











Ontario Crops Research Centre – Bradford (Muck Station) IPM Report 2023

This is the Muck Crops IPM Update for August 3, 2023

Highlights

- More onion downy mildew has been found in the marsh.
- Conditions also remain favourable for Stemphylium leaf blight. Disease severity is increasing in a number of fields.
- More transplant onion fields are lodging.
- Some Sclerotinia white mold has been seen.
- Carrot rust flies have been found and some fields are over threshold
- Cercospora leaf blight is also common, but severity is low.
- Reminder, the Muck Station will be closed on Monday, August 7th next week for the Civic Holiday. We are planning to scout Monday fields on Tuesday, and Tuesday fields on Wednesday next week.

Disease Forecasting Highlight:

Botrytis	Onion downy	Stemphylium	White Rot	Sclerotinia	General	Lettuce
leaf blight	mildew	leaf blight	on onions	(White	conditions	downy
(BOTcast)	(DOWNcast)	(BSPcast)		Mold) on	for disease	mildew
				Carrot	(TOMcast)	(BREMcast)
LOW RISK	HIGH RISK	MODERATE-	LOW-	LOW-	MODERATE	MODERATE
		HIGH RISK	MODERATE	MODERATE	-HIGH RISK	-HIGH RISK
			RISK	RISK		

Onion Update

The risk of onion downy mildew infection is high. More downy mildew has been found in the marsh and future weather conditions can be favourable for further development of the disease. If it has been around 10 days since your last downy mildew spray another is recommended. It is important to rotate fungicides. There are many products registered for control of downy mildew and Orondis Gold (group 4/49) was also recently registered. Its registered rate is 1L/ha and does not need an adjuvant to be mixed with it. Our research at the Muck Station has shown that Orondis Ultra (group 40/49), Orondis Gold (group 4/49), Zampro (group 45/40) and Ridomil Gold MZ (group 4/M3) are the most effective for controlling this disease. These systemic products should protect onions for 10 days.







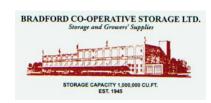












Mancozeb products, such as Manzate Pro-Stick, Dithane Rainshield and Penncozeb 75 DF Raincoat (all group M3), can be effective for controlling downy mildew if applied before infection takes place. Therefore, if you sprayed a mancozeb product for Stemphylium last week then the onions should be protected for 7 - 10 days. Ridomil Gold MZ also contains mancozeb which may help control both downy mildew and Stemphylium leaf blight. Orondis Ultra should be applied with a non-ionic surfactant.

Severity of Stemphylium leaf blight is increasing in a number of fields. The current risk for the disease is moderate-high. Some tip dieback has been seen as well, which can be an entry point for Stemphylium. We recommend alternating the group 7 fungicide sprays (Miravis Duo, Sercadis, Aprovia/Aprovia Top and Merivon) with Allegro (group 29) for Stemphylium leaf blight suppression and resistance management. The group 7 systemic products are effective for around 10-14 days and the contact Allegro fungicide is effective for around 7-10 days. We do not recommend spraying Quadris Top (group 11/3) or Luna Tranquility (group 7/9) as Stemphylium has developed resistance to these fungicides. There is very high resistance in Stemphylium to one of the fungicides in Quadris Top and high resistance to one of the fungicides in Luna Tranquility.

For thrips management, Agri-Mek SC (group 6), Delegate WG (group 5), Minecto Pro (group 6/28), or Exirel (group 28) are registered for thrips control. These insecticides should also be applied back-to-back, no more than 2 weeks apart.

For weed control, registered herbicides include Chateau, Goal 2XL, Pardner and bromoxynil products. Allowing the onions waxy leaf layer to develop can help protect the plant from herbicide injury. Registered herbicides can be found in OMAFRA's Weed Control Guide for Hort Crops (dry bulb onions starting on page 128) and the Ontario Crop Protection Hub.

Carrot Update

Some Sclerotinia white mold has been found in the closed carrot canopies. Allegro 500F, Scholar 230SC, Luna Sensation and Switch 62.5 WG are registered for control and Miravis Duo and Fontelis are registered for suppression if you are looking to manage the disease.

Cercospora leaf blight is common, but severity is low. When you are over the 25% of plants infected with Cercospora threshold, Cabrio, Flint, Quadris Top, Merivon, Bravo/Echo and Copper 53W are registered for control.

Carrot rust flies have been found. This second generation can cause damage to the carrot root that can go undetected until harvest. If your field is over the 0.1 rust flies/trap/day threshold Mako, UP-Cyde 2.5 EC, Labamba, Matador 120EC and Silencer 120 EC are registered for control.

For weed control in carrots, Lorox L, Ultra Blazer, Poast Ultra, Select, Venture and Aim EC are registered. Rates and use recommendations for these products can be found in OMAFRA's <u>Weed Control Guide for Hort Crops</u> (carrots starting on page 94) and the <u>Ontario Crop Protection Hub</u>.

















Celery Update

Early blight has become more common in celery fields. There are many fungicides registered to manage blights in celery, which can be found on the <u>Ontario Crop Protection Hub</u>. If you are finding celery leaf curl after the wet weather, Switch 62.5 WG and Quadris Flowable are registered for control. More bacterial rot has been identified as well.

Daily Weather

Date	Max temperature (°C)	Min temperature (°C)	Rain (mm)
(July/Aug)			
31	23.0	11.9	0.0
1	24.3	9.7	0.0
2	25.5	8.9	0.0

Soil Temperature (°C): 5cm: 19.7

Any questions or comments? Please call Tyler Blauel or Mary Ruth McDonald at 905-775-3783





