonged dews or leaf wetness. Weaker plants or those affected by other diseases are at high risk.

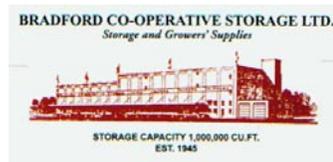
BOTCAST has a cumulative disease severity index (CDSI) of 26. Risk of developing botrytis on onions at this time is moderate. First spray threshold is when the CDSI 30.

Carrot leaf blight has continued to develop. As canopies close, moisture and humidity levels increase and thus the risk of blight 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 list on page 96 in OMAFRA's publications 363 of the 2010/11 edition.

Onion fly activity currently is moderate. Onion maggot fly count at our research station was 3 flies/trap/day.

Onion thrips started to increase and fields should be checked carefully. At this time border sprays are recommended for early infestation. Thrips count at our station increased to 1 thrips/leaf, which is threshold for insecticide application.

Rust fly counts around the Marsh increased. The count at our station was 0.7 flies/trap/day, which is above spray threshold. Thresholds for insecticide spray are 0.1 flies/trap/day for fresh market and 0.2 for processing carrots.



Symptoms of magnesium deficiency have been seen in celery. Once celery is one third grown, apply magnesium and boron. 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.

We have seen tarnished plant bug damages on celery and lettuce. Thresholds are 0.1 and 0.2 TPB per plant and/or 6% of the plants showing damage. Besides pesticide control, good weed control is an important management tool to reduce TPB populations.

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

BREMCAST has predicted sporulation infection period in the last 3 days. Risk of downy mildew incidence on lettuce is moderate to high. Lettuce downy mildew is present in our lettuce plots at our research site located at Jane street. If the temperature gets cooler and leaf remains wet for longer periods, risk of downy mildew will be higher especially in older plantings.

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

The soil temperature at the Research Station at 5 and 10 cm depth is currently 19.2 and 19.5°C. Less than 2 mm rain was accumulated between July 26 and July 29.

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