Monday, July 17, 2023

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"In This Issue"

VCR – Vegetable Crop Report – July 13th, 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 this weeks installment of the Vegetable Crop Report!
Brassica Crops – Lepidopteran pests continue to be an issue across the province. Refer to the June 15, 2023 VCR(https://onvegetables.com/2023/06/15/vcr2023-07/)for management thresholds for diamondback moths, cabbage loopers and imported cabbageworms. With all this moisture, be on the look out for Sclerotinia / white mould **(Figure 1**). The mould tends to start near the ground on plants and as it infects it creates dark, water-soaked areas on the lower leaves near the base at the soil line. As the pathogen progresses you may see white mycelial growth. These water-soaked lesions enlarge and can cause the leaves to wilt. Infected cabbage heads will retain their shape but will be filled with a soft, watery rot. If conditions are favourable for the Sclerotinia, you will see the white mycelial growth followed by small, black spots/spores that look like mouse droppings within the fluffy white growth. These black spores can overwinter in the soil for up to 8 years and the best preventative management strategy is to rotate with non-susceptible crops such as beets, onions, spinach, corn, cereals or grasses. It is also helpful to decrease the plant density of the field to allow for adequate air circulation. Allow the top inch of soil to dry out between irrigation events and incorporate residue from harvested areas as deep as possible.

Figure 1– Sclerotinia white mould on cabbage.

Garlic – Harvest has started in some fields. Allow the crop to reach at least 40% yellowing/senesce before harvesting for better yields and increased storability. The ideal time for optimum yields is to harvest porcelain cultivars (such as Music) when 50% of the leaves have senesced or turned yellow. Since it takes several days to harvest, many growers start at 40% and by the time the crop is fully harvested it may have reached 70%. Always avoid leaving harvested bulbs in direct sunlight after they have been pulled. Curing / drying is often associated with an increase in temperature, however, when it comes to curing garlic, relative humidity should be the primary focus. Heating air increases the amount of moisture that the air can hold per cubic metre. A cubic meter of air can hold ~17 grams of water vapour at 20°C, while at 30°C it can hold ~30 grams. In most years, when the ambient air's relative humidity is low, increasing the temperature greatly increases the

water holding capacity of the air. This year, the air has been humid, and already close to being saturated. Therefore, increasing the temperature of the air will not add much more water holding capacity. As a result, it will take a longer amount of time to remove excess moisture from the crop. Read more about how curing can affect Fusarium and mite populations in storage here: https://onvegetables.com/2021/12/09/stored-garlic-might-have-mites/

Onions – Many direct seeded fields are at the 6-7 leaf stage. Despite the rain, the levels of thrips are climbing quickly in many fields. Play close attention to fields bordering hay and wheat as the levels of thrips will generally start to increase as hay is cut and wheat is harvested. Apply no more two applications of the same insecticide targeting thrips for resistance management. Older leaves are turning yellow in fields that received excess moisture over the past two weeks. Stemphylium is starting to colonize these wilted leaf tissues in many fields across the province (**Figure 2**). Be on the lookout for Botrytis (**Figure 3**), onion smut (**Figure 4**) and bacterial rot (**Figure 5**). Damage from rain may leave leaf bruising on the leaf with similar halos as seen with Botrytis.

Figure 2– Stemphylium lesions coming in on older leaves senescing due to excess moisture, July 2023

Figure 3– Botrytis leaf blight, July 2020

Figure 4 – Onion smut, July 2020 – J. Mosiondz

Figure 5 – Onion plants affected by bacterial rot, July 2020

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***	962	872	**620**	**470**	**286**	702	872	406
Essex*	1274	**1162**	**863**	**692**	**459**	**955**	1162	612
Chatham-Kent*	1171	**1064**	**779**	**615**	**395**	**869**	**1064**	540
Norfolk**	1167	**1060**	**779**	**615**	**395**	**867**	**1060**	537
Huron***	1042	943	**682**	**525**	**323**	764	943	452
Wellington**	1040	947	**690**	**536**	**334**	774	947	465
Simcoe County***	1046	951	**688**	**537**	**338**	771	951	467
Durham***	1132	**1032**	**757**	**600**	**390**	842	**1032**	527
Peterborough	1061	964	**692**	**535**	**330**	777	964	463
Kemptville***	1157	**1060**	**790**	**625**	**408**	**877**	**1060**	547
Sudbury***	980	894	**657**	**513**	**328**	734	894	446
Timiskaming***	958	873	**631**	**486**	**309**	710	873	422
Lambton**	1131	**1027**	**742**	**581**	**365**	832	**1027**	505
Thunder Bay	803	723	**502**	**378**	**214**	573	**723**	320
Middlesex*	1154	**1052**	**778**	**615**	**396**	**864**	**1052**	541
Renfrew	1157	**1062**	**795**	**632**	**420**	**882**	**1062**	558

