

## MUCK CROPS RESEARCH STATION IPM 2013

This is the Muck Crops Research Station Report and IPM Information for August 9, 2013

### **DOWNY MILDEW ALERT**

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. Mancozeb (Dithane, Penncozeb and Manzate), Ridomil Gold, Pristine, Cabrio, Rovral, Aliette, Revus, Serenade Max, Quadris Top, Reason, Zampro and Acrobat are registered for onion downy mildew control. Rotate fungicides with different chemical groups. Aliette should not be tank mixed with other products, especially not with micronutrients.**

Onion thrips continue to increase in most parts of the Marsh. The threshold for insecticide application is 1 thrips per leaf. Good spray coverage is crucial for thrips control.

Carrot leaf blight has continued to develop around the Marsh. As canopies close, moisture and humidity levels increase, the risk of blight also increases. We observed high incidence of leaf blight particularly in carrots with herbicide damage. The spray threshold is 25% disease incidence (i.e. 25% of the plants scouted show symptoms). Bravo, Echo, mancozeb (Dithane, Penncozeb and Manzate), Pristine, Cabrio, Lance, Cantus, Switch, Flint, Fontelis, Quadris Top and Allegro are registered fungicides.

Onion white rot has been found in few 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 infected plants in the fields. Wash all implements used in infested area.

Both stemphylium leaf blight, purple blotch and tip burn are the main concern in onions. We observed rain pelting damage and tip burn, which create an ideal entry for the pathogens. Growers should monitor their onion fields for symptoms of stemphylium leaf blight and purple blotch and spray their fields. Quadris Top, Fontelis, mancozeb (Dithane, Penncozeb and Manzate), Pristine, Lance, Cabrio, Inspire, Aliette, Scala and Switch are registered fungicides. For better disease management and to avoid resistance development, rotate between fungicide groups.

Continue to apply manganese to onions until you have applied 15 lb/acre of manganese sulphate.

**BOTCAST:** The cumulative disease severity index (CDSI) for botrytis leaf blight is 35. Risk of botrytis leaf blight at this time is moderate to high. The first spray threshold is when the CDSI is more than 30 or when botrytis lesion count is 3/leaf. However, most of the chemicals used to control purple blotch and stemphylium leaf blight can also control botrytis leaf blight. Thus, if a grower is spraying for stemphylium leaf blight and purple blotch, that would be suffice to control botrytis leaf blight at this time.

The onion fly activity has increased around the marsh and the count at our research station this morning was 5.3 flies/trap/day.



The carrot rust fly activity around the marsh is generally moderate. This morning carrot rust fly count at our research station was 0.07 flies/trap/day, but some fields in the Holland Marsh reached spray threshold. Spray thresholds are 0.1 and 0.2 flies/trap/day for fresh market and processing carrots respectively.

Aster leafhoppers numbers are low in all parts of the Holland marsh. The maximum number we found this morning at our station was 2 aster leaf hoppers/, which is too low to warrant insecticide spray.

Early blight, septoria late blight and bacterial leaf spot have been confirmed in celery fields. Both diseases can be spread by wind and/or splashing water, farm machinery and field workers. It is very important to stay out of celery fields infected with early and/or late blight when the foliage is wet. Bravo, Echo, mancozeb (Dithane, Penncozeb and Manzate), Polyram, Pristine and Flint are registered for the management of both early blight and late blight

In celery fields, some damage from Tarnished plant bugs has been seen. Spray thresholds are 0.1 TPB/plant (from transplanting until three weeks before harvest) and 0.2 TBP/plant (during the last 3 weeks before harvest) and/or 6% of the plants showing damage.

A total of 5.8 mm rain was recorded at our weather station between August 6 and August 8. The soil temperatures at 5 and 10 cm depth are currently 21.0 and 20.2°C respectively.

The Muck Crops Research Station annual field day is Thursday, September 5, 2013 from 8:30 a.m. to 4:00 p.m. All growers are invited and encouraged to drop by. Lunch will be compliments of John Verkaik from Solar Seed. Coffee and donuts will be provided by Jim Robinson from Stokes Seeds.

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

