



As the days get longer and the hints of spring are hidden, just out of sight, here is another edition of Hort Snacks to stimulate and hopefully fill your mind with useful information.

Winter extension season is drawing to a close, but there are still plenty of things to do and lots of educational events and activities to take part in before the growing season begins. In this edition, you'll find announcements for a few more events, as well as information from a couple of different workshops and conferences, in case you weren't able to be there.

You'll also find a written version of a presentation that has been given a couple of times this past month, which dives into the reasonably interesting data piles that make up the 2016 Canadian census (and its 3 previous siblings). The purpose of the dive is to illustrate how the census data supports the everyday realities in communities across Alberta, which is that the ethnocultural landscape of Alberta (meaning the ethnic diversity) has changed. This represents new opportunities for horticulture crop producers, as well as challenges as adjustments are made to ensure producers and consumers are connecting.

As you head towards spring, don't forget to stay in touch. Send your ideas, your observations, your suggestions and your information (particularly your price information), via email, phone or by dropping in. We're happy to help.

Rob Spencer/Dustin Morton, Commercial Horticulture Specialists  
 Alberta Ag-Info Centre, Alberta Agriculture & Forestry  
 310-FARM (3276)

### FEATURED WEBSITE

#### Northeast SARE (Sustainable Agriculture Research & Extension)

- A bunch of projects on a range of topics

<https://www.nesare.org/Dig-Deeper/Useful-resources/SARE-Project-Products/Northeast-SARE-Project-Products>

### *In this edition of Hort Snacks*

|  |         |
|--|---------|
| ▪ Featured Website   | .....1  |
| ▪ Things to do / Things to think about this month                  | .....2  |
| ▪ Upcoming Conferences / Workshops                                 | .....3  |
| ▪ Mental Snacktime – Planning / Forethought                        | .....3  |
| ▪ In the News / Articles worth reviewing                           | .....3  |
| ▪ Google Groups – HortSnacks Forum                                 | .....3  |
| ▪ Hort Snacks to Go Webinar series poster                          | .....4  |
| ▪ Potato Post-Harvest Management poster                            | .....5  |
| ▪ Potato Post-Harvest Management agenda                            | .....6  |
| ▪ Strawberry Production Q&A Session poster                         | .....7  |
| ▪ Explore Local Webinars – Mar/Apr poster                          | .....8  |
| ▪ Farm to Market Conference (AFFSchool 2018) – PDFs                | .....9  |
| ▪ Sour Cherry / Haskap Production Workshop – PDFs                  | .....10 |
| ▪ Q&A  | .....10 |
| ▪ Changes in the Ethnocultural Landscape of AB & New Opportunities | .....11 |
| ▪ DED – Elm Pruning Ban – Reminder                                 | .....15 |
| ▪ Berry & Veg Price Survey 2018 – Heads Up                         | .....15 |
| ▪ Insect of the Month – Swede Midge                                | .....16 |
| ▪ Disease of the Month – Dutch Elm Disease                         | .....17 |

## THINGS TO DO / THINGS TO THINK ABOUT THIS MONTH

### *Strawberries*

- Monitor crown health – plan course of action if damage is evident
- Plan plant pickup, field planting layout, planting labour, etc.

### *Raspberries*

- Thinning of floricanes raspberries / removal of spent floricanes
- Mowing to ground and removal of last year's growth from primocane raspberries
- Remember – using Reemay row covers will increase earliness and yield of primocane raspberries
- Make first application of nitrogen at month's end (snow melt); 2<sup>nd</sup> application in Mid-May
  - Floricanes – 20-40 lbs actual N/acre for each application (total 40-80lbs N/acre yearly)
  - Primocanes – 35-60 lbs actual N/acre for each application (70-120 lbs N/acre yearly)
  - Adjust rate if banding

### *Saskatoon Berries*

- Pruning / Thinning
  - dead, diseased, low-spreading branches before bud break
  - branches bigger greater than or equal to "Loonie" sized
- If regenerating or renovating entire orchard – Mow entire orchard
- In planning new fields which will eventually be mechanically harvested consider:
  - Lay of land, slope, flat
  - Rows in line with prevailing winds, shelterbelts
  - Don't mix varieties
  - Keep Saskatoon berries and chokecherries separated
  - Row spacing for machine harvesting should be 5-6 m (16-20 feet)
  - Ensure sufficient headland area for turning harvesters around
  - Choice of varieties – choose varieties that ripen uniformly
  - Ease of irrigation set up, proximity to water, delivery
  - Grassing requirements

### *Vegetables*

- Some vegetable transplants may be started this month, but only those that require 6 or more weeks to grow

### *Marketing – Generalities*

- Take a look at all of your existing product market "outlets" for each crop
  - Determine if they are adequate
  - Make adjustments (if necessary)
  - Do this for projected markets as well (it never hurts to be prepared)
- Do a review of your pricing
  - Is it adequate?
  - Has anything changed to might allow price adjustments?

### *General*

- If / when soil conditions permit it, carry out soil sampling (if not done in fall). Calcium, magnesium, sulphur, sodium are important components, in addition to main macronutrients (N, P, K)
- Do a last minute check up on all equipment that you are going to use this spring (if you haven't done this already)
- Depending on what sort of spring you are having, some field preparation activities may be possible
- Final planning of planting / packing layout
- Prepare rough summer schedule for planting, spraying, irrigation, etc.
- Go and visit another grower

### *Pest Monitoring / Management*

- Brush up on disease and insect pest identification
- Saskatoon berries
  - If plants progress rapidly, 1<sup>st</sup> Decis application may be required at month's end (green tip to bud elongation)

**NOTE: Daylight Saving Time starts the 2<sup>nd</sup> Sunday in March so ... SPRING FORWARD**

### **NEWSLETTER USE RESTRICTIONS**

Please feel free to share all or portions of this newsletter with other interested parties.

If you want to use content from this newsletter in other media, please request permission before doing so.

