



Mary Forstbauer

Remembering an Organic Leader

Resilience

Your Guide to the 2016 COABC Conference

Organic Evolution

Evolve with the Standards

British Columbia

Organic Grower

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Organic Evolution
Check out Rochelle Eisen's standard update survival guide!
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BC Organic Grower

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On the Cover: Mary Forstbauer & grandchildren at her farm. Credit: Thomas Buchan.

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Editor's Note

By Darcy Smith

This was a big year for organics in our fair province. Everything is evolving, from our standards, to the Ministry of Agriculture's approach to organics, to the way we farm in the face of climate change and growing demand for organic. As the landscape shifts beneath us, the question becomes: how will farmers evolve?



I hope you'll find a thing or two in the content of this issue to get you thinking. From unusual seeds to expand your farmers' market offerings, to a profile of Sky Harvest, the first certified urban farm in North America, to a look into the stellar bureaucratic coup that opened up farmers markets to beer, wine, and spirits sales, these pages are filled with producers doing things a little differently – and reaping the rewards.

In our Farmer Focus section, Marjorie Harris visits Gardengate, a social enterprise farm where those rewards come in the form of empowering individuals with disabilities. Take a peek into their unique farming operation on page 8; I promise your heart will be warmed.

On a more practical note, our contributors have gathered tools they think will help you evolve your own farm in 2016. You'll find a series of articles on how animals – both native species and farm animals – can help your farm thrive. Rochelle Eisen lends us her inimitable organic standards know-how with her survival guide to getting your farm up to snuff – I highly recommend you take advantage of some of the excellent learning opportunities she's outlined on page 27, including sessions at our upcoming conference.

I couldn't put this issue to bed without sharing how very excited I am – we all are – about this year's COABC gathering in Vernon. Head over to the conference insert for a glance at what awaits you. From sessions on Resilience, to Livestock, to Business, to Technical know-how, to Land Stewardship, there's something for every farmer. I am also eager to welcome my personal food hero (and I'm sure many of

you share my sentiments), Dr. Vandana Shiva, who will kick off the conference with what is sure to be an inspiring keynote.

This is my debut issue of the Grower, and I look forward to evolving along with this publication, and the organic sector. As always here at BC Organic Grower, we welcome your feedback. BC Organic Grower is your magazine. Let us hear your voice. Please drop me a line at:

 editor@certifiedorganic.bc.ca 



Check out the 2016 COABC Conference outline in this issue, with workshop outlines & many other details - starting on page 5!



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In loving memory of Mary Forstbauer

Legacy of an Organic Leader

This September, as the summer season started to wind down, the COABC video project team had the honour of spending a few hours with Mary Forstbauer on her farm, interviewing her about her life on the land, and her vision for future generations of farmers. As always, Mary was enthusiastic, eloquent, and so very determined to build a lasting organic legacy in BC. She spoke with poetry and passion about instilling a love for farming in our youth – and she surely has done her part in growing the next generation of farmers.

We never imagined that Mary would leave us so soon after that visit, and it is with heavy hearts that we say goodbye to this remarkable woman and organic legend. Mary's heart was dedicated to furthering the organic food movement in B.C. She nurtured not just her own 12 children and 110 acres of land,

but everyone she met, from her fellow farmers to the people she greeted with a smile at the farmers' markets weekly. Mary was a passionate leader who brought a community together with her strength, integrity, passion, and love.

Mary's accomplishments could fill volumes – to name just a few, she was a founder of both the Certified Organic Associations of BC and BC Regenerative Agriculture, a board member of the Biodynamic Agriculture Society of BC, and has been integral in growing farmers' markets across the province. This year, she received CHFA's Organic Achievement award, recognizing a lifetime of inspiring service.

Mary wanted nothing more than to teach children to love the land. Mary's life, work, and spirit will live on in her family, the farmers she has grown in her fields over the years, the land she has stewarded, and the people whose lives she touched. She has planted a seed in each of us, and her legacy of land stewardship will grow and flour-

ish. We know of no better way to pay tribute to her than to continue her work, one seed at a time.

We love you Mary Forstbauer. Thank you for the life you led. You are a gift to all of us.

WATCH: Seeds of Knowledge

What's in a seed? For farmers, seeds are pure magic, a symbol of life, and full of possibility. From the seeds they lovingly plant in the earth each season, to the seeds of knowledge handed down from generation to generation, farmers share a bit of this magic.

COABC's new video about the role of seeds in organic farming is out, with stunning footage of familiar farming faces - including Mary Forstbauer. Watch it at:

 www.certifiedorganic.bc.ca/eatorganic





February 26 - 28, 2016
Prestige Hotel
Vernon, BC

COABC's Conference is the annual gathering that provides educational and networking opportunities for new and established farmers, as well as those keen to learn more about the world of organic farming. This year's conference has several sessions developed with the new farmer in mind; however, there are enough options to pique one's interest, no matter how long you've been at it. With the theme of Resilience, we will explore issues related to the adaptability of one's agroecosystem, business, and our community.

Resilience Sessions will look at issues arising from climate change and the challenges it presents, such as shifting weather patterns, extreme temperatures, and water shortages. Sessions will focus on cultivating climate resilience on your farm, projects with the BC Climate Action Initiative, water harvesting, a BC Seeds roundtable, and regenerative agriculture.

Livestock Sessions will delve into a range of issues such as beekeeping, egg production, navigating class 'D' & 'E' slaughter licenses, and standards interpretation related to animals.

Business Structure & Supports will focus on components of running a business that make a big difference in the success of your season. We will look into SMART business planning, the certification process made easy, an overview of mandatory regulation changes at the provincial level, feasibility of starting a

hop growing business, and programs for new farmers from Farm Credit Canada.

Technical Information will allow you to get into the nitty gritty details of farm work. We will explore pest management (earwigs and pest pressure related to climate change), beginner seed saving, advanced seed saving for carrots, and standards interpretation for crops, prepared foods, and apiculture.

Land Stewardship will explore the importance of taking care of this land for generations to come through sessions on indigenous food lands, stories from the vanguards of the organic community, and soil biology.

Keynote Speaker



We're thrilled to have **Dr. Vandana Shiva**, internationally recognized advocate for organics and non-GMO seed sovereignty, as our Keynote Speaker (Saturday at 8:30 AM). She will be speaking about the resilience of ecosystems through organic growing and processing, how this leads to increased adaptability to shifts related to climate change like increased temperatures and water shortages, as well as how the future of organics will be sustained through the younger farmers who are taking on this philosophy of living and working.

Dr. Shiva will also be participating in a BC Seeds Roundtable, moderated by Heather Pritchard, on Saturday afternoon. FarmFolk CityFolk's seed security program -- "BC Seeds" -- has been working for over a decade to support BC seed growers to increase the quality, quantity, and diversity of locally grown seed. For the past three years, with USC funding, they have been coordinating the BC Region of a national seed program for USC Canada, funded by the Weston

Foundation. Heather Pritchard and Chris Thoreau work together, with over 30 seed growers, community seed activists, organizations and universities to grow, research, and promote locally grown and adapted seed. The roundtable brings together seed growers and researchers, seed collectives and libraries, and the recently incorporated BC Eco Seed Coop to tell their stories and share their experience. Join Dr. Vandana Shiva as she discusses her global perspective and knowledge of Seed Sovereignty and share with her what seed growers are doing in BC.

Friday Afternoon Workshop

This year's workshop will satisfy people's craving for more detailed information about soil biology. Join Sean Smukler, Assistant Professor, Faculty of Land and Food Systems at University of British Columbia for his workshop, *Managing Soil to Maximize Agro-ecosystem Resiliency*.

Space is limited to 30 participants, so be sure to sign up early. Please note that the Friday workshop is separate from the Conference Registration.

Other Conference Highlights (subject to change)

- Friday evening reception with beer, wine, and spirits sampling; and charcuterie platters, Chef Inna's specialty
- Saturday's Trade Show will provide a marketplace of products and ideas to inspire you
- While the Feast is being staged, you can check out the Seed Exchange, the Young Agrarians Mini-Mixer, or the Hospitality Room
- COABC AGM on Sunday – come and hear about the extraordinarily full year we've had and consider getting involved
- You'll have a chance to share your organic voice in a video booth on Saturday afternoon!

