

## MUCK CROPS RESEARCH STATION IPM 2009

### This is the Muck Crops Research Station report and IPM Information for Tuesday June 23, 2009

The forecast for the next couple of days is relatively warmer with probability of showers for Thursday. With hot and dry weather the risk of blights on all crops remains low, however warm temperatures are the perfect environment to build up bacterial populations, and any moisture or damage from heavy rains will increase the risk of bacterial disease. A total of 18.8 mm rain has been accumulated between June 19 and June 22.

Onion flies activity is moderate that the first generation peak has passed. The count at our station decreased to 1.9 flies/trap/day. At our other research site on Woodchoppers Lane and Jane street the count was 2.1 flies/trap/day. To reduce onion maggot problems, all volunteer onions and any remaining cull piles should be removed.

Cutworms tend to be active on warm evenings. Check your fields for leaves that look as if they have been clipped off.

BOTCAST which is used to predict botrytis on onions has a cumulative disease severity index (CDSI) of 12. Risk of developing botrytis on onions at this time is low.

DOWNCAST predicted no sporulation infection period for the last 4 days. Risk of downy mildew on transplanted and seeded onions is low.

Carrot weevil adults continue to move into some carrot fields in the Holland Marsh. The threshold for weevils is a cumulative count of 1.5 weevils/trap. Imidan is registered for the control of carrot weevils. For cumulative counts between 1.5 and 5 weevils/trap, one treatment is recommended at the 2<sup>nd</sup> leaf stage. For counts above 5 weevils/trap an additional treatment is recommended at the 4<sup>th</sup> leaf stage.

Celery is also a host crop for weevils. Pesticide control for weevils in celery is the same as for carrots.

Carrot rust fly count is still high in most parts of the Holland Marsh. Thresholds for fresh market carrots are 0.1 flies/trap/day and 0.2 for processing carrots. Once the carrots reach 2 true leaves, sprays for rust flies can begin when population increases.

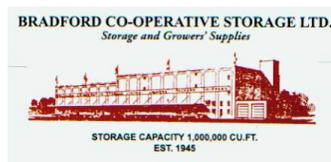
Thrips have been found at our station on onions and have been caught on sticky traps around the Holland Marsh. The threshold for pesticide application is 1 thrips per leaf.

Foliar applications of manganese sulfate are recommended when onions are about 15 cm. The rate for manganese sulfate is 1.5 to 2.75 Kg/ha in 300 L of water repeated in 4 to 5 sprays 10 days apart. Use the low rate on small plants, increasing the rate as the season progresses.

A complete list of herbicides for pre and post-emergence weed control in carrots is listed on pages 219-221 in pub. 75. Check labels or the guide to weed control for rates. Use Lorox once the carrots are in the 2 leaf stage, 8 to 15 cm tall. Lorox appears to work best if applied when sunny and when a few sunny days are expected post application. Note that emerging carrots are very sensitive to Lorox and severe injury may occur if there is heavy rain, or if the area is irrigated.

To control emerged broadleaf weeds in onions, spray Goal, starting when the onions have two true leaves. Goal should be sprayed after there has been dry, sunny weather for two days.





Chateau WDG herbicide provides preemergence control of several broadleaf weeds common in onion fields. It may be applied on onions between the 3 and 6 leaf stages.

Once celery is one third grown it is time to apply magnesium and boron. Use Epson 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 also reduce development of black heart especially if celery is under heat and moisture stress.

Tarnished plant bugs (TPB) are out in celery and lettuce fields. Besides pesticide control, good weed control is an important management tool for reducing TPB populations. TPB weed hosts include redroot pigweed, chickweed, dandelion and mint. Thresholds are 0.1 and 0.2 TPB per plant for fresh and processing celery and or 6% of the plants showing damage. Note that damage from TPB is often observed before large numbers of the insects are seen.

There has been a slight increase in aster leafhoppers over the past couple of days around the Holland Marsh. However counts are too low for pesticide control.

BREMCAST predicted no sporulation infection period in the last 4 days. Risk of downy mildew incidence on lettuce is low.

Incidences of Botrytis grey mould and Sclerotinia drop on lettuce fields have been seen in the Holland Marsh. To protect lettuce from Sclerotinia, once it is transplanted or thinned, spray Ronilan at 1.1 kg/ha or Botran at 2.3 kg/ha. Botrytis grey mould occurs in damp weather with temperatures of 18–23°C. Rovral can be applied at 1.5 kg/ha to control Botrytis. Good coverage of the bottom leaves is essential for good disease control.

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