## Upcoming Conferences / Workshops

### March 2018

- Beyond Sticky Traps: Leveling Up Your Greenhouse Biocontrol (for greenhouse vegetable growers)  
Mar 1, 2018 – Gull Valley Greenhouses – Lacombe/Gull Lake, AB  
To Register – 1-800-387-6030
- Integrating Nutrition and Biology toward Plant and Soil Health (A workshop offered by Mans Organics)  
Mar 6, 2018 – Mans Organics – Coaldale, AB  
To register [Eventbrite](#); Queries – [mail@mansorganics.ca](mailto:mail@mansorganics.ca)
- Potato Pest Management Workshop  
Mar 6, 2018 – Festival Place – Sherwood Park, AB  
Mar 8, 2018 – Coast Lethbridge – Lethbridge, AB  
To Register – Call 1-800-387-6030
- Explore Local Webinar – Image-driven Marketing  
Mar 7, 2018 – [Register](#)
- Hort Snacks-to-Go Webinar – Crunching the Numbers on Biocontrol in Bedding Plant Production  
Mar 12, 2018 - [Register](#)
- 2018 Canadian Horticultural Council (CHC) Annual Meeting  
Mar 13-15, 2018 – Westin Ottawa – Ottawa, ON  
[www.hortcouncil.ca/](http://www.hortcouncil.ca/)
- Canada Blooms 2018  
Mar 9-18, 2018 – Enercare Centre – Toronto, ON  
[www.canadablooms.com](http://www.canadablooms.com)
- Tree Insect and Disease Management Course (Arboriculture Canada Training & Education Ltd)  
Mar 21-23, 2018 – Red Deer, AB  
[www.arborcanada.com](http://www.arborcanada.com)
- Explore Local Webinar – No Fear Farm Finance  
Mar 28, 2018 – [Register](#)

### April 2018

- Explore Local Webinar – Farm Direct Marketing Trends in Alberta  
Apr 4, 2018 – [Register](#)
- Explore Local Webinar – The Alberta Employment Standards Code and You  
Apr 18, 2018 – [Register](#)
- Canadian Produce Marketing Association (CPMA) Conference & Trade Show  
April 24-26, 2018 – Vancouver Convention Centre – Vancouver, BC  
<http://convention.cpma.ca/>

### May 2018

No events are listed at this time

## MENTAL SNACKTIME – Planning / Forethought

“Nothing is more imminent than the impossible . . . what we must always foresee is the unforeseen.” – Victor Hugo

“Look and see which way the wind blows before you commit yourself.” – Aesop

“I realized that with everything I did from that point onward, I would have to ask myself this question: “How would I feel if what I'm doing right now is written up on the front page of the Wall Street Journal or the New York Times or if it is on television? Would I still do it?” That is a very useful exercise for leaders to engage in, because we shouldn't do anything we might be embarrassed by or ashamed of.” – John E. Mackey

“Change takes time, forethought and knowledge, as well as an envisioned goal.” – Obiora Embry

“Productivity is never an accident. It is always the result of a commitment to excellence, intelligent planning, and focused effort.” – Paul J. Meyer

## Google Groups – HORT SNACKS FORUM

Google has all sorts of different features and tools. One that I ran across a couple of years ago is [Google Groups](#). You can essentially create and join common interest groups or discussion forums and share information and ideas back and forth. You can alter the settings to get forum updates all the time, daily, weekly or whatever.

A couple of years ago, we created a HortSnacks Forum, tied to this newsletter. Anyone who is a member of the forum can submit posts (questions, comments, etc.) via Google or via email. To submit a question (or post), either log into the group using a Google account or simply send an email to [hortsnaacks-forum@googlegroups.com](mailto:hortsnaacks-forum@googlegroups.com) and it'll send it to all members. You can reply from email or from Google. You have to be a member of the group to submit questions, but becoming a member is quick and easy.

To subscribe to the group, send an email from your email account to [subscribe+hotsnacks-forum@googlegroups.com](mailto:subscribe+hotsnacks-forum@googlegroups.com)

Try it out today!



HortSnacks-to-Go:

# 2017/2018 Webinar Series

To register: Email [dustin.morton@gov.ab.ca](mailto:dustin.morton@gov.ab.ca)

Time: 1:30 PM Cost: Free



## October 16, 2017 – Dr. Bob Bors

Dr. Bors is an assistant professor at the University of Saskatchewan where his research focuses on prairie hardy fruit breeding. He'll be discussing some of the new haskap varieties they're working on and new innovations in the pipeline.

## October 30, 2017 – Dr. Bridget Behe

Dr. Behe is a professor at Michigan State University and will be discussing the practical implications of her research using eye tracking technology in garden centres and how owners and operators can capitalize on this.

## November 20, 2017 – Ron Valentin

Ron is Bioline AgroSciences technical lead for North America and will be discussing how other areas of the world are using biological controls in field scale vegetable and fruit crops and how Alberta producers can take advantage of this growing area.

## December 18, 2017 – Dr. Kate Congreves

Crop fertility is a balancing game; soil fertility, fertigation, top dressing, foliar fertilizer, the list goes on. Dr. Congreves research focuses on soil health and fertility and she'll break down each of these and how best to manage your crops growth.

## January 15, 2018 – Eric Doef, Doef's Greenhouses

Eric is the second generation of growers at Doef's Greenhouses in Lacombe, Alberta. Doef's own an 11 acre state of the art greenhouse in Alberta and will talk about the challenges and success of growing at that size in the Alberta climate.

## January 29, 2018 – Dawn Boileau, Sunrise Gardens

Dawn and her partner Kate own and operate Sunrise Gardens in Onoway. Dawn and Kate have invested heavily into season extension and Dawn will discuss how this has allowed them to shrink their acreage while still sustaining the farm.

## February 12, 2018 – Chris Blanchard, Purple Pitchfork

Chris is the host of the popular "Farmer to Farmer" podcast and a former farmer. He'll be discussing the nuts and bolts of running a market garden including risk management, making a living, and working for the farm you want.

## March 12, 2018 – Graeme Murphy, bioLogical control solutions

Graeme is an advocate for biocontrol solutions for common pest problems and will focus on the cost and economics of biocontrol in bedding plant production.