Accommodation

The Prestige Hotel in Vernon (4411 32 Street) is holding a block of rooms with rates starting at \$109.95/day (single/double occupancy) + tax. To reserve, please call the hotel at (250) 558-5991 or 1-877-737-8443 (be sure to specify Vernon location) and ask for the COABC rate.

Silent Auction

Our silent auction continues to get better and better – bring your bidding savvy, expect to have a lot of fun,

and hopefully go home with a new tool, mug, t-shirt, piece of artwork, beverages, storage veg, book, gift certificate, and so much more. If you would like to donate an auction item, just bring it with you to the conference. Auction items will be on display from 6 PM Friday evening until bidding closes at 9 PM on Saturday.

Trade Show

The COABC conference features an exciting trade show. Located in the lobby adjacent to the meeting spaces, the location makes it easy to learn about resources and products that could be integrated into your farm operation. The trade show runs from 9 am – 3:30 pm Saturday.

Workshops & Presentations



Agriculture and Climate Change Adaptation: Programs, Projects and Progress in B.C. with *Emily MacNair, BC Climate Action Initiative Program*

A high level summary of the collaborative planning and projects of the BC Agriculture & Food Climate Action Initiative (CAI) will be provided. In partnership with agricultural organizations and local governments, to date CAI has assisted with the development of five regional plans for agricultural adaptation; including strategies and actions to address climate change impacts. Numerous projects to strengthen knowledge and/or provide resources and tools for agricultural adaptation are underway. An update will be provided on the key priorities identified in the Okanagan plan (under development this winter). Information about farm-level pilot and demonstration projects that may be of particular interest to organic growers will also be provided.

New Times, New Tools: Cultivating Climate Resilience on Your Farm with *Laura Lengnick, author of Resilient Agriculture: Cultivating Food Systems for a Changing Climate*

As we enter the 21st century, farm and food businesses face novel challenges created by climate change. Weaving practical lessons from the field with the latest climate science and resilience thinking, author, educator, scientist, and farmer, Laura Lengnick, draws on the adaptation stories of 25 award-winning sustainable

farmers from across North America to teach about successful farming strategies for managing the increased weather variability and extremes associated with our changing climate. Learn how to assess your climate risk and use ecosystem-based adaptive management tools to cultivate climate resilience on your farm.

Farming for the Future: The Science and Current Work Behind Regenerative Agriculture with *Susan Cousineau*

Susan will present some of the latest agroecological research from farms using regenerative agriculture and diversified farming practices. Besides being beneficial for crop yields, such practices are increasingly demonstrating measurable ecosystem benefits such as increased carbon sequestration, soil building, water retention, and biodiversity. Examples from farms across North America will be used to consider some of the various challenges and opportunities currently in development, with emphasis on financially viable, productive enterprises at market scale.

Farmscale Water Management with *Gordon Hiebert, Permaculture Designer and Educator*

When you envision a farm, do you think of lush fields, plump crops, and moist soils? This is made possible by water, but water can also be destructive. When water is passive it is productive, when it is active it can be erosive and damaging. The question is, how can we find a balance to ensure water is used as effectively as possible on our farms?

This session will discuss how to turn water woes into water wins while stimulating crop production and ecological diversity on your farm. The focus will be on how to hold water in the landscape and turn water problems into solutions.



Keeping Honeybee Colonies Healthy with Organic Acids with *James MacDonald, Max MacDonald and Doug Gordon, Armstrong Apiaries*

Beekeeping has become a challenging agricultural pursuit with the spread of parasitic mites throughout the world. Since their introduction into Canada, mites have been controlled utilizing an array of synthetic miticides. In recent years, organic acids have been proven to be very effective in controlling mite populations in honeybee colonies. This presentation will provide aspiring “newbees,” as well as seasoned bee people,

with all the information needed to keeping bees productive and alive throughout the year.

Becoming an Egg Producer with *Katie Lowe, BC Egg* Every year, the BC Egg Marketing Board receives many inquiries on how to become an egg producer in BC. Throughout this presentation, you will be walked through the different methods to enter the industry, as well as receive a brief overview of BC Egg’s on farm programs.

Navigating Farm-Scale Slaughter: Class D & E Slaughter Licences with *Tristan Banwell, Spray Creek Ranch*

Learn the ins and outs of BC’s on-farm slaughter options from a farmer who received a Class D slaughter licence in 2015. Tristan will discuss the types of licences available, outline the application & inspection processes, and share his experiences with developing and operating a farm-scale abattoir. Bring your questions, and expect a call to action in support of expanding the availability and feasibility of on-farm slaughter throughout our province.

Changes to the Canadian Organic Standards: An Essential Update (Crop Production, Speciality Crops, Livestock & Apiculture) with *Anne Macey, Canadian General Standards Board Organic Technical Committee (CGSBOTC) member & Rochelle Eisen, CFIA Standards Interpretation Committee and CGSBOTC member*

The revised and updated Canadian Organic Standard was published in November 2015 and all operations will need to be in compliance with the new version by November 2016. These sessions, developed by Canadian Organic Growers, will highlight the significant changes in each section of the standard and the permitted substances lists. Recommended for operators whose products are currently certified, the sessions will assume a basic understanding of the old standard. Independent organic inspectors and personnel of certification bodies who require knowledge of the Canadian Standard to carry out their work will also find the sessions useful. There will be ample opportunity for questions and discussion.



Setting SMART Goals for Your Business Plan with *Chris Bodnar, Close to Home Organics*

Setting goals is an important activity to take on annually for any business. These goals should inform your

Continued on page 28 ...

GARDENGATE

Growing Food & Futures



David Hoar and Robert Wright at Gardengate Farm. Credit: Marjorie Harris

FINDING THE ROOTS OF RECOVERY ON AN URBAN FARM

By Marjorie Harris

Gardengate is a completely unique gem in the world of organic farming and in the broader social community as well. Despite the North Kamloops-based program's role as a client-centered community service first, and organic farm second, Gardengate's organic farm boasts an annual harvest of 20,000 lbs of certified organic fruits, berries, herbs, flowers, transplants, and vegetables grown on 2.8 acres of land!

Gardengate Farm is a project operated by The Open Door Group, a British Columbia non-profit whose

mission is to help open doors and inspire all individuals to succeed in a vision of the future where each person's success and contribution helps to create thriving communities.

The farm infrastructure includes a 2,400 square foot greenhouse, a state-of-the art root cellar, a brand new roofed vegetable washing station, a soil sterilizer for making potting mix, a compost site, several well maintained tool and storage sheds, and an on-site store front. Farm Operation Manager Robert Wright says

that “when people first arrive at Gardengate, they are surprised at the scale of the operation within city limits and the sense of calm that pervades the gardening hub of activity.”

To support Gardengate’s mission to build healthy communities, the harvest is distributed amongst the participants, community volunteers, donated to various programs around Kamloops, and sold from the on-site farm gate store. An innovative delivery service called Produce On Wheels delivers a selected bag of produce every other week to individuals in need. The delivery also includes information on how to identify the items, how to store them, and most important of all how to turn the food into delicious, healthy meals.

Public participation is encouraged through volunteering and annual on-farm festivals such as the Salsa Challenge held every August – a friendly food competition with community partners that is also open to the public. In October, the annual free Pumpkins of Light event turns the farm into a light show with over 300 pumpkins displayed at night for the public. Local school children visit to select their personal pumpkin from the pumpkin patch for a Jack-O-Lantern.



