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### COABC 2014 Conference

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### **BC** Organic Grower

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**On the Cover:** Jen Cody with carrot seed trials. Credit: Michael Marrapese.

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## Executive's Report

By Mary Forstbauer

"Work is a rubber ball. If you drop it, it will bounce back. The other four balls — family, health, friends, integrity — are made of glass. If you drop one of these, it will be irrevocably scuffed, nicked, perhaps even shattered."

~ Gary Keller

The 2014 conference is over. Work Life Balance. Do we have it? Do we care if we have it? I do and so should you!



The past year has seen many changes at

COABC and in the lives of many of our families. At the banquet we honoured Brad Reid and his dedication to the organic sector. Brad took time for his family and balanced work and family in his life. He coached youth, was active in his church and shared his music with us whenever he could. I missed his trumpet this year! It was fitting that Carmen Wakeling received the Brad Reid Memorial Award. She has dedicated many hours to the organic sector and she has also taken the time to enjoy her family.

We also remembered Roger London. Take time to Google "Remembering Roger London" and you will see he also balanced his life, sharing his love of agriculture and life with many others. On Tuesday following the conference we lost another member of our very large family. Stephen Gallagher was a passionate and talented organic farmer whom I had the pleasure of working with when organizing the Conference we had at Crescent Beach.

It was a pleasure to see so many young farmers bringing their families to the conference. The next generation is participating and will be taking on the business as we step back and enjoy the fruits of our work. The balance is allowing these young men and women to follow their dreams as we did ours. Watching the young children at the conferences these past few years has warmed my heart

and shown me that it is OK to let go and trust the next generation. It is OK to encourage them to continue the work we have started, and as time goes on they will include their children, and that will add balance to our lives.

At our conferences we have made sure to leave time for connection. Meeting with friends and making new ones is as much a part of the conference as the speaker sessions. For me this is the part of the conference I enjoy the most. Asking someone about their family helps to balance the work being done at the conference. It is surprising how barriers can be brought down by this balance. Yes, we attend to learn but we also attend to connect!

COABC is moving forward with our strategic plan. Check the information in this issue of BCOG about our Organic Tool Kit. Look for it on our web page and use it. Over the past 20 years COABC has worked on standards and making sure we were staying up with the changes happening worldwide. The work has been done by a great group of volunteers, a few contractors and our office staff.

As I return to the board this year and step into the co president/chair with Susan Snow, I look forward to continuing the work in the COABC Organic Sector Strategic Plan, along with the other members of the board. To all those new board members, I extend a warm welcome and thanks for your commitment of time and energy. With the additional support of contractors and paid staff we can expect our committees to become more active with firm direction. I am excited to be a part of the team. Please step up and volunteer if you see an area that you care about. It is rewarding, you might make a new friend and volunteering will help to keep that work life balance in your life.

"A true balance between work and life comes with knowing that your life activities are integrated, not separated."

~ Michael Thomas Sunnarborg

## COABC Office Report

By Jen Gamble

E very year the COABC conference offers the opportunity to reconnect with the organic community. In recent years the conference has also become a gathering point for a wide variety of peo-



ple interested in organic practices. More and more young farmers are attending and becoming active in the sector.

This ground swell of young agrarians who believe in the organic movement, want to be a part of this community.

The next generation of organic farmers might have different challenges from the last generation but working together to overcome them is the best way to ensure the sustainability for the organic sector.

COABC embraces viable solutions for new farmers committed to the values and standards of the organic sector.

Most recently, COABC has spearheaded two projects to help new and existing members of the organic sector. These include the Organic Resource Toolkit Project funded in part by the Investment Agriculture Foundation and the Organic Certification and Public Education, funded by Vancity. Both projects are featured in this issue.

### **COABC** Conference

Thank you to everyone who joined us for the 2014 "Work-Life Balance" Conference in Nanaimo this February. Whether you were attending, volunteering or presenting your attendance helped make the conference a success. Join us again next year in Chilliwack.

### Investment Agriculture Fund

Reminder from the Investment Agriculture Foundation: While the Organic Sector Development Program may have concluded, the Investment Agriculture Foundation continues to support the organic sector.

### Last Quarter Achievements

- Finalized 2013 Year end financials
- COABC 2014 Conference held Feb 21-23, Nanaimo, BC
- Completed Organic Resource Toolkit Project

Funding is available either through our Emerging Sectors Initiative or the Canada-BC Agri-Innovation Program, under Growing Forward 2, a federal-provincial-territorial initiative. For more information, visit the website.





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## Editor's Note

By Marilee Peters

rganic." "Local." "Naturally-grown." "100-Mile Food." As more and more consumers begin paying attention to where and how their food is grown, and as new growers continue to join the field to meet that surging market demand, the



proliferation of brand promises at our grocery stores and market stalls just keeps getting more complex. It can be daunting to consumers, and frustrating to growers.

Bringing clarity to the organic marketplace is an ongoing challenge - and one that many in the organic community have strong opinions about. In this issue of the BC Organic Grower, you'll find updates on a variety of initiatives and projects tackling this challenge: from the online launch of the Organic Toolkits, to the latest from the Organic Value Chain Roundtable, and an introduction from new COABC Executive Director of Communication Gloria Chang, who describes the work she'll be undertaking over the next several months in the areas of marketing and outreach. They're all examples of the constant efforts by the COABC and its partner organizations across the country to increase consumer awareness and support the continued growth and development of organic producers.

