



Tuesday, August 13, 2019

### OMAFRA Vegetable Team:

Elaine Roddy, Ridgetown  
519 674 1616  
elaine.rodny@ontario.ca

Dennis Van Dyk, Guelph  
519 826 4587  
dennis.vandyk@ontario.ca

Travis Cranmer, Guelph  
519 826 4963  
travis.cranmer@ontario.ca

Amanda Tracey, Ridgetown  
519 674 1699  
Amanda.Tracey@ontario.ca

### “In This Issue”

- ◆ Current late blight risk in Ontario field tomatoes: August 7, 2019
- ◆ 2019 Ontario Potato Field Day
- ◆ VCR – Vegetable Crop Report – August 8 2019

## Current late blight risk in Ontario field tomatoes: August 7, 2019

**Cheryl Trueman, Department of Plant Agriculture, Ridgetown Campus – University of Guelph and Amanda Tracey, Vegetable Crops Specialist, OMAFRA, Ridgetown**

As mentioned in a previous post(<https://onvegetables.com/2019/06/20/current-late-blight-risk-in-ontario-field-tomatoes-june-20-2019/>), this is Year 1 of a three-year research project to assess the value of different spore traps and forecasting models to predict late blight risk for field tomatoes. We are comparing the Spornado and rotorod spore traps at eight sites in Kent County (Fig. 1), along with the BliteCast forecasting model.



Figure 1. Spornado (left) and rotorod (right) spore traps setup at Ridgetown Campus, University of Guelph.

**DNA of *Phytophthora infestans***, the organism that causes late blight, was detected by Spornado traps at 1 of 8 sites for the July 15-18 sampling period, 4 of 8 sites for the July 18-22 sampling period, **7 of 8 sites for the July 25-29 sampling period** and 2 of 8 sites for the July 29-August 1 sampling period.

**Rotorod traps detected spores of *P. infestans* at 1 of 8 sites for the July 22-25 sampling period and 2 of 8 sites for the July 29-August 1 sampling period.** Late blight symptoms caused by the US-23 genotype have been observed in New York and Wisconsin on potato, but there are no reports of symptoms on any crops in Ontario or Michigan.

A summary of fungicides for late blight management is available here(<https://onvegetables.com/2017/07/26/late-blight-alert-july-28th-2017/>).

## Current late blight risk in Ontario field tomatoes: August 7, 2019...con't

If you suspect late blight in your tomato crop, please reach out to Amanda Tracey ([Amanda.tracey@ontario.ca](mailto:Amanda.tracey@ontario.ca), 519-350-7134) to confirm the diagnosis. Cheryl is away on parental leave and will not be available for the remainder of the growing season.

**Project collaborators:** Tomecek Agronomic Services, Sporometrics, Phytodata, and Genevieve Marchand (AAFC).

**Funding acknowledgement:** Ontario Tomato Research Institute, Fresh Vegetable Growers of Ontario, and the Ontario Agri-Food Innovation Alliance.

Links to previous late blight posts from the 2019 season: June 20(<https://onvegetables.com/2019/06/20/current-late-blight-risk-in-ontario-field-tomatoes-june-20-2019/>), July 10(<https://onvegetables.com/2019/07/11/current-late-blight-risk-in-ontario-field-tomatoes-july-10-2019/>), July 20(<https://onvegetables.com/2019/07/20/current-late-blight-risk-in-ontario-field-tomatoes-july-20-2019/>).

## 2019 Ontario Potato Field Day

The 2019 Ontario Potato Field Day will be held on Thursday, August 22 at HJV equipment in Alliston.

View new equipment, varieties and the trade show starting at 3:00 with dinner at 5:30. See the flyer below for more details:



The flyer features a background image of white potato flowers. At the top right is the Ontario Potato Board logo, which consists of a stylized potato plant inside a green circle with the text "ontario potato board" below it. The main text is centered and reads: "2019 Ontario Potato Field Day Thursday, August 22". Below this, it says "HJV Equipment" and "5900 County Rd 10 ALLISTON". A light blue box contains the agenda: "AGENDA Starts at 3:00pm" followed by a bulleted list: "• Display of Latest Potato Equipment", "• Display of New Potato Varieties", and "• Trade Show". Below the list, it says "5:30 pm", "BBQ Sponsored by Syngenta", "Everyone is welcome!", and "Contact: eugeniabanks@onpotato.ca". At the bottom is the HJV Equipment logo, which features the letters "HJV" in a bold, stylized font with a yellow and black graphic element, followed by the word "EQUIPMENT".

