

# ONvegetables



Tuesday, June 28, 2016

## OMAFRA Vegetable Team:

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## RIDGETOWN VEGETABLE OPEN HOUSE 2016

*For commercial vegetable growers and agribusiness.*

Tuesday, July 19th, 2016  
Selton Line and Ridgetown Campus

Choose an afternoon or evening tour  
Your choice of: 1:30 – 4:30 pm or  
6:00 – 9:00 pm

Get the poster (pdf) with map and directions (<https://>

[onvegetables.files.wordpress.com/2016/06/ridgetown-vegetable-open-house-2016.pdf](https://onvegetables.files.wordpress.com/2016/06/ridgetown-vegetable-open-house-2016.pdf))



## “In This Issue”

- ◆ Ridgetown Vegetable Open House 2016
- ◆ Irrigation update
- ◆ 2016 Supplement to OMAFRA Vegetable Crop Protection Guide

Hosted by OMAFRA & Ridgetown Campus – University of Guelph

- No cost
- No preregistration required

Highlights:

- Herbicide tank mixes with Sandea in tomatoes
- Herbicide tank mixes for cucumbers
- Control of linuron-resistant pigweed in carrots
- Effect of residual herbicides on establishment of interseeded cereal rye in snap beans
- Fungicide programs for cucumbers and tomatoes with reduced use of chlorothalonil
- Validation of best management practices for bacterial spot in tomatoes
- Evaluation of tomato and pumpkin cultivars for tolerance to bacterial spot
- Corn, cucumber, pea variety trials
- Field pea heat tolerance
- Processing tomato, pepper and cucumber fertility
- Biodegradable mulch
- Clean seed production in garlic
- Processing tomato breeding
- Cover crops

# RIDGETOWN VEGETABLE OPEN HOUSE 2016...CON'T

## Directions:

Google Maps link(<https://www.google.ca/maps/dir/120+Main+St+E,+Ridgetown,+ON+N0P+2C0/42.4701403,-81.9912405/@42.4707061,-81.9500084,12z/data=!4m6!4m5!1m2!1m1!1s0x882fe83b7fd4a1d3:0xabd297566593d8ab!1m0!3e0>)

**1:30 or 6:00 pm** – Meet at the Ridgetown Campus tomato breeding plots on Selton Line, just off Howard Road. Watch for the signs.

The tour will proceed to wagons on campus in Ridgetown (park beside RDC building) starting at 2:15 or 6:45 pm. Look for the signs.

Each tour will conclude with refreshments in Willson Hall.

Hope to see you there!

For more information, contact Janice LeBoeuf at [janice.leboeuf@ontario.ca](mailto:janice.leboeuf@ontario.ca) or 519- 674-1699.

## Ridgetown Vegetable Open House 2016 Map



# IRRIGATION UPDATE

**Rebecca Shortt, Engineer – Water Quantity, OMAFRA, Simcoe**

The month of May and the first 2 weeks of June have been extremely dry (<40% of avg rainfall). The areas of Niagara and Peterborough are of particular concern because of lengthy dry conditions through the entire spring (since March 1<sup>st</sup>) and stretching back through 2015.

This is a critical period for most horticultural crops where the fruit or flesh development is occurring as well as rapid vegetative growth.

I know I need to irrigate; how much do I apply?

The websites [www.vineandtreefruitinnovations.com/](http://www.vineandtreefruitinnovations.com/) (<http://www.vineandtreefruitinnovations.com/>) (free but you must register) or [www.onpotatoes.com](http://www.onpotatoes.com/) (<http://www.onpotatoes.com/>) provide evapotranspiration (ET) measurements on a daily basis for some of southern Ontario. Use the ET multiplied by a crop factor (Kc) to get the depth of water you need to apply. Remember that the crop factor reflects the “thirstiness” of the crop and the amount of canopy. Earlier in May the canopy was very small so the water use is much lower; we are now approaching canopy closure on most crops. Some of our soil moisture monitoring in fruit trees in Niagara has shown a big increase in water use since June 16. If you are not sure what crop factor to use, estimate the Kc by considering the % canopy coverage (full row closure is typically 100% or a Kc of 1.0).



Note that before full canopy/flowering/sizing the crop water demand may be lower but this doesn't mean lack of water won't affect yield/quality. Before full water demand, carefully calculate the crop needs and apply the small amounts regularly. For overhead irrigation the water demand should be applied once a week or, when the roots are small, split into 2 applications per week. For drip irrigation water should be applied daily or every other day (some deep rooted crops could be stretched to 2 times per week).

For overhead irrigation, use a rain gauge in the field to make sure you applied what you think you applied.

