

This is the Muck Station Report and IPM Information for Friday August 15, 2008.

DOWNY MILDEW ALERT !!!!!!!

-DOWNCASST has predicted onion downy mildew sporulation infection periods occurred in the last three 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. Alliette should not be tank mixed with other products, especially not with micronutrients. Refer page 138 table 9-59 of the OMAFRA's publication 363 for registered fungicides.

Temperatures for the weekend remain relatively cool and wet. Whether rain occurs or not, the cooler night temperatures will result in extended night and early morning leaf wetness periods. Therefore the risk of leaf disease symptoms either appearing or increasing in your crops over the weekend is moderate to high.

Due to the humid and wet conditions, bacterial diseases continue to be a problem in many crops especially on onions, celery and lettuce. Copper sprays may reduce bacterial disease spread somewhat but copper cannot be used on every crop. Check the label first.

A total of 3.3 mm rain has been accumulated between August 11 and 13.

BOTCAST, which is used to predict botrytis on onions, has a cumulative disease severity index of 45. This means that fungicides should be applied regularly to protect the crop. Risk of lesion counts reaching threshold at this time is high. Irrigation or rain increases the risk of botrytis blight.

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. If you find white fungal growth or black sclerotia, rogue out these plants and make sure they are disposed of carefully. Do not leave these infested plants in the fields. Wash all implements used in infested area.

BREMCAST has predicted a couple of sporulation infection periods over the past few days. Risk of disease development is high.

Onion thrips counts on station are below threshold at 0.1 thrips per leaf.

Onion maggot counts on station increased to 2.3 flies per trap per day.

Carrot rust fly counts started to increase around the Holland Marsh. No carrot rust fly was found on sticky traps at our station while the count at our other research site at Wood Choppers lane was 0.07 flies per trap per day.

Carrot leaf blight is continuing to develop in most fields. As canopies close moisture and humidity levels increase and the risk of blight also increases. Therefore, growers should regularly spray their carrots with fungicide. Carrot disease control recommendations are listed on page 97 in publication 363 of the 2008-2009 edition.

We have been monitoring carrot plots on station for the presence of Sclerotinia. At this stage Sclerotinia spores are released from the apothecia. Development of the disease in the field occurs under cool, wet conditions. The weather condition we are having and the growth stage of carrots is an ideal condition for the development of white mould. Growers should monitor your fields for symptoms of Sclerotinia. Infection in the field starts at the base of the leaf stalk, causing the petiole to turn brown and die. Currently there are no registered fungicides to effectively control the disease but maintaining a healthy crop may help. These include rotation with a non-susceptible crop. Avoid rotating with susceptible crops like lettuce or celery. Use wider row spacing to encourage good air movement. Foliar trimming of the carrot canopy also has potential for reducing the severity of Sclerotinia.

The Pest Management Regulatory Agency (PMRA) recently announced the approval of the emergency use of SCHOLAR 50 WP Fungicide for control of white mould (Sclerotinia) of carrots until December 31st, 2008 only. SCHOLAR was already labelled in Canada for control of post-harvest diseases on pome fruit and stone fruit. Apply SCHOLAR once as a post-harvest dip or trench immediately before storage. Mix 227 g of the product in 378 L of water. This can treat up to 90,000 kg of carrots. Ensure the SCHOLAR 50WP Fungicide solution remains in suspension by using agitation. SCHOLAR 50WP Fungicide may be degraded by exposure to direct sunlight. Treated carrots should not be stored in direct sunlight.

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.

Celery growers should regularly check your fields for late blight, which develops brownish-black leaf spots. Both spores of early and late blight transfer from plant to plant either by splashing water or wind. Control methods for early or late blight in celery can be found on page 91 in publication 363, vegetable production recommendations.

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

The Muck Crops Research Station annual field day will be held on Thursday September 4, 2008 from 8:30 am to 4 pm. All growers are invited and encouraged to drop by. Coffee and donuts will be provided by Jim Robinson from Stokes Seeds. Lunch will be complements of John Verkaik from Solar Seed.