

Tuesday, September 08, 2020

OMAFRA Vegetable Team:

Travis Cranmer, Guelph 519-835-3382 travis.cranmer@ontario.ca

Dennis Van Dyk, Guelph 519-766-5337 dennis.vandyk@ontario.ca

Andrew Wylie, Ridgetown 519-401-5890 andrew.c.wylie@ontario.ca

Amanda Tracey, Ridgetown 519-350-7134 amanda.tracey@ontario.ca

"In This Issue"

VCR – Vegetable Crop

Report – September

3rd, 2020

VCR – Vegetable Crop Report – September 3rd, 2020

The VCR (vegetable crop report) is a weekly update which includes crop updates, weather and growing degree summaries for various vegetable growing regions across Ontario.



The weather and pest forecasting dashboard is live! Check out values specific to your region at <u>https://onvegetables.com/weather-dashboard/</u>

Temperature – Temperatures remain in the mid to low 20s into the weekend before rising at the beginning of next week. Many regions may see temperatures in the 30s with the humidex. Temperatures are expected to drop again towards the end of next week. Sudbury temperatures are

expected to remain stable. Cabbage maggot is at threshold in Huron, Wellington, Simcoe, Peterborough and Kemptville. Degree day data for each region is shown below.

Rainfall – There is a chance of showers at the beginning of next week for most of the province and throughout the week in northern regions. Some areas have already received small amounts of rain for September. All region came near and most surpassed their 10 year precipitation averages for August. Simcoe county received more than double its 10 year average. Precipitation data for each region is shown below.

Crop Updates

Brassica Crops – Alternaria is becoming more widespread in some areas. Depending on the Brassica crop grown, not all fungicides are labelled for use; see Table 1 below for fungicides registered on different Brassica crop groups. Diamondback moths, imported cabbage worms and tarnished plant bugs are active.

Ministry of Agriculture, Food and Rural Affairs



September 08, 2020

Table 1. Fungicides for Brassica Alternaria														
Listed pathogen control products are not necessarily registered on all brassica crops. This table is meant to only act as a guide. See the most up-to-date product label to ensure registration on a specific crop.														
LEGEND: C = control S = suppression RD = Reduction in damage R = registered — = not registered for control of this pathogen ² = Alternaria/ Xanthomonas complex (pin rot)														
		Crop Group 5-13					Crop Group 4-13B					CG-1		
Trade Name	Group	Control Level	Broccoli	Cauliflower	Cabbage	Brussels sprouts	Napa cabbage	Mustard Greens	Chinese cabbage / Bok choy	Collards	Rapini / Broccoli raab	Mizuna	Kale	Rutabaga
Miravis Duo	3/7	с	R	R	R	R	R	R	R	R	R	R	R	R
Sercadis	7	s	R	R	R	R	R	R	R	R	R	R	R	R
Endura	7	c	R	R	R	R	R	R	R	R	R	R	R	_
Fontelis	7	c	R	R	R	R	R	R	R	R	R	R	R	_
Luna Sensation	7/11	c	R	R	R	R	R	R	R	R	R	R	R	R
Switch 62.5 WG	9/12	s	-	_	R	_	_	R	R	R	R	R	R	_
Quadris	11	s	_	_	R	_	_	_	_	_	_	_	_	_
Quadris Top	11/3	s	R	R	R	R	R	R	R	R	R	R	R	_
Cease	44	S ²	R	R	R	R	R	R	R	R	R	R	R	_
Serenade Opti	44	S ²	R	R	R	R	R	R	R	R	R	R	R	-
Bravo ZN	м	c	R	R	R	R	_	_	-	_	-	_	_	-
Echo 90DF	M5	с	R	R	R	R	-	-	-	—	-	—	-	-

Carrot – Leaf blights remain the primary concern. Cercospora leaf blight can cause significant damage to the petioles and leaves (Figure 1).



Figure 1. Cercospora leaf blight on carrot.

