



Science For A Better Life



MUCK CROPS RESEARCH STATION IPM 2017

This is the Muck Crops Research Station Report and IPM Information for Friday August 18, 2017

We currently have a graduate student researching celery leaf curl. If you believe you have leaf curl developing in your celery field, this student would like plant samples to evaluate the disease across the marsh. Please contact the station and Zach will arrange a sample collection.

Imidan and Matador/Silencer/Warrior have been proposed to be phased out of use by the PMRA. Imidan is slated for phase out as new proposed re-entry intervals are not realistically feasible (e.g. 12 days for scouting) and Matador/Silencer/Warrior currently has too high of a risk from dietary exposure. Grower comments can be submitted to pmra.publications@hc-sc.gc.ca or you can talk to the growers' association who can comment on your behalf.

Onion Diseases

Over the past four days, downy mildew has had multiple sporulation periods, although infection has been limited by leaf dryness. We have continued to find new downy mildew outbreaks in fields throughout the marsh. The first product we recommend is Ridomil Gold MX 68WG (+). Afterwards, regular sprays should always involve a rotation involving different modes of action. Rotating Ridomil with Aliette on a ~10 day schedule provides similar control to applying just Ridomil every 10 days. Aliette should not be tank mixed with any other product, particularly micronutrients. Apart from Ridomil, we have seen the best downy mildew control using Orondis Ultra and Zampro at the research station. Ensure the label rate is being applied for the most effective control. Other products registered for control are Revus, Torrent 400SC, and Manzate Pro-stick. Phostrol is also registered for suppression and has shown some synergistic activity when applied with other downy mildew control products.

Stemphylium continues to spread and a lot of spores have recently been found in spore traps. The fungicides registered for stemphylium, Luna Tranquility, Sercadis, and Quadris Top, are only registered for suppression, meaning protective sprays are more valuable than reactive sprays. Sercadis also shares a mode of action with Luna Tranquility meaning they are not effective rotation partners.

Not much botrytis has been seen in the marsh. Applications made to control stemphylium should be effective in controlling botrytis.

Overall, it is extremely important to control downy mildew and applications for downy mildew should be prioritized. However, it is still important to control stemphylium, particularly if it has been found to be spreading in your field. Most fungicides have a window of 7-10 days of protection but the label should always be advised when planning spray schedules. Keeping control of the foliar diseases is still important to ensure adequate green tissue for the application of MH (sprout inhibitor) as the onions lodge.

Onion Insects

The second generation of onion maggot should be starting based on our degree day model, although activity has still been fairly low. Onion maggot fly counts are 0.75 flies/trap/day on station and 0.32 at our Jane street field. With the second generation started we have been expecting higher counts.

So far, no major thrip problems have been noted, although some feeding has been noticed. Nearly no thrips were found on station or at our Jane street field at the last scouting.





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Carrot

We're catching more rust flies and all eggs from the first generation should be adults now. Current counts are 0.5 flies/trap/day on station and 0.1 flies/trap/day at our Jane street field. Rust fly thresholds are 0.1 flies/trap/day for fresh market carrots and 0.2 flies/trap/day for processing carrots. Mako (used to be Ripcord), Up-Cyde, Matador/Warrior, and Silencer are registered for rust fly control. Diazinon has officially rotated out and is no longer registered for rust fly control.

Aster leafhopper counts are moderate, although there have been a few peaks in some fields.

Both Cercospora and Alternaria leaf blight have appeared on carrots in the marsh. We have also noticed some fusarium rot developing.

Celery

Celery leaf curl has been identified in multiple fields in the marsh. Quadris and Switch are the currently registered fungicides for control. Other research has indicated applications of Pristine, Bravo ZN, Flint, or mancozeb (Dithane, Penncozeb, Manzate) for leaf blights may also contribute to leaf curl control, although Bravo and mancozebs likely act more preventatively than curatively.

We haven't seen many tarnished plant bugs this year although we have seen some carrot weevil feeding damage in some stalks.

Remember calcium, boron and magnesium are also important for ensuring proper celery development.

Pink rot has also been seen in a couple fields throughout the marsh.

BREMCAST – There has been no sporulation infection periods (SIP) for downy mildew on lettuce in the past four days, meaning risk is low.

Soil Temperatures:

Aug 17: 5 cm – 23.4
10 cm – 22.6
20 cm – 21.8

DATE (August, 2017)	TEMPERATURE (°C)		ACCUMULATED RAINFALL (mm)
	MAX	MIN	
15	27.6	12.3	0.2
16	26.7	15.7	0.0
17	26.0	12.8	7.0

