Tuesday, August 31, 2021

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Tomato and Cucurbit Disease Spore Trap Network Update: August 25, 2021

Joseph Tomecek (Tomecek Agronomic Services/M.Sc. candidate, Dept. of Plant Agriculture, Univ. of Guelph); Elaine Roddy (OMAFRA), Amanda Tracey (OMAFRA), Dr. Cheryl Trueman (Ridgetown Campus, Univ. of Guelph)

We continue to monitor for the presence of *Phytophthora infestans* (late blight) and *Pseudoperonospora cubensis* (cucurbit downy mildew) in Kent and Norfolk counties using spore traps. Spore traps monitoring for causal agents of tomato late blight and cucurbit downy mildew in Kent, Elgin and Norfolk Counties – ONvegetables(https://onvegetables.com/2021/06/28/spore-traps-monitoring-for-causal-agents-of-tomato-late-blight-and-cucurbit-downy-mildew-in-kent-elgin-and-norfolk-counties/)

Spore traps were installed the week of June 7, 2021.

Phytophthora infestans DNA (late blight)

2021 Testing Period	Kent County Spornado Positive Detections (/8 sites)	Kent County Rotorod Positive Detections (/8 sites)	Elgin/Norfolk Spornado Positive Detections (/7sites)		
Aug 5-9	0	0	0		
Aug 9-12	0	0	0		
Aug 12-16	0	0	0		
Aug 16-19	0	0	0		
Aug 19-23	0	0	0		

A summary of fungicides for late blight management on tomatoes is available here (https://onvegetables.com/2017/07/26/late-blight-alert-july-28th-2017/). If you suspect late blight in your tomato crop, please reach out to Amanda Tracey (Amanda.tracey@ontario.ca, 519-350-7134) or Dr. Cheryl Trueman (ctrueman@uoguelph.ca, 519-674-1500 ext. 63646) to confirm the diagnosis.

Pseudoperonospora cubensis DNA (cucurbit downy mildew)

2021 Testing Period	Kent County Spornado Positive Detections (#/8 sites)	Elgin/Norfolk Spornado Positive Detections (#/7 sites)
August 5-9	N/A	3
August 9-12	N/A	4
August 12-16	N/A	4
August 16-19	N/A	4
August 19-23	N/A	0



Tomato and Cucurbit Disease Spore Trap Network Update: August 25, 2021...con't

A summary of fungicides for downy mildew management on cucumbers is available here(https://onvegetables.com/2021/06/10/cucurbit-downy-mildew-get-out-and-scout/). If you suspect downy mildew in your cucumber crop, please reach out to Elaine Roddy (elaine.roddy@ontario.ca, 519-401-5890) or Dr. Cheryl Trueman (ctrueman@uoguelph.ca, 519-674-1500 ext. 63646) to confirm the diagnosis.

Project collaborators: Yaima Arocha Rosete (Sporometrics), Hervé van der Heyden (Phytodata), Rene van Acker & Rachel Riddle & John O'Sullivan (University of Guelph), and Genevieve Marchand (AAFC). Funding acknowledgement: Ontario Tomato Research Institute, Fresh Vegetable Growers of Ontario, the Ontario Agri-Food Innovation Alliance, Canadian Agricultural Partnership, OMAFRA Plant Health Fund

VCR - Vegetable Crop Report - August 26th, 2021

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 – Daytime temperatures are forecasted to stay in the low thirties over the weekend and drop out into the twenties for many regions during the next week. All regions minus Peterborough remain above their GDD 10-year average.

Carrot Rust Fly is in its third and final threshold in Sudbury. Cabbage Maggot is at its final threshold in the regions of Norfolk, Huron, Simcoe, Durham, and Kemptville. European Corn Borer is at its threshold in the bivoltine region of Chatham-Kent and the overlap region of Norfolk. GDD data for each region is shown below.

Rainfall – Most regions are forecasted to have rainfall starting Saturday and going through the weekend ending on Monday. All regions except for Essex are behind their 10-year precipitation averages by at least 20mm. Precipitation data for each region is shown below.

