

MUCK CROPS RESEARCH STATION IPM 2009

This is the Muck Crops Research Station report and IPM Information for Friday June 26, 2009

The forecast for the next couple of days is relatively warmer with probability of showers for Sunday. 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. No rain fell between June 23 and June 25.

Onion maggot fly counts in the Holland Marsh decreased slightly and the first generation peak has passed. Onion maggot damage is beginning to show up. Onion maggot fly count on station decreased to 2.2 flies/trap/day and 1.5 flies/trap/day at our other research site on Woodchoppers Lane and Jane street.

Cutworm damages have been seen on onions. Cutworms tend to be active on warm evenings and damaged leaves look as if they have been clipped off. Apply Lorsban at 2.4-4.8 L/ha or Pounce at 180-390 mL/ha. Use high rate of Pounce on muck soil.

A few thrips have been seen in onions on our station and around the Holland Marsh. We have found 0.04 thrips per leaf at our research station. The counts are below the spray threshold. 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.

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 counts are lower. 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 2nd leaf stage. For counts above 5 weevils/trap an additional treatment is recommended at the 4th leaf stage.

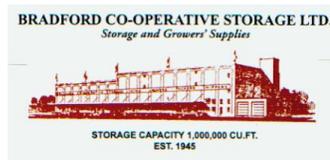
Celery is also a host crop for weevils. Pesticide control for weevils in celery is the same as for carrots.

Aster leafhopper DD are at 306 therefore over wintering egg hatch should be over and they should mature into adults in another 3 to 6 days or by 390 DD. Therefore we can expect numbers to increase early next week. The number of aster leafhoppers seen in the Holland Marsh over the last couple of weeks have been low and are currently too low for effective pesticide control.

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

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.

So far, there have been no signs of tarnished plant bug damages on 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.

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

Lettuce drop caused by *Sclerotinia* continue to show up in lettuce, but the hot dry weather should slow development of the disease.

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