You'll also read a response from two readers to an article in our last issue about professional certification ("Organic Farmer Accreditation Project: Professional Accreditation for a New Generation of Farmers," Winter 2014). I'm pleased that we can create space in these pages for important debates about the future of organics in BC, alongside occupational health and safety tips, new farmer-led research results, practical advice on creating a soil-management plan, and profiles of members of this dynamic, determined, and passionately outspoken community. Everything you've come to expect from the BC Organic Grower!

At the recent COABC conference in Nanaimo, a number of the discussions and workshops focused on building a solid foundation for organic farming through savvy business development – how to upscale from a small venture to a mid-sized operation, how to successfully introduce value-added production to extend farm revenues throughout the year, and strategic business planning for the small farm. As one of

the audience members commented in one session I attended, "when anyone asks me what they should do to get started in farming, I say 'Get an MBA'." It's an apt comment on the changing world of today's organic sector. We'll keep you posted.

As always, if you'd like to comment on anything you read in the BC Organic Grower, please send me your thoughts at editor@certifiedorganic.bc.ca. Ideas and suggestions for stories you'd like to see covered in these pages are always welcome, as are your photos.





## Work / Life Balance

### The 2014 COABC Conference - Nanaimo, BC



By Moss Dance

The 2014 COABC Conference, held in Nanaimo was a huge success! Over 150 people from the BC organic sector attended the weekend workshops, speakers and the organic feast on Saturday night.

As usual, the food was fantastic! Many thanks to our food donors and sponsors who made it possible for us to offer quality organic food to our community.

At our Saturday night banquet, Dave Reid presented Carmen Wakeling with the first Brad Reid Memorial Award in recognition of her work in the BC organic community.

Keynote speaker Melissa Coleman brought a unique perspective to the crowd about the importance of family and community, as well as self care for people who work as farmers, producers and processors. Clara Coleman offered a workshop the following day about four season farming, based on the successful model used at Four Season Farm where she works with her father, Eliot Coleman.

As usual, the Seed Room was a hub of learning and activity. Many thanks to Jen Cody, Susan Davidson and Robin Sturley for carrying on the seed room tradition where seed cleaning and processing skills and techniques are passed on through generations.







From top left: Dave Reid presenting Carmen Wakeling with the Brad Reid Memorial Award, workshop circle, Melissa Coleman, and seed room shenanigans. Credit: Michael Marrapese.

Lastly, we'd like to extend our thanks to Andrea Lawseth and Diane Elliot-Buckley for organizing an informative and enjoyable experience for all!

If you missed the conference, or are hoping to review some of what you learned when you were there, some presentation notes are available on our website: certifiedorganic.bc.ca/infonews/conference2014/ presentations.php

## Organic Value Chain Roundtable

By Gunta Vitins

The Organic Value Chain Roundtable (OVCRT) has been busy this past year on several initiatives to support the growth of the Canadian organic sector. Many are on-going, however a few key projects are coming to fruition this spring, including a research report and best practices guide on crowdfunding models for the sector, and three information brochures presenting the business case for investing in the production and processing of organic vegetables, beef, grains and oilseeds. These reports will be publicly available in both English and French from the OVCRT website in the coming months.

The OVCRT also recently completed a strategic plan to chart its course over the next five years. Three of the OVCRT's top priorities are to:

- Increase the organic share of domestic food retail sales from a current level of 1.7% to 5% by the year 2018 through increased production, improved production efficiencies, and greater economies of scale:
- Advance science, innovation, education and training to continue to build sector credibility, and increase profitability and competitiveness in both domestic and international markets;
- Improve visibility and awareness of the organic sector through clear, unifying, fact-based messages and communication campaigns.

#### Thoughtful Branding - "Think Before You Eat"

During Organic Week 2013, the organic community successfully launched the organic sector brand campaign developed by the OVCRT — "Think Before You Eat". Special thanks to the Canada Organic Trade Association (COTA) for spearheading the launch in partnership with Canada Organic Growers (COG) and the Canadian Health Food Association (CHFA), and to the many sector organizations that supported it.

The COABC, one of the most progressive sector organizations, embraced the "Think" campaign and brand strategy, and customized innovative "Think" materials for year-round use for BC operators (accessible from the COABC website). The focus is on differentiating certified organic products produced by BC growers and processors from imports and competing claims. Work continues on the brand strategy and "Think"

## Learn More About the OVCRT

The OVCRT is one of eleven national value chain roundtables established by Agriculture and Agri-Food Canada (AAFC) and industry. The OVCRT is a collaborative partnership created in 2006 to help improve the competitiveness and profitability of the Canadian organic sector through cooperation between members of the value chain and senior federal/provincial government officials.

For more information on the OVCRT, its initiatives and Working Groups, please visit:

www.ats-sea.agr.gc.ca/rt-tr/orgbio-eng.htm

Contact Gunta Vitins, Industry Co-Chair of the OVCRT, at gunta.vitins@gmail.com.

campaign at national and provincial levels. Look for updates from COABC and COTA throughout the 2014 growing season. Encourage your consumers to "Think Before You Eat – Organic & Local Better Together!"

Other initiatives of the OVCRT include:

- identifying funding options to ensure the ongoing maintenance of the Canada Organic Standards;
- research and dialogue on impacts of GE contamination of organic production and possible mitigating actions;
- identifying possible solutions to the provincial regulatory gap issue, in collaboration with other industry efforts;

Continued on page 27...

## Nanoose Edibles

It Takes Dedication, Devotion, and a Community to Raise a Farm



By Hannah Roessler

I had been trying for weeks to make it to Nanoose Edibles Farm to visit Barbara and Lorne Ebell, but bad weather on the Malahat Highway turned me back each time. The day I finally made it was sunny and warm, and I could barely contain my excitement.

