



Tuesday, May 12, 2020

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Great Lakes Vegetable Producer's Network

The Great Lakes Vegetable Producer's Network is a live weekly roundtable discussion during the growing-season for commercial vegetable producers in the Great Lakes and Midwest region.

Live episodes will be held every Wednesday at 12:30 for a half hour discussion of commercial vegetable production over lunch.

Check out the link below where you join in, subscribe for email reminders and send in your vegetable production questions for future weeks.

<https://www.glveg.net/listen>

GREAT LAKES VEGETABLE PRODUCER'S NETWORK



"In This Issue"

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- ◆ Ontario Potato Scout Training 2020
- ◆ Frost Protection Resources
- ◆ What to Expect from Herbicides in Cold Weather
- ◆ VCR – Vegetable Crop Report – May 7, 2020

Join Zoom live online or over the phone with the following information at
12:30 ET/11:30 CT every Wednesday

Join online: bit.ly/glvpnlive

Or call in: US: +1 312 626 6799 | Canada: +1 647 374 4685

Enter meeting ID: 936 7176 7610

Get the latest information or subscribe to get email or calendar reminders at
www.glveg.net/listen

GLVPN
GREAT LAKES VEGETABLE PRODUCER'S NETWORK

Ministry of Agriculture,
Food and Rural Affairs

Ontario

May 12, 2020

Ontario Potato Scout Training 2020



The 2020 Ontario Potato Scout Training will be held via webinar on May 21 and May 28.

For more details check out the Announcement(<https://onvegetables.com/wp-content/uploads/2020/05/Annoucement-potato-webinars.pdf>).

Follow the link below to register:

<https://register.gotowebinar.com/register/2653384747390779659>

Frost Protection Resources



With a stretch of cold weather coming up and many vegetable crops already planted, here are some resources on protecting your crop.

Rebecca Shortt – OMAFRA

Q. I don't have complete sprinkler coverage and can't frost protect (e.g. drip, traveling gun). Should I irrigate before the frost event?

A. If the soil is dry then, YES, an irrigation today, BEFORE the soil cools, will help (can protect 1 degree C or so). Do this before evening – you want the plants to be dry tonight.

Links:

Should I Irrigate Ahead of the Coming Freeze? – MSU(<https://www.canr.msu.edu/news/should-i-irrigate-ahead-of-the-coming-freeze>)

Irrigation For Frost Protection – OMAFRA(http://www.omafr.gov.on.ca/english/crops/facts/frosprot_straw.htm)

Frost Protection Tools – OMAFRA(<http://www.omafr.gov.on.ca/english/crops/hort/news/orchnews/2017/on-0417a1.htm>)

Moist, non-cultivated soil retains more heat – MSU(https://www.canr.msu.edu/news/moist_weed_free_soil_retains_more_heat)

Frost/Freeze protection using irrigation – Irrigation-Mart(http://www.irrigation-mart.com/customer/irrmart/pdf/Frost_Freeze_Protection_Using_Irrigation.pdf)

Freezing crops and soil – Iowa State Extension(<https://crops.extension.iastate.edu/encyclopedia/freezing-crops-and-freezing-soil>)

Frost Protection Resources...con't

Anne Verhallen – OMAFRA

Comments on irrigation water temperature

- Where is the irrigation water coming from – in regards to temperature – is it cooler than the soil currently (years ago researchers at Harrow looked at watering from the well on site – it actively cooled the soil which was a problem early on with tomatoes – and yes I realize they are more cold sensitive)
- What is the forecast in terms of sun – moist soil will hold heat but it needs sun to build heat (again years ago working with windstrips again in tomatoes, I never worried if we were sunny before a cold night – the worrisome ones were the cool cloudy days followed by the clouds disappearing and a cold clear night)

Effect of Different Soil Surfaces on Temperatures at 4 ft – Original Source(<http://cetulare.ucdavis.edu/files/81997.pdf>)