Celery – Cercospora, Sclerotinia (pink rot, Figure 2), leaf curl and Fusarium yellows are active. Avoid scouting when leaves are wet as pathogens can spread easily on clothes/ equipment throughout the field. Disc harvested blocks to reduce pest pressure and plant a cover crop to prevent soil erosion. Continue to scout for tarnished plant bugs, aster leaf hoppers, Leafminers and aphids.

Figure 2. Sclerotinia pink rot on celery. Celery tissue turns pink with white fungal mycelium. Spores prefer cool, wet conditions with excessive moisture and spores travel by wind to infect new plants.



September 08, 2020

Cucurbits – Conditions have been favourable for infection by *Didymella bryoniae*, the causative agent of Gummy Stem Blight. Look for hot spots of stems with oozing lesions, and for distinctive patterns on the skin of butternut squash (Figure 3). These lesions do not reduce the quality of butternut squash fruit, but do reduce marketability. This pathogen also causes black rot of pumpkin.



Figure 3. Characteristic concentric lesions caused by *Didymella bryoniae* on butternut squash. Ridgetown ON, 2 Sept.

Aphids have been active in cucurbit fields, sprays for cucumber beetle can reduce populations of the beneficials that usually keep aphids in check. During wetter conditions aphid populations normally crash due to infection with natural fungi. Action is warranted if aphid populations are building on fruit.

Cucumber beetles remain active. Striped cucumber beetles have enjoyed continuous flushes through the season, and spotted cucumber beetle (Figure 4) populations are now increasing.

Squash vine borer *Melittia cucurbitae* (Figure 4) has been found in several areas. Management is preventative for this pest. Home and market gardeners sometimes excise the borers and allow vines to re-root but this can open the vines up to fungal infection. Look for sawdust-like frass around an entry hole on wilting plants, dissecting the stem will reveal the larvae.



Figure 4. Spotted cucumber beetle (left and bottom), Squash vine borer adult moth (top), Spotted cucumber beetle and striped cucumber beetle (top right). Ridgetown ON, 2 Sept.

Powdery mildew pressure remains high. Infection with powdery mildew can reduce fruit quality including poor internal colour development, and infection of the petiole (Figure 5) can reduce marketability.



Figure 5. Clockwise from top left: Acorn squash with powdery mildew infection on petioles and stems – Simcoe station, 1 Sept; top and underside of butternut squash leaf with increasing levels of powdery mildew – Simcoe station, 1 Sept; advanced powdery mildew infection on pumpkin, Simcoe station, 27 Aug.

Squash bugs are active and can cause crop damage (Figure 6) but are not usually a

problem in commercial fields. Colonies with many different instars are typical. Squash bugs prefer to feed on leaves but will move to fruit once leaves are no longer available.

Figure 6. Clockwise from top left: Squash Bugs on pumpkin fruit, Squash bugs and leaf damage, Squash bugs and skeletonized leaf, early instars on pumpkin leaf. Ridgetown ON, 2 Sept.



Onions – Most fields have started to lodge or have been harvested already. No downy mildew outbreaks have been confirmed. Scout patches of the field that are not as green and look closely at the leaves to ensure that there is no fuzzy growth. The 2020 Muck Crops Research Station Variety Trials Evaluation Days are September 8- – 11. Please call the Muck Station at 905-775-3783 or E-mail Shawn at sjanse@uoguelph.ca</u> to book your timeslot. Timeslots are available from 8:30AM to noon or 1:00 to 4:00 with a maximum of 10 people per time slot. Access to the Muck Station will be restricted and health protocols will be enforced.

Peppers – Hand harvest continues for processing and fresh market peppers. Many growers have noticed a yield boost from the recent rain events. No pepper weevils have been captured on outdoor survey traps. Growers should continue to scout for signs of the pest and check traps regularly. If you have caught a weevil and would like to have it looked at, please email pictures to Amanda Tracey at <u>amanda.tracey@ontario.ca</u> or call 519-350-7134.

