



## MUCK CROPS RESEARCH STATION IPM 2011

### **This is the Muck Crops Research Station Report and IPM Information for Tuesday August 23, 2011**

Downy mildew has been confirmed in onion plots at our research site located at Jane street. 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. For onion fields that are still standing and still mostly green, onion downy mildew can still be a problem. Thus, downy mildew control will depend on the growth stage of individual onion field. Control measures for onion diseases can be found on page 138 of the OMAFRA publication 363.

The carrot rust fly activity around the marsh is moderate in most parts of the Holland Marsh, but increased in some locations. However, the count will start to decline as we have passed the degree day threshold for the second generation emergence. The carrot rust fly count at our Research Station was 0.1 flies/trap/day, which is a spray threshold. The count at our other site located at Jane street was 0.08 flies/trap/day. Insecticide spray thresholds are 0.1 flies/trap/day for fresh market and 0.2 for processing carrots.

Most transplanted onions around the Holland Marsh have been lifted. Few seeded onion fields are beginning to lodge. Maleic hydrazide (Royal MH 60) is applied to limit sprouting and extend the storage life of many onion cultivars. Onions should have more than 3 green leaves when MH 60 is applied. The optimum time for application is when at least 50 percent of the tops have fallen, but tops are still green. Best results are obtained when MH 60 is applied in the early morning or on a cloudy day, and 24 hours before or after rain.

Bacterial diseases have been confirmed in celery and onions around the marsh. Copper sprays may reduce bacterial disease spread but cannot be used on every crop. Check the label carefully.

Onion white rot has been found on onion fields within the Holland Marsh. Periodically inspect your fields and check any yellowing, stunted or wilting plants carefully. Be sure to rogue out infected areas.

The thrips activity around the Marsh varies depending on the location and the management practices implemented to control the pest. The counts at our Research station increased to 0.8 thrips/leaf. The count at our other site at Jane street was 1.1 thrips/leaf, which is at threshold for insecticide spray. The threshold for insecticide application is 1 thrips per leaf.

The onion fly activity around the marsh is generally low. The onion fly count at our station currently is at 0.1 flies/trap/day.

The cumulative disease severity index (CDSI) for botrytis in onions is at 56, which is above threshold for the season. Growers should monitor their fields regularly for botrytis leaf blight and apply fungicide if their field has 3 lesions/leaf. The first spray threshold occurs when the CDSI is more than 30 or when the botrytis lesion count is 3/leaf. Once onions have lodged fungicide applications can be stopped. Recommendations for fungicide spray are listed on page 138 of the OMAFRA publication 363.

Carrot leaf blight has continued to develop. As canopies close, moisture and humidity levels increase. This increases the risk of leaf blight incidence. Thus, carrot fields should be sprayed regularly as the canopy close over.





Carrot fields should be monitored regularly for symptoms of Sclerotinia. Infection in the field starts at the base of the leaf stalk, causing the petiole to turn brown and die. Maintaining a healthy crop has potential for reducing the severity of Sclerotinia. These include rotation with a non-susceptible crop, use wider row spacing to encourage good air movement and foliar trimming of the carrot canopy.

We have seen tarnished plant bug damage on celery. Thresholds are 0.1 TPB/plant (from transplanting until three weeks before harvest) and 0.2 TPB/ plant (during the last three weeks before harvest) and/or 6% of the plants showing damage. Besides pesticide control, good weed control is an important management tool to reduce TPB populations.

Celery growers should check regularly your fields for late blight, which develops brownish-black leaf spots. Thus far we have not found late blight around the Marsh including celery plots at our Research Station.

Seeding spring barely or oilseed radish as cover crops after celery, lettuce, early carrots and onions can help reduce erosion.

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

BREMCAST predicted sporulation infection period in the last 5 days. Risk of downy mildew incidence on lettuce is moderate to high.

A total of 7.7 mm rain was accumulated between August 19 and August 22. The soil temperature at the Muck Crops Research Station at 5 and 10 cm depth is currently 18.5 and 18.7°C respectively.

The Muck Crops Research Station annual field day is Thursday, September 1, 2011 from 8:30 a.m. to 4:00 p.m. All growers are invited and encouraged to drop by. The field day will feature demonstration of a Carrot Trimmer, which is used to cut back carrot leaves for control of *Sclerotinia* in carrots. The demonstration will be at 1:15 PM at the Jane Street Research Site at the corner of Jane street and Woodchoppers Lane. Coffee and donuts will be provided by Jim Robinson from Stokes Seeds. Lunch will be complements of John Verkaik from Solar Seed.

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