Soil	Relative Temperature
Bare, firm, moist soil	Warmest
Moist soil, shredded cover crop	0.5 F colder
Moist soil, low cover crop	1 to 3 F colder
Dry firm soil	2 F colder
Freshly disced soil	2 F colder
High cover crop	2-4 F colder

What to Expect from Herbicides in Cold Weather

Kristen Obeid, Weed Management Specialist – Horticulture, OMAFRA



I've been getting a lot of questions on how well certain herbicides will work in our colder than normal weather. There is no question that cold weather will impact post emergent herbicide performance. Optimal temperatures are between 60 – 80 °F or (16 – 27 °C). Cold weather slows weed growth and hardens cell walls. This affects uptake of the herbicide by the weed which can lead to reduced weed control. Plants degrade herbicides by metabolism, but plant metabolism slows during cool or cold conditions, which extends the amount of time required to degrade herbicides in plants.

What to Expect from Herbicides in Cold Weather...con't

Cold temperatures following a herbicide application influences crop safety or injury and weed control from herbicides. Rapid degradation of herbicides under warm conditions allows crop plants to escape herbicide injury. Slow degradation of herbicides during cold weather could result in crop injury depending on the herbicide.

Grass and broadleaf weeds are controlled more effectively when plants are actively growing. Cool or cold conditions at and following application of products containing fenoxaprop-p-ethyl (Puma) give greater grass weed control but also may cause crop injury. Other ACCase herbicides such as quizalofop-p-ethyl (Assure II), sethoxydim (Poast Ultra), and clethodim (Select, Arrow, Centurion) provide better grass control in warm weather when grasses are actively growing.

Cold temperatures, including freezing conditions following application of ALS herbicides, that contain metribuzin (Lexone, Sencor, Tricor, Squadron) and bromoxynil (Pardner, Bromax, Brotex, Buctril) may increase crop injury of respective crops but weed control will be maintained.

Bentazon (Basagran), fomesafen (Flexstar), glufosinate-ammonium (Ignite) and acifluofen (Ultra Blazer) may not cause crop injury when cold temperatures follow application but less weed control may result.

2,4-D, dicamba, MCPA, clopyralid (Lontrel), fluroxypyr (Starane), glyphosate (tolerant crops) have adequate crop safety and provide similar weed control, but weed death is slowed when cold temperatures follow application.

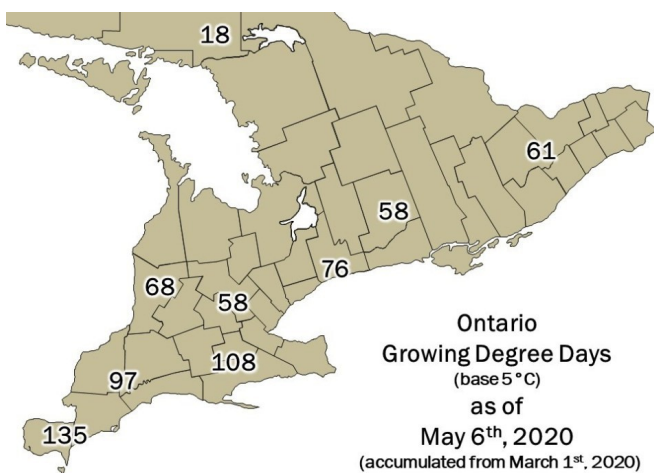
The recommendation for applying products containing fenoxaprop and ALS herbicides that contain metribuzin is to delay application until daytime temperatures exceed 60 °F (16 °C) and after active plant growth resumes.

Cold weather generally is not a concern for pre-emergence herbicides and can actually help certain products. Volatility losses are less in cold temperatures, a benefit for products such as trifluralin (Treflan, Bonanza, Rival) and dichlobenil (Casoron) which can volatilize during warm temperatures. Also, herbicide breakdown by microorganisms is slower in low temperatures, increasing herbicide longevity and, thus, the length of weed control for pre-emergence herbicides.

