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"In This Issue"

 VCR – Vegetable Crop Report – May 21, 2020

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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 – Warmer temperatures in the past week have helped Growing Degree Day values increase and begin to return to a similar trend as the 10-year averages. Temperatures are expected to continue to increase in all growing regions over the course of the next week. Onion maggot and seedcorn maggot thresholds have been triggered in Essex, Chatham-Kent and Norfolk counties. Degree day data for each region is shown below.

Rainfall – Essex and Chatham-kent have begun to catch up to the precipitation 10-year average values but all other regions continue to lag behind. Chances of rain and risk of thunderstorms are forecasted over the next week for all regions. Precipitation data for each region is shown below.

Crop Updates

Asparagus – Spears are emerging and harvest is underway.

Brassica Crops – Most transplants are coming out of frost damage from the previous week with the outer most leaves turning yellow and wilting. It has not been warm enough for cabbage maggot fly to reach their first generation growing degree threshold for most of the province, however seedcorn maggot has reached threshold in Essex, Chatham-Kent and Norfolk.





Carrot – Early carrots that were germinated and emerged were hit pretty hard by the multiple hard frosts. Check the taproot in the coming weeks to determine if the taproot establishment was stunted by the stress.

Garlic – Hard frosts have caused damage and most plants are showing some sort of tipburn. Most plants have reached the 5th leaf stage so avoid applying nitrogen to reduce the amount of rough bulbs at harvest. Leek moths have been active in most areas where the night temperature has been above 10C. Dig up stunted or wilted plants in the field. Maggot fly larvae or wireworms cause a lot of early season damage in garlic and these insects have been active over the past 2 weeks. Over the next couple of weeks garlic scapes will be emerging. Research has shown that the timing of scape removal in a hardneck cultivar, such as 'Music' can result in a potential yield increase of 20 -30%. These results indicate that it is advantageous to remove the scapes by hand as soon as they are visible. However, this yield improvement is not always true if a sickle bar mower running above the crop is used to remove the scape. Sickle bar mowers greatly reduce the amount of labour that is required for garlic scape removal, but it comes with a cost. A sickle bar mower is an easy way to spread viruses and other pathogens since the knives are coming into conduct with every stalk. In addition to spreading pathogens, a sickle bar mower often cuts leaves as well. Research has shown by removing one leaf, the yield was reduced by an average of 17.5% and if two leaves were cut, the yield was reduced by approximately 25%. Research has shown that the best way to remove scapes is by hand. Scaping by hand limits pathogen spread and fewer leaves are damaged in the process.

Onions – Earliest direct seeded onions are at the second leaf stage while the majority of fields are in the 1st leaf stage. Transplant fields are overcoming frost damage from the middle of May. Onion maggot flies have reached their threshold for the first generation emergence in Essex and Seedcorn maggot has reached it's first generation threshold in Essex, Chatham-Kent and Norfolk counties.

Tomatoes – Planting is underway in Chatham, Essex and Norfolk areas. Scouting for early season pests should be started as soon as transplanting is complete. Be sure to scout for early season insect pests such as cutworms, wireworms (pictured below) and Colorado potato beetle. If you are seeing damage to transplants, please send pictures to <u>Cassandra.russell2@ontario.ca</u>



Wireworm at the base of a damaged tomato transplant

Potato – The bulk of potatoes were seeded in this past week. Check on seed piece health in fields that were planted before the stretch of frosts. The crop may be slower to emerge so keep that in mind when applying your pre-emerge herbicides.

NOTE: Data as of May 20th, 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*	325	265	131	79	31	168	265	61
Chatham-Kent*	266	212	103	61	16	131	212	46
Norfolk**	266	212	92	51	8	123	212	35
Huron***	192	155	78	44	8	98	155	29
Wellington**	182	139	58	29	2	79	139	17
Simcoe County***	175	134	58	28	3	79	134	17
Durham***	210	165	72	39	7	94	165	27
Peterborough	193	148	62	31	3	83	148	19
Kemptville***	197	155	65	34	7	86	155	23
Sudbury***	101	77	33	18	2	43	77	12

*- 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/2020/05/21/2020vcr-4/#essex</u>)

Chatham-Kent County(https://onvegetables.com/2020/05/21/2020vcr-4/#chatham-kent)

Norfolk County(<u>https://onvegetables.com/2020/05/21/2020vcr-4/#norfolk</u>)

Huron County(https://onvegetables.com/2020/05/21/2020vcr-4/#Huron)

Wellington County(<u>https://onvegetables.com/2020/05/21/2020vcr-4/#wellington</u>)

Simcoe County(https://onvegetables.com/2020/05/21/2020vcr-4/#simcoe)

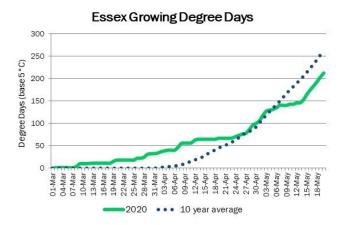
Durham County(https://onvegetables.com/2020/05/21/2020vcr-4/#durham)

