



Monday, July 24, 2023

OMAFRA Vegetable Team:

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

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

Elaine Roddy, Ridgetown
519-401-5890
elaine.rodgy@ontario.ca

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

Late blight update – July 21, 2023

**Amanda Tracey, Vegetable Crops Specialist, OMAFRA and
Katie Goldenhar, Pathologist (Horticulture), OMAFRA**



Sporangia of *Phytophthora infestans* have been detected via spore trap in tomato fields in Elgin and Essex counties, Ontario. There has also been a report of late blight symptoms on potato in Simcoe County, Ontario

Commercial growers should scout often and ensure they are using fungicides with good late blight activity in their fungicide program. When late blight is in the area, spray intervals should be shortened.

In situations where there is continued high disease pressure, growers should consider adding a targeted late blight fungicide to the spray program. If late blight has been identified in a field, use a fungicide with curative and antispore activity. A summary of fungicides for late blight management in tomato is available here (<https://onvegetables.com/2017/07/26/late-blight-alert-july-28th-2017/>).

Cloudy and high humidity or wet conditions are favourable for late blight. The pathogen prefers cool temperatures. The disease is suppressed by hot, dry weather, but it can continue developing and spreading when suitable conditions return.

Scout fields often. Know the symptoms. Refer to the Tomato Late Blight Photo Gallery (<https://onvegetables.com/2013/08/27/late-blight-photo-gallery/>) and Late Blight Look-Alikes (<https://onvegetables.com/2010/07/13/late-blight-look-alikes/>) for photos of late blight and possible look-alikes on tomato.

This is a community disease and control relies on everyone scouting and reporting any occurrences. If you suspect late blight in your crop, please reach out to an OMAFRA specialist to confirm the diagnosis quickly.

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

“In This Issue”

- ◆ Late blight update – July 21, 2023
- ◆ Sivanto Prime® insecticide label expanded via Minor Use Program to help Colorado potato beetle on field grown eggplant and field tomatoes in Canada
- ◆ VCR – Vegetable Crop Report – July 20th, 2023

Sivanto Prime® insecticide label expanded via Minor Use Program to help Colorado potato beetle on field grown eggplant and field tomatoes in Canada

Josh Mosiondz, Minor Use Coordinator, OMAFRA



The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion registration for Sivanto Prime® insecticide for control of Colorado potato beetle in field grown tomatoes and eggplant in Canada. Sivanto Prime® insecticide was already labeled for management of insects on a wide range of crops in Canada. This minor use proposal was submitted by the Ontario Ministry of Agriculture, Food, and Rural Affairs as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making insect management decisions within a robust integrated insect management program and should consult the complete label before using for Sivanto Prime® insecticide.

Crop(s)	Target	Rate (mL product / ha)	Application Information	PHI (days)
Field grown egg-plants, Field tomatoes	Control of Colorado potato beetle	2000 [based on 20 mL/100 m single row spaced 1 m apart OR 30 mL/100 m twin row spaced 1.5 m apart (note: each twin row consists of two single rows treated with 15 mL/100 m single row)]	Apply as an in-furrow application at transplanting. Application should be made with sufficient water to ensure incorporation into the root zone. Maximum Sivanto Prime Insecticide allowed per crop season, regardless of application method: 2000 mL/ha. Do not make any application of Sivanto Prime Insecticide following a soil, in-furrow, or seed treatment application of a Group 4D Insecticide.	45

Toxic to aquatic organisms. Observe spray buffer zones specified under DIRECTIONS FOR USE. Toxic to adult bees in laboratory studies via oral exposure, however, not toxic to bees through contact exposure, and field studies conducted with this product have shown no effects on honeybee colony development. Minimize spray drift to reduce exposure to bees in habitats close to the application site. Application during the crop blooming period, and when flowering weeds are present may only be made in the early morning and the evening when most bees are not foraging. To further minimize exposure to pollinators, refer to the complete guidance “Protecting Pollinators during Pesticide Spraying – Best Management Practices” on the Health Canada website (www.healthcanada.gc.ca/pollinators). Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland. Flupyradifurone is persistent and may carryover. It is recommended that any products containing flupyradifurone not be used in areas treated with this product during the previous season. This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

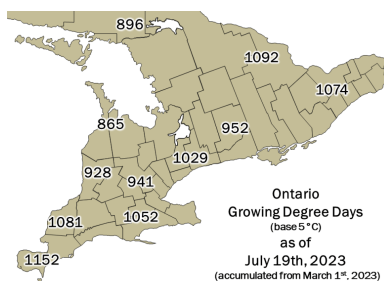
Follow all other precautions, restrictions, and directions for use on the for Sivanto Prime® insecticide label carefully.

