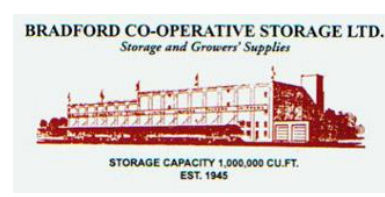




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# Ontario Crops Research Centre – Bradford (Muck Station) IPM Report 2023

This is the Muck Crops IPM Update for August 24, 2023

## Highlights

- Downy mildew is present in several fields and Stemphylium leaf blight is present in all fields.
- Conditions remain favourable for both downy mildew and Stemphylium development.
- Seeded onions continue to lodge, some fields are ready for a Royal MH application.
- Carrot rust flies are still active in some fields and some fields are over threshold.
- The [2023 Grower Field Day](#) will be held in two weeks on Thursday, September 7th from 8:30 am – 4:00 pm at the Station. The Field Day will highlight the onion and carrot variety trials and research plots here on station. Coffee and donuts will be provided compliments of Stokes Seeds (Bridget Visser). Lunch will also be provided. Please feel free to drop by.
- Next week will be the last week of onion scouting and carrot fields will be scouted once per week throughout September.

## Disease Forecasting Highlight:

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

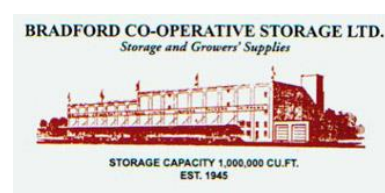
## Onion Update

The risk of onion downy mildew infection continues to be high. Downy mildew is present in several fields but overall damage has been low. If your onions will be standing for a while longer, another downy mildew spray is recommended if it has been around 10 days since your last spray. 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.





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Stemphylium leaf blight development continues to increase and the risk for the disease is currently moderate-high. Similar to downy mildew, if your onions will be standing for a while another fungicide application is recommended if it has been around 10 days since your last spray. 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.

Onion thrips populations may increase in fields that are nearby fields beginning to lodge. For onions that will be standing for a while and are at the 3 thrips/leaf threshold, Agri-Mek SC (group 6), Delegate WG (group 5), Minecto Pro (group 6/28), or Exirel (group 28) are registered for control. These insecticides should also be applied back-to-back, no more than 2 weeks apart.

As onion fields lodge Royal MH can be applied to control sprouting in storage. Royal MH should be applied when bulbs are mature, have 5-8 green leaves and ~50% of tops have fallen. Green tops are needed for the product to be absorbed into the bulb. Royal MH should be applied no later than 10 days before harvest.

Scouts will be completing an onion harvest assessment to determine disease (pink root, white rot, bacterial rot, fusarium basal rot) and insect (onion maggot) damage for all scouted onion fields. So far, pink root has been very common but disease severity is very low, similar to last year.

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

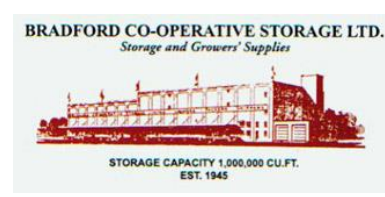
Some carrot fields are over the rust fly threshold. This second generation can cause damage to the carrot root that can go undetected until harvest. If you are looking to harvest within 3-4 weeks it may not be necessary to spray for rust flies as it takes at least one month from the time adults are present, or caught, to when their larvae are able to damage the carrot. If your field is over the 0.1 carrot rust flies/trap/day threshold and the time until harvest will be longer than 3-4 weeks Mako, UP-Cyde 2.5 EC, Labamba, Matador 120EC and Silencer 120 EC are registered for control.

Sclerotinia white mold is present in a number of fields, mainly 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.





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Cercospora and Alternaria leaf blight are common in carrot fields. 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 [Weed Control Guide for Hort Crops](#) (carrots starting on page 94) and the [Ontario Crop Protection Hub](#).

### Celery Update

Some celery fields are being harvested. Early and late blight are the main diseases in celery fields. Many fungicides are registered to manage these diseases, which can be found on the [Ontario Crop Protection Hub](#). Celery leaf curl is also present and Switch 62.5 WG and Quadris Flowable are registered for control. Insect activity has been fairly low.

### Daily Weather

Date (Aug)	Max temperature (°C)	Min temperature (°C)	Rain (mm)
21	23.4	15.3	0.0
22	25.9	9.6	0.0
23	20.2	15.3	1.8

Soil Temperature (°C): 5cm: 17.9

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

