



Science For A Better Life



## MUCK CROPS RESEARCH STATION IPM 2017

**This is the Muck Crops Research Station Report and IPM Information for Tuesday August 1, 2017**

We are still seeing some downy mildew problems developing around the marsh. Protective sprays are important as this is a severe disease with outbreaks that can threaten neighbouring crops as well.

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.

### ***Onion***

Early transplants are getting close to windrowing, while early seeded onions have 8-10 true leaves. Foliar applications of manganese sulfate are recommended when onions are about 15 cm tall. This can be applied at a rate of 1.5 to 2.75 kg/ha in 300 L of water, repeated 4-5 times over the growing season 10 days apart.

### ***Onion Diseases***

Downy mildew protection is still very important. Protective sprays are needed as downy mildew will develop in onion plants without visible symptoms. Our forecasting model has predicted sporulation should be limited over the past four days, although any spores present had ideal conditions for infection. Our first recommended product to apply is Ridomil Gold MX 68WG (+). Afterwards, regular sprays should always involve a rotation. For control, not just suppression, of downy mildew, Alliete WDG (+), Orondis Ultra (+), Zampro(+), Revus, Torrent 400SC, and Manzate Pro-stick are registered. Alliete should not be tank mixed with any other product, particularly micronutrients. Products indicated with a (+) have shown strong success at controlling downy mildew on station. Stemphylium continues to spread. 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.

Some bacterial rots in onions have appeared in a couple fields.

### ***Onion Insects***

The second generation of onion maggot should be starting based on our degree day model. Onion maggot fly counts are starting to increase, though still low with 0.31 flies/trap/day on station and at our Jane street field. With the second generation started we expect counts to begin to increase.

With the warmer weather this week, thrips can build up, although no real major infestations have been. Currently there are 0 thrips/leaf on station and at our Jane street field.

### ***Carrot***

Carrot weevil egg laying has finally completed and no more applications are recommended.

We're catching rust flies, and the second generation has officially begun. Current counts are 0 flies/trap/day on station and 0.05 flies/trap/day at our Jane street field.

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

Both Cercospora and Alternaria leaf blight have appeared on carrots in the marsh.





Science For A Better Life



### Celery

Celery leaf curl has been identified in multiple fields in the marsh. The disease is new, and currently only Quadris is registered for control. Recent research has indicated applications of Pristine, Bravo ZN, Flint, or mancozeb (Dithane, Penncozeb, Manzate) for leaf blights may also contribute to leaf curl control.

So far, we have not seen much tarnished plant bug activity.

Blackheart in celery has been noticed in fields in the marsh. Blackheart develops due to calcium deficiency, and preventative applications of calcium are beneficial as it is more difficult to control blackheart once it begins developing. Remember boron and magnesium are also important for celery development.

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

**BREMCAST** – There have been three sporulation infection period (SIP) for downy mildew on lettuce in the past four days, meaning risk is moderate.

### Soil Temperatures:

July 31: 5 cm – 25.7

10 cm – 24.4

20 cm – 21.5

DATE (July, 2017)	TEMPERATURE (°C)		ACCUMULATED RAINFALL (mm)
	MAX	MIN	
28	27.4	17.6	0.0
29	22.7	13.8	0.0
30	26.9	11.2	0.0
31	30.1	13.8	0.0