*- 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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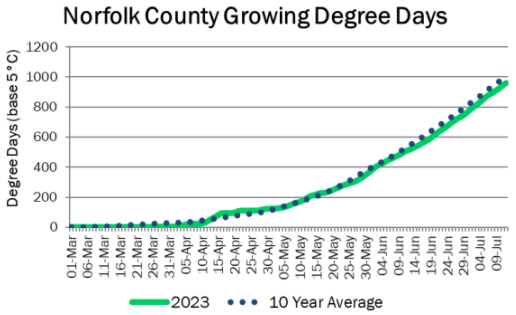
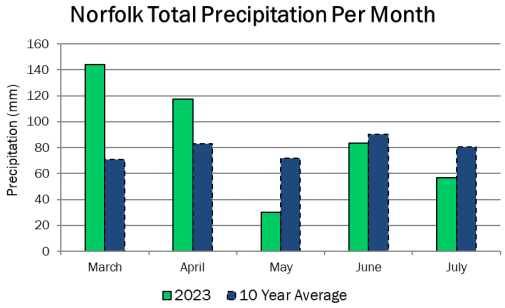
Use these thresholds as a guide, always confirm insect activity with actual field scouting and trap counts.

Select a region below for the latest weather, crop and pest degree day information:

Norfolk(https://onvegetables.com/2023/07/13/vcr2023-11/#NorfolkLink)
Essex(https://onvegetables.com/2023/07/13/vcr2023-11/#EssexLink)
Sudbury(https://onvegetables.com/2023/07/13/vcr2023-11/#SudburyLink)
Chatham-Kent(https://onvegetables.com/2023/07/13/vcr2023-11/#ChathamKentLink)
Peterborough(https://onvegetables.com/2023/07/13/vcr2023-11/#PeterboroughLink)
Huron(https://onvegetables.com/2023/07/13/vcr2023-11/#HuronLink)
Durham(https://onvegetables.com/2023/07/13/vcr2023-11/#DurhamLink)
Thunder Bay(https://onvegetables.com/2023/07/13/vcr2023-11/#ThunderBayLink)
Bruce(https://onvegetables.com/2023/07/13/vcr2023-11/#BruceLink)
Kemptville(https://onvegetables.com/2023/07/13/vcr2023-11/#KemptvilleLink)
Lambton(https://onvegetables.com/2023/07/13/vcr2023-11/#LambtonLink)
Middlesex(https://onvegetables.com/2023/07/13/vcr2023-11/#MiddlesexLink)
Renfrew(https://onvegetables.com/2023/07/13/vcr2023-11/#RenfrewLink)
Simcoe(https://onvegetables.com/2023/07/13/vcr2023-11/#SimcoeLink)
Wellington Centre(https://onvegetables.com/2023/07/13/vcr2023-11/#WellCentreLink)
Wellington North(https://onvegetables.com/2023/07/13/vcr2023-11/#WellNorthLink)
Timiskaming(https://onvegetables.com/2023/07/13/vcr2023-11/#TimiskamingLink)

Norfolk





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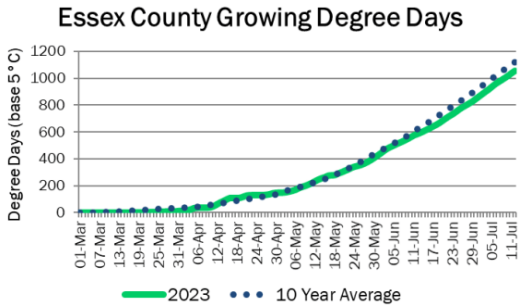