For a copy of the new minor use label contact your contact Amanda Tracey, Vegetable Crops Specialist, OMAFRA, Ridgetown (519) 350-7134, your regional supply outlet, regional supply outlet, or visit the PMRA label site <http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php>

Note: This article is not intended to be an endorsement or recommendation for this particular product, but rather a notice of registration activity

VCR – Vegetable Crop Report – July 20th, 2023

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.



Welcome back to the VCR! Precipitation is up throughout the province in every county, and will continue to rise over the weekend.

Brassica Crops – *Alternaria* and *Sclerotinia* white rot have been observed. For both pathogens, residue from harvested blocks should be incorporated as soon as possible to reduce inoculum. Managing chewing insects will also reduce the spread of *Sclerotinia*. Cabbage aphid and Swede midge populations are increasing. Swede midge (<https://onvegetables.com/2018/05/17/swede-midge-is-often-mistaken-for-bacterial-rot-in-brassicas/>) lays its eggs on the main growing point. The larvae hatch out and feed on the tissue which can result in multiple heads (Figure 1) or bacterial symptoms (Figure 2) months later. Swede midge damage is often found in early-transplanted fields where the first insecticide application for other pests was delayed.



Figure 1. Multi-headed cabbage plant.



Figure 2. Swede midge damage on kale – photo by A. Quinn.

Garlic – Harvest continues across the province. Always avoid leaving harvested bulbs in direct sunlight after they have been pulled. Take the time to cull/remove bulbs with rots or defects before they go into storage. If you are seeing rot around the basal plate, consider getting the bulb tested to rule out stem and bulb nematode. Be vigilant about reducing mechanical injury during harvest. The excess moisture will make it easy for pathogens to colonize wounds and lower quality and storability. Controlling humidity is the most important variable to control when curing. Forced air at less than 50% relative humidity is key for removing moisture from the crop quickly before it is stored. Curing over a long period of time (eg. 14+ days), can allow storage pathogens and bulb mites to acclimatize and cause problems in storage. Curing under a week is less favourable for pests and should allow the crop to be stored longer. The higher the quality of crop that goes into storage, the longer it will last.

Onions – Most fields are showing some level of *Stemphylium* pressure now. Allegro 500F (<https://cropprotectionhub.omafra.gov.on.ca/products/allegro-500-f>) (group 29) is now registered for suppression of *Stemphylium*, *Botrytis* leaf blight and purple blotch. A product containing mancozeb (group M3s, such as Manzate Pro-Stick, Dithane Rainshield, and Penncozeb 75 DF Raincoat) may provide protection against *Stemphylium* if it is being applied to manage onion smut, *Botrytis* or *Alternaria*/Purple Blotch. Allegro 500F and products containing a group 7 show the best efficacy, such as Sercadis, Aprovia, or Miravis Duo (group 7/3). Avoid applying products from the same chemical group one after the other to manage *Stemphylium*. Research has shown that there is very high resistance in *Stemphylium* to one of the fungicides in Quadris Top (group 11/3) and in Luna Tranquility (group 7/9). Levels of thrips are climbing in some fields even given how wet it's been. Apply no more than two consecutive insecticides from the same IRAC crop as thrips have a relatively short life cycle with multiple generations through the summer months and are at a high risk of developing insecticide resistance. The next generation of onion maggot and seedcorn maggot are active in many areas across the province. Be on the lookout for onion downy mildew and stunted/wilted plants due to onion maggot over the next week.