I'd recently read an interview with Barbara Ebell in a local paper, explaining the hardships encountered by farmers on Vancouver Island; it was a deliciously blunt article, and she caused quite a few ripples. I had heard great things about this remarkable woman, but nothing quite prepared me for the amazingly accomplished yet humble person I met. "I'm a farmer and I really like to farm," says Barbara, "but I'm always under pressure to do more. People have been phoning me since that article saying 'now what are we going to do?'"

It's understandable that folks are approaching the Ebells for solutions. Barbara and her husband Lorne Ebell have a successful farm business...which they started only after successful careers in forestry and agriculture. Over tea and cookies, we discussed their fas-

cinating farm backgrounds, and it's clear that agriculture has always run deep for them; it's in their blood.

Barbara's mother was born on a large estate farm in England, and her Swedish father emigrated to Golden, BC, where the family sold farmed vegetables and fruit, fish from the Columbia River, and wild game to the CPR. Lorne, an agriculturalist through and through, attended school in Manitoba and Alberta before taking a job in the Ministry of Forestry. After several years of working in the Canadian government, Barbara and Lorne moved to Liberia, Africa where Lorne was Head of Botanical Research for the Firestone Rubber Company. They spent seven years in Liberia, working on a huge plantation housing 13,000 residents.

As Barbara recalls, "The women were excellent farmers and wonderful marketers. My collards were only regular size and theirs were the size of small bushes!" I find myself thinking that Barbara could probably grow collards the size of trees if she wanted to, but I don't say that.



After a brief stint working in Guatemala, and then several years in the state of Bahia in Brazil, they returned to Canada where Lorne went back to working in Forestry Research and Barbara took a position with the Ministry of Agriculture in the Policy Branch. After the adoption of Canada's Employment Equity Act in 1986, provincial governments followed suit and Barbara became the first Manager of Women's Programs for the Ministry of Agriculture to help "push the envelope" of women's advancement in the government.

As they crept closer to retirement age they began to contemplate what their next steps would be, "We thought...hmmm, what should we do now? Well, we've got farming in our blood, so we should farm!"

Brassicas sprouting (above) and chicks huddle up in the heat (below). Credit: Hannah Roessler





says Barbara with a laugh. Walking around their beautiful farm, I'm having trouble resolving my image of "retirement" with the dug pond, drained land, tool wizardry shop, seed saving shed, greenhouses, seedling carousel, orchard, blueberries, and more. Lorne describes how they started farming on weekends and holidays, driving up from work in Victoria to clear 12 arable acres of blackberries and roses... and I am firmly set in my feeling of awe.

### Everyone on the farm needs to farm

Early on they focused on strawberries, which their daughter advised them to price at five dollars a pound because "if we don't start that high people will never pay more... and we can't really go up from that even today!" says Barbara with a smile. "But we can sell every strawberry we produce. We started with the assumption that we would grow high-end organic food, because otherwise you're just producing cheap food for people and working your head off! And you're not really getting anywhere."

Barbara and Lorne were among the first island farmers to sell direct to local restaurants. They were ahead of the game in the early days, but sales have started to drop as big box stores mushroom up all along the highway headed up island. They have a beautiful and successful on-farm market — people come from far and wide to buy their produce, and customers are encouraged to walk around the farm and have a look at what's growing. They sell their vegetables, plants, and eggs, as well as grain, flours, homemade soups, honey, fish, salad mix, and cookies (that I ate several of), and much more, and they are open every day during the summer time. Profits from their off-farm sales (CSA and farmers markets), farm sales, and restaurants are roughly equal.

When I asked if they hire retail help, Barbara firmly stated, "Everyone on the farm, needs to farm. Can't be a bookkeeper or a vendor or answer the phone without knowing how to farm, otherwise you can't possibly answer a question intelligently about the produce or do your job properly. If you have your fingernails painted gold, well, that might make you think twice about farming."

She says this with a hearty laugh and her blue eyes twinkle something fierce, and I glance down and take comfort from my own dirty fingernails and calloused hands.

### BUILDING THE FUTURE: A FARMERS' COOPERATIVE

"You get these really wonderful people working for you, and you can't pay them minimum wage! You



""I'M A FARMER AND I REALLY LIKE TO FARM," ~ BARBARA EBELL

Photo Credit: Hannah Roessler

have to honor what they are doing. This year we are setting the foundation for a farmers' cooperative so that by next year they [the workers] will be running the farm, not us. We will stay on as members so we can help them make decisions. We might come have a peek to make sure they are getting things right and sticking to the program. The idea is to put the farm itself into a partnership," explains Barbara.

Succession planning is tough for many farmers, and though it is clear that the Ebell family is an environmentalist gang, and everyone loves the farm, each family member is out doing other things in the world. Putting the farm into a partnership promises to be an exciting way forward to keep this land producing food for a very long time.

Although partnerships can also be difficult to navigate, the Ebells are clearly grateful for their farm workers. Barbara is generous with praise, pointing out things on the farm that different workers have done or made. As she says, "You can have all the education in the world, but if you're not practical on the ground you can't be paid for the fact you went to university — not on a farm. You have to be paid for what you actually produce." This honoring of practical skill sets is echoed in the meticulous attention to detail in their well-designed farming systems. Lorne's mechanical and technical acumen is astonishing; walking into his workshop is like walking into a wizard's den.

### Nurturing the land is everyone's responsibility

Barbara believes that while farmers are here to grow food for people in the community, it's the community's responsibility to ensure that continues. As she says, "That is the missing piece of the equation if you really think about it. Farmers have to keep producing, set proper prices for themselves, make sure there is enough supply for people to buy – but the rest is not the farmer's responsibility, it's a social responsibility. Public participation and advocacy doesn't really happen. And if you don't push it or fight for it, it just won't happen."