**2019 Ontario Potato Field Day**  
**Thursday, August 22**

**HJV Equipment**  
**5900 County Rd 10**  
**ALLISTON**

**AGENDA**  
**Starts at 3:00pm**

- Display of Latest Potato Equipment
- Display of New Potato Varieties
- Trade Show

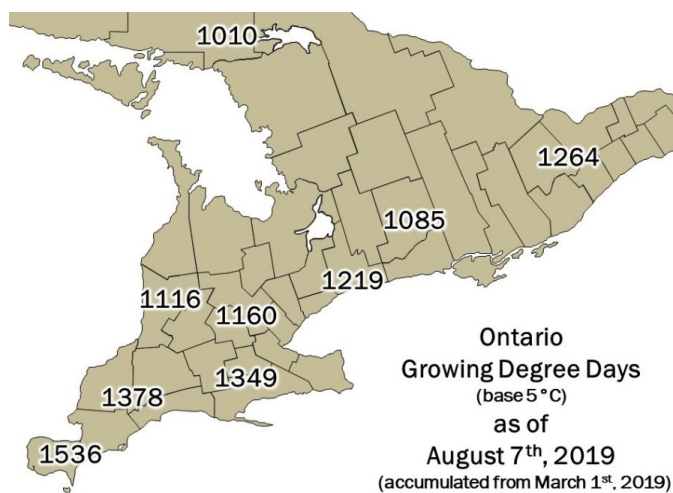
**5:30 pm**  
**BBQ Sponsored by Syngenta**  
**Everyone is welcome!**  
**Contact: eugeniabanks@onpotato.ca**

**HJV EQUIPMENT**



## VCR – Vegetable Crop Report – August 8, 2019

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.



**Temperature** – A warm week pushed the last of the growing regions above the 1000 degree-day mark accumulated so far this year. Chatham, Essex, and Norfolk regions continue to match their 10 year degree day averages while the remaining regions are still marginally to significantly behind their averages. Harvest is well underway for early and mid-season crops while later season crops continue to make progress.

**Rainfall** – Rainfall totals were generally low across all growing regions this week. Some regions received small amounts of precipitation, but all areas are well under the quarter mark of their respective 10-year averages for August.

### Crop Updates

**Brassica Crops** – Alternaria is active in most regions and head rot in broccoli and cauliflower has been observed. Remember to incorporate all plant material after harvesting a block to reduce the spore load and avoid irrigating in the evening as you want to avoid extended periods of leaf wetness. Not all fungicides labelled for Alternaria on Brassicas are registered on all the crop groups; Table 1 to the right can be used as a general guideline to determine if a product is registered on a brassica crop group. This season has had a high flea beetles pressure in most areas where Brassicas are grown. Keep an eye open for diamondback moths, cabbageworms, tarnished plant bugs, aphids and thrips. During the hot weather, head brassicas often wilt which could be due to a soil pathogen known as clubroot. Pull suspect plants and observe roots for large clubs. A clubroot survey of Brassica vegetables is underway; please contact Travis Cranmer at 519 835-3382 if you find clubroot in your field and we can conduct a pathotype analysis to determine what resistant cultivars to plant in the future.

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 <sup>2</sup> = Alternaria/ Xanthomonas complex (pin rot)														
Trade Name	Group	Control Level	Crop Group 5-13					Crop Group 4-13B					CG-1	
			Broccoli	Cauliflower	Cabbage	Brussels sprouts	Napa cabbage	Mustard Greens	Chinese cabbage / Bok choy	Collards	Rapini / Broccoli raab	Mizuna	Kale	Rutabaga
Fontelis	7	C	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	—
Bravo ZN	M	C	R	R	R	R	—	—	—	—	—	—	—	—
Switch 62.5 WG	9/12	S	—	—	R	—	—	R	R	R	R	R	R	—
Quadris	11	S	—	—	R	—	—	—	—	—	—	—	—	—
Echo 90DF	M5	C	R	R	R	R	—	—	—	—	—	—	—	—
Quadris Top	11/3	S	R	R	R	R	R	R	R	R	R	R	R	—
Cease	44	S <sup>2</sup>	R	R	R	R	R	R	R	R	R	R	R	—
Serenade Opti	44	S <sup>2</sup>	R	R	R	R	R	R	R	R	R	R	R	—