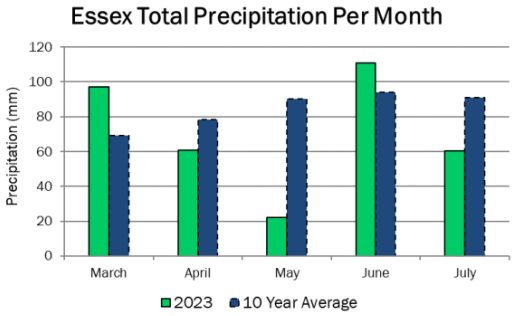

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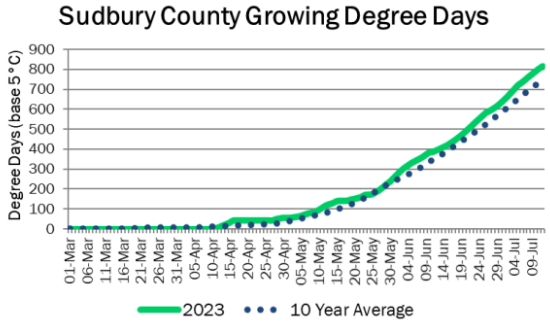

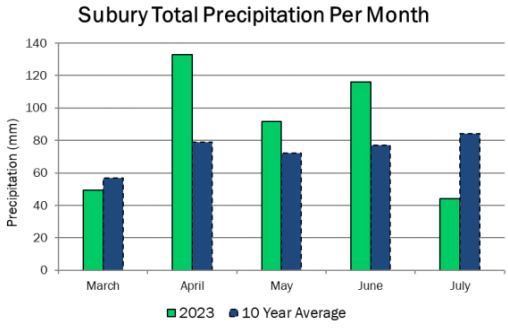

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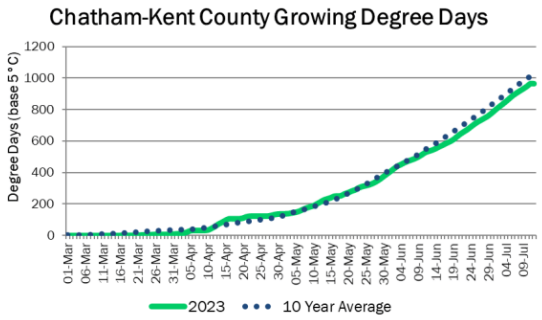

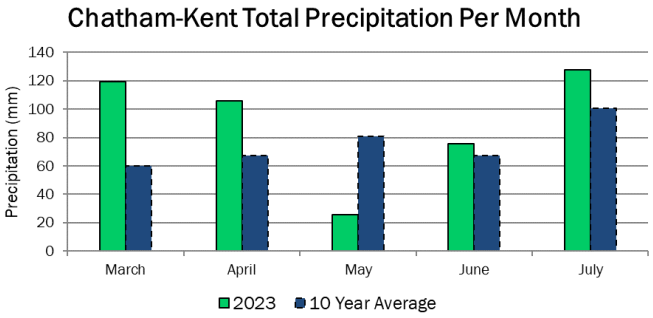

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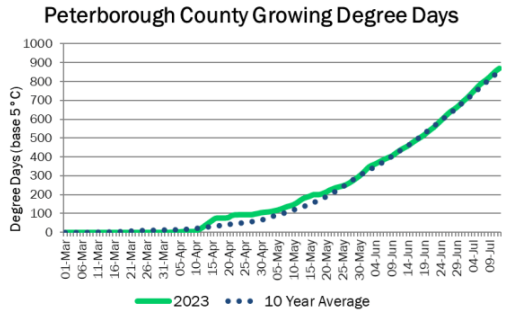

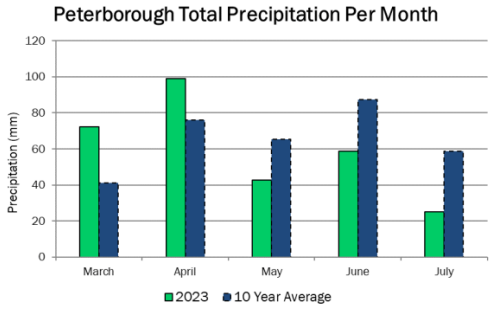

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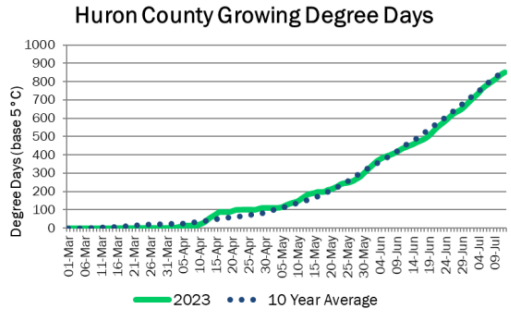

