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MUCK CROPS RESEARCH STATION IPM 2013

This is the Muck Crops Research Station Report and IPM Information for July 15, 2013

With the current hot temperatures, growers should keep an eye for bacterial problems in all crops. A combination of warm weather and moisture from rain or irrigation makes a good environment for bacterial infection, especially where plants have already been damaged from insects or other problems. Bacterial infections on onions and celery have been observed in fields around the marsh.

Thrips counts started to increase in most onion fields in the marsh. Severe injury may cause reduced yield and increase susceptibility to diseases. Thrips count can rapidly reach to threshold level quickly in hot weather. Thus, monitor your fields for thrips regularly. The threshold for insecticide application is 1 thrips per leaf. Good spray coverage is crucial for thrips control.

We observed extended periods of leaf wetness in the last few days in all crops. Longer dew or leaf wetness periods accompanied by high humidity and optimum temperatures are ideal for most foliar pathogens. Incidences of *Stemphylium* leaf blight have been observed in onion fields. Tip burn and rain pelting damage have also been observed and are ideal entry points for fungal pathogens that cause *Stemphylium* leaf blight and purple blotch. Growers should monitor their onion fields for symptoms of *Stemphylium* leaf blight and purple blotch. Recommendations for fungicide spray are listed on OMAF's publication 838.

BOTCAST: The cumulative disease severity index (CDSI) for botrytis leaf blight is 26. Risk of botrytis leaf blight at this time is low to moderate to high although lesion counts are low. Growers should monitor their fields regularly for botrytis leaf blight and apply fungicide if their field has 3 lesion/leaf. The first spray threshold is when the CDSI is more than 30 or when botrytis lesion count is 3/leaf. Recommendations for fungicide spray are listed OMAFRA's publication 838.

The onion fly activity is moderate in all parts of the marsh. The count at our research station this morning was 2.7 flies/trap/day.

The carrot rust fly activity around the marsh is generally low. No carrot rust fly was caught on sticky traps at our at our research station. Thresholds are 0.1 and 0.2 flies/trap/day for fresh market and processing carrots respectively.

Aster leafhoppers numbers on sticky trap counts remain low. The maximum number we found this morning at our station was 7 aster leafhoppers/trap, which is low to warrant insecticide spray. No symptoms of aster yellows have been reported on the marsh.

Continue to apply foliar application of manganese starting when onions are about 15 cm. This can be applied at a rate of 1.5 to 2.75 kg/ha in 300 L of water repeated in 4 to 5 sprays over the growing season 10 days apart.

DOWNCAST predicted a sporulation infection period in the last 3 days. Taking into account the weather forecast and crop canopy size, risk of downy mildew on transplanted onions is moderate to high and low to moderate on seeded onions. Risk may increase if leaves remain wet for longer periods and the temperature cools down. No onion downy mildew has been report around the marsh.

In celery, tarnished plant bugs (TPB) and some damage from TPB have been found in the marsh. Spray thresholds are 0.1 and 0.2 TPB/plant for fresh market and processing celery respectively and/or 6% plants showing damage. Good weed control is an important management tool for reduction in TPB populations.



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BREMCAST predicted a sporulation infection period in last 4 days, Risk of downy mildew on lettuce at this time is moderate to high.

In cole crops, imported cabbageworm, flea beetles and swede midge damage have been observed.

No rain fell between July 11 and July 14. The soil temperatures at the 5 and 10 cm depth are currently 23.2 and 22.2°C respectively.

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