So, the bottom line ... if you haven't applied your pre-emergent herbicides, now is the perfect time and if possible try to apply all post-emergent herbicides when temperatures are above 60 °F (16 °C).

VCR – Vegetable Crop Report – May 7, 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 Vegetable Crop Report is back for another season!
We hope everyone is staying safe, and your field season's are off to a good start despite everything that is going on.

VCR – Vegetable Crop Report – May 7, 2020...con't

Temperature – Growing Degree Day values continue to lag behind 10-year averages in Peterborough, Kemptville and Sudbury but have mostly caught up in all other regions. Cooler temperatures are expected in the upcoming week and there is a high risk of frost in most regions for Friday evening and over the weekend. Take the necessary precautions to protect any crops already planted. Temperatures have not yet been warm enough to trigger pest forecasting thresholds for any regions (a possible exception being leek moth emergence in some southern portions of the province). Degree day data for each region is shown below.

Rainfall – Flurries are possible over the weekend in all regions. Regions in southern Ontario may see wet flurries or a mix of rain and snow. No rain is forecasted for the remainder of the upcoming week. Precipitation data for each region is shown below.

Crop Updates

Asparagus – Cooler weather has kept emergence slow, however some growers have begun their harvest.

Brassica Crops – Transplanting is ongoing and dryer areas have required irrigation after transplanting. Seedcorn maggot fly will likely reach it's first generation growing degree threshold in Essex and Norfolk counties this week. Early plantings are at risk of frost injury over the next few days. Irrigating will keep the soil moist and may provide a buffer to help keep the soil temperature above freezing.

Carrots – Register now(<https://onvegetables.com/2020/04/17/ipm-2/#carrot>) to attend the online Carrot and Celery IPM Scouting Workshop scheduled for next Tuesday, May 12th. Many early carrot fields are seeded with some already needing irrigation. The upcoming cold weather is a concern and frost has already caused issues resulting in fields being re-seeded. Soil-borne pathogens might also be an issue with the cooler soil temperatures.

Celery – Register now(<https://onvegetables.com/2020/04/17/ipm-2/#carrot>) to attend the online Carrot and Celery IPM Scouting Workshop scheduled for next Tuesday, May 12th.

Cucurbit Crops – The earliest planting date for the warmest area of Ontario tends to be around May 10, Register now(<https://onvegetables.com/2020/04/17/ipm-2/#cucurbit>) for the online Cucurbit IPM Scouting workshop for Thursday, May 20th.

Garlic – Tipburn is being observed on plants that have experienced some hard frosts after the 3 leaf stage or a herbicide application that was applied when the temperature was low. Avoid applying nitrogen after the 5th leaf stage to reduce the amount of rough bulbs at harvest. Leek moths were captured in traps last weekend during the warm weather that was experienced across the southwestern part of the province. With the cool weather at night that we have experienced this week there may be another scattered start for leek moth this year. If your garlic already shows leaf damage due to an insect, please send photos to travis.cranmer@ontario.ca.



Leek moths were active in several counties including Wellington around May 3rd

VCR – Vegetable Crop Report – May 7, 2020...con't

Onions – The cool weather has slowed germination and made transplants slow to establish. With the cool weather soil borne pathogens may cause pre-emergent damping off. Once the flag leaf has emerged, count out 25 plants per row and put a stake or stick at each end and record the number of plants every few days. Count the number of plants over the next few weeks and monitor for damage due to maggot flies, damping-off or cold weather. Register now(<https://onvegetables.com/2020/04/17/ipm-2/#onion>) for the online Onion IPM Scouting workshop for Thursday, May 14th. Onion insect and pathogen scouting will be the focus of the webinar.

Potatoes – Planting conditions have been excellent in the last week and many acres have been planted. Concerns about the upcoming cold weather, especially in areas with emerged crop. Irrigating will keep the soil moist which could help keep the soil temperature above freezing.

