

This is the Muck Station Report and IPM Information for Tuesday August 26, 2008.

-DOWNCAST has predicted onion downy mildew sporulation infection periods occurred once in the last three days. Risk of downy mildew development is **high**. Onions should continue to be sprayed as long as onions are standing.

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. Cabrio, Pristine and Reason are also registered for downy mildew. Refer page 138 of the OMAFRA's publication 363 for registered fungicides.

In a survey of onion growing areas in Ontario that Iris Yellow Spot Virus has been found again this year. Iris Yellow Spot Virus was also found in seeded onions in the Holland Marsh.

Thrips transmit Iris Yellow Spot Virus. OMAFRA personnel surveyed onion fields across the Holland Marsh, samples from all fields were submitted to the Pest Diagnostics clinic in Guelph for analysis. The lesions are bleached or straw like in colour sometimes in a ring formation, basically diamond shaped, or at least pointed on the top and bottom, and may have a yellow halo with a green island in the centre or they could be entirely straw coloured. The lesions often appear first on the lower portions of the leaves and the inner side where thrips begin feeding. In terms of field pattern, the disease will often appear first where thrips come into the field, along borders and around shelters.

At this point we do not have any information regarding the effect of IYSV on yield, overwintering survival of the virus in thrips and whether the virus can survive in bulbs for our region.

An increase in daytime temperatures is forecasted for this week and would remain in the mid to high 20's with night-time temperatures also increasing. Considering the weather forecast and the size of crop canopies, risk of leaf disease symptoms either appearing or increasing in your crops over the week remain 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.

No rain has been accumulated in the last four days.

BOTCAST, is above threshold for the season. This means that fungicides should be applied regularly to protect the crop. Risk of lesion counts reaching threshold at this time is moderate to high. Rain increases the spread of botrytis leaf blight. Once onions have lodged fungicide applications can be stopped.

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.

In lodging onion fields maleic hydrazide (Royal MH 60) is applied to limit sprouting and extend the storage life of many onion cultivars. If maleic hydrazide is applied too early it can result in spongy bulbs. The optimum time for application is when at least 50 percent of the tops have fallen but the tops are still green. These conditions usually occur 8 to 14 days before harvest. Plants with less than 3 green leaves and or severely diseased foliage will not absorb maleic

hydrazide. Best results are obtained when MZ in the early morning or on a cloudy day, and 24 hours before or after rain.

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

Onion thrips count on station decreased to 0.4 thrips per leaf. The threshold is 1 thrips per leaf.

Onion maggot counts on station are low at 0.8 flies per trap per day and at our other research site are 0.6.

Rust fly counts on station increased to 0.1 and no carrot rust fly was found on sticky traps at our other research site. This indicates that carrot rust fly numbers remain high in some isolated, sheltered areas. Second generation peaked a couple of weeks ago. We are currently monitoring to determine when and if a third generation will emerge.

Tarnished plant bug counts in celery in our research plots are still below threshold and damage is also low.

Carrot leaf blight is continuing to develop in most fields. Warm, wet nights encourage disease progress. 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.

Due to the warmer weather condition we have, development of the Sclerotinia on carrot fields may slow down. However, growers should monitor your fields 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. 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.

Continue a regular application of micronutrients on celery. Calcium is very important when growing conditions are dry. Apply calcium chloride or calcium nitrate and spray directly to the heart. Calcium is also beneficial for young lettuce and Romaine during hot, humid periods to prevent tip burn.

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.