## **VCR – Vegetable Crop Report – August 8, 2019...con't**

**Carrot** – Canopies are generally closed in most fields. The second generation of Carrot Rust Fly is now active in the Chatham-Kent, Durham, Kemptonville, and Norfolk growing regions. Keep an eye out for leaf blights infecting the older leaves at the bottom of the canopy, as well as white mold in fields where the canopy has closed when scouting. Continue to monitor for leafhoppers when scouting as aster yellows has been a problem in some regions.

**Celery** – Celery leaf curl has been identified in several fields. Avoid walking through the fields when the humidity is high and the leaves are wet as celery leaf curl spores will stick to clothes and equipment. Carrot weevil damage as well as black heart (caused by a calcium deficiency) has also been observed. Keep an eye open for celery late blight / Septoria.

**Garlic** – Harvest is almost complete. Remember to keep harvested garlic out of direct sun once it is pulled and cure in an area that has good ventilation and low relative humidity. Curing is complete when the cloves are pulled apart and base of the stem close to the basal plate is dry. To learn more about garlic production, we are offering a full day workshop in Guelph on December 4<sup>th</sup> that will cover every part of garlic production including clean seed, cultivar selection, seeding density, nutrient testing, scape removal, weed control, crop insurance, harvesting, grading, storing as well as scouting/pest management. To register, call the agriculture contact centre at 1-877-424-1300.

**Onions** – Bacterial rot has been identified in both transplant and direct seeded fields. The weather has been conducive for Stemphylium development. Stemphylium leaf blight will often start on areas of the leaf where there was a natural wound or herbicide damage. As the spores infect the leaves, the tissue turns tan and pre-mature leaf dieback occurs. Spores of stemphylium will develop on the tan lesions and appear elongated along the leaf. The cooler, wet weather has kept the level of thrips low so far this season. Thrips are usually first detected along field borders. Pull the leaves apart and look down into the leaf base for 2mm-long grey adults or very small yellow nymphs ~1mm in length. The spray threshold for onion thrips is one thrips per leaf of plant from an average of 50 plants.

**Potatoes** – Continue to be vigilant in scouting for late blight, especially in irrigated areas as spores have been confirmed in spore traps found in Norfolk, Simcoe, Dufferin and Lambton counties. Late blight symptoms have been seen in both New York and Wisconsin; Ontario and Michigan have still not had any symptoms on plants yet this season. Early symptoms of late blight include water soaked lesions usually found on the lowest leaves near leaf tips or margins. Later infections will have dark brown or black lesions surrounded by a yellow halo, lesions will eventually coalesce together on both leaves and stems leading to plant collapse. If you suspect late blight in your field, please contact Dennis at [dennis.vandyk@ontario.ca](mailto:dennis.vandyk@ontario.ca), (519) 766-5337

## VCR – Vegetable Crop Report – August 8, 2019...con't

### Pest Degree Day Forecasting

Pest	Carrot Rust Fly	Onion Maggot	Carrot Weevil	Aster Leafhopper	Tarnished Plant Bug	Cabbage Maggot	Seedcorn Maggot	European Corn Borer
<b>THRESHOLD</b>	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*	1805	1668	1287	1059	758	1411	1668	951
Chatham-Kent*	1640	1506	1137	915	597	1255	1506	813
Norfolk**	1603	1473	1113	896	579	1229	1473	797
Huron***	1355	1233	900	701	419	1004	1233	610
Wellington**	1396	1277	943	746	465	1048	1277	658
Simcoe County***	1384	1263	932	739	462	1037	1263	651
Durham***	1456	1336	1004	812	526	1109	1336	722
Peterborough	1323	1201	866	667	393	973	1201	579
Kemptville***	1502	1381	1045	840	537	1152	1381	741
Sudbury***	1220	1113	822	651	399	913	1113	573

\*- 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(<https://onvegetables.com/2019/08/08/vcr-13/#essex>)

Chatham-Kent County(<https://onvegetables.com/2019/08/08/vcr-13/#chatham-kent>)