Rhubarb – Some frost damage has been observed on emerging leaves. Remove wilted stalks and monitor for secondary infection.

Sweet Corn, Beans and Peas – Planting is now underway in many regions. Register now(<https://onvegetables.com/2020/04/17/ipm-2/#corn>) for the online Sweet Corn, Beans and Peas IPM Scouting workshop for Friday, May 15th.

Tomatoes – Planting dates in the warmest areas of the province have been delayed to May 13th at the earliest due to cool temperatures and risk of frost.

NOTE: Data as of May 6th, 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*	223	176	73	39	13	101	176	29
Chatham-Kent*	174	131	51	26	3	70	131	17
Norfolk**	187	146	53	25	2	76	146	15
Huron***	123	93	37	17	0	50	93	9
Wellington**	118	84	26	9	0	39	84	4
Simcoe County***	113	81	26	9	0	40	81	4
Durham***	143	107	36	16	1	52	107	9
Peterborough	118	84	26	8	0	39	84	4
Kemptville***	119	89	28	11	1	40	89	6
Sudbury***	44	28	5	1	0	9	28	0

*- 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

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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/2020/05/07/2020vcr-2/#essex>)

Chatham-Kent County(<https://onvegetables.com/2020/05/07/2020vcr-2/#chatham-kent>)

Norfolk County(<https://onvegetables.com/2020/05/07/2020vcr-2/#norfolk>)

Huron County(<https://onvegetables.com/2020/05/07/2020vcr-2/#Huron>)

Wellington County(<https://onvegetables.com/2020/05/07/2020vcr-2/#wellington>)

Simcoe County(<https://onvegetables.com/2020/05/07/2020vcr-2/#simcoe>)

Durham County(<https://onvegetables.com/2020/05/07/2020vcr-2/#durham>)

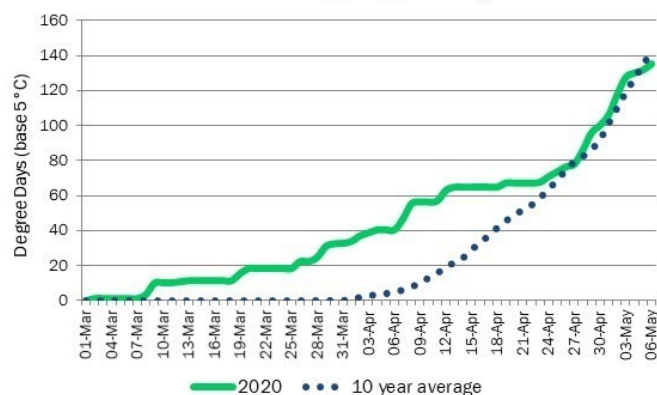
Peterborough(<https://onvegetables.com/2020/05/07/2020vcr-2/#peterborough>)

Kemptville(<https://onvegetables.com/2020/05/07/2020vcr-2/#kemptville>)

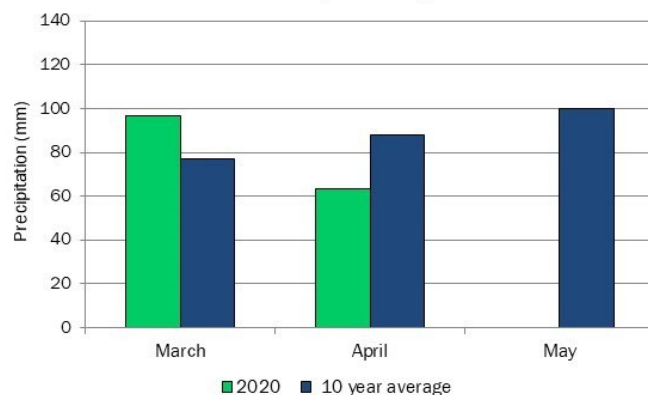
Sudbury(<https://onvegetables.com/2020/05/07/2020vcr-2/#sudbury>)