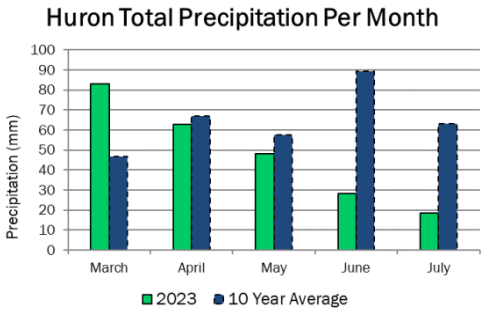

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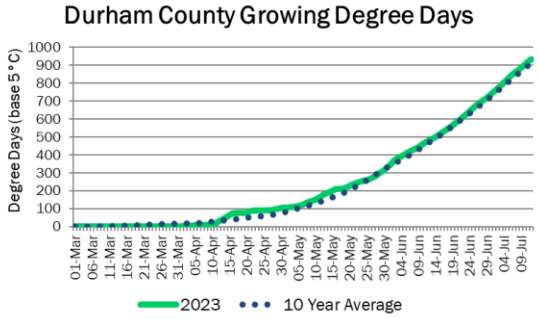
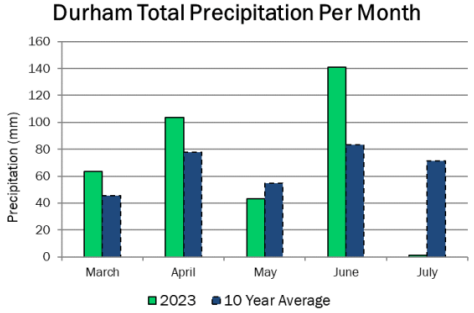
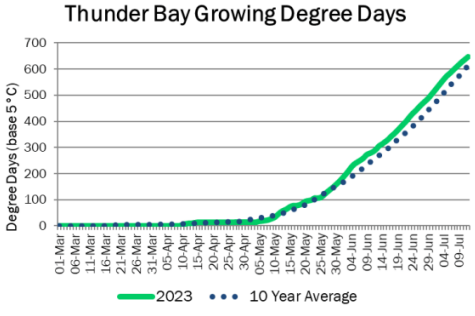
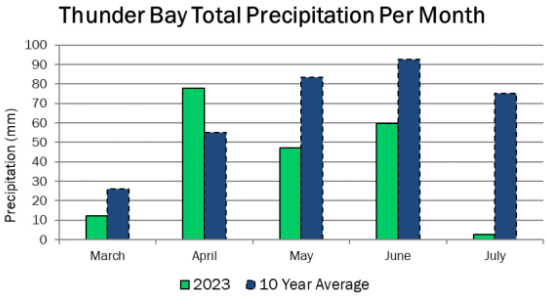