Barbara has many great ideas for the future of farming — more education, apprenticeships, more support from the public—but it's hard to take all these things on while farming at the same time. "If you go anywhere else in the world, you'll see it happen — the farmer farms! You don't have to get all gussied up and see the premier, and tell them they should be buying your vegetables!" But their example is inspiring talking with Barbara has the distinct effect of making me want to visit the Premier immediately to demand better agricultural policies. While wearing my farming clothes. No gussying.

On the drive back to Victoria I'm thinking about many things, mainly about how great it has been to hang out with such an amazing woman in agriculture. She ended our visit with this wonderful piece of advice, "Farming just gobbles up your life and your time, so you need to have other loves in your life. If you run into a really long tedious spell and you are frozen in for 3 or 4 months, you start to really think 'I don't like this.' It's not because you don't like farming - it's because you

don't like your life! Ha! And in the summertime you are working like hell, but you need to socialize. You know that what you do is crazy, but you don't feel as crazy when there are others there with you; you need to make fun of it."

And with that she gives a little nod, and as I share a smile with this twinkling-eyed wise woman, I think about all we can learn from her.

FIND OUT MORE:

Check out the many videos on the Nanoose Edibles Youtube channel:

### noutube.com/user/nanooseediblesfarm

Hannah Roessler has farmed in Nicaragua, Washington, and BC on permaculture farms, polyculture cafetals, organic market farms and a biodynamic vineyard. She has an MA in Environmental Studies, and her research is focused on climate change and small-scale organic farming. She currently farms on the Saanich Peninsula on Vancouver Island.



### **COABC** launches toolkits!

### New Online Marketing Resources Help Producers

By Rochelle Eisen

Online toolkits have arrived! COABC is pleased to introduce new web-based resources to help BC producers with marketing and certification of organic products. And thanks to recent website improvements and navigation changes at www.certifiedorganic.bc.ca, the toolkits are easily accessible and publicly available.

You can now access a series of downloadable resources for producers through the new "Grow Organic Food" launch button featured on COABC's homepage. Resources include:

- What is Organic Farming, a brochure summarizing the key principles and benefits of organic agriculture;
- Navigating Organic Certification, a web-based guide which helps to simplify the certification process for new entrants;
- Glossary of Organic Initialisms, a "must have" for understanding the acronymic language of the organic sector;
- Questions and Answers on organic standards and certification from COABC's Accreditation Board, a useful resource for new entrants, existing farmers, and certification bodies seeking clarification on specific issues.

Use the "Market Organic Food" launch button to access resources that support the marketing of certified organic products at farmers' markets and at retail. These include:

- **Tips for marketing** to consumers, wholesalers and retailers, plus farmers' market display tips;
- Think Before You Eat Local & Organic Better Together, ready-to-use promotional materials originally created for Organic Week 2013, these marketing materials can be used all year round to educate consumers and promote BC organic products at retail and farmers' markets;
- Organic Benefits Checklist, a great resource for differentiating between natural, local, and certified organic food;
- Organic Integrity information to help retailers and farmers' market managers understand the importance of maintaining integrity throughout

- the supply chain and its relation to consumer trust of the organic label.
- The new online resources will help grow the sector by enhancing COABC's outreach to new entrants and existing BC operators, and by strengthening producers' relationships with retail and farmers' market customers.

For more information on the toolkit resources and web enhancements, please contact the COABC office.

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### www.certifiedorganic.bc.ca

This project is funded in part through the Agri-Food Futures Fund, Emerging Sectors Initiative, a provincial trust funded from money under the former federal-provincial safety nets framework. The program is delivered by the Investment Agriculture Foundation of BC.



### Organic Certification & Public Education

A new COABC project funded by Vancity

By Gloria Chang

I am very excited to be joining the Certified Organic Associations of British Columbia as the contractor for the Organic Certification and Public Edcuation project.

I am a seasoned journalist and communications consultant (www.gloriachang.com) with more than 15 years of experience and a specialized focus



in science & tech, society and culture. I now focus in the areas of food and wine, working to further food security, nutrition and sustainability. You can find out more at culinaryadventures.co. I am also a formally trained wine geek and journalist, and you can find out more about that here: wineadventures.ca.

For the last few years, I've been applying my media, communications and teaching skills in a more proactive way. I think I've found my dream job in this role.

But let's get to what I'll be focusing on during my current contract until the end of September. I will be overseeing the Certification "Pilot Project" that will increase access to organic certification. The North Okanagan Organic Association (NOOA) will be the certifying body running it. The two areas we'll be focusing on are paperwork and cost. Paperwork will be streamlined with online forms and storage. The cost will be approached in two ways - possible cost savings that would be applicable to all certifying bodies when fully rolled out from streamlining the paperwork, and providing value for cost. Please be assured that the standards for organic certification will not be changed. You will be getting updates on this project as they are available through the COABC listserv and news releases that will be posted on the COABC website.

I put "pilot project" in quotation marks because it is part of a larger list of deliverables that will be my priority in my role.

I will be organizing educational workshops to let you and the general public know about the toolkit materials created by Resilient Solutions Consulting. By the time this issue goes to print, they will be available to download from the COABC website to inform, educate and market certified organic products. I am also working on workshops and events leading up to and for Organic Week, which will take place the last week of September.

On that note, I'll end my introduction by inviting you to send me your requests and ideas to communicate and celebrate Organic Week. If you have an event idea for which you are seeking collaboration, send me a note! If you need communications help to raise awareness about your organic week event, send me a note! If you simply want me to help spread the word – yes, send me a note!