VCR – Vegetable Crop Report – July 20th, 2023...con't

Pest Degree Day Forecasting

County	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
Bruce***	1054	958	688	525	324	775	958	455
Essex*	1383	1265	947	765	514	1046	1265	679
Chatham-Kent*	1293	1179	873	694	454	970	1179	612
Norfolk**	1271	1158	859	683	445	953	1158	599
Huron***	1126	1022	745	579	362	832	1022	501
Wellington**	1133	1033	759	592	373	848	1033	515
Simcoe County***	1141	1040	759	596	379	848	1040	520
Durham***	1236	1129	837	667	439	927	1129	588
Peterborough	1159	1056	767	597	375	858	1056	520
Kemptville***	1269	1165	877	701	466	970	1165	616
Sudbury***	1073	981	726	570	367	809	981	497
Timiskaming***	1049	958	697	541	346	783	958	470
Lambton**	1237	1127	825	652	418	920	1127	569
Thunder Bay	881	795	557	421	239	634	795	356
Middlesex*	1273	1164	869	692	452	962	1164	610
Renfrew	1274	1174	888	714	484	981	1174	634

*- 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:

Norfolk(<https://onvegetables.com/2023/07/20/vcr2023-12/#NorfolkLink>)

Essex(<https://onvegetables.com/2023/07/20/vcr2023-12/#EssexLink>)

Sudbury(<https://onvegetables.com/2023/07/20/vcr2023-12/#SudburyLink>)

Chatham-Kent(<https://onvegetables.com/2023/07/20/vcr2023-12/#ChathamKentLink>)

Peterborough(<https://onvegetables.com/2023/07/20/vcr2023-12/#PeterboroughLink>)

Huron(<https://onvegetables.com/2023/07/20/vcr2023-12/#HuronLink>)

Durham(<https://onvegetables.com/2023/07/20/vcr2023-12/#DurhamLink>)

Thunder Bay(<https://onvegetables.com/2023/07/20/vcr2023-12/#ThunderBayLink>)

Bruce(<https://onvegetables.com/2023/07/20/vcr2023-12/#BruceLink>)

Kemptville(<https://onvegetables.com/2023/07/20/vcr2023-12/#KemptvilleLink>)

Lambton(<https://onvegetables.com/2023/07/20/vcr2023-12/#LambtonLink>)

Middlesex(<https://onvegetables.com/2023/07/20/vcr2023-12/#MiddlesexLink>)

Renfrew(<https://onvegetables.com/2023/07/20/vcr2023-12/#RenfrewLink>)

Simcoe(<https://onvegetables.com/2023/07/20/vcr2023-12/#SimcoeLink>)

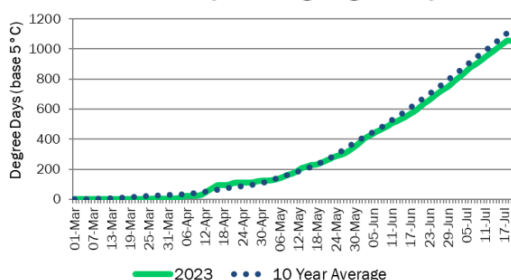
Wellington Centre(<https://onvegetables.com/2023/07/20/vcr2023-12/#WellCentreLink>)

Wellington North(<https://onvegetables.com/2023/07/20/vcr2023-12/#WellNorthLink>)

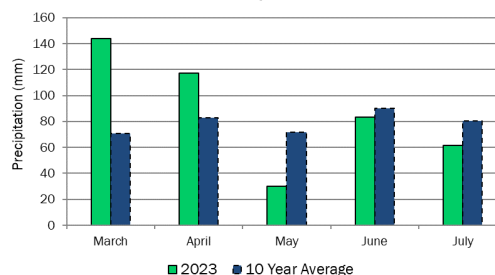
Timiskaming(<https://onvegetables.com/2023/07/20/vcr2023-12/#TimiskamingLink>)

Norfolk

Norfolk County Growing Degree Days



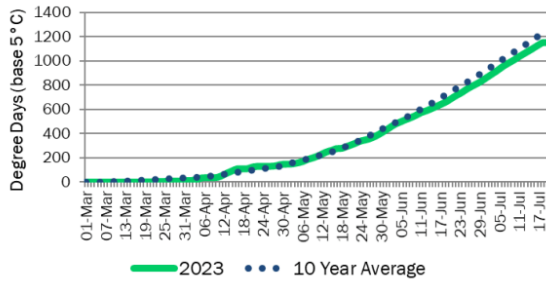
Norfolk Total Precipitation Per Month



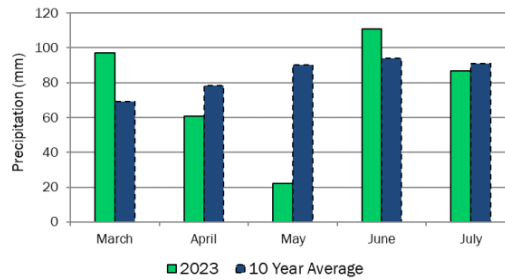
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Essex