Crop Updates

Brassica Crops – Cabbage maggot is active in many areas across the province. Alternaria is becoming more widespread across the province over the past week. Bacterial rots and downy mildew are present in some areas while tip burn is becoming prevalent again in fields with low amounts of moisture. Pressure from imported cabbageworms, and diamondback moths remain high. Avoid scouting or working in the crop when the crop is wet and start from the cleanest plantings first and move to plantings with known pathogens later in the day. Continue to scout for cabbage aphids, Sclerotinia white mould and Fusarium yellows.

Carrots – Aster yellows incidence is high this year. Alternaria and Cercospora leaf blights are increasing as well, use a 25% incidence spray threshold for fungicides.



Figure 1. Aster Yellows in the upper canopy of carrots



Figure 2. Alternaria leaf blight on carrot leaves



Figure 3. Cercospora on upper carrot leaves

Celery – Conditions have been favourable for bacterial blight. Continue to scout for Cercospora, Septoria as well as celery leaf curl. Disc harvested blocks to reduce pest pressure and plant a cover crop to prevent soil erosion in areas that have been harvested.

Onions – The pressure of thrips is building due to favourable conditions and in some cases, they are migrating from lodging or harvested fields. The risk of downy mildew varies but areas with heavy dews in the morning and longer periods of leaf wetness are at higher risk. Royal MH can be applied for sprout control when 50% of the crop has lodged and there are green tops that are still present to absorb the product. Apply Royal MH at least 10 days before the crop is harvested.

Potatoes – With the hot weather recently late blight risk has lessened but later harvested fields still need to be protected from late blight. Aphids have been seen in some fields, scout for aphids on the underside of potato leaves.



Figure 4. Aphids on the underside of some potato leaves

Pest Degree Day Forecasting

*NOTE: Data as of Aug 25th, 2021

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
Essex*	2219	2062	1607	1339	985	1753	2062	1216
Chatham-Kent*	2070	1915	1481	1221	826	1619	1915	1099
Norfolk**	2050	1897	1464	1204	813	1604	1897	1081
Huron***	1904	1757	1344	1095	712	1475	1757	978
Wellington**	1856	1706	1292	1042	668	1424	1706	925
Simcoe County***	1913	1761	1338	1087	714	1472	1761	970
Durham***	1976	1825	1395	1150	772	1530	1825	1035
Peterborough	1786	1634	1214	971	614	1347	1634	857
Kemptville***	1936	1787	1359	1102	728	1497	1787	986
Sudbury***	1695	1558	1181	960	608	1300	1558	854

^{*-} Bivoltine region for ECB. First Peak Catch: 300-350 DD, Second Peak Catch 1050-1100 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/2021/08/26/vcr2021-15/#essex)

Chatham-Kent County(https://onvegetables.com/2021/08/26/vcr2021-15/#chatham-kent)

Norfolk County(https://onvegetables.com/2021/08/26/vcr2021-15/#norfolk)

Huron County(https://onvegetables.com/2021/08/26/vcr2021-15/#Huron)

Wellington County(https://onvegetables.com/2021/08/26/vcr2021-15/#wellington)

Simcoe County(https://onvegetables.com/2021/08/26/vcr2021-15/#simcoe)

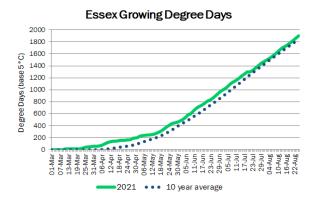
Durham County(https://onvegetables.com/2021/08/26/vcr2021-15/#durham)

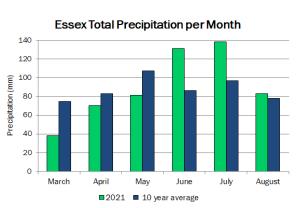
Peterborough(https://onvegetables.com/2021/08/26/vcr2021-15/#peterborough)

Kemptville(https://onvegetables.com/2021/08/26/vcr2021-15/#kemptville)

Sudbury(https://onvegetables.com/2021/08/26/vcr2021-15/#sudbury)