Essex County

Essex Growing Degree Days

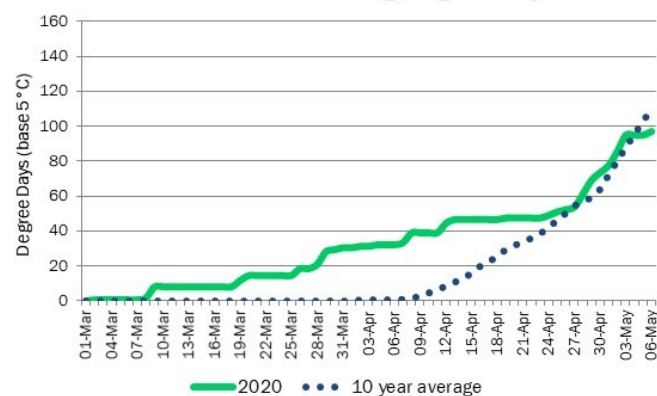


Essex Total Precipitation per Month

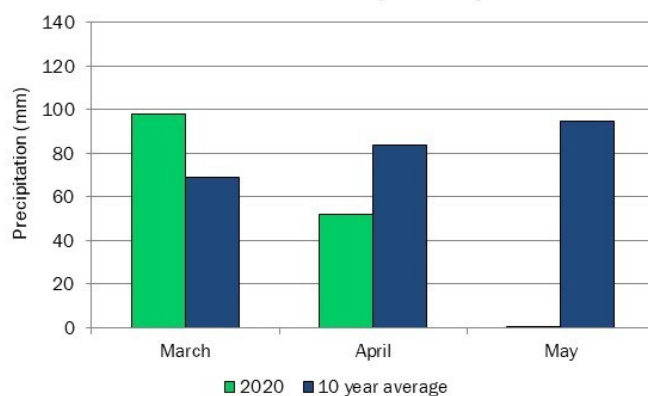


Chatham-Kent County

Chatham-Kent Growing Degree Days



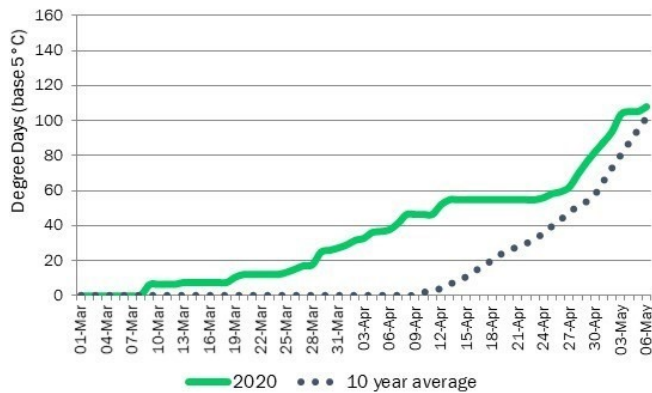
Chatham-Kent Total Precipitation per Month



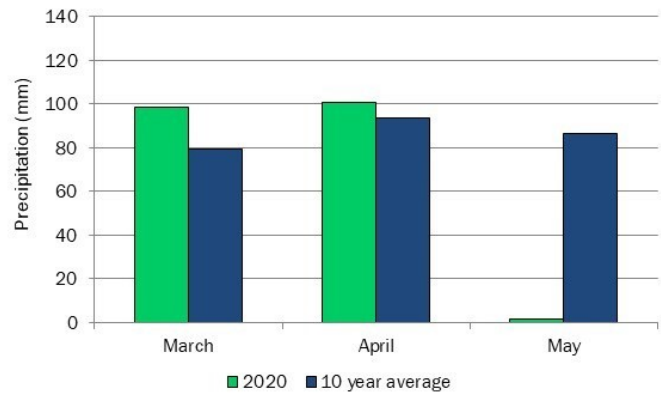
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Norfolk County