Norfolk County(<https://onvegetables.com/2019/08/08/vcr-13/#norfolk>)

Huron County(<https://onvegetables.com/2019/08/08/vcr-13/#huron>)

Wellington County(<https://onvegetables.com/2019/08/08/vcr-13/#wellington>)

Simcoe County(<https://onvegetables.com/2019/08/08/vcr-13/#simcoe>)

Durham County(<https://onvegetables.com/2019/08/08/vcr-13/#durham>)

Peterborough(<https://onvegetables.com/2019/08/08/vcr-13/#peterborough>)

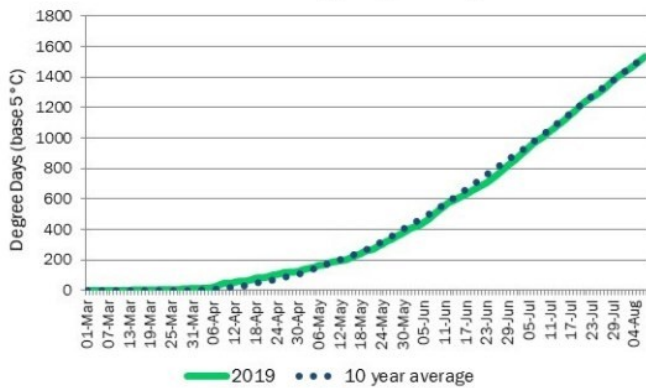
Kemptville(<https://onvegetables.com/2019/08/08/vcr-13/#kemptville>)

Sudbury(<https://onvegetables.com/2019/08/08/vcr-13/#sudbury>)

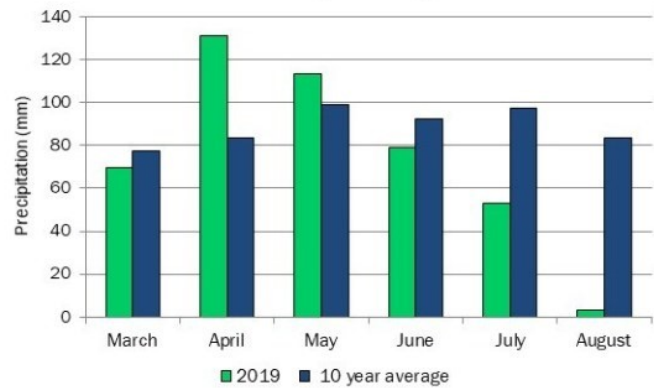
# VCR – Vegetable Crop Report – August 8 2019...con't