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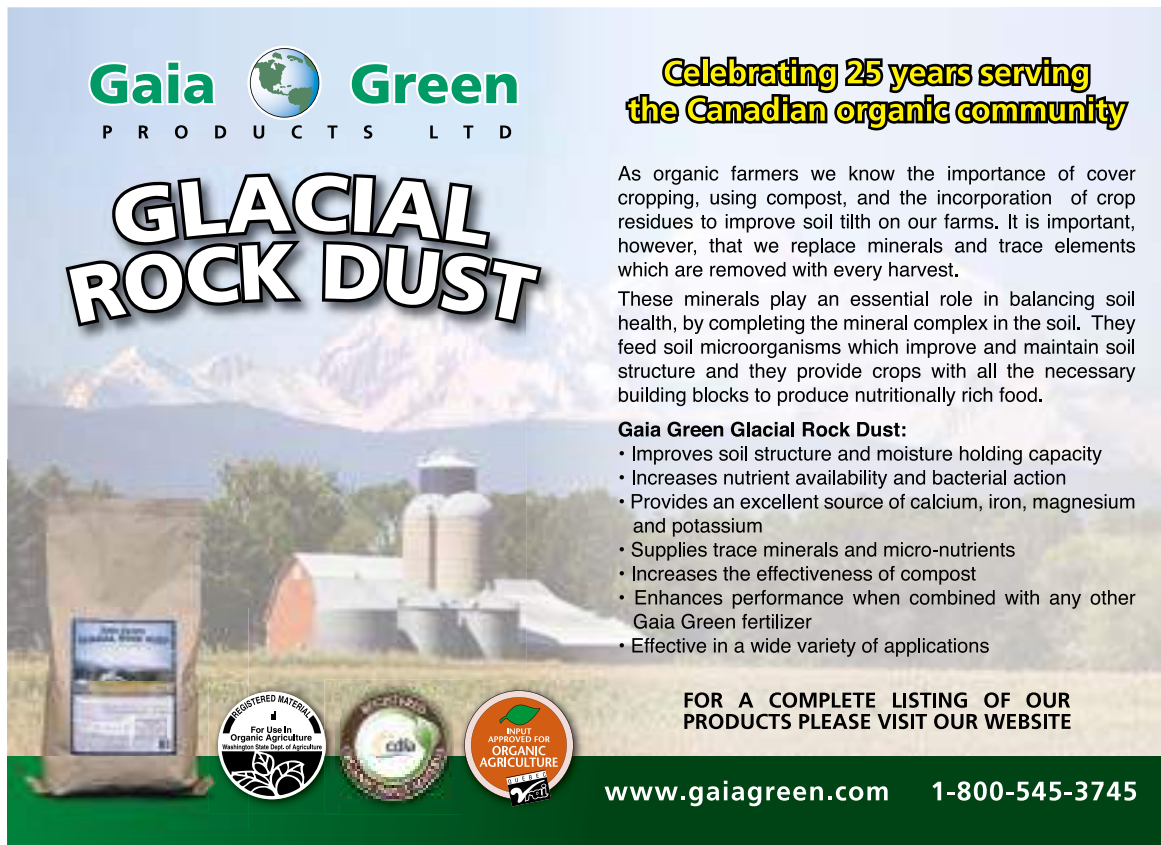
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An enviable root cellar (top.) David Hoar shows off organic tomatoes (bottom) at Gardengate Farm. Credit: Marjorie Harris.

Open Door Group operates on the fundamental belief that all individuals have the ability to succeed and they therefore build strong partnerships within BC communities for client resilience. Because The Open Door Group centres on empowering individuals, their vision is realized by helping people find employment and community attachment. To meet these goals through growing food, the Open Door Group established the

Gardengate is located on land leased from the Interior Health Authority and located on the South Hills Tertiary Psychiatric Rehabilitation property in North Kamloops, BC.

Gardengate operates with two principles in mind: first, to build community by growing food and futures through diverse and supportive programs for persons with disabilities while contributing to the health and wellness of the community; second, to encourage individual development by promoting self-confidence, self-sufficiency, community connectedness and wellness. Under this umbrella fall promoting healthy eating, safe food handling, and food security, as well as providing access to nutritious organic vegetables and expanding the horticulture skills of all of participants and community volunteers.

Gardengate is able to provide year-round employment and leisure programs for individuals living with mental health challenges. Robert describes with enthusiasm how this program has expanded over the past 10 years, developing tremendous successes in terms of programming and individual accomplishments, as well as increasing food security within Kamloops.

Robert emphasizes that the farm's work with people is always first and foremost; the need to produce is secondary. While this is distinctly different from the typical farming business model, they still incorporate a number of farming components into the activities participants have access to, while raising funds for the program. For example, as Robert explains, "our greenhouse is instrumental to our ability to grow what we want and have it ready for planting when we need it. It is also a vital part of our enterprise as plants are grown for sale to the public and several other organic farms. It provides valuable experiences and funds to Gardengate, while supporting the needs of other organic farms."

Gardengate also grows for other non-profits that require plants and have little or no budget to purchase. An employee is hired for the busy two month period in April and May, and field planting in the 1.5 acre market garden begins as soon as they can work the ground. The early harvest goes to on-site use or donations primarily until public sales begin in middle of July.

So, with all these social programs happening on the ground, how does Gardengate farm? Considering they operate on a smaller scale and are urban, there's a lot of collaborating with the city and neighbors to ensure they can stick with the organic regulations. Having as-

surances that there is no spraying and communicating to increase others' understanding of organic farming is key.


In the fields, Gardengate uses several key factors to increase successes and minimize challenges by being proactive. Composting field waste is key in controlling weeds and stale bed tilling. Compost is rotationally applied through newer transitioned areas of land to help augment the soil there. On top of this they use a combination of cover crops, drip irrigation, regular field mowing and mulches to help control weeds.

At Gardengate, the farmers and community participants pride themselves on working with nature – “as any farmer should,” Robert says. They promote beneficial plants and insects to encourage pollination and weed out pest insects. What they can't produce on-farm, they source organically. Organic approved sprays and other applications are always a last resort, or used sparingly as maintenance.

“I think the biggest thing for anybody coming to work with us is developing the relationship with the garden and the life giving plants within it,” Robert says. “People have an opportunity to work with something that is alive and yet completely unconditional. Plants are resilient and respond in positive ways even if they have some road bumps handed out to them in their journey.

A person working here is also able to experience the cycle of life from seed, or inception, to the harvest and ultimately pulling that plant out at the end of the year – a full experience of Mother Nature's seasonal rhythm before the blanket of snow puts soil to rest.”

At Gardengate, the participants all enjoy the fruits of their labor each day they work. They see the joy and experience the benefit their work provides to those in need. And on top of all of that each day is a learning experience where there is no need to think they are any different, and are a part of something meaningful.

What farmer could ask for more? 

To learn more about Gardengate, visit:

 opendoorgroup.org/gardengate.php

You can also check them out on Facebook at Open Door Group's Gardengate Horticulture Program, or call them up at 250-554-9453.

Marjorie Harris, BSc, IOIA V.O., P. Ag. Email: marjorieharris@telus.net

*“Let food be thy medicine and medicine be thy food.”
– attributed to Hippocrates*



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Species at Risk **PARTNERSHIPS ON AGRICULTURAL LANDS** *& Critical Habitat Protection*

By Marjorie Harris

Good News! Environment Canada has rolled out a new initiative aimed at protecting critical habitat for endangered species on commercially farmed agricultural lands. This is great for those species that took eons to adaptively evolve for just those particular critical habitats that are being threatened. The Species at Risk Partnerships on Agricultural Lands (or SARPAL, since that's a bit of a mouthful) initiative may also help to support organic farmers who are conscientiously implementing the Environmental Guidelines in British Columbia Certified Organic Production Operation Policies and Management Standards Section 7, Book 2 Version 10: Environmental Protection Guidance

Organic operators should adhere to the strictest possible management program in order to protect and enhance soil and water quality in the environment. Organic farmers, and others in the trade, have a commitment to environmental protection.

This is a basic principle of the organic movement and must be respected before all other considerations.

The theory of evolution developed by the 19th century English naturalist Charles Darwin was based on the premise of natural selection. Organisms are naturally selected for survival, competition, and reproduction by acquiring small, inherited adaptations over many generations spanning millennia.