Growing Forward 2 

A federal-provincial-territorial initiative

Alberta  Government

Canada 



**This workshop will provide potato growers with in-depth information on potato disease and insect pests, including identification, factors affecting incidence and severity, as well as management using a range of tools and techniques. Featuring both live and recorded speakers.**

# Potato Pest Management



## Registration Information

**Dates: March 6, 2018**

Sherwood Park and Ardrossan Rooms, Festival Place,  
100 Festival Way, Sherwood Park, AB

**March 8, 2018**

Coast Lethbridge Hotel & Conference Centre,  
526 Mayor Magrath Drive South, Lethbridge, AB

**Registration deadline: February 27, 2018**

**Limit of 2 registrants per farm operation**

**Time:** 8 a.m. registration. Sessions run 8:45 a.m. to 4 p.m.

Lunch and snacks provided, as well as reference material (one copy per participant)

**Cost:** \$15/person (plus GST)

To register online visit:

<https://eservices.alberta.ca/potato-pest-management-workshop.html>

Do not pay online if you are exempt from paying GST.

Instead, call **1-800-387-6030** to register.



# Potato Pest Management – Tentative Agenda

## Agenda

**8:00 – 8:45am – Registration / Mingling**

**8:45 – 9:00am – Welcome and Introductions**

9:00 – 9:25am – The impact of pests in potatoes: Cost of control/management – Dr. Michele Korschuh (AAF) (LIVE)

9:30 – 9:50am – Late Blight – Dr. Michael Harding (AAF) (LIVE)

**9:50 – 10:10am COFFEE BREAK**

10:10 – 10:35am – Blackleg – Dr. Ron Howard (RJH Ag Research Solutions) (LIVE)

10:35 – 11:00am – Potato Psyllids – Dr. Dan Johnson (U of L) (RECORDED/LIVE)

11:00 – 11:25am – Limiting Losses from Other Rots (Soft Rot, Pink Rot, Bacterial Ring Rot, Pythium Leak) – Dr. Ron Howard (RJH Ag Research Solutions) (LIVE)

11:30 – 12:00pm – Wireworms – Management options – Dr. Wim Van Herk (RECORDED)

**12 – 12:45pm LUNCH**

12:45 – 1:10pm – Fusarium Dry Rot – Dr. Michael Harding (AAF) (LIVE)

1:10 – 1:35pm – Tuber Flea Beetle – Scott Gillespie (Scott C Gillespie Agronomy) (LIVE)

1:35 – 2:00 pm – Radar Pests (Verticillium Wilt, PVY, Colletotricum (Black Dot)) – Dr. Ron Howard (RJH Ag Research Solutions) (LIVE)

2:00 – 2:25pm – The role of weeds in pest management – Pam Hutchinson (U of Idaho) (RECORDED)

**2:25 – 2:45pm COFFEE BREAK**

2:45 – 3:15pm – The importance of quality seed potatoes – Deb Hart (PGA) (LIVE)

3:15 – 4:00pm – Questions and Discussion – Q&A

Question Parking Lot (paper on each table) – read out during Q&A session

# Strawberry Production Q&A Session

March 13, 2018 – Agriculture Building  
5030 50 Street, Lacombe, AB



This interactive question & answer session provides new (and existing) strawberry producers with an opportunity to ask questions and discuss production challenges in a range of topic areas, as they get into production.

9:30am – 10am Check-in

Question & Answer run:  
10am – Noon  
12:30pm – 2pm

Lunch: 12pm – 12:30pm

Register: 1-800-387-6030  
Registration deadline:  
March 9, 2018

Cost = FREE  
(Space limited - RSVP required)

Participants should bring own lunch

 **2018**  
**Webinar Series**  
**March - April**

To register please visit our website at

[www.explorelocal.ca/webinars](http://www.explorelocal.ca/webinars)

or

[online](#)



**March 9 , 2018 – 9 a.m. MST**

**Image-Driven Marketing**

Photographer and communications professional Bri Vos will demonstrate how to create and use images to draw customers in and strengthen your online marketing. Bri will touch on composition and characteristics of a strong photo, online resolution requirements, Facebook and Instagram analytics tools, online marketing strategies and much more.

**April 4, 2018 – 9 a.m. MST**

**Farm Direct Marketing Trends in Alberta**

Research tells us that in Alberta 78% of consumers made at least one purchase at a farmers' market in 2016. The value of food purchased at farmers' markets and farm retail exceeded one billion dollars and accounted for about 10 per cent of Alberta's annual household food expenditure. Join Mimi Lee to learn the key drivers for the increase in direct marketing sales and see recent statistics comparing direct marketing farms in Alberta with those in other provinces.

**March 28, 2018 – 9 a.m. MST**

**No Fear Farm Finance**

What money do you have to invest in your local food business? What type of financing fits your business? How much credit should you carry? Join Ron Lyons as he demystifies the finance puzzle that many small agri-food producers, processors and local food entrepreneurs face as they grow their businesses.

**April 18, 2018 – 9 a.m. MST**

**The Alberta Employment Standard Code and You**

With Alberta Labour opening a new office focusing on changes to the Employment Standards Code, this is your chance to learn how the changes will affect you as a local food business. Join Patricia Tolppanen to discover more about the Alberta Employment Standards Code.