Peterborough(https://onvegetables.com/2020/05/21/2020vcr-4/#peterborough)

Kemptville(https://onvegetables.com/2020/05/21/2020vcr-4/#kemptville)

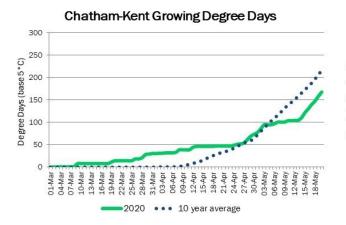
Sudbury(https://onvegetables.com/2020/05/21/2020vcr-4/#sudbury)

Essex County

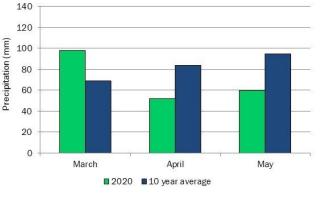


Essex Total Precipitation per Month

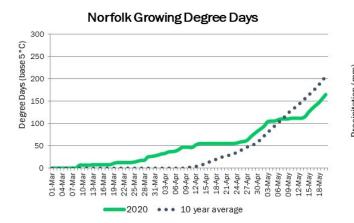
Chatham-Kent County



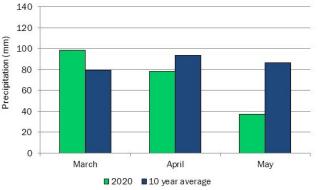
Chatham-Kent Total Precipitation per Month



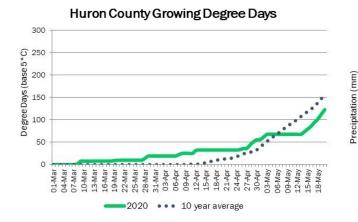
Norfolk County



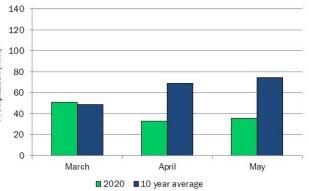
Norfolk Total Precipitation per Month



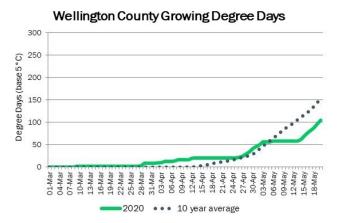
Huron County



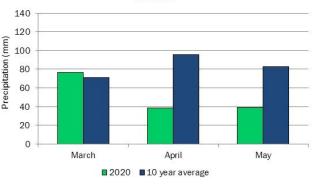
Huron County Total Precipitation per Month



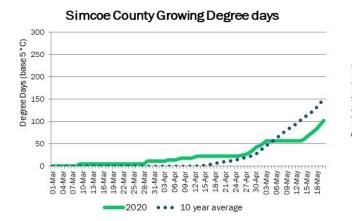
Wellington County



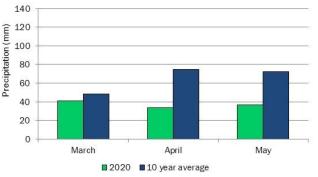
Wellington County Total Precipitation per Month



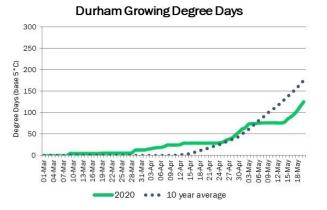
Simcoe County

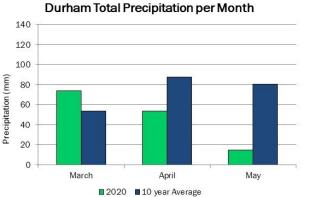


Simcoe County Total Precipitation per Month

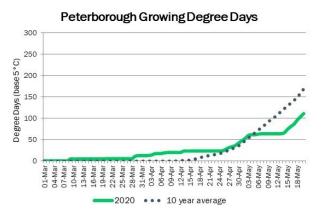


Durham County

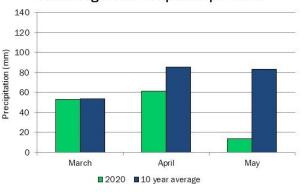




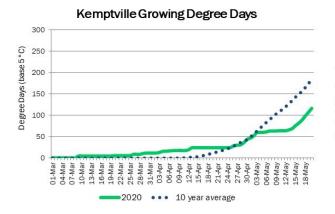




Peterborough Total Precipitation per Month

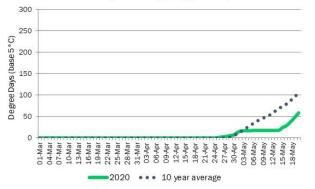


Kemptville

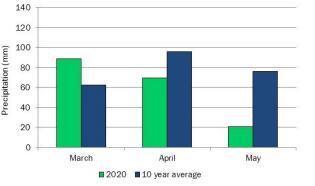


Sudbury

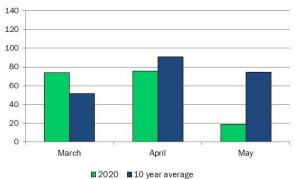




Kemptville Total Precipitation per Month



Sudbury Total Precipitation per Month



Precipitation (mm)