Norfolk Growing Degree Days

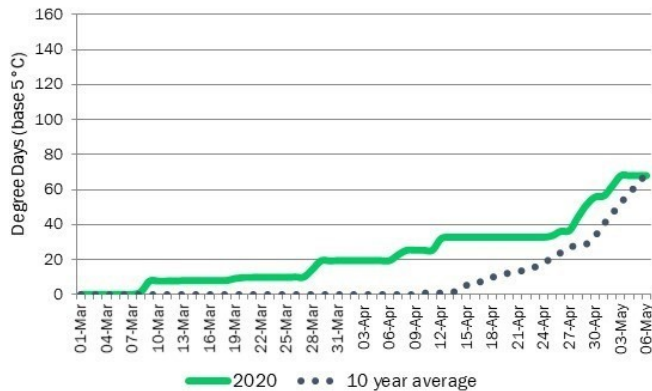


Norfolk Total Precipitation per Month

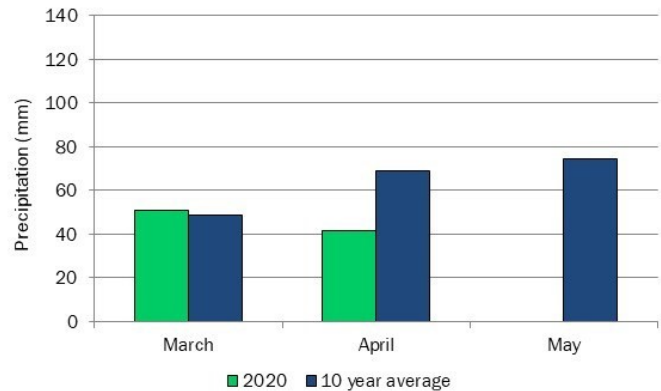


Huron County

Huron County Growing Degree Days

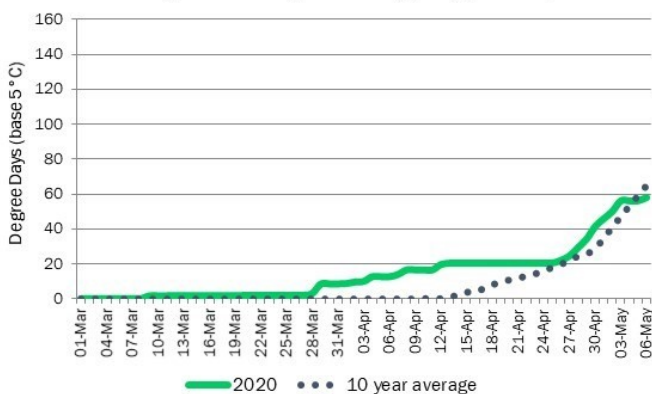


Huron County Total Precipitation per Month