In today's world, organisms are faced with a succession of environmental challenges from habitat loss to fatal and mutagenic toxins as they grow and develop.

With the rapid pace of current imposed environmental challenges, the adaptive plasticity of most organisms becomes overwhelmed and they are placed on a path to extinction. SARPAL may help to restore breeding habitat by assisting with costs associated with developing and implementing species at risk protection on agricultural lands.

The new initiative to protect critical habitat is funded by the federal government through the National Conservation Plan under the SARPAL umbrella program. The species being targeted have to be listed on the federal Species at Risk Act (SARA). SARPAL will include two phases:

- A 5 year pilot/'proof-of-concept'
- An on-going implementation phase

The on-going implementation phase will focus on achieving protection of the species at risk on agricultural lands in ways that will ideally benefit both species and producers.

Currently, demonstration projects have been set out with the assistance of the BC Cattleman's Association. The demonstration projects are focusing on two ranch land habitat species: the Yellow-breasted Chat and Lewis's Woodpecker. The recovery strategy includes identifying critical habitat geographically and assessing the environmental features such as plants, water, and needs of the species to live and reproduce.

Funding is available to pay for the infrastructure to establish Best Management Practices (BMP) that protect the endangered species' critical habitat and a Steward-

SPECIES AT RISK IN BC

POTENTIALLY IMPACTED BY AGRICULTURE

Taxon	Species	SARA Status
Vascular Plants	Small-flowered Lipocarpha	Endangered
	Lyall's Mariposa Lily	Threatened
	Whitebark Pine	Endangered
Mosses	Alkaline Wing-nerve Moss	Threatened
Amphibians	Great Basin Spadefoot Toad	Threatened
	Northern Leopard Frog	Endangered
	Tiger Salamander	Endangered
Reptiles	Northern Rubber Boa	Special Concern
	Painted Turtle	Special Concern
	Western Rattlesnake	Threatened
Fishes	Enos Lake Sticklebacks	Threatened
	Salish Sucker	Endangered
Mammals	Townsend's Mole	Endangered
	Pacific Water Shrew	Endangered
	Vancouver Island Marmot	Endangered
	Wood Bison	Endangered
Bats	Northern Myotis	Endangered
	Little Brown Myotis	Endangered
Birds	Greater Sage-Grouse	Extirpated
	Yellow-Breasted Chat	Endangered
	Lewis' Woodpecker	Endangered
Arthropods	Wallis' Dark Saltflat Tiger Beetle	Endangered
	Behr's Hairstreak Butterfly	Endangered
	Halfmoon Hairstreak Butterfly	Endangered

ship Agreement may be entered into that benefits the landowner and the species at risk.

EXAMPLE SPECIES

The Yellow-breasted Chat

Scientific Name: *Icteria virens auricollis*

Only 40 breeding pairs are currently known of in the Okanagan/Similkameen region. The Yellow-breasted Chat prefers woodland riparian zones composed of dense thickets of wild rose and flooded oxbows.

Recovery Plan Best Management Practices:

- Protect nesting area by improving fencing and adding cross fencing to exclude livestock from accessing the riparian zone
- On-going maintenance for fencing
- Restore some water flow to marsh lands and re-flood oxbows

- Control invasive plants
- Install alternative watering facilities for livestock (troughs)
- Develop public education material.
- Reduce livestock grazing in riparian zones know to have chat

If you interested in this program and for more information on SARPAL contact Danielle Prevost, Environment Canada, Prevost, Danielle [PYR]
Danielle.Prevost@ec.gc.ca 

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“Let food be thy medicine and medicine be thy food.”
– attributed to Hippocrates

Farmers Markets

go festive!



2013 BC Sommelier of the Year, Samantha Rahn proudly displays her Samantha Chardonnay at the Whistler Farmers' Market.

By Chris Quinlan

What's food without a nice glass of BC Pinot to pair with it? The sale and sampling of beer, wine, and spirits at BC Farmers' Markets brings the market experience one step closer to maturity.

In 2014, the Whistler Farmers' Market became the first to have a liquor producer approved for the sale and sampling of liquor at a market. The first producer was Pemberton Distillery, producers of Shramm Vodka amongst other spirits.

In 2015, the Whistler Farmers' Market had 15 initial applications from liquor producers to vend at the market. There are currently three or four producers sampling and selling their products at both the Sunday and Wednesday markets. It is not unusual for a winery to sell out at a Whistler market.

This is a win for markets, producers, and customers. Regional producers gain access and exposure to cus-

tomers who are tuned into their product. Customers are able to meet and talk to producers about how their product is made. And Farmers' Markets come closer to meeting their mandate of providing a complete regional shopping experience.

How can markets and producers take advantage of this opportunity? That requires understanding how we got here.

Before 1986, if you wanted a drink on a Sunday, outside of your home, you either went to a restaurant, few of which were open on "the day of rest", or you had to go to a private "sports club." Arguably, this was a large part of the business plan for many of the racquet clubs that flourished in my hometown of Nanaimo. We definitely smashed more Caesars than volleys as members of the Quarterway Racquet Club.

Then came Expo 86 and the beginning of the evolution of liquor laws in British Columbia. It all began as an experiment to ensure that the international tourists who visited Expo 86 did not have to endure the trauma of not being able to get a drink on a Sunday. Fortunately for the hospitality industry, the experiment became the norm and Sunday liquor sales opened up a whole new business opportunity.

Fast forward to 2013. As a result of the long-awaited provincial liquor review, and possibly an Okanagan MLA making his seat available for a seat-less Premier Clark, consultations began with industry and the BC Association of Farmers' Markets with the aim of enabling the sampling and sale of BC-produced beer, wine and spirits at Farmers' Markets.

While the move to bring the Farmers' Market experience in line with that of markets around the world was met with great enthusiasm by the majority of markets and municipalities, it was amazing how many of these organizations still feared this move would somehow result in rampant liquor consumption and public inebriation at Farmers' Markets. At one consultation meeting a local market manager expressed the fear that the proposed legislation might result in "non traditional" customers attending the market to purchase a bottle of wine and then heading over to the neighboring park to drink it out of a brown paper bag.

One year after the legislation came into effect many markets are still struggling to obtain zoning from their municipal governments that would allow them to host liquor vendors. Much of this is because most municipalities were unaware of the legislation themselves. They were, and some still are, scrambling to enact the necessary zoning and business regulation bylaws.

How did Whistler become the first to have vendors approved under the new legislation? We were fortunate to be part of the initial consultations with the province and as a result had some insight and input into what was coming. As a former municipal councilor I understood the need to keep the municipality informed as to what was coming down the pipe. By working with municipal staff we were able to ensure that the required business regulation and zoning bylaws were in place when the legislation came into effect, just in time for the Canada Day long weekend market. Pemberton Distillery was already a member of our market, selling their line of non-alcoholic elixirs and syrups. We made certain that we kept each other informed. So when the legislation came in, I called them and they had their application filed within the hour. They were the first, and they continue to be regular vendors at the Whistler Farmers' Market.

Over the past year I have walked many producers through the process of obtaining their permit to sell at Farmers' Markets, in addition to consulting with Farmers' Markets on specific liquor vendor policies and municipal relations. From these experiences, and observing liquor vendors at the market, I offer the following:

For a Farmers' Market, this is one of the greatest opportunities to gain not only excellent revenue from a new vendor category, but also to draw in new customers, as well as retain existing ones with a new product offering.

For the producers, whether you are making beer, wine, spirits, or even Honey Meade (that was a new one this year) it is critical that you go beyond "sending a rep" to sample and sell at a Farmers' Market. As a rule, we are "make, bake, or grow", so sending "staff" to cover the market is not acceptable.

Farmers' Market customers are very specific in what they are looking for. They are educated consumers and can be demanding of producers. The reason they come to a Farmers' Market is to connect with their farmer, their artist, and their crafter. They want to know and trust the product they are taking the time to purchase. Respect their investment in time away from a big box retailer by investing in the best representation of your product and you will be successful. 🍀

Chris Quinlan is a former Business Operator and Municipal Councillor who found his way to satisfy his passions managing the Whistler Farmers' Market. Innovating and pushing the boundaries of conventional market management, Chris has grown the Whistler market into one of the largest and most successful in British Columbia. He has worked as a project facilitator and coordinator for the BC Association of Farmers' Markets, Strengthening Farmers' Markets' program and recently launched Marketwurks.com, an online Vendors Application and Management program for Farmers' and Artisan markets.

