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## MUCK CROPS RESEARCH STATION IPM 2013

### This is the Muck Crops Research Station Report and IPM Information for July 22, 2013

Both stemphylium leaf blight, purple blotch and tip burn have been found in all scouted onion fields. We also 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.

Thrips counts continued to increase in some fields, which have reached spray threshold. 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.

A combination of warm weather and moisture from rain 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. Roguing out infected onions may help reduce the spread.

Carrot leaf blight has begun to appear in carrots. 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 and Allegro are registered fungicides.

**BOTCAST:** The cumulative disease severity index (CDSI) for botrytis leaf blight is 26. 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.

**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 report around the marsh.

The onion fly activity is moderate in all parts of the marsh. The count at our research station this morning was 1.7 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. The number may start to increase by the end of the week as we approached the degree day threshold for second generation emergence.

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.

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.

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.



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BREMCAST predicted sporulation infection periods in the last 4 days. Risk of downy mildew of lettuce is moderate to high.

A total of 10.6 mm rain was recorded at our weather station between July 18 and July 21. The soil temperatures at the 5 and 10 cm depth are currently 21.8 and 22°C respectively.

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

