Tuesday, September 01, 2020

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Late Blight Update - August 26, 2020



There has been a new development in the late blight situation this week. Recently late blight symptoms were observed on a couple of potato plants in Norfolk County. Industry specialists that were able to visit the infected plants are confident that the symptoms are late blight, but the field was sprayed before OMAFRA specialists were able to obtain a sample for laboratory testing.

Tomato growers should continue to scout for late blight symptoms in their fields, especially late varieties that still have substantial green foliage, and maintain a fungicide spray program that includes broad spectrum fungicides with activity against *Phytophthora infestans*. Consider the application of a late blight specific fungicide if risk is very high, such as when symptoms are observed in the field or nearby fields.

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/).

If you suspect late blight in your crop, please reach out to the appropriate OMAFRA specialist to confirm the diagnosis.

Tomato – Amanda Tracey (<u>amanda.tracey@ontario.ca</u>, 519-350-7134) Potato – Dennis Van Dyk (<u>dennis.vandyk@ontario</u>, 519-766-5337)

VCR - Vegetable Crop Report - August 27th, 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.

Temperature - Temperatures are expected to generally hold steady across most growing

regions through into next week. Some regions have plateaued and or begun to slip marginally behind their GDD 10 year average in the past week. Carrot Rust Fly and Onion Maggot activity is expected to wrap up for the growing season over the course of the next week to ten days for all growing regions while the third and final generation of Cabbage Maggot will continue to emerge over the next week or two for Central and Eastern Ontario. Degree day data for each region is shown below.



Ministry of Agriculture, Food and Rural Affairs



Rainfall – Most regions received rainfall to some degree over the past week however some have certainly had more than others. Heavy thunderstorms with torrential downpours and heavy winds passed through Southern Ontario on Thursday afternoon (August 27) with more precipitation expected for most regions Friday into Saturday. Most regions will likely meet or exceed their average rainfall totals for August before months end on Monday. Precipitation data for each region is shown below.

Crop Updates

Asparagus – It is time to start scouting for Purple Spot caused by *Stemphylium* (Figure 1 (Right) – below), which can affect next year's crop if not controlled. Scout for the second flush of Asparagus Miners, the larvae should be beginning to feed. Although control is difficult and natural predators usually keep levels low, this pest can transmit *Fusarium* so it is useful to be aware of high levels.



Figure 1: (Left) Defoliation caused by powdery mildew on acorn squash, Simcoe, ON, Aug 25 (Right) *Stemphylium* Purple Spot on asparagus, Norfolk county June 3 2020,

Beans & Peas – With rain expected this weekend in the wake of Hurricane Laura, scout bean fields early next week for any signs of leaf lesions and defoliation. Previous rain events this season have led to severe disease likely caused by a *Fusarium solani* f.sp. or a similar species. Symptoms and disease progress are similar to Soybean Sudden Death Syndrome. See last week's VCR(https://onvegetables.com/2020/08/20/2020vcr-17/) for pictures of symptoms.

Brassica Crops – 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 prevalent in fields with low amounts of moisture. Pressure from imported cabbage worms, cabbage loopers and diamondback moths remains high. The third generation of cabbage maggot is predicted for Durham, Kemptville and Norfolk growing regions based on growing degree days. Continue to scout for aphids and Leafminers.

Carrots – Carrots have been enjoying some of the cooler overnight temperatures we've had recently and are continuing to size up nicely.

Celery – Cercospora, leaf curl and Fusarium yellows are active. Disc harvested blocks to reduce pest pressure and plant a cover crop to prevent soil erosion. Continue to scout for tarnished plant bugs, aster leaf hoppers, Leafminers and aphids.