## Essex County

Essex Growing Degree Days

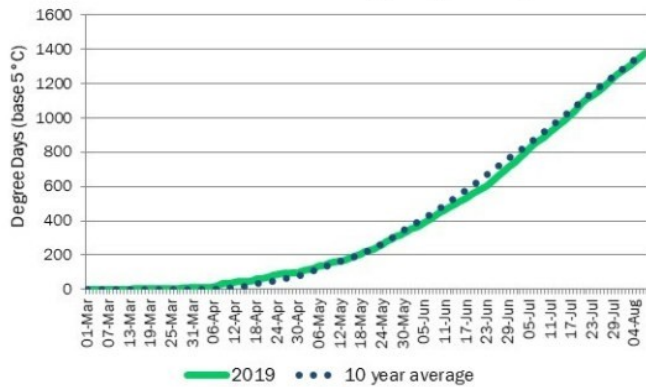


Essex Total Precipitation per Month

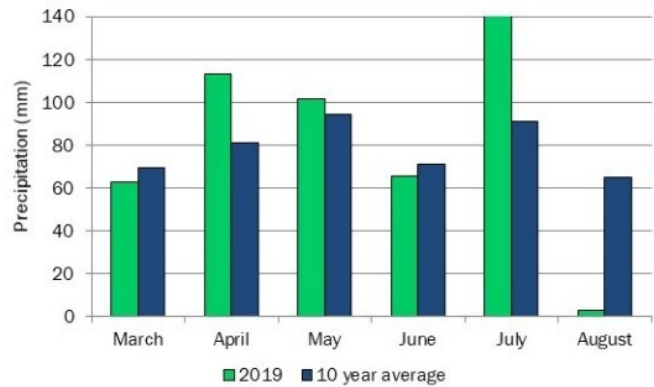


## Chatham-Kent County

Chatham-Kent Growing Degree Days



Chatham-Kent Total Precipitation per Month

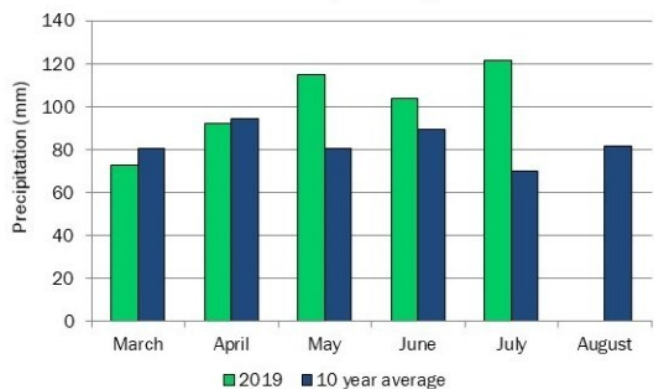


## Norfolk County

Norfolk Growing Degree Days



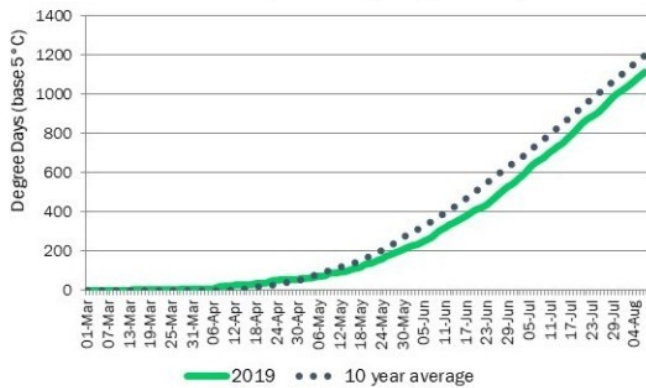
Norfolk Total Precipitation per Month



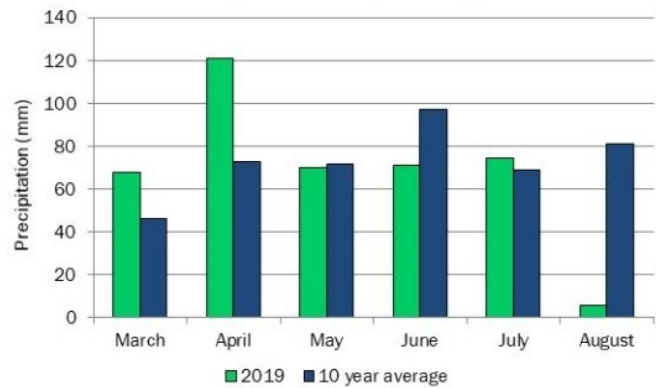
# VCR – Vegetable Crop Report – August 8 2019...con't