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Integrating Livestock into Farm Rotations



A Perspective on Pigs & Chickens

Credit: Corine Singfield

By Corine Singfield

I could not imagine farming without the help of animals again. As a young urban farming city slicker, I longed to homestead somewhere in the woods far away. I moved to the Great Bear Rainforest to start a new farm. We had no money to buy a tractor. As it turns out, a small rototiller is not a suitable tool to break down a freshly de-stumped and compressed forest floor. In his milestone book *The Self-Sufficient Life and How to Live It*, John Seymour writes “experience shows that for bringing grassland into cultivation either the plough, or the pig’s snout, is essential.”

An enthusiastic neighbour with pigs who had jokingly put out a “Hog for Rent” sign on his barn was coaxed into lending us five of his pigs for the task of turning the field into seedable earth. After two months of intensive rotational grazing, the pigs had cleared 1.5 acres and turned it into the basis of our market garden. They pulverized the quack grass and their powerful snouts tore through cottonwood roots.

We learned that it is critical to run some tests as to determine the perfect size of the rotational moving pen

and the optimum time between moves. Leave them for too long and they will dig craters; not enough time and they will not have turned enough dirt. If the area is too big they will get picky with where they are rooting so a smaller pen ensures a more uniform job. We ended up splitting the 1.5 acre area into eight zones, moving them every week.

Many things come into play when making that decision: size and number of pigs, palatability of the ground cover, quality of the soil and the quantity of feed that you are giving them. Some farmers insert grains in a deep hole on the side of stumps. Pigs will go to great lengths loosening the soil in an attempt to retrieve the golden sweet oats.

Animals are central to operating a small closed loop farm where nutrients are produced and cycled on site to a level that does not exceed the carrying capacity of soil and thus prevents leaching into water sources. It is a cycle on which all food that we grow depends and it is a system that has fed humans for generations.

When managed properly, livestock can save farmers endless amounts of time by simplifying tasks like weed management, soil preparation, disease control, and post-harvest cleanup while being true portable composting machines.

After our success clearing the land with pigs, it felt like a natural next step to introduce pigs and chickens into our crop rotations. We started using the pigs to clean up after a potato harvest to ensure that there weren't any volunteers carrying disease or insects for the following year. The pigs fertilize and till the soil making it ready for broadcasting a winter cover crop. A pig rotation can be used to break down and integrate plant biomass into the soil without compaction.

Harnessing the power of the pig's snout or the scratching of chicken feet reduces the need for using a tractor and helps to preserve the soil's structure, tilth and food web. Chickens can be used to mow the orchard, doing away with the tedious job of weed whacking around each tree. They can also be sent in right after the pigs to control flies or other insects. Moving your livestock around the farm increases your farm's total herd carrying capacity.

Planning for livestock

In order to integrate animals into your crop rotations you will need to move them. Try to imagine pathways

They can get sick or get into trouble. They don't always stay where you want them to stay. They can save you time or cost you a lot.



Credit: Corine Singfield

for the moves. While chickens can be moved quite easily from one end of the farm to another with the help of a coop on wheels, pigs are much more easily moved on their own hooves. It helps to include



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your animal rotations right into your farm plan. If you wanted to use your pigs to clean up and prep the soil after harvest you could plan for the crops to ripen in succession from one end to the other of the field and have your pigs follow that direction. Pigs are not compatible with permanent raised bed so if that is your method of choice, you will want to go with chickens or ducks that have a lesser impact.

You also need to allow for enough time between the presence of livestock and harvest. Organic standards call for four months between soil's contact with raw manure and harvest. If crops that accumulate nitrates are to be grown, the raw manure must be applied at least four months before these crops are planted. Nitrate-accumulators include brassicas, leafy greens, beets, and chard; raw manure must be applied in moderate amounts and the soil must be warm and moist.

Other things to consider are the type of soil, compaction levels, future crop plans, and the nutritional value of the crop. The perfect timing for your soil management plan might not be the same as for the maturity of forage.

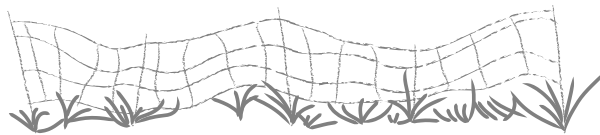
Your end goal will determine which forage you will plant for your livestock. If it is to make the soil cultivable, you can choose deep root crops such as turnips, Jerusalem artichokes, potatoes, or fodder beets. If controlling weeds is a priority then less palatable grasses are best to encourage livestock to go for the weeds instead. To boost fertility, go with a mix that contains legumes.

Livestock Basic: keeping your animals happy and healthy

Raising animals presents challenges that multiply the laws of unpredictability in farming by a few fold. They don't always stay where you want them to stay. They can get sick or get into trouble. An emergency with livestock will always take precedence over a critical task in the veggie garden. They can save you time or cost you a lot. Make sure that you have contingency plans.

Water

Livestock need fresh water at all time. Pigs are especially talented at flipping or destroying their watering apparatus. We like to use a bath tub with reinforced sides but even then you'll end up finding one pig laying in it enjoying the remaining inch of muddy water from time to time. You'll need to transport their water with each move.



You will become an expert in all things electric fence related.

Feed

Animals that have access to pasture are less prone to diseases and have higher levels of omega-3 fatty acids in their meat, and more vitamin E than animals raised in confinement. They are also happy. A happy animal is one that gets to live according to its true nature: a pig loves rooting in fresh dirt, a chicken loves scratching and pecking.

Feed requirements depend on the animal. In the case of grain eating omnivores – poultry and hogs primarily – they will need unlimited access to a species specific, balanced ration that includes minerals. You can supplement the rations with pasture, crop residues, and weeds while keeping in mind that no one type of pasture will consist of a complete diet. Pigs are monogastric, meaning that they don't derive protein from eating grass like ruminants. They can't survive on a diet of grass and greenery and still need to be fed grains even if they are cleaning up the veggie patch after harvest.

Pigs are naturally attracted to higher protein crops such as clover, alfalfa or field peas. Planting a few acres of peas for them allows to cut feeding costs significantly. For every 4 kg of alternative feed (weeds, beets, potatoes, etc.) that you give your pigs, you can reduce their ration by a 1 kg. If you want your pigs and chickens to thoroughly mow or clean up an area that is less palatable you can temporarily reduce their ration to induce a feeding frenzy.

We like to mix oats and field peas as forage for the pigs. For a quicker turn around we use a few dense buckwheat plantings in a row and send the animals more often.


Shelter, Fencing

You will become an expert in all things electric fence related. E-fences are extremely simple to use when done properly, but you have to make sure that they are clear of obstructions, such as vegetation that can "ground" the power and weaken your fence. An over-

looked detail with an electric fence can cost you a crop at the hands of pigs or an attack by predators. Almost every morning we find new traces of a coyote visit around the chicken pen. The electric fence works very well...when connected correctly.

You will need a few moveable electric mesh fences, a deep cycle battery, a fence charger, and a power source such as a small solar panel. A sense of humour and the willingness to wrangle the odd escapee from time to time can also come in handy.

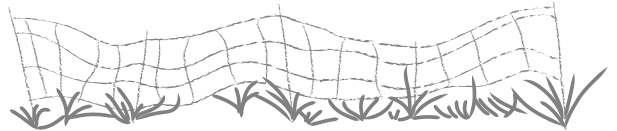
Light and durable pens must be transported everywhere. A chicken tractor is perfect for hens that return to their roost at night, so they can be transported to a new location before they awaken the next day. We use a small and simple slanted roof shelter made of recycled materials for the pigs. It can be moved small distances with two people or lifted with the tractor. Pigs don't have sweat glands and cannot cool themselves so they must always have access to moist soil and shade.

acquiring two flocks of chickens, some ducks, and about 30 pigs next spring. We are very excited to conduct experiments using chickens to mow the orchard, determining stocking rates, suitable feeding regimens, and optimal pen size. Similar experiments will be conducted with the pigs. I look forward to streamlining and simplifying my work as a farmer with the integration of livestock. Tune in next year – I'll be eager to report on what we have learned! 