Cucurbits – The main disease front of Downy Mildew continues to move North towards Ontario. Confirmed outbreaks on squash and pumpkin have been reported in Indiana, Kentucky, and Pennsylvania. Powdery Mildew pressure remains high and can lead to defoliation in severe cases (Figure 1 (Left image) – above), as well as petiole infection which can affect marketability. If you suspect a fungicide resistant powdery mildew outbreak please contact Andrew Wylie (andrew.c.wylie@ontario.ca).

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. Scout patches of the field that are not as green and look closely at the leaves to ensure that there is no fuzzy growth.

Figure 2: Downy mildew outbreak starting as a small patch in the field – August 2019.



Peppers – Hand harvest continues for processing and fresh market peppers. No pepper weevils have been captured on outdoor survey traps. Growers should continue to scout for signs of the pest and check traps regularly. If you have caught a weevil and would like to have it looked at, please email pictures to Amanda Tracey at amanda.tracey@ontario.ca or call 519-350-7134.

Potatoes – Late blight symptoms were observed on a few plants in the Norfolk region earlier this week. The field was immediately top-killed. We have had some conducive late blight weather recently so continue to be vigilant and protect any late fields.

Tomatoes – Harvesting for processing and freshmarket is ongoing. There was been a recent observation of late blight symptoms on potato in Norfolk County. Tomato growers should continue to scout for symptoms and apply general fungicides with activity against *Phytophthora infestans*. If a field is high risk (i.e. symptoms in field or neighbouring crop), growers should consider applying a late blight specific fungicide. Please see the post "Late Blight Update – August 26, 2020 (https://onvegetables.com/2020/08/26/late-blight-update-august-26-2020/)" for more information and links to resources.

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*	2202	2044	1617	1369	1027	1752	2044	1253
Chatham-Kent*	2038	1886	1483	1245	869	1609	1886	1132
Norfolk**	2023	1872	1457	1220	847	1587	1872	1106
Huron***	1790	1655	1285	1055	698	1403	1655	944
Wellington**	1793	1652	1277	1052	704	1396	1652	945
Simcoe County***	1823	1685	1315	1089	743	1434	1685	982
Durham***	1948	1805	1418	1190	830	1538	1805	1080
Peterborough***	1769	1626	1246	1018	667	1365	1626	909
Kemptville***	1919	1778	1394	1168	816	1513	1778	1061
Sudbury***	1636	1515	1177	971	640	1284	1515	871

^{*-} 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/2020/08/27/2020vcr-18/#essex)

Chatham-Kent County(https://onvegetables.com/2020/08/27/2020vcr-18/#chatham-kent)

Norfolk County(https://onvegetables.com/2020/08/27/2020vcr-18/#norfolk)

Huron County(https://onvegetables.com/2020/08/27/2020vcr-18/#huron)

Wellington County(https://onvegetables.com/2020/08/27/2020vcr-18/#wellington)

Simcoe County(https://onvegetables.com/2020/08/27/2020vcr-18/#simcoe)

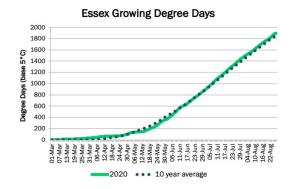
Durham County(https://onvegetables.com/2020/08/27/2020vcr-18/#durham)

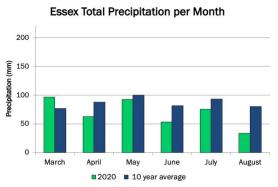
Peterborough(https://onvegetables.com/2020/08/27/2020vcr-18/#peterborough)

Kemptville(https://onvegetables.com/2020/08/27/2020vcr-18/#kemptville)

Sudbury(https://onvegetables.com/2020/08/27/2020vcr-18/#sudbury)

Essex County

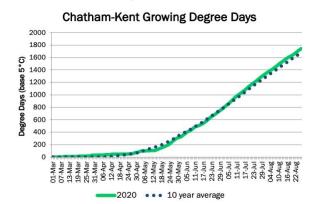




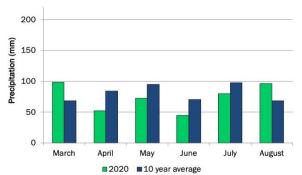
^{**-} Overlap region for ECB. First Peak Catch: 300-350 DD Second Peak Catch 650-700 DD, Third Peak Catch 1050-1100 DD