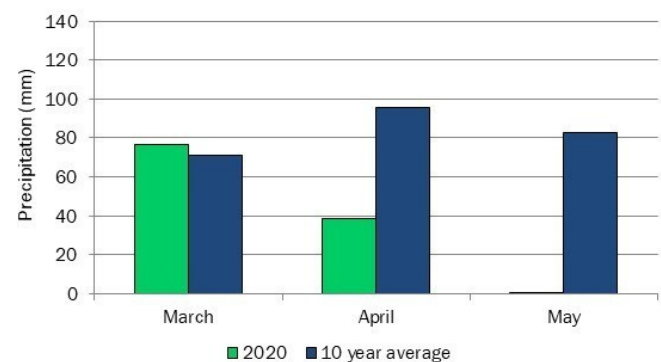


Wellington County

Wellington County Growing Degree Days

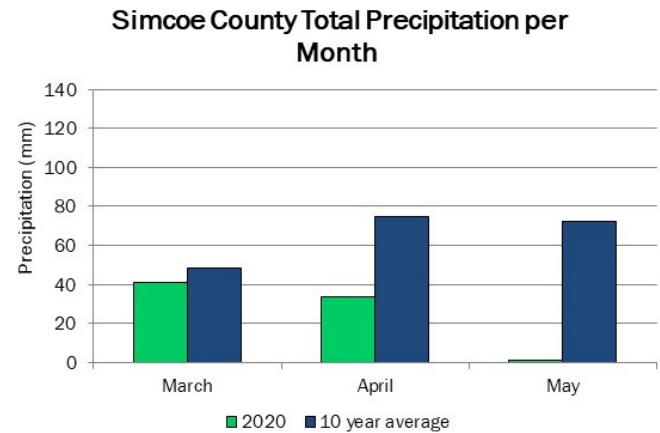
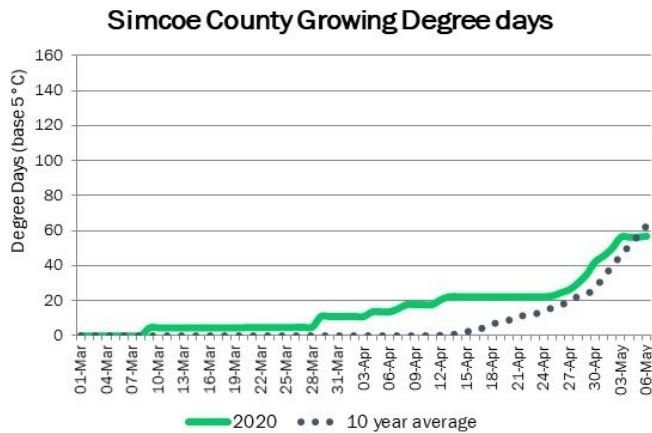


Wellington County Total Precipitation per Month

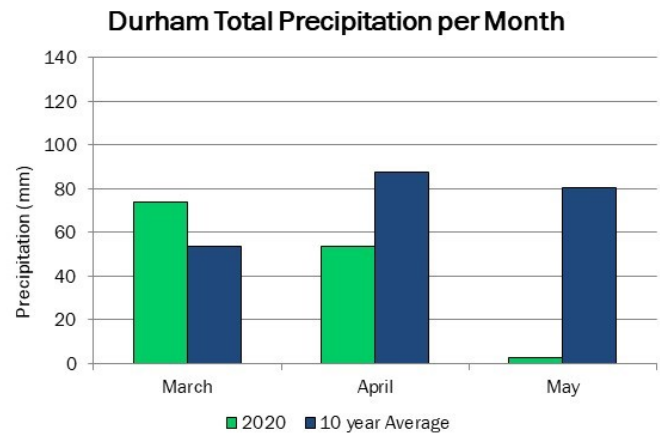
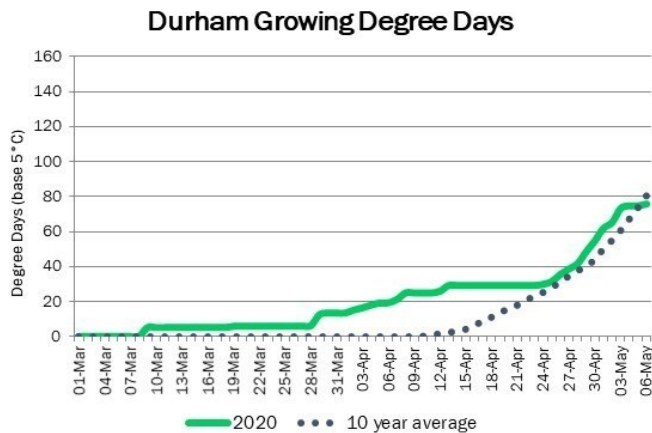