Thunder Bay





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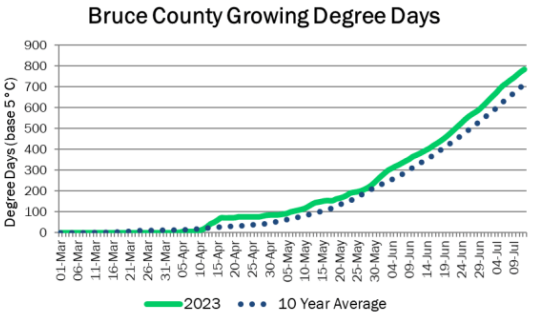
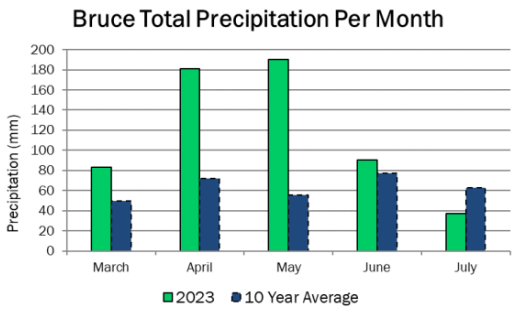
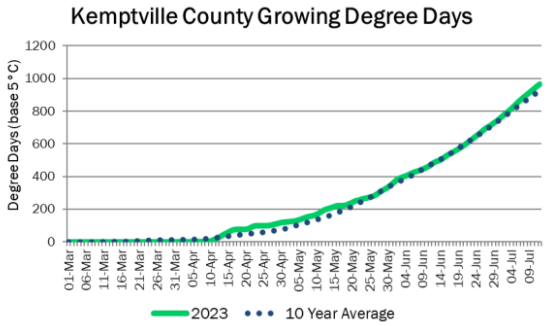
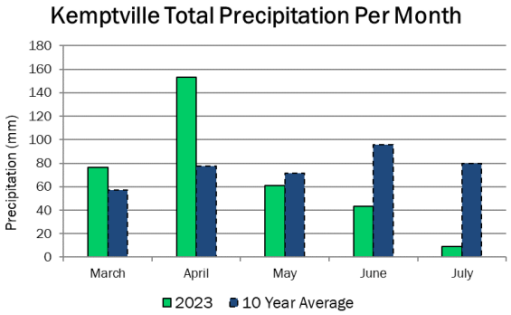
Bruce



