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## MUCK CROPS RESEARCH STATION IPM 2013

### This is the Muck Crops Research Station Report and IPM Information for July 29, 2013

Carrot leaf blight has been seen in most carrots fields. We observed high incidence of leaf blight particularly in carrots with herbicide damage. Risk of leaf blight increases when crop canopy closure accompanied by an increase in moisture and humidity levels. 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 and Allegro are registered fungicides.

Thrips counts continued to increase in most onion fields in the marsh. 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.

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 30. 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.

**DOWNCAST** predicted sporulation infection periods in the last 4 days. Taking into account the weather forecast and crop canopy size, risk of downy mildew on onions is moderate to high. No onion downy mildew has been reported around the marsh.

The onion fly activity around the marsh is moderate. The count at our research station this morning was 3.3 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 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 to warrant insecticide spray. We have seen low levels of aster yellow in carrots around the marsh.

Early blight and septoria late blight 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

Continue to apply magnesium and boron to celery, but be cautious since boron builds to toxic level quickly, harming rotational crops. Use Epsom salt or other forms of magnesium and spray every 10-14 days. Foliar application of calcium in the form of calcium chloride or calcium nitrate reduces development of black heart.



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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.

BREMCAST predicted sporulation infection periods in the last 3 days. Risk of downy mildew of lettuce is moderate to high.

A total of 12.4 mm rain was recorded at our weather station between July 25 and July 28. The soil temperatures at the 5 and 10 cm depth are currently 19.2 and 19.4°C respectively.

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