**Growing Forward 2** 

A federal-provincial-territorial initiative

**Alberta**   
Government

**Canada** 

## Alberta Farm Fresh School 2018 – Farm to Market Conference – A Selection of Topics and Speakers with Presentations

### Day 1

- Plenary session – [Collaboration and Cross-promotion](#) – (1392KB) – Alf & Sandee Krause – Krause Berry Farms & Estate Winery
- [The Fundamentals of the Worker's Compensation System](#) – (350KB) – Boris Makale – WCB
- Diversifying Your Farm & Using the Harvie CSA Software – Arlin Loewen – Summer's Gold
- [Starting a U-pick: Do's and Don'ts](#) – (1064KB) – Alf Krause – Krause Berry Farms & Estate Winery
- [Optimal Market Mix: The 80/20 Rule](#) – (608KB) – Eileen Kotowich – Alberta Agriculture & Forestry (AAF)
- [Basic Farm Safety Management](#) – (1164KB) – Donna Trottier – Ag Safe Alberta
- [Eurotour2018 – Three Countries of Horticulture Excitement](#) – (1743KB) – Jason Andersen (Kathy's Greenhouse) / Nadine Stielow (Thiel's Greenhouse) / Christie Pollack (Christie's Gardens & Greenhouses)
- [Marketing Tips](#) – (1215KB) – Sandee Krause – Krause Berry Farms & Estate Winery
- NAFDMA learnings – Melanie McKee
- Livestock Nutrition – Do you know what's in your feed? – Barry Yaremicio – AAF
- [Tips for Growing Strawberries – Things That Go Wrong](#) – (1094KB) – Robert Spencer – AAF
- Beyond The Farmers' Market – How to Sell Beyond – Kathy Leskiw (Confetti Sweets) / Johanna Alleyne (Mojojo Pickles)
- Market Buds – Introducing AFMA's new children's program – Christie Fleck - AFMA
- [Agroforestry, Silviculture & Alley Cropping](#) – (1166KB) – Luke Wonneck – Agroforestry & Woodlot Extension Society
- Insect Management in Vegetable Crops – [Creepers, Crawlers and Fliers](#) – (1110KB) – Robert Spencer – AAF
- Co-operating & Cross-promoting with Alberta farms & local businesses – Jordan Sullivan-Lapp – Hells Basement Brewery
- How I helped 8 new Canadians become successful Farmers' Market Vendors– Laura Rogerson

### Day 2

- [Rules & Regs for on-farm events & temporary kitchens](#) – (341KB) – Kelly Bauer – Alberta Health Services
- Evolution of a CSA – Deb Krause – Vesta Gardens
- Portable Displays That Rock – Karie Wylie
- New, Young & Diverse – How Aging Farmers Can Embody & Embrace the Next Generation – Nikki Wiart
- Food Co-ops – [Innisfail Co-op – Celebrating 25 years](#) – (229KB) – Shelley Bradshaw (Beck Farms); Food Co-ops – [YYC Growers](#) – (594KB) – Kye Kocher
- [Farmer Hacks](#) – (743KB) – John Mills – Bowden Sun Maze / Eagle Creek Farms
- Hands-on Accounting – Knowing the Cost of Making Your Product So You Can Make a Profit – Ian Stanley-Maddocks
- Market Manager Meet-up – Johanna Alleyne
- [Soil-borne Diseases of Vegetables – What Lurks Beneath](#) – (1524KB) – Robert Spencer – AAF
- The New AFFPA Website – Conny Kappler – AFFPA; Communications with Politicians – Dawn Buschert – Shirley's Greenhouse
- [Do's and Don'ts at the Farmers' Market](#) – (504KB) – Kelly Bauer – Alberta Health Services
- [Events on Your Farm – What you need to be successful](#) – (156KB) – Nathan Zdrodowski – Shady Lane Estates
- [Changes in Ethnic Diversity in Alberta & New Cropportunities](#) – (847KB) - Robert Spencer – AAF
- Using Social Media for Your Business – Leona Staples – The Jungle Farm
- Proposed Safe Food for Canadians Regulations & the PCP Plan – What will I need to do? – Michael DiMambro – CFIA

Click on the presentation topics to be access a PDF version of the presentation. Please note that not all presentations are available. Please do not copy, distribute, or duplicate the presentation files, without first seeking and obtaining the consent of the presenter.

## Presentations from the Dwarf Sour Cherry / Haskap Production Workshop – February 21, 2018 – Olds, AB

- [Dwarf Sour Cherries – Biology and Cultivars](#) – (1506KB) – Robert Spencer – Alberta Agriculture and Forestry (AAF)
- [Dwarf Sour Cherries – Establishment and Maintenance](#) – (549KB) – Robert Spencer – AAF
- [Dwarf Sour Cherries – Harvest & Pest Management](#) – (1929KB) – Robert Spencer – AAF
- [Economic Realities – Sour Cherries & Haskaps](#) – (416KB) – Robert Spencer – AAF
- [Haskaps – Biology & Cultivars](#) – (789KB) – Robert Spencer – AAF
- [Haskaps – Establishment & Maintenance](#) – (224KB) – Robert Spencer – AAF
- [Haskaps – Harvest, Post-Harvest & Pest Management](#) – (1445KB) – Robert Spencer – AAF
- [Haskaps – A grower's perspective – The Journey](#) – (727KB) – Andrew Rosychuk – Rosy Farms
- [Haskaps – Target Markets & Return on Investment](#) – Kreg Alde – Broken Tine Orchards
- [Haskaps – A Crop You Can Believe In or Fake News](#) – Dr. Eric Gerbrandt – Sky Blue Horticulture



### Q: What is one thing that you do each winter which saves you time in the growing season?

A: The more equipment that we can get serviced, modified, and ready to roll seems to be one of our best places to spend some time in winter.

A: Fix up equipment in garden so it is in working order

A: We stock up, making lots and lots of wine which we need in copious amounts every growing season; We also do an analysis of prior sales, make forecasts of sales, and then work out exactly what we need for supplies. This we communicate with suppliers months in advance so they have an idea of what is going to happen during the growing season. I, for one, hate to hear the words we don't have that available at this time. The second time this happens after I have given them a heads up, they are done next.

A: Clean out my work stations.

A: Sourcing seeds and composting in the shop.

A: Start tomatoes, and some bedding plants inside.

A: Planning and organizing

A: We plan for upcoming seasonal events and promotions

A: I use row covers to extend the planting and hardening off process.

A: I make sure seeding plans are made and equipment is ready to go

A: I start a lot from seed. I order my seed early, then sort them into large envelopes, one for each week or two week period, depending on how many I have. I label the envelopes with the date and what's inside. When seeding time rolls around, I can just pull the envelope I need and all the seeds I need for that week are there.

A: Make lots of fattening food to put in the freezer so we don't starve to death in May.

A: Update our online mailout and customer list.

A: Pre-purchase input material in the fall (when we can afford it) and receive them so we are ready to go

A: Planning!

A: I pay for prepricing of my perennials, trees and shrubs so that staff don't have to spend time pricing these items when they arrive in May and we are busy with customers.