## Vancity

<sup>⊕</sup> edco@certifiedorganic.bc.ca



Bringing Soil to Life

A Soil Management Plan with Room to Grow

By Rebecca Harbut

One of the great markers of spring is that familiar, characteristic smell of soil: the pungent product of the life teaming inside, gearing up for another burst of activity that comes with the long, warm days of summer. This microcosm, so unassuming and often overlooked, is one of the most powerful engines on our planet.

Soil is a natural body that serves key functions essential to life on earth. It is the medium for plant growth and it serves a critical role in the hydrologic cycle, providing water storage capacity and purification. Soil's capacity to act as a carbon sink has become of supreme importance in the face of rapid climate change.

Finally, soil provides habitat for organisms essential for decomposition and a host of other functions, many of which we do not fully understand! Needless to say, soil is one of our most precious resources and its preservation deserves our utmost attention. As stewards of this resource, paying attention to soil management is not only a good idea but an essential requirement.

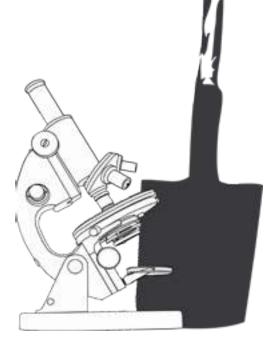
Agriculture places demands on soil not present in natural ecosystems. In essence, the harvest of crops represents the removal of nutrients and water from the soil system. As a result, a sustainable agro-ecosystem requires the addition of appropriate inputs to keep the system in balance. Given the complexity of soils, understanding how to maintain this balance demands constant learning, observation and refinement. While this article is not intended to provide a comprehensive review of soil management practices, it will hopefully provide a practical starting point and framework structured around three basic steps.

### Step 1: Collect The Data

"The goal is to turn data into information and information into insight."

Carly Fiorina, former president of Hewlett-Packard
 Co.

Data, if used appropriately, can be a powerful tool for growers to develop a comprehensive understanding of the soil and provides a quantitative mechanism to



monitor soil characteristics. There are four main categories of data that should be included in the analysis; context, physical properties, chemical properties and organic matter.

#### Context - Print a map and put on your boots!

All agro-ecosystems are shaped and influenced by the context in which they exist. This includes characteristics both within the boundaries of the system as well as those surrounding it. Find your location on Google maps and print out a satellite image map. (Alternatively, use a paper map or draw one).

With map in hand, go out and walk all corners of the fields and take notes on features of the landscape. Things to consider include: surrounding vegetation, water dynamics (wet spots, dry spots, streams, etc) slope of the land, exposure to wind and sun. Ideally you should take your map out and walk through at different times of year, as some aspects may be transient.

Although you may feel that you already have a handle on these things, having a map that you can refer to when sorting out a problem can be a valuable resource. If you have employees, this can also be a very useful tool to help discuss the site with staff that are not as familiar with the land.

### Physical properties – Dig a hole and get your hands dirty!

Physical properties of the soil are inherent characteristics that are a result of soil-forming factors such as parent material, weathering, climate and topography.

Texture is defined by the relative amount of sand, silt and clay present in the soil. It directly influences the soil porosity (micro and macro pores filled with water or air), water holding capacity and drainage, aeration and nutrient holding capacity of the soil. Soil texture can be estimated by using some simple techniques such as the 'feel method' or the 'sedimentation test' (Instructions can be found online by entering these terms in a search engine). Knowing your soil texture can provide information about potential challenges that may be mitigated by management.

Soil structure is another physical component that describes the aggregation of soil particles. Good soil structure facilitates drainage, aeration, and rooting. Soil structure can become compromised by factors such as tillage, compaction and excessive sodium.

### Chemical properties - To the Lab!

Nutrients are made available to plants through a series of chemical reactions facilitated by soil organisms. Therefore, the chemical characteristics of the soil di-

rectly influence its nutrient dynamics. There are two key characteristics essential to understanding nutrient cycling and availability in the soil: pH and cation exchange capacity (CEC).

Soil pH – Because soil pH directly affects the availability of nutrients to the soil, maintaining the appropriate soil pH is a critical part of meeting the crop's nutritional requirements. If soil pH is too high or too low, sufficient nutrients are not available to the crop. For example, blueberries are adapted to low pH (acidic) soils. At low pH, iron is in a form that is highly soluble and available to plants. But as soil pH increases, the iron is converted to a form that is bound and no longer soluble, resulting in iron deficiency. Adding iron to the soil will not remedy the issue, as any additional iron will also be bound and unavailable. It is possible to adjust soil pH with the use of lime (to increase pH) or sulfur (to decrease pH), however, this is best used to make minor adjustments. The ability to change soil pH is also influenced by soil texture (sandy soils are easier to change compared to soils with high clay content).

CEC – Cation exchange capacity is the capacity of a soil to attract, retain and exchange cation elements. Soils with high clay content and/or high organic matter have high CEC which allows the soil to store nutrients that can be made available to plants as needed, and can prevent the loss of nutrients due to leaching.

Continued on page 28...



## The Seed Circle

### Year One in the Carrot Seed Research Project



In many ancient empires, whoever controlled the granaries, ruled the kingdom. While this practice has changed considerably in modern times, there are still relevant lessons to be learned about the control of seed and food.

Although the cornerstone of every civilization is food, it is easy to overlook the fact that 90% of our food production comes from seed. And today, with increased corporate ownership of seed, genetic patents and proprietary knowledge, it is troubling to ponder who is in control of our granaries. Patrick Steiner, of Stellar Seeds, remarks that despite the growing interest in eating locally, "one of the things that people often overlook is that the primary input that starts it all is seeds. That needs to be local as well."