Essex County

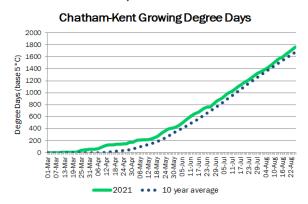


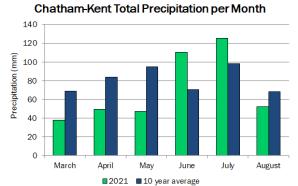


^{**-} Overlap region for ECB. First Peak Catch: 300-350 DD Second Peak Catch 650-700 DD, Third Peak Catch 1050-1100 DD

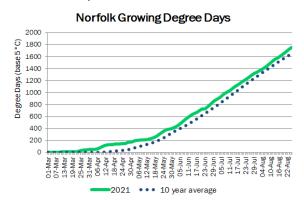
^{***-}Univoltine region for ECB. Peak Catch 650-700 DD

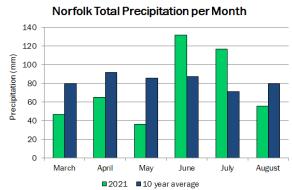
Chatham-Kent County



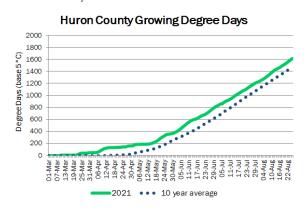


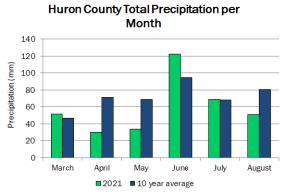
Norfolk County



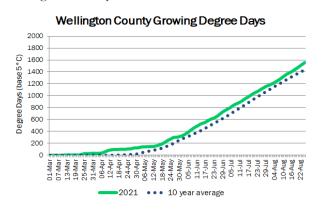


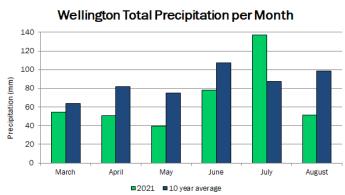
Huron County



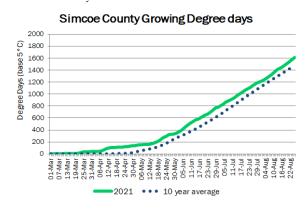


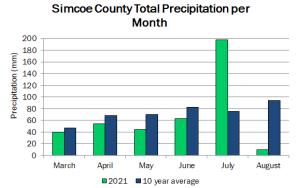
Wellington County



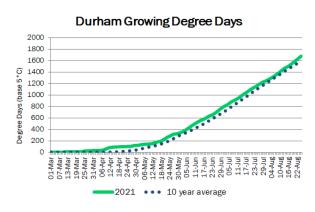


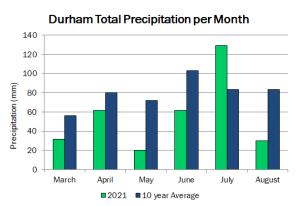
Simcoe County



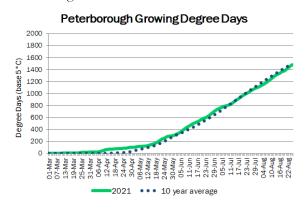


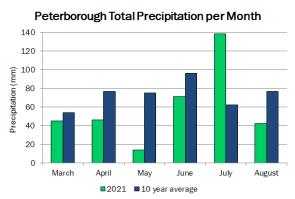
Durham County



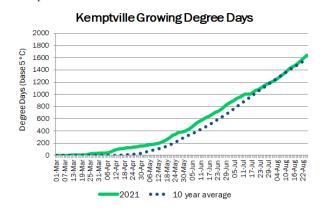


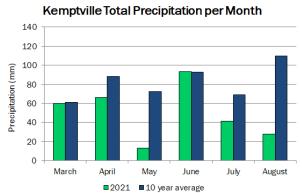
Peterborough





Kemptville





Sudbury