Next Month's ? → [What is one insect pest/disease that you are concerned about that you are watching for?](#)

## Changes in the Ethnocultural Diversity of Alberta and New Croppportunities

Since its inception, Canada has had a diverse population, made up of people from countries all over the world. All of these cultures and backgrounds have blended to some extent, creating what you might call a “Canadian flavour”. At the same time, each person or culture brings some of their traditions and experiences, as well as their inherent preferences for certain things, particularly food. You don’t have to go far to see the influence of a particular culture on aspects of the diet of a region, even if there hasn’t been a new arrival for generations. For example, the Ukrainian culture is incredibly influential in areas of Alberta, driving the demand for certain products.

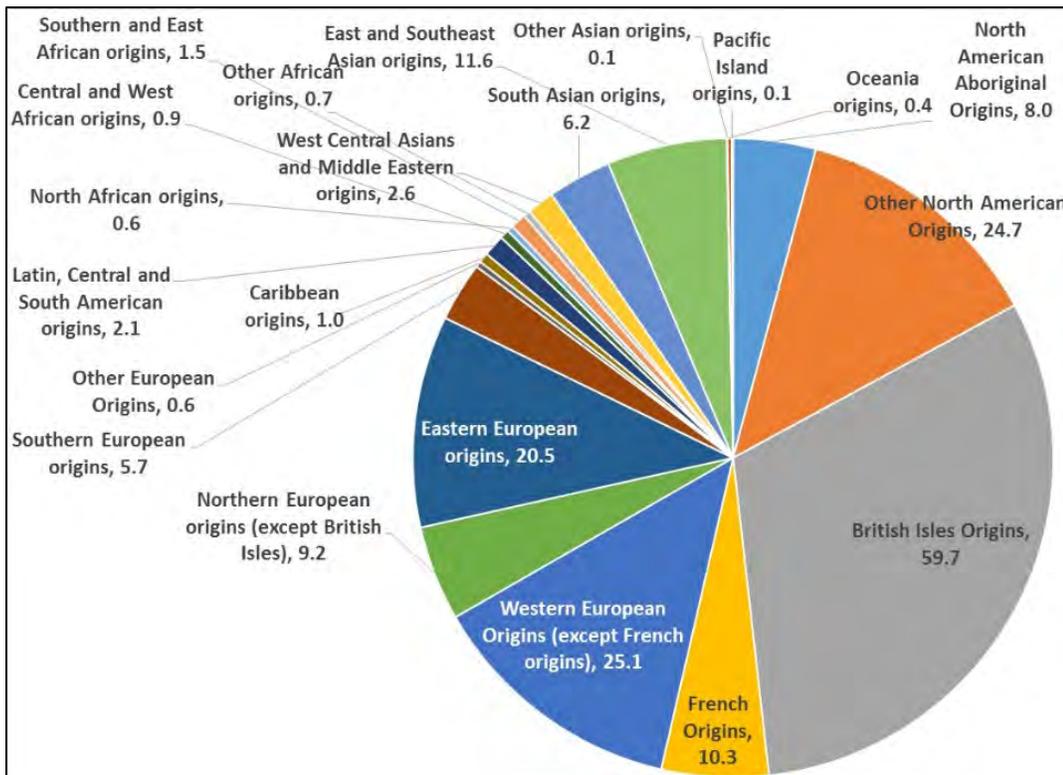
In any town or city in Alberta, it is easy to see that there have been changes in the ethnic or cultural representation in the population. The degree of diversity varies quite a bit from town to town, but it is definitely more diverse. The recently released Canadian Census 2016 provides a lot of interesting data that supports those observations.

If you dive deeper into the ethnic diversity and immigration data from past 4 censuses (2001, 2006, 2011 and 2016), you’ll find some fascinating trends and patterns in the populations of Canada (as a whole), as well as in provinces such as Alberta. On most levels, patterns and trends are fairly consistent at both the national and the provincial level. Looking at the data, you can see that there have been surges in some very specific ethnicities in the past 2 census periods. Shifts in ethnocultural demographics represents opportunities for producers to supply produce to new and different consumers.

Traditionally, the vast majority (>75%) of the population of Alberta has been made up of individuals who identified their ancestry from North American or European origins, including the British Isles, France and other European nations. Some of the interesting changes from 2001 to 2016 include an increase in reported declared ethnicities by over 40 (from 200+ to 255), as well as a doubling in the percentage of the population originating from the regions of Asia, South Asia and Africa. While some of these changes would

have come from reproductive population growth, a good part of it has come through immigration.

The chart show ethnic origins (by percentage by region) for Alberta, from Census 2016, as well as highlighting the doubling (or more) of specific regions.



Source: Statistics Canada.  
Census of Canada, 2001;  
Census of Canada, 2016

When the ethnic origin/countries of origin for Alberta are ranked, the top 12 countries didn't change much from year to year. However, from 2001 to 2016, two different ethnicities (Filipino and East Indian) moved up significantly, with one breaking the top 12 barrier.

Table 1: Rank of declared Country of Origin/Ethnic Origin for 4 different Canadian censuses

| Rank | 2001 Census         | 2006 Census           | 2011 Census                   | 2016 Census                   |
|------|---------------------|-----------------------|-------------------------------|-------------------------------|
| 1    | Canadian            | English               | English                       | Canadian                      |
| 2    | English             | German                | Canadian                      | English                       |
| 3    | German              | Canadian              | German                        | German                        |
| 4    | Scottish            | Scottish              | Scottish                      | Scottish                      |
| 5    | Irish               | Irish                 | Irish                         | Irish                         |
| 6    | French              | French                | French                        | French                        |
| 7    | Ukrainian           | Ukrainian             | Ukrainian                     | Ukrainian                     |
| 8    | Dutch (Netherlands) | Dutch (Netherlands)   | Dutch                         | First Nations                 |
| 9    | First Nations       | Polish                | First Nations                 | Dutch                         |
| 10   | Polish              | First Nations         | Polish                        | Chinese                       |
| 11   | Norwegian           | Norwegian             | Chinese                       | Polish                        |
| 12   | Chinese             | Chinese               | Norwegian                     | Filipino                      |
| 13   | Swedish             | Swedish               | East Indian                   | East Indian                   |
| 14   | Italian             | Russian               | Filipino                      | Norwegian                     |
| 15   | Métis               | East Indian           | Russian                       | Métis                         |
| 16   | Russian             | Métis                 | Swedish                       | Russian                       |
| 17   | East Indian         | Italian               | Métis                         | Italian                       |
| 18   | Welsh               | Welsh                 | Italian                       | Swedish                       |
| 19   | Danish              | American              | British Isles origins, n.i.e. | British Isles origins, n.i.e. |
| 20   | American (USA)      | Danish                | Welsh                         | Welsh                         |
| 21   | Hungarian (Magyar)  | Filipino              | American                      | American                      |
| 22   | Filipino            | British Isles, n.i.e. | Danish                        | Danish                        |
| 23   | Austrian            | Hungarian (Magyar)    | Hungarian                     | Hungarian                     |
| 24   | Vietnamese          | Austrian              | Spanish                       | Spanish                       |
| 25   | Romanian            | Spanish               | Austrian                      | Austrian                      |