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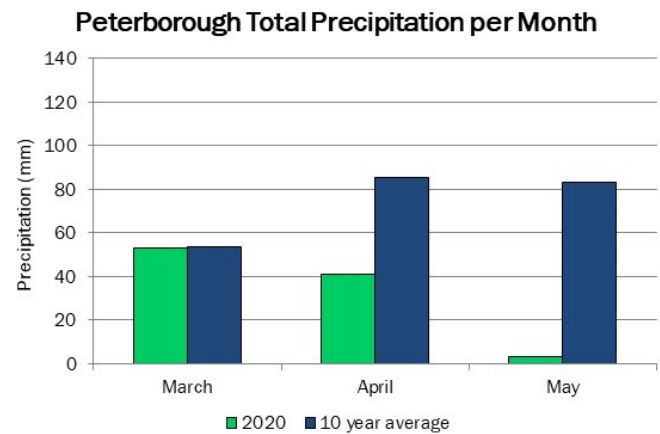
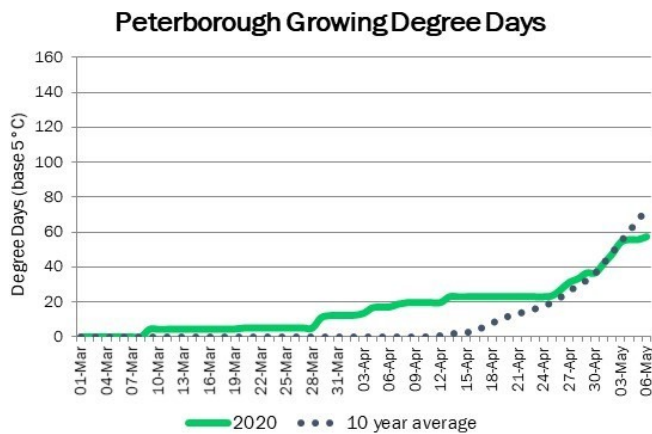
Simcoe County



Durham County

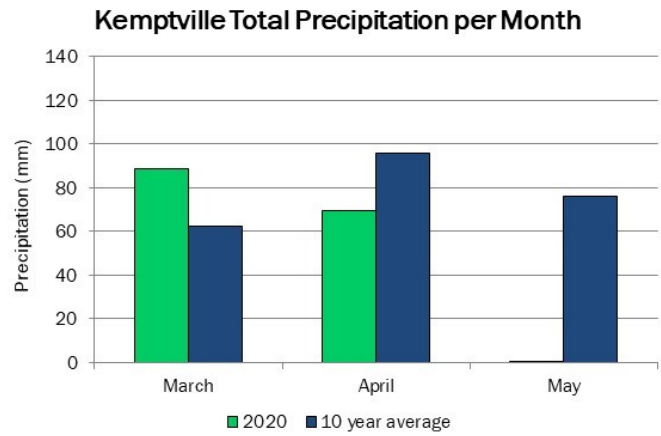
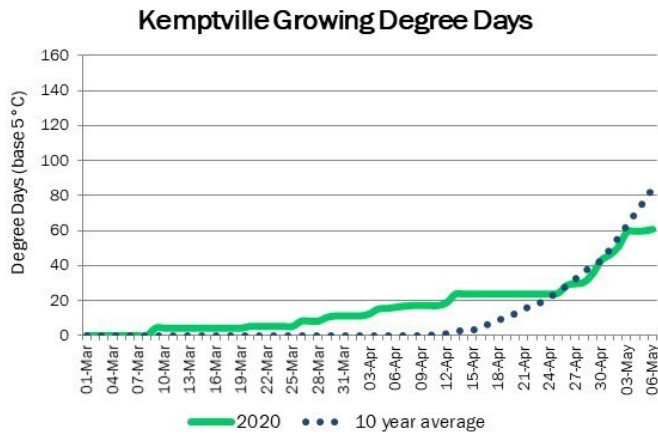


Peterborough



VCR – Vegetable Crop Report – May 7, 2020...con't

Kemptonville



Sudbury