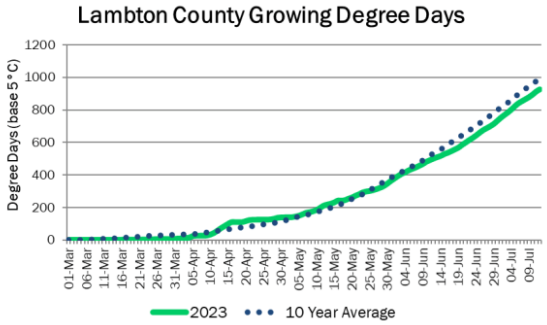


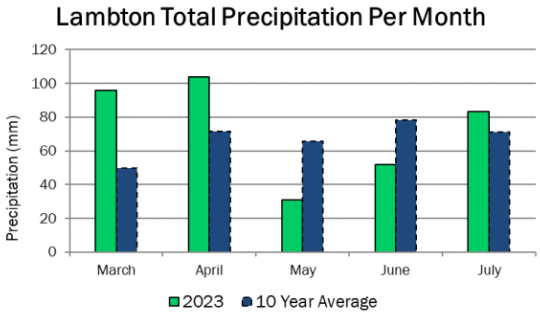
Kemptville



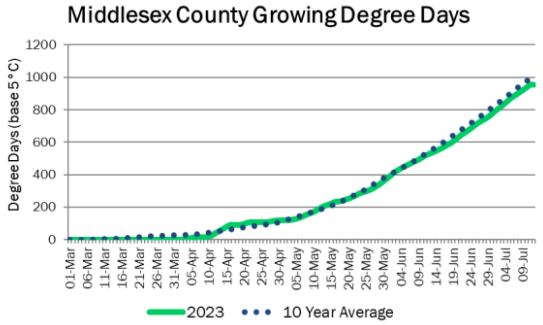


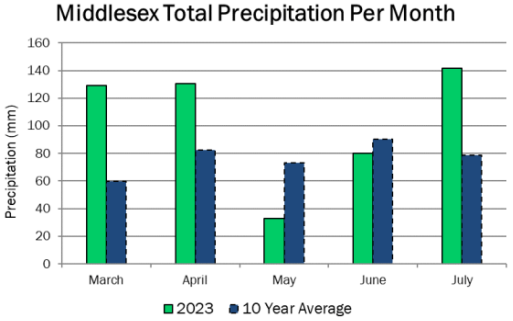
Lambton



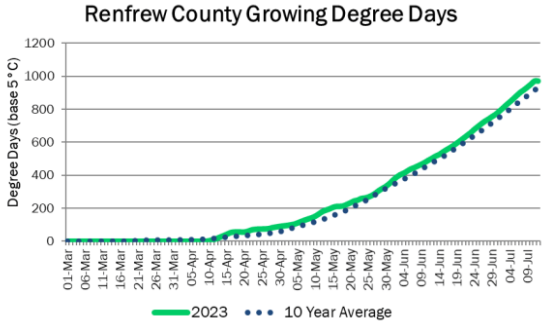


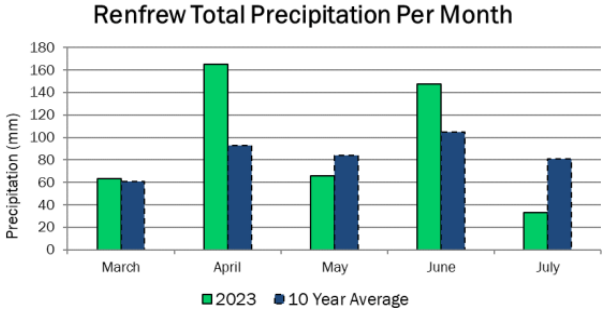
Middlesex





Renfrew





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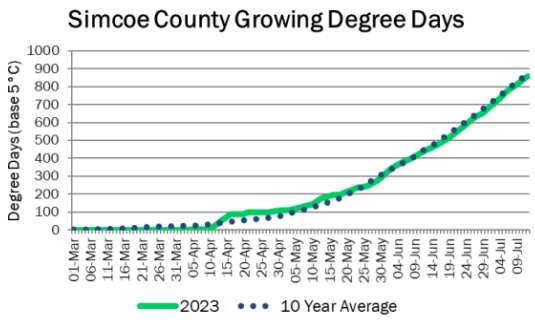
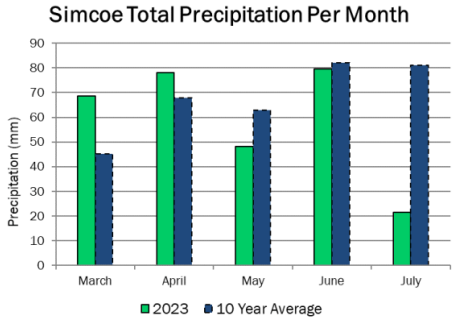
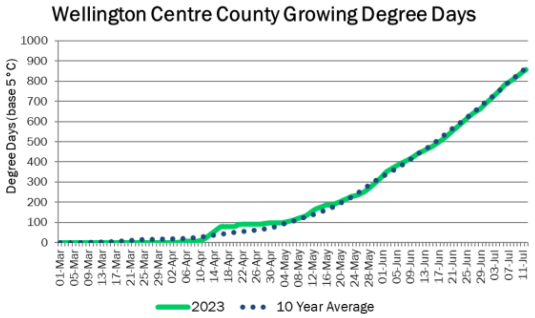
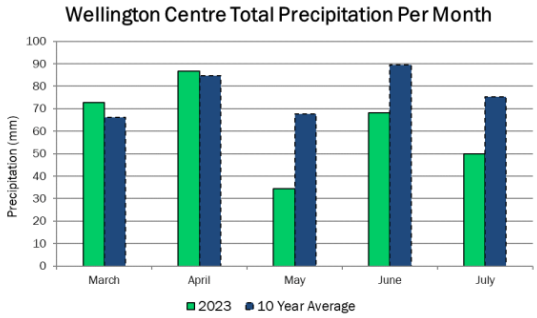
Simcoe



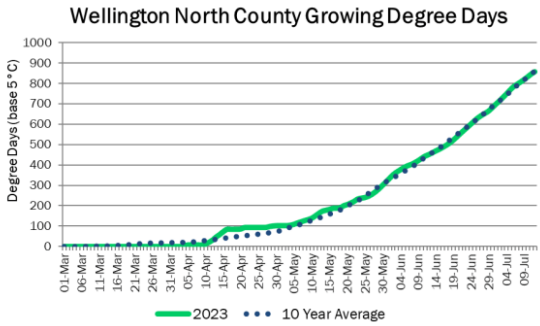


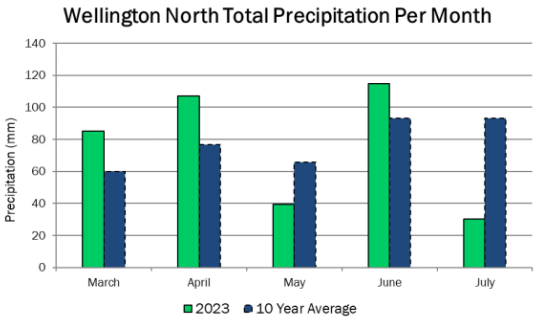
Wellington Centre





Wellington North





Timiskaming