Essex County Growing Degree Days

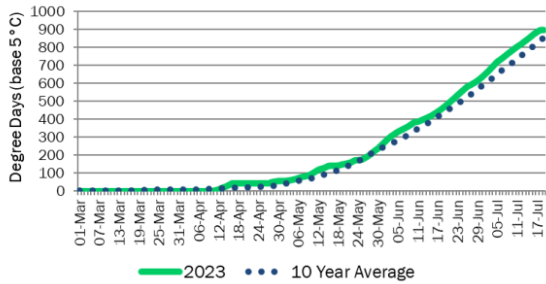


Essex Total Precipitation Per Month

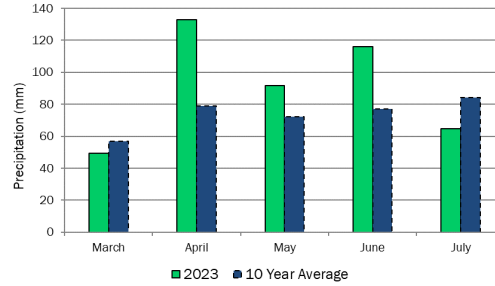


Sudbury

Sudbury County Growing Degree Days

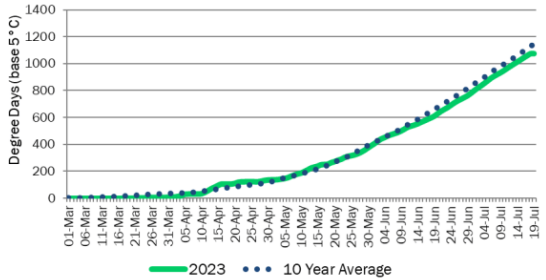


Subury Total Precipitation Per Month

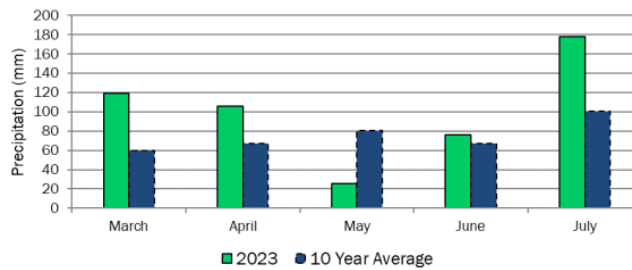


Chatham-Kent

Chatham-Kent County Growing Degree Days

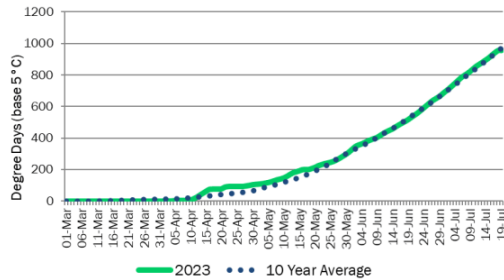


Chatham-Kent Total Precipitation Per Month

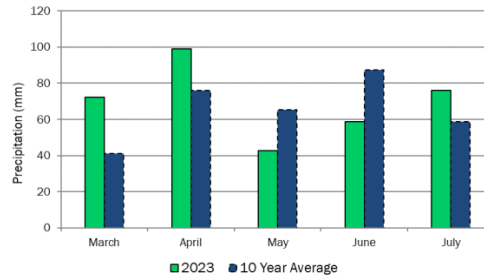


Peterborough

Peterborough County Growing Degree Days

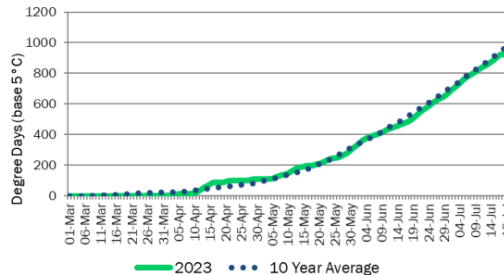


Peterborough Total Precipitation Per Month

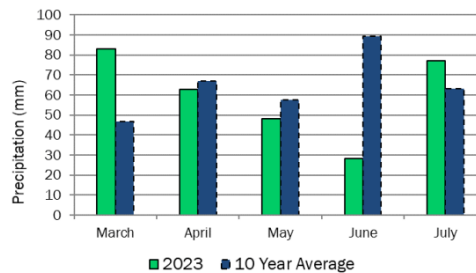


Huron

Huron County Growing Degree Days



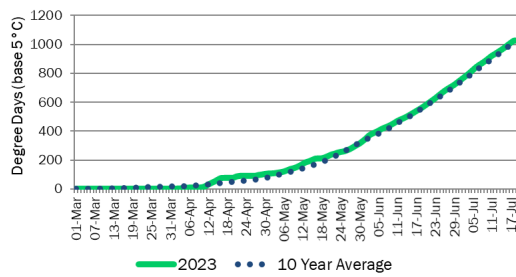
Huron Total Precipitation Per Month



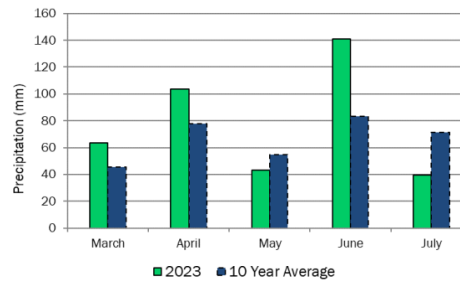
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Durham

