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

This is the Muck Crops IPM Update for August 14, 2023

Highlights

- Conditions have been favourable for onion downy mildew development.
- Conditions remain favourable for Stemphylium leaf blight.
- Sclerotinia white mold has been found in a few fields.
- Carrot rust flies are active and some fields are over the 0.1 flies/trap/day threshold.
- Leaf blights are becoming more common in carrot fields.

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-	HIGH RISK	HIGH RISK
		RISK	MODERATE	MODERATE		
			RISK	RISK		

Onion Update

The risk of onion downy mildew infection continues to be high. 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 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. 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 in onion fields is increasing and the risk for the disease is currently moderate. 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

Carrot rust flies are active now and some fields are over threshold. 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.

Sclerotinia white mold has been found in a few carrot fields, especially those with a heavy canopy. Allegro 500F, Scholar 230SC, Luna Sensation and Switch 62.5 WG are registered for control and Miravis Duo and Fontelis are registered for suppression. It is important to try and get these products down into the crown and lower canopy as best you can.

Cercospora leaf blight is common and Alternaria leaf blight is showing up as well. When you are over the 25% of plants infected with leaf blight threshold, Cabrio, Flint, Quadris Top, Merivon and Bravo/Echo are registered for both Cercospora and Alternaria leaf blights. Copper 52W is only registered for Cercospora. Fontelis, Sercadis, Cantus, Pristine, Switch, Miravis Duo, Luna Sensation and Allegro are only registered to control Alternaria.

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 is present in many celery fields and late blight has shown up as well. Many fungicides are registered to manage these diseases, which can be found on the Ontario Crop Protection Hub. Celery leaf curl is also present in a few fields and Switch 62.5 WG and Quadris Flowable are registered for control.

















Daily Weather

Date (Aug)	Max temperature (°C)	Min temperature (°C)	Rain (mm)
10	24.9	13.5	0.4
11	26.4	13.5	0.0
12	29.0	18.0	0.0
13	23.5	14.0	0.0

Soil Temperature (°C): 5cm: 17.6

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