### The Politics and Economics of Seed

Today much of the world's seed and genetic material is the intellectual property of a few large corporations. Steiner points out that biodiversity and heritage varieties are being lost as large seed com-





Top: Patrick Steiner from Stellar Seeds setting out blue bottle fly pupae. Bottom: Patrick and Heather Pritchard from FarmFolk CityFolk thinning carrots. Credit: Michael Marrapese

panies pursue profits. "Large seed companies don't promote the open pollinated (OP) varieties as much as the hybrids, and frequently drop them from their catalogues," he says. "They make more money from the hybrids they develop—they get a markup on them. Keeping the open pollinated varieties going and in good shape is really helpful for gardeners who want access to those varieties."

One reason locally produced seed is so important is that it is better acclimatized to a specific region. It will perform better and yield more successful crops. As well, seed production can be a valuable addition to farm income and can help maintain regional biodiversity. Steiner notes that, "Our market garden customers have told us that our Nantes Coreless, an open pollinated variety we've been growing for many years, is a really great carrot. It grows well and tastes great."

### Growing BC Carrots for BC Folks

FarmFolk CityFolk, with funding from USC Canada and the Organic Sector Development Program, has completed the first year of a four year farmer-led research project with carrot seed growers, scientists and researchers. The long-term objective of the project is to increase the viability of growing organic and eco-





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logically grown carrot seed (Daucus carota) in isolation structures. The research will also identify best practices in increasing the yield of regionally adapted seed.

In the first year of the project, four growers — Steiner, in Johnson's Landing, Jen Cody of Growing Opportunities Farm Community Cooperative in Nanaimo, Sue Moore of Notch Hill Farm near Sorrento and Mojave Kaplan of Planting Seeds Project in Lytton — undertook to grow out part of their carrot crop in isolation structures. The growers identified carrots as a key crop in both their market and seed operations. Jen Cody points out that, "while the carrot is important commercially as a crop in BC, it's typically not grown for seed in any quantity in British Columbia. We wanted to explore increasing the quantity of seed produced in BC and therefore we need to find methods for that to happen."

Because they are biennials that require two years to produce seed, carrots are one of the more complex seed crops to produce. In most of BC, carrots need to over-winter in controlled storage conditions and be replanted in the spring. Despite the obvious drawbacks, one advantage to this approach is that growers can select carrots with the most desirable characteristics and collect the seeds from the best of the crop.

A major impediment to producing carrot seed in BC is that the domesticated carrot will readily cross with Queen Anne's Lace (Daucus carota var. carota), a common weed in British Columbia. Cody notes that, "Queens Anne's Lace (QAL) will cross with commercial carrots rendering the seed useless. In most areas of BC, if you want to grow carrot out for seed you need to be able to exclude pollinators that might be carrying pollen from QAL. In this round of research we are looking at growing in high tunnels in order to exclude contamination where QAL is prevalent." She adds, "There's this kind of puzzle about how to grow well in the high tunnels and it's nice to be working that out with a few other people."

Solving this puzzle and developing (or rediscovering) seed saving skills is vitally important in a society where less than one per cent of the population are farmers. Even among the growers already saving seed, people tend to save seed relative to their skill. As Cody points out, "It's easy to save kale, it's easy to save tomatoes, lettuce is easy to save. Carrots are not easy, so many of the growers that we're working with now have not chosen to grow out carrots for seed. They don't have the mentorship or the knowledge base to help them understand what's required to grow out carrot seed."

Ensuring seed security and seed sovereignty are also key issues. Food security is based in our ability to produce food locally and regionally. The same is true for seed because it is the basis of our food production. "We want to maintain the skills and our ability to grow and sell seed," Cody says. "One of the important aspects in being able to do that is maintaining the skills and the infrastructure that is required in order to continue to save seed. By coming up with a model that will help people to understand how to grow carrot seed, that skill base, that capacity, is being built in British Columbia."

## Solving the Pollinator Puzzle, and Other Challenges

All the growers participating in the project are experienced seed growers and have considerable experience growing carrots. Nevertheless, growing carrot for seed, and especially in isolation structures, presented a number of challenges. "It's a new learning experience entirely," Cody says. "It's not simply the processes around selection and storing of the carrots but also growing within a green house environment. It's different enough that there's a learning curve involved."

To ensure good seed viability, the temperature in the enclosures was kept below 50°C. Above that temperature, seed starts to degrade. Good ventilation became an issue, particularly in the smaller structures. Carrots are a dry seeding crop, producing the best seed in dry conditions. Ventilation and irrigation methods needed to be adjusted to control the humidity in the tunnels. Since the aim of the isolation structures was to exclude wild pollinators, an unintended but obvious problem arose: native predators that would normally feed on aphids and insect larvae were also excluded.

Since the native pollinators and wild pollen were excluded, pollinator populations had to be introduced. The growers decided to attempt to grow their own, with a variety of results. Cody recalls that, "the most exciting and amusing thing about the whole project was just learning so much about pollinators which, in our case, were simply houseflies." There were a variety of mediums used to attempt to grow and sustain housefly (or more technically Blue Bottle Fly) populations, including salmon carcasses, pork belly and a variety of road kill. And, as it turns out, the flies needed a source of water —but not so much that the maggots drown.