## Huron County

Huron County Growing Degree Days

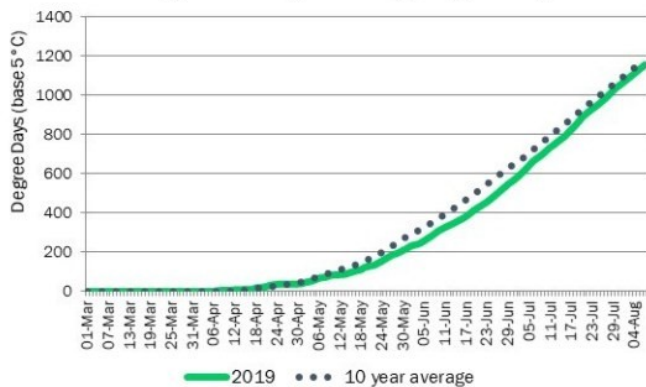


Huron County Total Precipitation per Month

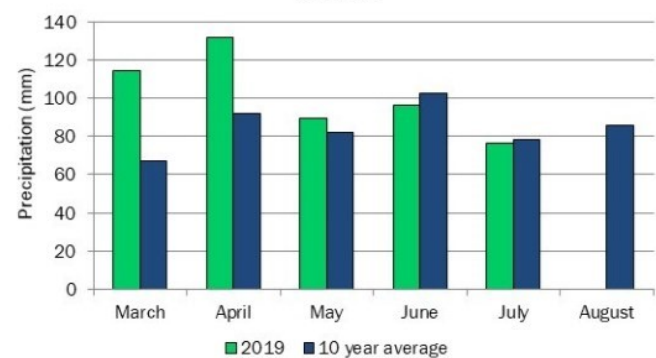


## Wellington County

Wellington County Growing Degree Days

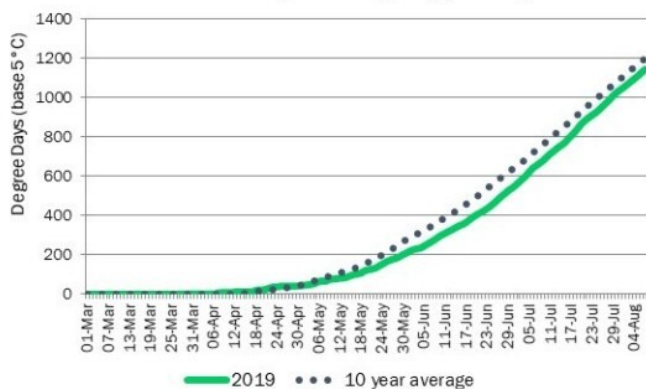


Wellington County Total Precipitation per Month

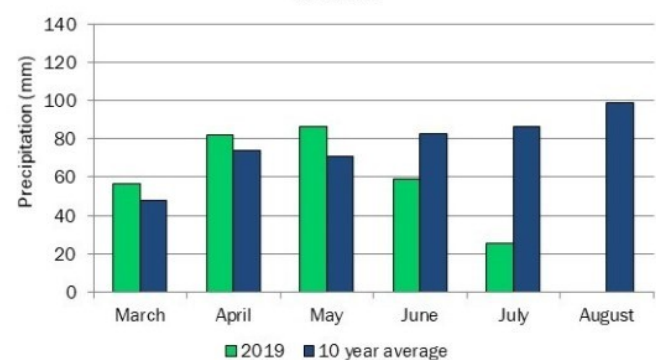


## Simcoe County

Simcoe County Growing Degree days



Simcoe County Total Precipitation per Month

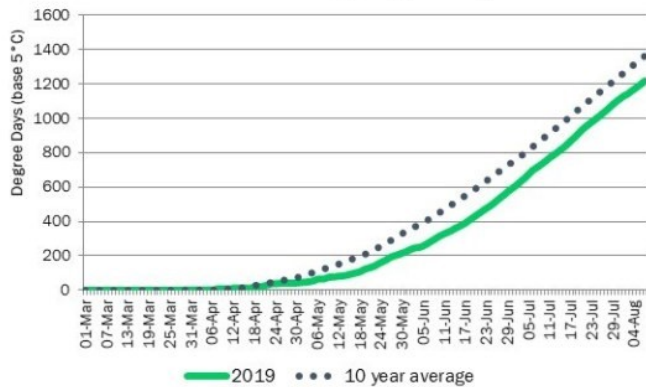




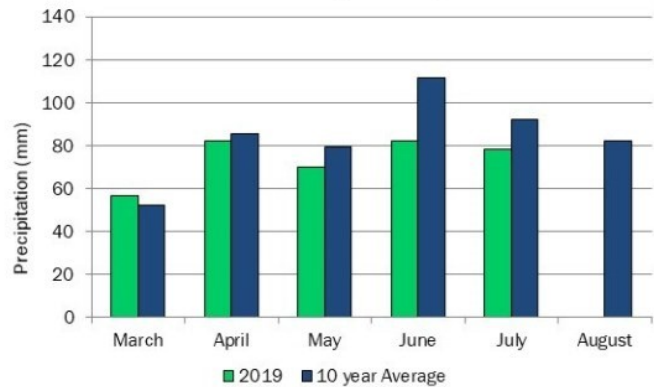
# VCR – Vegetable Crop Report – August 8 2019...con't