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

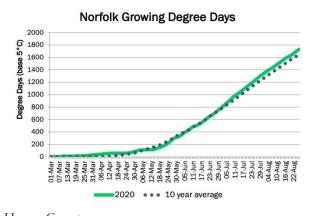
Chatham-Kent County



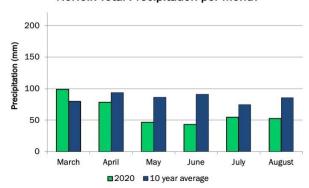
Chatham-Kent Total Precipitation per Month



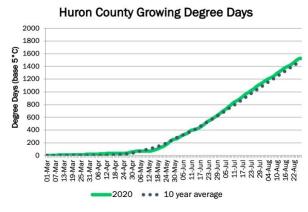
Norfolk County



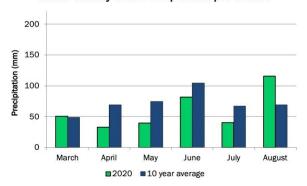
Norfolk Total Precipitation per Month



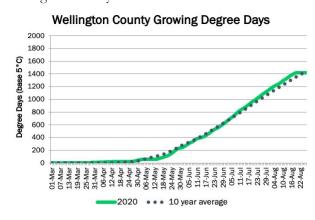
Huron County



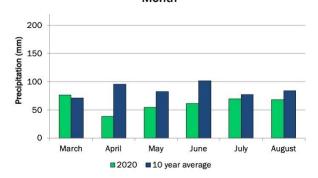
Huron County Total Precipitation per Month



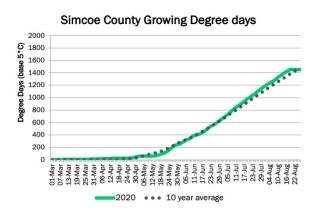
Wellington County

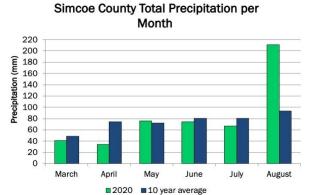


Wellington County Total Precipitation per Month

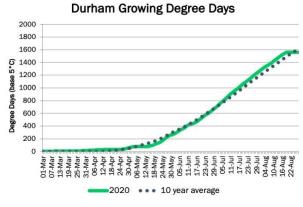


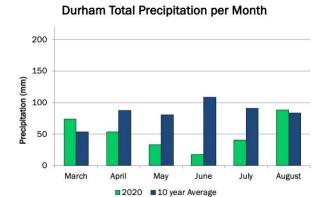
Simcoe County



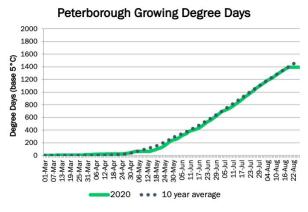


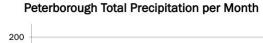
Durham County

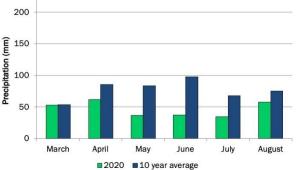




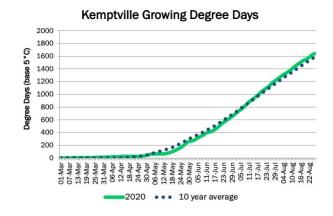
Peterborough



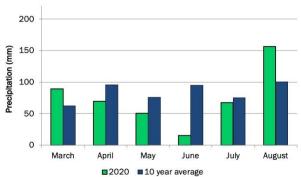




Kemptville



Kemptville Total Precipitation per Month



Sudbury