Corine Singfield is the Farm Manager and Farm School Coordinator of the Tsawwassen First Nation Farm School, a collaboration project with the Institute of Sustainable Food Systems at Kwantlen Polytechnic University. The TFN Farm School is a 10 month practical program to learn how to farm and start a farm business. www.kpu.ca/tfnfarm.ca

Learning and growing with livestock

At the Tsawwassen First Nation Farm School where I currently dabble in the joys of farming, we plan on



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Promoting Productive

PASTURES



A productive pasture ready to be grazed, Credit: Andrea Lawseth

By Andrea Lawseth, B.Sc., M.Sc., P.Ag. AEL Agroecological Consulting

Pasture management is one of the main challenges for organic livestock producers throughout the province. In the lower mainland and on Vancouver Island, we struggle with wet climates and waterlogged grazing areas, while in the interior of the province the hot and arid climate poses other challenges that can be equally difficult to manage. Despite these difficulties, there are some techniques and tricks that you can follow to maximize the pasture that you have available and utilize your land more effectively.

Rotational and Limited Grazing

In order to maintain sales and productivity, livestock producers want to have as many animals on their land as the land can support. Sometimes we increase the numbers too much, which can result in overgrazing of pastures. Overgrazing occurs when 50% or more of the grass plant is grazed all at once. This can completely stop root growth and severely reduce grass production. Table 1 (*see page 21*) shows how grazing can affect root growth of grasses.

As the saying goes, “build your fence horse high, pig tight, and bull strong.” Fencing for rotational and limited grazing is often the best tool for reducing grazing pressure and overgrazing on your pastures. Rotational grazing involves breaking larger pastures up into smaller sections and only grazing one section at a time to allow the others to regenerate. This encourages even grazing of pastures as well as many other benefits such as: increased amount and quality of forage, increased growth of desired grass species, reduced weeds, better parasite control, better manure distribution, and more frequent animal-human contact.

If you decide to implement rotational grazing then it is best to start by dividing a large pasture in two and grazing each of these separately. You can then divide further later on. Ideally it is best to have 4 pastures that provide enough grazing for 7 to 10 days as this gives each pasture a rest for 3 to 5 weeks. To divide pastures you can use electric fencing or tape at a height of approximately 90 cm (3 feet) or chest height of your livestock. This is a relatively inexpensive method that has proven to be highly successful. It is important to

Table I – The effect of grazing on root growth

Percentage grass plant removed:	Percentage root growth stopped:
10%	0%
20%	0%
30%	0%
40%	0%
50%	2-4%
60%	50%
70%	78%
80%	100%
90%	100%

Source: Tips on Land and Water Management for Small Farm and Livestock Owners in Western Washington, King Conservation District, 1998, www.kingcd.org/TipsReaderLayout.pdf

remember that you will need to monitor pasture growth at different times of the year and rotate accordingly.

Limited grazing involves turning your animals out for limited periods of time (once or twice a day, before or after work, for a few hours at a time). More supplemental feeding will be required and grass height will need to be monitored, but it provides the same benefits as rotational grazing.

Pasture Renovation

Most pastures in BC are in need of some repair due to overgrazing, wet winters, alkaline or acidic soil types, or dry summers. Grass that is lacking density with 50% weed growth or more will need to be renovated to some degree. Management strategies could include a combination of improved pasture drainage, fertilizing, harrowing, liming, and re-seeding depending on budget constraints.

The first step in dealing with an overgrazed or mismanaged pasture is to evaluate what you have to work with. Find a good weed guide to help you identify which weeds exist on your property and take some samples of your pasture soils to send them to a lab for analysis. Your lab of choice will be able to guide you on their most desired sampling technique and will be able to determine the full composition of your soil and nutrient needs.

Improving drainage through the use of surface or sub-surface methods such as French drain tiles can eliminate standing water and ideal conditions for weed growth. Aerating the soil will also help water to penetrate below surface soil layers. Additionally, fertilizing with well composted manure will greatly improve soil structure and drainage. Spreading a thin layer of



*A simple electric fence can be a life saver.
Credit: Andrea Lawseth.*

compost will help soil to increase its water holding capacity and will provide a great medium for spreading grass seed. It is recommended to spread once in the spring and again in the fall. Furthermore, harrowing with either a chain harrow or a tractor will also help to improve drainage and break up any clumps of manure compost you have spread.

Liming is an excellent technique for areas with very acidic soil. Weeds such as buttercup (*Ranunculus spp.*) or field horsetail (*Equisetum arvense*) are good indicators of acidic soil as they are well-adapted to these conditions. Liming should be carried out in the spring

and fall and more often if needed. Again, a soil test will help to determine the pH of your soil.

Finally, re-seeding with an appropriate seed mixture for your property will help to out-compete weeds and maintain good forage production. The key to choosing a mixture is diversity. The varying grass species in a mix will grow in their respective microclimates within your pastures, which will lead to lower vulnerability to disease and pest outbreaks. However, it is still important to tailor your grass mix to the type of soil on your property and the expected use of the pasture (i.e. grazing, sacrifice area, or hay). Make sure you mention the topography of your pastures and soil characteristics (gained from a soil analysis) to your seed retailer so that they can help identify the right mix for you. The best time to broadcast overseed your pastures is in late September to early October after you have spread your manure compost. Seeding rates will vary with grass species so check with your retailer before seeding.


Before allowing livestock onto the pasture to graze you should allow newly seeded pasture grass to reach a height of 15 to 20 cm (6 to 8 in) and remove your animals when they have grazed the grass down to 8 to 10 cm (3 to 4 in). This will ensure that the grasses have enough food reserves to permit rapid re-growth. Re-growth can take up to 2 to 6 weeks, depending on the time of year, so it is important to keep animals off wet, overgrazed pastures. Wet pastures can also lead to

health problems such as foot rot and parasite infestation.

Keeping pastures mowed to a uniform height of 3 inches will help to stimulate equal growth of your grass plants. This will also help to control perennial weeds that do not respond well to mechanical control methods.

Properly managing pastures generally requires a shift in thinking from viewing the crop as a way to feed the animals to viewing the animals as a way of managing the pasture. As a grass farmer, your main goal is to ensure that the grass on your pasture is healthy enough to outcompete the weeds. Through rotational grazing and prevention of overstocking pastures, you will create the right environment to allow your grass to thrive and the soil to remain healthy and productive. 🌿

Andrea is the Principal/Owner of AEL Agroecological Consulting and a Professional Agrologist with over 11 years of experience in food system and agricultural land use planning, sustainable agricultural promotion, organic certification, and food security. AEL Agroecological Consulting provides agri-environmental consulting services to all levels of government, non-profit organizations and individuals.

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EDAMAME

Just Add Salt

By Sue Takarangi

North Americans are a recent converts to edamame, while our Chinese and Japanese neighbours across the Pacific have enjoyed this nutrient rich food for centuries. Edamame means “beans on a branch,” and unlike other soybeans they were adapted to be harvested when the seeds are green and plump – perfect for enjoying freshly steamed and sprinkled with salt.

This year West Coast Seeds experimented with growing several varieties of non-GMO edamame varieties from Japan. They were direct seeded in late May at our location in Delta. The only attention the plants received was a watering once a week during our heat wave. In late August after walking past the plants many times, we finally parted the leaves and were surprised to find cascades of beans hanging from the branches.

The edamame are harvested by cutting the stalks of the plant, and they can be sold at market by the branch, much like those impressive stalks of Brussels sprouts. This makes harvesting a breeze and also ensures a fresh product for the customer.