Source: Statistics Canada. Census of Canada, 2001, 2006, 2011, 2016

As mentioned previously, increases in specific ethnicities comes as a result of reproductive population growth, as well as through immigration. Looking at Alberta immigration numbers for the 2016 Census, a number of different trends become visible. Prior to 1981, the majority of immigrants arrived from European countries, whereas in later periods these regions did not supply many immigrants. Some countries and ethnicities saw a significant increase in the number of immigrants arriving in Alberta. Immigration numbers into Alberta increased significantly in the past 2 census periods. Table 2 highlights population surges in Alberta from various countries over the various census periods.

Table 2: Periods of immigration for various countries, as well as 2001 Census versus 2016 Census changes in rank

| Place of Birth | Total Immigrant Population | Period of Immigration |              |              |              |              |              | Rank in 2001 | Rank in 2016 |
|----------------|----------------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                |                            | Before 1981           | 1981 to 1990 | 1991 to 2000 | 2001 to 2005 | 2006 to 2010 | 2011 to 2016 |              |              |
| Total          | 845215                     | 163460                | 86350        | 131565       | 109145       | 146910       | 207790       | 0            | 0            |
| Mexico         | 15665                      | 815                   | 1580         | 2695         | 2070         | 4100         | 4400         | 54           | 33           |
| Cameroon       | 1760                       | 10                    | 0            | 35           | 155          | 505          | 1055         | 193          | 112          |
| Nigeria        | 12405                      | 165                   | 170          | 645          | 1445         | 3875         | 6110         | 81           | 48           |
| Ethiopia       | 10565                      | 60                    | 665          | 1580         | 1995         | 2820         | 3445         | 77           | 47           |
| Iran           | 8910                       | 165                   | 870          | 1420         | 1395         | 1785         | 3260         | 55           | 45           |
| Syria          | 4800                       | 190                   | 160          | 285          | 355          | 480          | 3335         | 80           | 62           |
| India          | 91660                      | 7045                  | 5370         | 14905        | 14965        | 20555        | 28820        | 17           | 13           |
| Pakistan       | 28075                      | 1065                  | 885          | 5080         | 7610         | 6530         | 6910         | 47           | 29           |
| China          | 57695                      | 7150                  | 5085         | 10740        | 14055        | 10135        | 10525        | 12           | 10           |
| Philippines    | 123830                     | 4825                  | 5620         | 15545        | 12180        | 26270        | 59390        | 22           | 12           |

Source: Statistics Canada. 2016. *Census of Canada, 2016, Immigration and Ethnocultural Diversity Highlight Tables - Alberta*

#### What does this mean? (for producers)

As population demographics shift, there are changes in demand for various products. As evidenced by the changes (increases) in certain ethnic groups, there may be opportunities for Alberta producers in terms of new crops, new markets and new customers. The increasingly global nature of our food systems means that we have greater access to a diversity of products that serves to reinforce our cultural preferences. Globetrotting consumers today are also more aware of other cultures and the food that goes with them, and are willing to venture into new territory. The National Restaurant Association recently published the [Top 20 Hottest Food Trends of 2018](#). Of the 20, nine of them have some sort of ethnic spin or angle.

The emphasis on local production or the shift in preference towards locally sourced product is also important. Consumers of all backgrounds are interested in buying fresh, local Canadian product. It is worth evaluating what and how you sell, to ensure that you are able to take advantage of these new opportunities.

#### Some References / Resources:

- [An Opportunity For Ethnocultural Vegetables in Canada – U of Guelph \(April 2011\)](#)
- [Specialty Cropportunities website \(OMAFRA\)](#)

#### General Guidelines

New entrants to Canada are often looking to consume foods that were part of their diets in their home country. While the product might be something familiar to us (on a general level), each ethnicity will likely vary in their individual preferences, with vegetable preferences varying in their size, colour and type. Variations in name may be slight, but significant.

Many new consumers have a farming background and have a high level of awareness of “what to look for”, as well as desiring a high level of quality and freshness, while being value-conscious. While there are many similarities to traditional customers, with most consumers wanting fruit, tubers, leafy greens and Cole crops,

there may be some specific characteristics that are preferred over others. Additionally, there may be a demand for blossoms over fruit, or alternative leafy materials, such as the leaves of plants and those that are often considered weeds. It is important to have a price for everything, so that if the opportunity comes in the form of a request, you are prepared. *How you sell* may need to change, or you may need to re-evaluate the level of understanding of your new customers on the “traditional rules”. Rules may need to be clearer and it is possible that customer management levels may need to be increased.

### New Croppportunities

Based on some of the ethnic population surges outlined previously, the following represent some general opportunity crops that might be preferred for specific ethnicities and ethnic cuisines. It is important to recognize that most of these vegetables may be grown in Alberta, however some additional effort may be required to do it successfully. It is also important that these are generalizations to a broad region, and there can be significant variations within countries and between ethnic groups.

*Latin America:* Most of our traditional vegetables (potatoes, onions, peppers) would be desired by this group, however they may desire specific characteristics. Hot peppers, tomatillo and various types of squash and melons would be on the list. Squash blossoms might also be desired, as well as cilantro. Corn smut (Huitlacoche) is a fungus, but is a mushroom-y delicacy.