Durham County Growing Degree Days

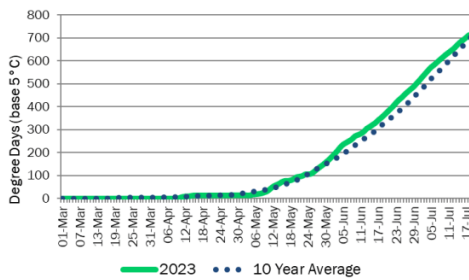


Durham Total Precipitation Per Month

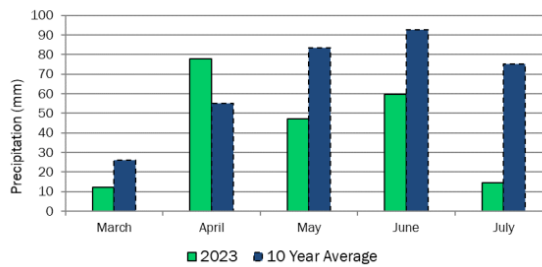


Thunder Bay

Thunder Bay Growing Degree Days

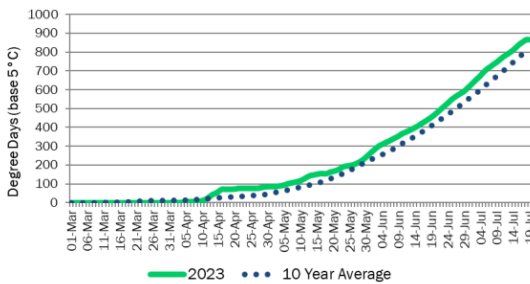


Thunder Bay Total Precipitation Per Month

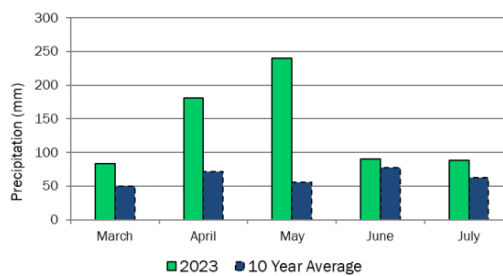


Bruce

Bruce County Growing Degree Days

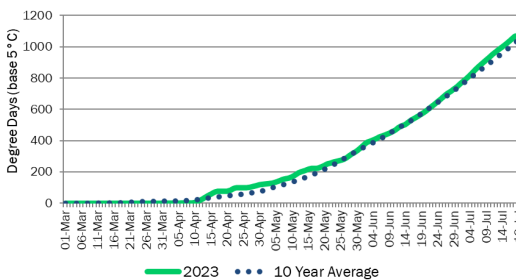


Bruce Total Precipitation Per Month