## Crop Factors for Vegetables (Kc)

Bare soil	0.2	
Cabbage, Cauliflower	0.4	From seedling or transplanting to start of heading
	0.7	From start of heading to full row fill
	1.0	Remainder of crop
Sweet corn	0.4	From seedling to 1 <sup>st</sup> showing of tassel in whorl
	0.7	1 <sup>st</sup> tassel to silking
	1.0	Remainder of crop
Potatoes, Tomatoes, Peppers	0.4	From seeding or transplanting to 1 <sup>st</sup> flower
	0.7	From 1 <sup>st</sup> flower to maximum row fill (tomatoes) or tuber sizing (potatoes)
	1.0	Remainder of crop

## Crop Factors for Fruit Trees (Kc)

Month	Permanent sod with herbicide strip		Clean cultivation plus cover crop	
	Non-bearing	Mature	Non-bearing	Mature
April	0.2	0.2	0.2	0.2
May	0.3	0.3	0.3	0.3
June 1-15	0.3	0.4	0.3	0.4
June 16-30	0.5	0.6	0.4	0.5
July	0.6	1.0	0.5	0.65
August	0.6	1.0	0.5	0.65
September	0.5	0.95	0.3	0.5

### Tomato example in Leamington

ET June 15-21 = 33mm

Kc = 0.7 (from 1<sup>st</sup> flower to maximum row fill)

ET x Kc = 33mm x 0.7 = 23mm = 0.9 inches

### Potato example in Woodstock

ET June 15-21 = 30mm

Kc = 0.7

ET x Kc = 30mm x 0.7 = 21mm = 0.8 inches

### Apple (mature with sod) example in Leamington

ET June 15-21 = 33mm

Kc = 0.8 (I'm using a higher Kc because I think we're closer to full canopy than the chart value would suggest)

ET x Kc = 33mm x 0.8 = 26mm = 1.0 inches

### For more information

OMAFRA Irrigation Resources(<http://www.omafra.gov.on.ca/english/engineer/irrigation.htm>)

OMAFRA Irrigation Videos(<http://www.omafra.gov.on.ca/english/engineer/facts/ir-vid.htm>)

Irrigating Vegetable Crops([http://www.omafra.gov.on.ca/english/crops/facts/info\\_irrigation.htm](http://www.omafra.gov.on.ca/english/crops/facts/info_irrigation.htm))

# 2016 SUPPLEMENT TO OMAFRA VEGETABLE CROP PROTECTION GUIDE

Ministry of Agriculture, Food and Rural Affairs



## 2016 SUPPLEMENT

### Publication 838, Vegetable Crop Protection Guide 2014–2015

This supplement contains new product registrations and changes from November 2013 to November 2015. This supplement can be downloaded from the OMAFRA website at [www.omafra.gov.on.ca/crops](http://www.omafra.gov.on.ca/crops). Printed copies are available from OMAFRA Resource Centres. For complete information, please see the full edition of **Publication 838, Vegetable Crop Protection Guide 2014–2015**.

To order copies of Publication 838:

- Visit the Service Ontario Publications website at [ontario.ca/publications](http://ontario.ca/publications)
- Contact the Service Ontario Publications Contact Centre at:  
1-800-668-9938  
416-326-5300  
TTY 1-800-268-7095

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**The pest control product label is a legal document.** It describes how the pest control product can be legally used. Users are responsible for ensuring that they are complying with all directions stipulated on the most current product label. Read the most current pest control product label thoroughly before application. Copies of all pest control product labels are posted online by the PMRA and may be found at: <http://pest-info.gc.ca/foi/index-eng.php>

A crop group is a grouping of plant species based on botany and taxonomy (e.g., plant families), as well as on how the crops are produced. Crop groups are often further divided into smaller and more closely related subgroups. A pest control product may be registered on a subgroup, rather than the entire crop group. Crop groupings are used primarily to set maximum residue limits and establish a common pre-harvest interval (PHI) for a similar set of crops. **It is important to remember that not all products have a crop group registration, and products registered on one crop are not necessarily registered on all members of its crop group.** A complete list of all crops included in both original and revised crop groups can be found at the following link on Health Canada's website: [www.hc-sc.gc.ca/pcp/ppac/pest/pests/pests/food-nourriture/ocg-pcpe-eng.php](http://www.hc-sc.gc.ca/pcp/ppac/pest/pests/pests/food-nourriture/ocg-pcpe-eng.php)

Looking for what's new in field vegetable crop protection in Ontario? The 2016 supplement to the OMAFRA Vegetable Crop Protection Guide (<http://www.omafra.gov.on.ca/english/crops/vegpubs/vegpubs.htm>) (Pub. 838) is now available online at <http://www.omafra.gov.on.ca/english/crops/pub838/pub838sup.pdf>. The French version is at <http://www.omafra.gov.on.ca/french/crops/pub838/pub838sup.pdf>.

The 2016 supplement includes the information from the 2015 supplement and the more recent updates for 2016.