Steiner and Cody presented their work at the Organic Seed Alliance (OSA) Conference in February and were thrilled to be in the presence of so much exper-



### Seed Works Video Series:

### The next best thing to handson experience.

FarmFolk CityFolk has many seed-grower resources on its website, including Seed Works, a 12-part video series on seed saving featuring Patrick Steiner, Jon Alcock of Sunshine Farms and David Catzel of Fraser Common Farm. All episodes can be found on the FarmFolk CityFolk website at

www.farmfolkcityfolk.ca/resources/seed-resources/seed-works/

tise. Bringing together growers, breeders, pathologists, scientists and university researchers from all across North America, the conference is a great opportunity to share research notes. Steiner notes that, "by going to the OSA conference we've really expanded our resource base by being able to share what our experience has been and share where our learnings have been." Cody echoes his thoughts:"I can't go to any other event and learn that much about seeds."

As the project moves into its second year, participants are looking to improve and refine both the data collected and the methods for growing, irrigation and pollinating. The full year one report on the Carrot Seed Research Project is available for free download at the FarmFolk CityFolk website.

www.farmfolkcityfolk.ca/PDFs\_&\_ Docs/SeedPDFs/Carrot\_Seed\_ Report 2014.pdf



## Farmers Leading the Way

Farmer-led research is being conducted throughout the developing world as a way to find concrete solutions to agricultural problems that can be quickly implemented locally. This type of project sees established scientists and researchers collaborating with farmers to develop innovative solutions to agricultural problems. Farmers typically know what challenges they face in their area and on their farm. They also have a sense of what is economically feasible. They see what does well not only in quality and quantity, but also what sells well at the market. If something takes too much labour or requires too much investment, there will be little interest.

Cody notes that, "one of the real benefits for us as farmers has been the learning collectively. We feel really supported—being in contact with people we see as mentors." Steiner echoes her sentiments. "We're combining the seed professionals opinion with the farmers opinion," he says. "I've been growing carrot seed myself for years but never had this level of conversation about carrot. I'm learning lots and having a chance to deepen

Michael Marrapese lives and works at Fraser Common Farm Cooperative and is the Communications and IT Manager with FarmFolk CityFolk. He has extensive experience in television, theatre and print, and is an avid photographer and writer. He loves the challenge of adapting to the ever-evolving world of technology in a not-for-profit office.

## The Paradox of the Organic Tent

Editor's Note: The Winter 2014 issue of the BC Organic Grower featured an article on a project undertaken by the Society for Organic Urban Land Care (SOUL) to develop a model education-based organic farmer accreditation process. The article, "Organic Farmer Accreditation Project: professional accreditation for a new generation of farmers" has got some of our readers talking -- and writing. In response to the article, Garry and Wendy Lowe of Twin Meadows Organics contributed the following critique and vision for the future of organic farming in BC.

The COABC wishes to clarify the following points:

- SOUL's organic farmer accreditation program is not affiliated with or endorsed by COABC. Questions about the program should be directed to SOUL.
- The Small Scale Certification Project Report listed 16 recommendations for possible action. COABC is currently working on two: creating a web-based application system, and requesting a mandatory organic regulation from the Provincial Government.
- As an open forum, the BC Organic Grower includes a diversity of viewpoints as is evident from the following opinion piece.

By Garry and Wendy Lowe

S ustainable Organic principles and living improve our communities, our soil, bio-diversity, food security and people's health. We have the potential to provide a tangibly different way to live, farm, consume, and contribute to slowing down the human impacts on our planet's carrying capacity. The challenge is how and by how much.

To farm in soil that does not meet organic land tenure, or along large provincial transportations networks, or in an urban backyard or front yard, and believe the produce should be considered "organic," is like sipping a Chai Latte at Starbucks in downtown Vancouver while speaking passionately about over consumption and the plight of the poor. Our industry needs to find solutions for new farmers committed to respecting and honoring the values and standards of organics, while not trading the size of the tent for the integrity of the tent itself.

Our current system of organic certification is insufficient to sustain itself, its costs are unfair to small producers/gardeners and it needs systemic restructuring to survive. While inefficient organizations can survive for a time, what usually is terminal is their miscalculation of how critical it is to their survival that customers maintain their trust and loyalty. We fear that COABC



Garry & Wendy Lowe at Twin Meadows Organics Farm

and the liberal wing of the organic sector are focusing on oiling the squeaking wheel, versus finding solutions which provide multiple reasonable and flexible avenues of entry for new farmers, while continuing to honor, reward and enhance organic consumers' trust and brand value.

It is our hope that this article will provide a respectful alternative to both the interpretation of the results from the COABC's Small Scale Certification Research Project, and its recommendations for an Accredited Organic Farmer "Certificate." The challenges for our organic community are how to interpret these research results objectively, and to design creative solutions that resonate with those desiring alternative avenues of entrance and access to organic markets, while further enhancing consumer trust and loyalty.

The operational and strategic building blocks, which any solutions must be measured against, are the following:

The continuum of market maturity requires a pipeline of members at all phases of preparedness to provide sufficient supply to the growing market demand. Every process step in a supply chain is essential for strategic growth and success—the system must be balanced to increase market share sustainably. Our industry must create significantly more capacity to meet the ever-increasing demand. The Supply Pipeline needs redefinition from the perspective of what is necessary to satisfy demand in all markets, versus the overwhelming interest in non-organic urban gardeners. Our limited organization structures and resources must be wisely expended on the total demand/supply chain, for strategic stability and growth.