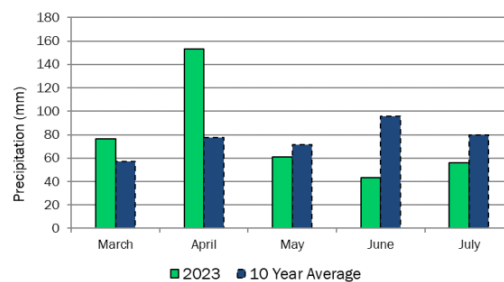


Kemptville

Kemptville County Growing Degree Days

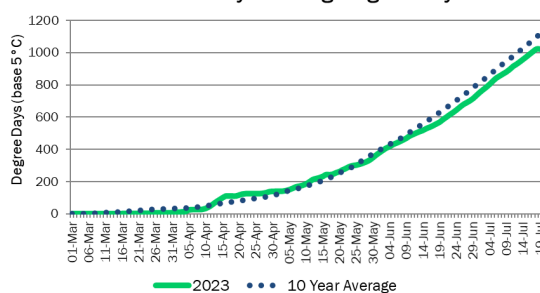


Kemptville Total Precipitation Per Month

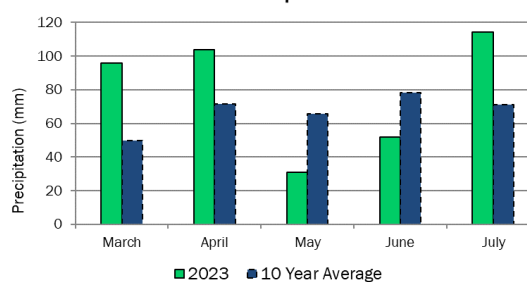


Lambton

Lambton County Growing Degree Days



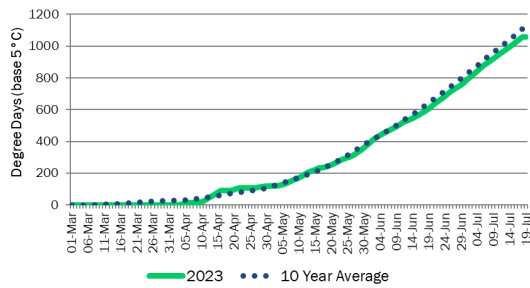
Lambton Total Precipitation Per Month



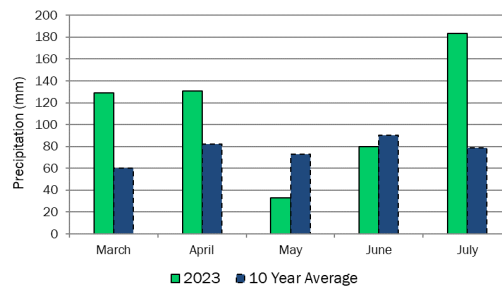
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Middlesex