*Africa:* Okra is a high demand crop, as are eggplants, chili peppers and tomatoes. Various greens (lettuce, spinach, etc.) are a part of this region’s cuisine, however these could be expanded to include pumpkin leaves, pigweeds, amaranth and celosia. Yardlong beans and cucurbit blossoms are also in demand.

*Middle East:* Vegetables play a big part in the cuisine of this region, as do grains and pulse crops. Tomatoes, cucumbers, eggplants, onions, garlic, carrots, turnips, beets, squash, okra and many varieties of cabbage, spinach and chard would be demanded by these groups.

*South Asia:* Most of the vegetables demanded by this ethnicity are familiar to us on the Prairies, including spinach, tomatoes, cauliflower, potato, cabbage, carrots, green beans and green or red chili peppers. The use of alternative greens, such as weeds like wild mustard, or fenugreek, are also in demand. Small and baby onions, as well as small/round eggplants, okra, bitter melon and cilantro and coriander would be different or specific products preferred by this region. The type of eggplant is an example of a highly ethnic-specific preference.

*Asia:* In addition to tomatoes, spinach, carrots, broccoli, lettuce (romaine and red), those of this region prefer long/skinny types of eggplants, bitter melon, Chinese type green beans and celery. There is also demand for a wide assortment of ethnic (Chinese) Cole crops, such as bok choy/pak choy, Chinese broccoli (gai lan, Chinese kale), Chinese cabbages and oriental radish (daikon). These crops are reasonably easy to grow in this area, however they may be susceptible to various pests, so may require additional protection and care.

*Philippines:* Filipinos prefer a small/long/skinny type of eggplant, bitter melons, okra, yard long beans or long string beans, bok choy (called Pechay), as well as cantaloupe and watermelon.

### Conclusions:

Regardless of the ethnic origins of an area or the specific individuals within it, it is worth paying attention to the demands for product from your customers. This means that you may have more customers asking for new or diverse product selections than you might expect. It might also be worth targeting specific ethnic groups in your area with targeted marketing, special events or linking in with cultural associations. Selling to local restaurants might also be a possibility.

## Alberta's Elm Pruning Ban Starts April 1<sup>st</sup>

To help keep Alberta Dutch elm disease (DED) free, there is a provincial elm pruning ban in place between April 1<sup>st</sup> and September 30<sup>th</sup>. It is important to properly dispose of all pruned elm wood by burning, burying or chipping by March 31<sup>st</sup>. It is illegal to prune elm trees during the pruning ban and to store elm firewood.

Elm bark beetles, responsible for spreading the deadly DED fungus, feed on healthy elms and breed in dead and dying elm trees. If elm trees are pruned during the pruning ban period, these beetles, which are active at this time, can be attracted to the scent of the fresh wound and possibly infect your otherwise healthy elm with DED. Once an elm tree is infected with DED it will die within that year.

Having your tree pruned properly is important. Many trees are killed or ruined annually from improper pruning. Pruning like any other skill requires knowledge and should be done by an International Society of Arboriculture (ISA) Certified Arborist who can determine what type of pruning is necessary to maintain or improve the health, appearance and safety of your trees.

Topping or removing an excessive amount of live wood is not recommended on any variety of trees and will weaken the tree's structure. For more information on pruning, ISA Certified Arborists, and DED visit either <http://www.isaprairie.com/> or [www.stopped.org](http://www.stopped.org)

## Berry & Vegetable Price Survey – Head's up!

Having price information is valuable for people of all experience levels, to use as a reference against your own pricing and to compare against when calculating your cost of production and setting your prices.

Each year, I put a call out to producers, asking them to share what they were charging for their fruit and vegetable crops the past season (both u-pick and pre-pick for FM), as well as any price changes that they anticipate for the coming season. From that, I assemble average prices (as well as the range) to share with the industry. It is coming up on that time of year again, as experience has shown that earlier is better for everyone involved.

For those readers that get this newsletter electronically, I will send out the formal request in a separate, direct email. I hope to publish the summary in the April 2018 edition of Hort Snacks (May at the latest). For those that get this by hard copy, please feel free to send in your information by mail, fax (403-742-7527) or give me a call.

The following is an outline of the type of information I need.

| Crop                     | U-pick price   | Pre-pick price | Farmers Market Price | Unit of measure for each market (e.g. per pound; per head/bunch) |
|--------------------------|--|----------------|----------------------|--|
| Examples of Crops wanted | Fruit – strawberries, raspberries, Saskatoon berries, black currant, dwarf sour cherries, Haskap, chokecherries, other fruit; Vegetables – beets, carrots, radishes, rutabagas/turnips, corn, cabbage, broccoli, cauliflower, Brussels sprouts, kohlrabi, kale, spinach, lettuce (head and/or leaf), cucumbers (pickling, slicing), potatoes (baby, regular), rhubarb, peas, snap peas, snow peas, beans, tomatoes, onions, garlic, Swiss chard, winter squash, zucchini, pumpkins, etc. |                |                      |  |

## Swede Midge

*Contarinia nasturtii*

**Crops Affected:** cruciferous vegetable (Cole) crops – broccoli, cabbage, cauliflower, Brussels sprouts, kale, kohlrabi, collards, rutabaga, turnip, radishes, ethnic Cole crops; canola, field mustard, Cruciferous weeds

### Life Cycle:

- Adults are tiny, light-brown flies, which resembles most other midge species
  - Midges have long, delicate legs and long, beaded antennae, as well as wings with short, fine hairs on them
  - Adults are not strong fliers, preferring areas with low wind movement
- In areas where a population is established, adults emerge in the spring, over a period of approximately 1 month
- After mating, females locate a host and lay eggs in clusters of up to 50 eggs on very young, actively growing vegetative tissues, typically near the growing points
  - Females lay approximately 100 eggs in their 1-4 day lifespan
- Larvae (maggots) emerge within a few days to feed in groups on host tissues
  - Larvae feed and develop for 1-3 weeks, depending on weather conditions
    - Larvae secrete a toxic saliva to break down tissues, resulting in swollen tissues and abnormal growth
    - A moist environment is required, therefore dry conditions can result in short periods of dormancy
  - Larvae are yellow at maturity
  - Mature larvae exit the plant and pupate shallowly in the soil
  - End of season larvae go into diapause, to overwinter into cocoons in the soil, surviving up to 2 years
- In some regions, there can be as many as 4-5 overlapping generations, with each generation lasting 3-5 weeks