Edamame is riding a wave of popularity in North America, driven by the popularity of sushi and a growing focus on health. Start a conversation at your Farmers Market with a table piled high with edamame stalks. After all, the frozen offerings found in grocery stores are no match for the sweet, buttery texture and flavour of the fresh beans.

West Coast Seeds will carry Sayamusume, Tohya, and Kuroshinju edamame seeds for the 2016 season. 🌱

 westcoastseeds.com

Sue Takarangi is a customer service representative with West Coast Seeds. She has 15 years experience with organic growing.



*Tohya Edamame ready for market.
Credit: West Coast Seeds.*



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SMALL BUT MIGHTY SKY HARVEST MICROGREENS



Canada's First Certified Organic Urban Farm

Aaron Quesnel in the Sky Harvest headquarters. Credit: Nic West

By Carolyn Mann

Our farm is measured in feet, not fields, and our next door neighbour is a bottle return depot. Our crop rotations are counted in days rather than months, and we rely on a fleet of bicycles to get around the city.

Our farm is small, but our dream was big: to become Canada's first truly urban Certified Organic farm.

Sky Harvest is located in the heart of East Vancouver, where we grow microgreens, the tiny, nutrient-packed greens often used as garnish in fine dining. Sky Harvest was founded by Aaron Quesnel in 2012 and is based on a vision of a more sustainable cityscape in which food is grown closer to where it's eaten, and where chefs can meet their farmer face to face.

In order to accomplish this, Sky Harvest employs unconventional farming techniques: we grow in the lower level of a warehouse, and all of our greens are delivered by bicycle throughout Vancouver. We are located just 3km from downtown,



Sky Harvest purple cabbage microgreens (top) and microbeets (bottom.) Credit: Nic West.



Canapés topped with Sky Harvest sprouts
Credit: Joey Armstrong

and our greens don't travel farther than 10km to meet our customers.

Typical microgreen varieties include arugula, kale, peas, radish, sunflower, basil, cilantro and cabbage. At Sky Harvest, we grow about 15 varieties, including a few unconventional types – here you'll find nasturtium leaves, lime basil, and micro sorrel.

Microgreens are noted for packing in 6-40 times the nutrients per weight as their full-grown counterparts, depending on the variety. Recent studies have noted the importance of the nutrients found in microgreens for fighting cancer, maintaining healthy skin and eyes, and promoting liver and bone development.

Microgreens are very different from their full grown counterparts, often boasting unique flavour profiles and a more delicate texture. Their flex-

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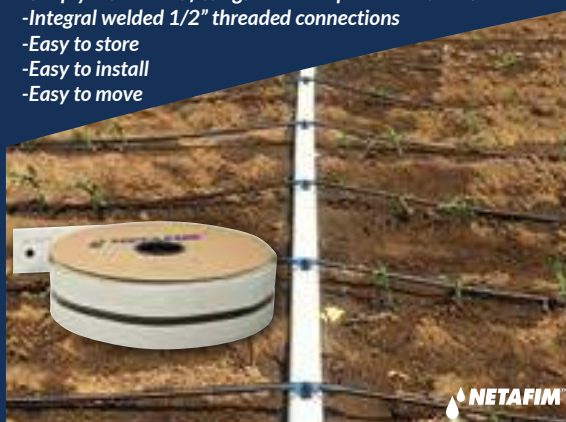
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ibility is incredible: appetizers, entrees, drinks, and even desserts are all places that microgreens find themselves at home. When it comes to microgreens, though, Sky Harvest specializes more in the growing than in the recipe creation.

Because of their delicacy, microgreen growth requirements are extremely particular. Each crop has unique nutrient, water and light requirements, and getting the balance wrong can mean crop failure. This adds a layer of complexity to our daily tasks and makes automation of the process unfeasible.

Every day of the year, someone from the Sky Harvest team heads down to the farm, where they're greeted by a warm, almost tropically moist atmosphere and a somewhat magical scene: shelves and shelves of tiny plants, stretching eagerly toward the light.

The day's tasks are laid out on a whiteboard, but that doesn't mean it's a simple job. Each individual tray must be checked and watered by hand. Trays planted in the past few days are all examined to see if they've germinated yet, and then are uncovered and slotted under their own lights.

In this way, every tray is looked after by hand, so that we can be sure everything is going well. We've always strived to grow with care, and we have always grown organically – but getting certified was a recent step, and, given the resources involved in the process, a decision not taken lightly.

Microgreens have been exploding in popularity over the past few years, becoming staples for many different kinds of restaurants, food trucks, and the home cook. To match the growing demand, Sky Harvest greens are now found in various grocery stores around Vancouver, including Choices Markets, Spud.ca, and Pomme Natural Market.

While many of our chefs have visited our farm for a tour of the operations, we no longer have the opportunity to meet all of our customers face to face. Getting certified became an important way to communicate our values and practices to our expanding customer base.

The process of organic certification seemed very daunting from the outside. It was always a dream – but one whose paperwork, financial requirement, and time commitment were hard to work into an already busy day. It wasn't until recently that we realized the benefits were beginning to out-weigh the costs and it would help illustrate our ongoing commitment to sustainability and in-




novation in urban farming.

There are certain aspects about our farm that made it easier to go through the certification process than it might be for others. Our farm is small and quite concentrated in only 2,000 square feet. We grow in containers, indoors, which makes it easier to control our inputs and our soil quality.

However, as microgreen growers, we also face some unique challenges. Because our greens are harvested so young – some are only six days old – we face different regulations. All of our seeds must come from certified organic sources, even if organic seed is not available on the market, making suppliers' seed shortages not just a headache, but a potential nightmare.

Overall, even though the process was complicated, it was an exciting step, especially when we officially became Canada's first truly urban Certified Organic farm. There are still challenges, and being only a few months into our official certification, many more challenges are likely to pop up.

For now, we're proud to have taken this step and to have become leaders in our field. We will continue to push this boundary with innovation and sustainability as our goals, all while providing the best quality product. We love eating local, healthy and organic food – and we hope that by becoming certified, we're helping to drive this growing industry. 

 skyharvest.ca

Carolyn Mann is Sky Harvest's Marketing and Development Guru. She is currently working on her Master's in Agriculture, studying soil health in organic agriculture.

STANDARD REVISION BOOT CAMP

A Survival Guide

By Rochelle Eisen

By now, hopefully, everyone has poured through the 2015 version of the Canadian Organic Standards. I hope that everyone has noted the changes most relevant to their operations. Ideally, you have either attended a webinar, or made plans to go to a COABC conference workshop or COG webinar regarding the changes. Or, maybe it's time to sit down to read the beast – ahead of the next growing season.

The reality is, probably only a handful of producers are truly being this proactive. I bet the majority are waiting to learn about the differences while completing 2016 renewal paperwork. This could be, if I may so bold, truly organic self-sabotage.

Let's step back from that notion for a sec, because many of you are probably wondering why there had to be any changes at all. Wasn't the current version good enough? The fact is, changes were needed to close some gaping loopholes, as well as to address new situations and substances. Simultaneously, the entire text was edited to add clarity and to improve the overall readability.

Here is a laundry list of changes (not including new additions to the Permitted Substances Lists, or PSL):

Crop production operators will need to: reduce the risk of organic crops being contaminated by their genetically engineered counterparts; evaluate manure differently than before if it is used as a compost feedstock; reevaluate "biodegradable" mulches to assure they meet the new annotation; limit installation of new fencing material to that described; ensure inoculants comply with the new GE substrate requirement; and make sure irrigation water hasn't been treated with any prohibited pesticides.

Mushroom production operators will need to address the new growing substrate requirements.

Sprout, microgreen, and shoot production operations will need to use 100% organic seeds if crops are harvested within 30 days.

Containerized greenhouse operations will need to address new soil mixture functionality requirements, and the new container volumes requirements outlined for staked crops.

Livestock production operators will need to make sure their operations address all the animal welfare elements, as well as updated indoor and outdoor access requirements now spelled out in the standard.

Organic food or feed product manufacturers need to minimize the use of non-organic ingredients and make sure incidental additives do not compromise the status of their products.