Middlesex County Growing Degree Days

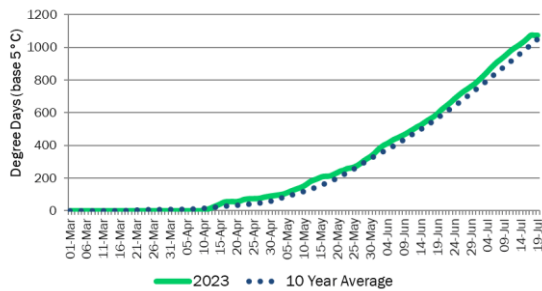


Middlesex Total Precipitation Per Month

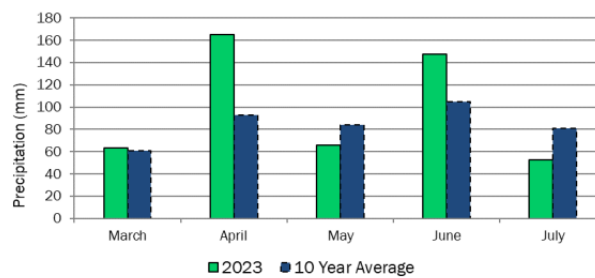


Renfrew

Renfrew County Growing Degree Days

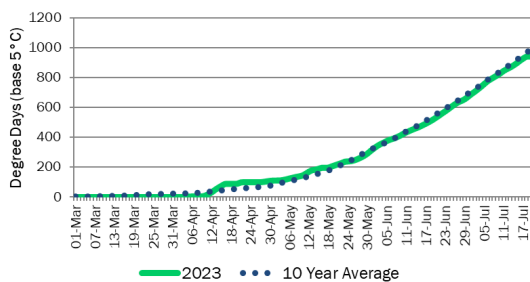


Renfrew Total Precipitation Per Month

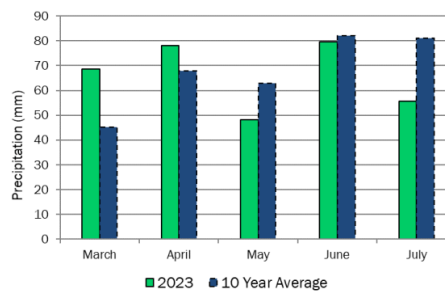


Simcoe

Simcoe County Growing Degree Days

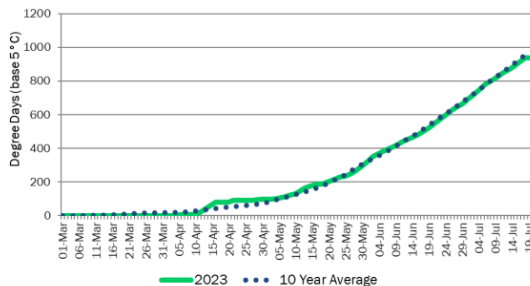


Simcoe Total Precipitation Per Month

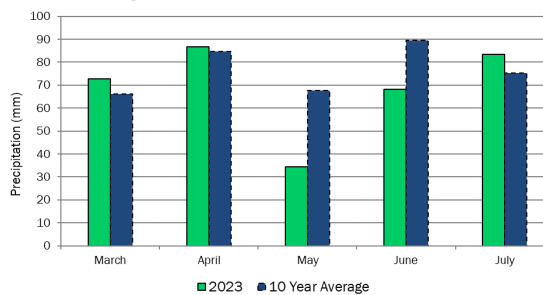


Wellington Centre

Wellington Centre County Growing Degree Days

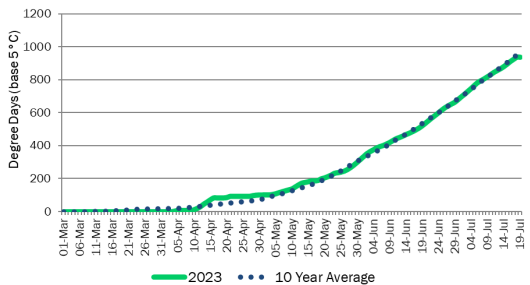


Wellington Centre Total Precipitation Per Month

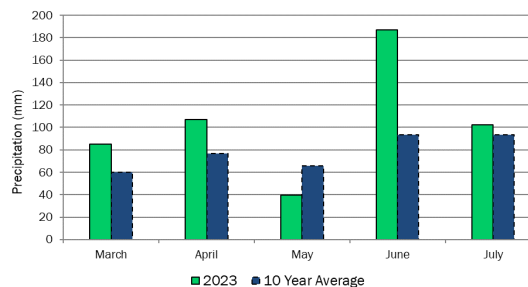


Wellington North

Wellington North County Growing Degree Days



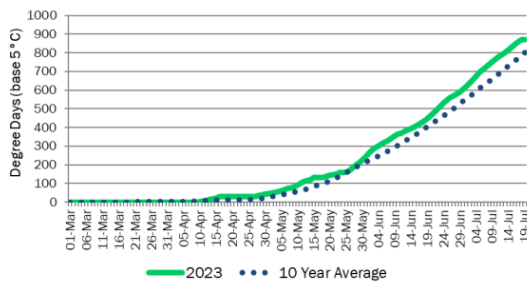
Wellington North Total Precipitation Per Month



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Timiskaming

Timiskaming County Growing Degree Days



Timiskaming Total Precipitation Per Month