### Symptoms:

- Tissues infested with larvae are distorted and watery, due to toxic nature of larval saliva
- New tissues are affected by feeding resulting in:
  - Leaf and stem tissues that are swollen, distorted, twisted and scarred
  - Blind heads and/or multi-headed plants can result from the death of a growing point or main shoot
  - Plants that do not form heads
  - Flower buds do not open and become swollen
  - Internal leaves may become crinkled or crumpled
- Transplants are unmarketable
- Plants become less susceptible as they get older, resulting in reduced symptoms in later infections
- Symptoms may resemble nutrient deficiencies, mechanical damage from cultivation, other insect feeding, herbicide injury, etc.



Swede midge adult  
Photo by Susan Ellis, USDA APHIS PPQ, Bugwood.org

### Monitoring:

- Confirm injury due to Swede midge by observing larvae on or within tissues
  - Depending on the size of the larvae, they can be seen with the naked eye or a hand lens
  - Tissues may also be placed in a black, plastic bag in the sun for several hours, which will cause the larvae to exit the plant, allowing detection
- The use of pheromone traps may be used to detect low levels of a population within a field
  - Adult males are drawn to the trap
  - Place traps along field edges, and/or in sheltered areas
  - Traps are hung on stakes, approximately 30 cm (12in) above the soil
  - About 4 traps are recommended per field, at least 50 m (150-200 feet) apart (fewer can be used in smaller fields)



Swede midge trap  
Photo by Robert Spencer

### Management:

- Established populations are very difficult to control – avoid introduction
- Ensure that transplants are clean and free from infestation
  - If growing your own transplants, ensure good greenhouse monitoring and sanitation practices are followed
  - Systemic insecticide applications in greenhouses can be effective
- Ensure a good crop rotation is followed, with a minimum of 2 years between host crops
- Crops such as broccoli, ethnic Cole crops, Brussels sprouts and cauliflower are more susceptible, resulting in higher populations
- Ensure at least a 1 km distance between new and previously cropped fields, as males can fly 300m and females further than that
- Good field sanitation
  - Control Cruciferous weeds to reduce out-of-crop host options
  - Avoid deep tillage; clean off equipment and boots when leaving infested fields
- Planting early maturing crops prior to early adult emergence can reduce damage; avoid late maturing crops to reduce overwintering
- The application of registered chemicals based on monitoring may reduce damage and population build up

# DISEASE OF THE MONTH

Management:

## Dutch Elm Disease

*Ophiostoma ulmi*

Crops Affected: Elm species

Disease Cycle:

- Fungal pathogen is spread from tree to tree by 2 different beetles, native elm bark beetle (NEBB) and the smaller European elm bark beetle (SEEBB)
  - Both beetles are declared pests under the Alberta Pest Act
  - Emerging offspring are covered in the sticky spores, which are spread to healthy trees as they fly and burrow into new host trees
- Spores that have been introduced into the host tissues germinate
- The fungus grows and spreads, plugging the xylem tissues (tree's water conducting elements)
  - Infected branches wilt and die
  - Eventually the tree dies completely, usually within 1 or 2 seasons

Symptoms:

- Elm trees may exhibit the following symptoms
  - In early summer (mid-June to mid-July), leaves on individual branches may wilt, droop, followed by curling and browning
    - Brown wilted leaves remain on the tree
  - Later in summer, leaves droop and turn yellow (flagging), with leaves may drop prematurely
    - Late infections can be confused with normal, seasonal changes
  - Branches with smaller leaves than rest of the tree
  - Branches with no leaves
- The sapwood will be stained brown
  - This is visible when the bark is removed from infected twigs
- Evidence of insect pest vector
  - Beetle emergence holes, the size of the diameter of a pencil lead, and/or sawdust on the bark would be indicative of burrowing beetles

- Monitor conditions of elm trees
- Maintain healthy trees
  - Ensure that they have adequate water, nutrients, light and are not stressed
- Prune trees to remove dead, dying or diseased wood
  - Avoid pruning elm from April 1 to September 30, which is when the insect vector would be attracted to pruning wounds
  - Completely remove dead or dying trees, including the stump
  - Dispose of pruned material properly (burning or burial deeper than 25cm) – do not chip
- Avoid transport of elms or elm firewood from other areas (diseased areas)
- Chemical treatment of infected trees is not effective and is very costly

## The Disease Vectors

### Native Elm Bark Beetle

*Hylurgopinus rufipes*

Description:

- Native beetle
- Small beetle (~1/8 inch, 2-3mm)
- Adults bore galleries across grain; larvae bore perpendicular to adult galleries
- Overwinters mainly as adult in galleries beneath the bark of healthy trees - can overwinter in any stage, except egg

### Smaller European Elm Bark Beetle (SEEBB)

*Scolytus multistriatus*

Description:

- Introduced pest
- Small beetle (~1/8 inch, 3-4mm)
- Adults bore galleries parallel to wood grain; larvae bore perpendicular to adult galleries
- Overwinters as a larva, pupates and emerges as an adult in spring

### Differences in breeding galleries

- Characteristic pattern of the breeding galleries on the surface of the wood under the bark can be used to identify the two elm bark beetle species
- Galleries that run parallel to the grain are caused by SEEBB
- Galleries that run across the grain are caused by the NEBB



Elm tree with flagging

Photo by:

[https://www.edmonton.ca/programs\\_services/pests/dutch-elm-disease.aspx](https://www.edmonton.ca/programs_services/pests/dutch-elm-disease.aspx)



Left: NEBB - adult; Right: SEEBB – adult

Photos by: Natural Resources Canada, Canadian Forest Service



Breeding Galleries –  
Left = SEEBB; Right =  
NEBB

Photo by: Natural Resources  
Canada, Canadian Forest  
Service