Potatoes – Late blight has been confirmed in one New York County and probably in another NY county. Remain vigilant with scouting and fungicide application. Look out for Botrytis grey mould and white mould developing at the bottom of the canopies. Scout later harvested fields for black cutworm. As harvesting ramps up, keep an eye out for tuber diseases going into storage such as pink rot (Figure 7).



Figure 7. Potato pink rot.

Tomatoes – Harvesting for processing and fresh market is ongoing. New York has just reported an occurrence of Late blight in potato and tomato, which occurred approximately 2 weeks ago. The first observation of symptoms in Ontario occurred on potato in Norfolk County over a week ago. **No new instances** of late blight have been reported in Ontario this week. Tomato growers, especially those with late varieties that still have a significant amount of green foliage, should continue to scout for symptoms and apply general fungicides with activity against *Phytophthora infestans*. If a field is high risk (i.e. symptoms in the field or neighbouring crop), growers should consider applying a late blight specific fungicide. Please see the post "Late Blight Update – August 26, 2020(<u>https://onvegetables.com/2020/08/26/late-blight-update-august-26-2020/</u>)" for more information and links to additional resources. Always be sure to read product labels carefully before any pesticide application.

NOTE: Data as of September 2nd, 2020 Pest Degree Day Forecasting

Pest	Carrot Rust Fly	Onion Maggot	Carrot Weevil	Aster Leafhopper	Tarnished Plant Bug	Cabbage Maggot	Seedcorn Maggot	European Corn Borer
THRESHOLD	329-395, 1399-1711	210-700, 1025-1515	138-156, 455+	128+	40+	314-398, 847-960, 1446-1604	200-350, 600-750, 1000-1150	See legend below
Essex*	2335	2170	1721	1460	1097	1864	2170	1336
Chatham-Kent*	2161	2002	1578	1326	926	1711	2002	1206
Norfolk**	2144	1986	1550	1299	902	1687	1986	1178
Huron***	1901	1759	1368	1124	744	1493	1759	1006
Wellington**	1901	1753	1357	1118	746	1483	1753	1004
Simcoe County***	1935	1790	1399	1159	789	1524	1790	1044
Durham***	2069	1919	1511	1268	884	1638	1919	1151
Peterborough	1877	1727	1326	1084	709	1452	1727	968
Kemptville***	2014	1867	1462	1222	846	1588	1867	1107
Sudbury***	1723	1595	1237	1016	662	1350	1595	909

*- Bivoltine region for ECB. First Peak Catch: 300-350 DD, Second Peak Catch 1050-1100 DD

**- Overlap region for ECB. First Peak Catch : 300-350 DD Second Peak Catch 650-700 DD, Third Peak Catch 1050-1100 DD

***-Univoltine region for ECB. Peak Catch 650-700 DD

Use these thresholds as a guide, always confirm insect activity with actual field scouting and trap counts. Select a region below for the latest weather, crop and pest degree day information: Essex County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#essex</u>) Chatham-Kent County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#horfolk</u>) Norfolk County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#horfolk</u>) Huron County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#huron</u>) Wellington County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#wellington</u>) Simcoe County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#simcoe</u>) Durham County(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#durham</u>) Peterborough(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#peterborough</u>) Kemptville(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#kemptville</u>) Sudbury(<u>https://onvegetables.com/2020/09/03/2020vcr-19/#kemptville</u>)

Essex County



Essex Total Precipitation per Month



Chatham-Kent County



Chatham-Kent Growing Degree Days





Norfolk County





Norfolk Total Precipitation per Month



Huron County



Huron County Total Precipitation per Month



Wellington County



Wellington County Total Precipitation per Month



Simcoe County





Simcoe County Total Precipitation per Month



Durham County





Durham Total Precipitation per Month



Peterborough



Peterborough Total Precipitation per Month







Kemptville Total Precipitation per Month



Sudbury



Sudbury Total Precipitation per Month