Everyone on and off farm will need to abide by the cleaning requirements, the facility pest management requirements, and the transportation requirements outlined in Section 8 of 32.310. Additional due diligence will be needed to assess the compliance of cleaning products that come in direct contact with organic products.

And just in case you are wondering – compliance to the new standard is required within one year from publication. Take my advice... if any of the above topics twiggled some type of unconscious physical response (maybe twitching?) – don't wait until you get your 2016 renewal application to find out what the details of the changes are. You may want to be a little more proactive and take in one or more of the boot camps on offer. 🐾

Rochelle Eisen is a standards junkie who has been working in organics for close to 30 years as well as with other certification systems. Like Einstein, she believes "What is right is not always popular and what is popular is not always right" and that assurance programs are a means to level the ecological playing field.

... Continued from page 7

business plan and the resulting production and marketing plans that act as your daily roadmap through the season. But many people have trouble differentiating goals from a “to-do list” of daily activities. This workshop will help participants understand the role of goal setting in developing their business plan, as well as how to use the SMART principles to evaluate their goals.

Organics 101 / Certification Made Easy with Rochelle Eisen, Resilient Solutions Consulting

This session will be an organic certification boot camp / marathon for the uninitiated. Rochelle will outline the certification process, give an orientation to the do’s and don’ts of organic standards, cover organic labeling claims, and explain who’s who in the organic certification world in BC, Canada, and beyond. She will try to answer all questions, or at least advise where to go to get an answer. Rochelle will also give guidance on taking the next steps. Bring your pens, paper, and your questions. The session is geared to crop and livestock production, not processing.

Feasibility & Practices for Small Scale Organic Hops Production in BC with Monte Staats, Hop Yard Collective and Rebecca Kneen, Crannóg Ales

This presentation examines the feasibility of commercial hops farming at smaller scales using organic methods. We will discuss several differences between conventional and organic growing practices, and present results of a study completed by Persephone Brewing Company and funded in part by the BC Investment Agriculture Foundation that examines: (a) the market opportunity for BC grown hops amongst BC’s exploding craft beer industry; (b) the operational and financial feasibility of starting a small to medium scale hops farm under multiple operating scenarios; and (c) a practical business planning tool and template for use by prospective hops farmers.

FCC: Connecting Young Farmers to Opportunity with Chantal Keely

Farm Credit Canada is committed to Canada’s young farmers. Each year it loans an average \$2.4 billion to this growing segment of the agriculture industry. FCC has products designed specifically to help young farmers grow and strengthen their operations. It also offers custom knowledge that supports young farmers, not only as producers but as business owners who are re-defining the face of Canadian agriculture. In this session, you’ll learn more about what FCC has to offer you.



Re-Evaluating a Much Maligned Insect: Investigating the role of Earwigs as a Biological Control in Apple Orchards with Tamara Richardson, Cornucopia Crop Consulting

This talk will address the impacts of a changing climate on pests and pathogens in apple orchards.

Basic Seed Growing for Profit, Biodiversity and Freedom with Jon Alcock, Sunshine Farm Seeds

Growing vegetables from ‘seed to seed’ will help us discover the intrinsic value of the dignity of this full circle, improve biodiversity, and include us in this ancient tradition. Vegetable seed production will add to the bottom line of any organic farm and help stem the tide of diminishing varieties. We can develop our own locally adapted varieties and those more adapted to low input organic regimes. Join Jon Alcock for basic principles and practices of growing, selecting, harvesting, cleaning, and storing vegetable seed.

Excitement, Experience, Expert: Pathways to Advanced Seed Saving with Jen Cody, farm lead for Carrot Seed Research Project

Jen Cody will use her experience growing carrots for seed to illustrate advanced seed saving techniques. Carrots provide an excellent example of an advanced crop to seed save because carrots are biennial and cross with the common roadside plant, Queen Annes Lace. As such, seed savers need to know principals and techniques of root storage, selection, isolation, minimum populations for healthy longterm genetics, and an understanding of pollinators and how to maintain an adequate pollination population in isolation enclosures. They have it all!



Cultural Interface Where Indigenous and Sustainable Agri-Food Systems Intra-act with Dawn Morrison, Working Group on Indigenous Food Sovereignty, BCFSN and Heather Pritchard, FarmFolk CityFolk & Foodland Trust Project

Resilience is Fertile – Managing Your Soil to Increase Farm Ecological Functioning with Sean Smukler, Assistant Professor in Applied Biology & Soil Science, UBC

Increasing climate volatility is resulting in greater environmental stress for our production crops. The resiliency of farm production to these environmental stressors can, however, be enhanced in a number of ways including improved soil management. If managed well, practices such as cover cropping and soil amendment additions can build a healthy soil and facilitate more efficient water and nutrient dynamics. In this session, Sean will explain how soil management practices impact the ecological processes that lead to greater resiliency. He will discuss the role of the diversity and abundance of soil organisms in mediating important ecological functions and share some practical ways to assess and improve soil health.

Stories from the Vanguard of Organics

Join us for conversations on the history and future of organics in BC with the leaders of BC's organic movement. Participants from the vanguard of organics will gather to share defining moments from their careers and the history of the organic sector. With many of our founders and forerunners nearing retirement, this session will be an excellent opportunity to knowledge share and celebrate the many things the organic sector has achieved. Discussion encouraged and audience questions welcome. Come and see how the formative stories and experiences of BC's original organic farmers can help shape the next future of agriculture and guide a new generation of growers. Following the roundtable, share your organic voice on camera at the COABC video booth!

Registration Deadline is February 24, 2016 🌿

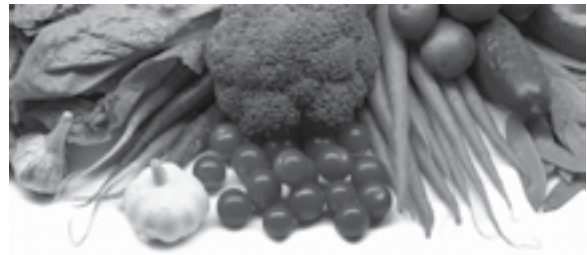
Register on Eventbrite:

📄 eventbrite.ca/e/2016-coabc-conference-tickets-18898427706?aff=es2

Or through the COABC website:

📄 www.certifiedorganic.bc.ca/infonews/conference2016

Cancellation Policy: The COABC will refund registration fees, less a 25% service fee until Feb 22, 2016. Cancellation requests must be made in writing to the Conference Coordinator: conference@certifiedorganic.bc.ca. Refunds will not be provided after Feb 22, 2016 and refund payments will be prepared following the conference.



Celebrating 25 Years

Pro Organics is proud to represent BC organic producers and to be celebrating our 25th year of supporting local, organic, sustainable farming.

Today, as it was 25 years ago, our mission remains the same: Promoting the growth and integrity of organics from field to table.



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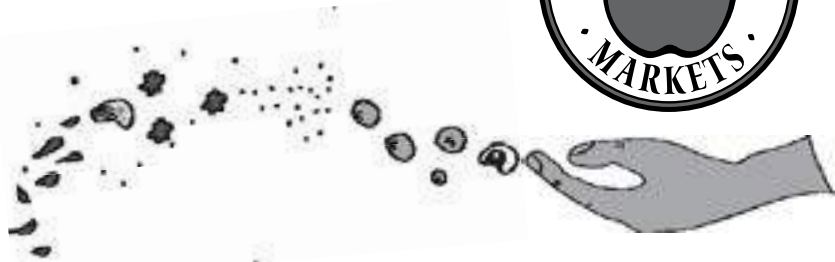
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Twist Ties 10" (15,000 per case)	1000 pc	\$13.00	Full Case-\$165.00		

The packaging materials above are only available to COABC Certified Organic members and are PST exempt for qualifying enterprises (see above).

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NEW!! COABC T-shirts Designed by Brian Maclsaac Men's size S-XXL & Ladies sizes S-L	\$17.85	\$17.85	PST taxable		
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Western Canada Organic Directory	\$6.00	\$6.00	No PST		
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