## Durham County

**Durham Growing Degree Days**

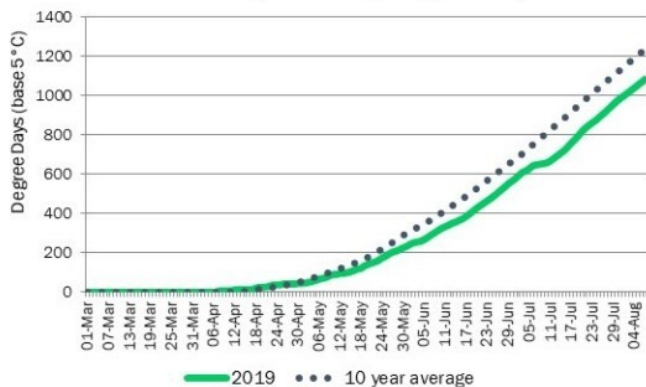


**Durham Total Precipitation per Month**

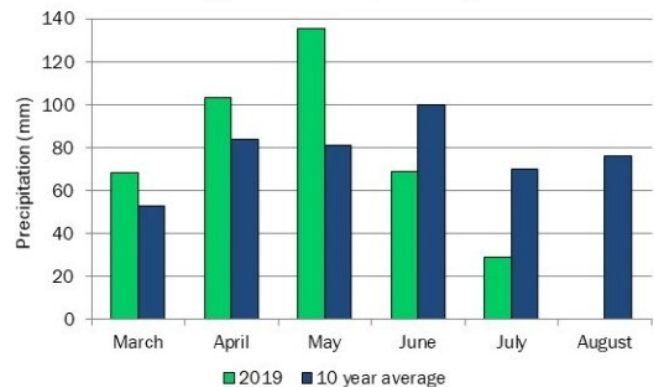


## Peterborough

**Peterborough Growing Degree Days**

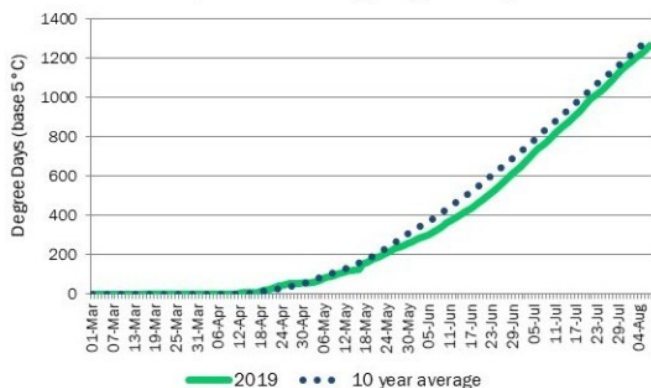


**Peterborough Total Precipitation per Month**

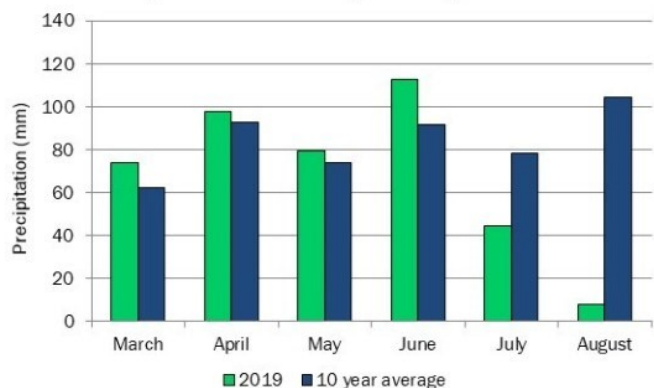


## Kemptville

**Kemptville Growing Degree Days**



**Kemptville Total Precipitation per Month**

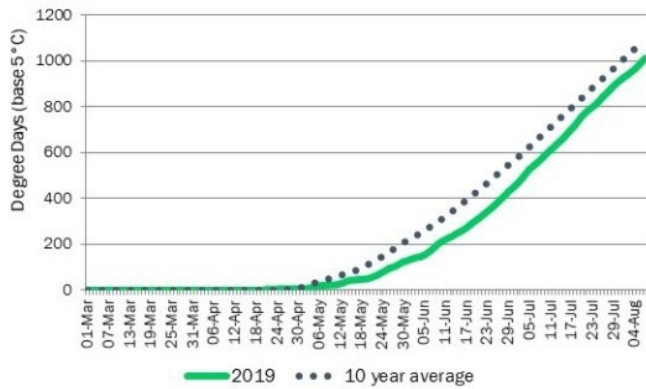




# VCR – Vegetable Crop Report – August 8 2019...con't

## Sudbury

Sudbury Growing Degree Days



Sudbury Total Precipitation per Month