We offer the following four suggestions for consideration:

### Corporate Restructuring

We suggest that questioning the traditional COABC paradigm of "Regional" uniqueness is long overdue. Significant benefits can be realized by a more efficient consolidated business system for accreditation and certification. The basic structural challenge is a provincial organic accreditation organization, with a total of 11 Certification Bodies ("CBs"), seven of which are Regional CBs with 80 members in aggregate (Editorial correction: There are 8 regional certifying bodies with approximately 265 members); PACS having approximately 350 members and three other CBs with the remaining membership (for a total of 625 +/- members). Inefficient structures need restructuring to be competitive.

### Paradigm Shift

We are a community, who is also engaged in a very competitive industry that will eventually require strategic business management for success. We question the imbalanced focus on "Regional Uniqueness", which drives organizational resource allocation to satisfy the social urban paradigm. The competitiveness between the smaller regional CBs and the larger ISO CBs is unproductive. Limited resources should be allocated to train, mentor and support legitimate farmers who can support the capacity needed for our industry's growth. The current unbalanced focus on small urban gardeners is strategically unwise, as their contributions have minute benefit compared to the robust supply chain needed to capture growing market share. Members need to provide more training, mentorships, apprenticeships, micro-farmers, etc., to build needed capacity.

Over the past few years, Wendy and I have dedicated significant effort to embracing young organic farmers, with the goal of being more of a teaching farm. Two years ago, we mentored four certified organic farmers in the Robson Valley and in the Prince George area, today we have ten who have all paid their dues, completed all paperwork, welcome third party inspections, and are ready to support our community and economic development. The future looks bright for even more

legitimate organic farmers in the North. We welcomed the continued friendship and support from John Benedetti, VP Sales and Marketing, of Pro Organics, and others who spent considerable effort and time to define the root crop growing capacity potential for our region, to replace organic imports.

With six new organic farmers in our valley in the past two years, progress is being made to support their needs. It seems reasonable to expect that COABC would have organic capacity expansion in BC as a higher priority than accrediting non-organic urban gardeners.

#### Certification Alternatives

Consolidation of CBs could significantly reduce costs and business systems requirements. A fund to support new farmers willing to respect ALL organic standards should be established, through the voluntary generosity of established BC Organic Members. We believe in the generosity of members and the significant potential for them to partner with their corporate customers, to support the growth of the organic supply chain, by contributing relatively small funds (to help cost share the certifications costs for small farmers), compared to the public relations benefits of their new farmer certification support. Consolidations would also reduce paperwork, while not compromising organic integrity.

We believe that all COABC initiatives must uphold all organic standards. Wendy and I have committed to match dollar for dollar contributions from our customers (The Fairmont Jasper Park Lodge, our CSA members, SaveOn Stores in Prince George, Pro Organics), to establish a Pilot Fund of \$6,000.00 to support organic farmers in the North who need financial assistance toward their organic certification fees. We believe we will be able to announce more details of this initiative in the very near future, which we know can be further expanded by other farmers with their respective customers. We believe that we need this type of personal, grassroots cooperation to solve the legitimate challenges for new farmers, while maintaining our organic integrity and enabling our partners to benefit through their giving, to support their strategic marketing goals of "local" and "organic" messaging.

## Recommit for Provincial Legislation similar to the Canadian Organic Regime

The focus on "Regional Uniqueness" has resulted in COABC seeking concessions from the Canadian Or-

ganics Regime to enable the continuation of regional accreditation, while maintaining ISO accreditation as well. Attempting to seek concessions from COR for BC organics is harmful to the organic sector's success in the province. Further, it rationalizes the unique need for such initiatives as the Accredited Organic Farmers. We do not believe that the majority of the COABC members support such a paradigm, as it prioritizes the interests of a minority while jeopardizing consumers' trust.

In summary, restructuring and rethinking these regional ideological "traditions" would yield significant efficiencies, reduce costs and protect organic integrity. These combined effects would be motivational for BC Legislation for the adoption of COR standards for all organic trade.

We encourage all members in the BC organic community to express their opinions about the Accredited Organic Farmer initiative, as well as the structural observations and recommendations above – to your CB, to COABC as well as your MLA.

We trust this article provides a perspective for more constructive and inclusive dialogue.

Wendy Lowe, RN, BSc., Garry Lowe MBA. Wendy has worked in nursing and teaching for the past 18 years. Garry worked in the computer industry for 25 years and then 9 years as an international business and investment consultant. In 2002 we both retired early to live our dream as passionate small family off-grid sustainable organic farmers, and enjoy a very successful organic business.

### Maintaining the Integrity of Organics in BC

The past, present, and future of certification in our province

Rebecca Kneen

ver the past 25 years, COABC has been bold in ideas and careful in action. Through the hard work of its members, COABC created the entire process of organic certification in BC. Along the way, we developed standards, policies and a community dedicated to ensuring that being certified by a COABC member body was one of the most intense processes available—and that it was recognized for its integrity. We achieved this through the extremely hard work and dedication of many people all over the province. Standards development and review was a massive process which went on all the time, as we worked to close loopholes, allow for new processes and new ideas, and keep from being sideswiped by industrial agriculture and biotechnology.

As a result, when our membership decided to move to a national program, we were able to offer our standards, our methodology and our expertise to become the backbone of the new federal standards and management. The goals of moving to a national level regime were to ensure that all imported products being called "organic" met our standards, to have our regime acceptable to those to whom we export,

and to make sure that standards were the same all across the country. There have been many changes to the standards since they were first developed, and they continue to be a source of much impassioned debate.

When we moved to the COR (Canada Organic Regime) there was a lot of debate within the COABC about the use of the term "certified organic" and the word "organic": who could use them and how they would be enforced. Until 2009, "certified organic" was the phrase certified organic producers used to distinguish their products. Since 2009, under the COR, ISO certified operations can only use "organic" to identify their certified organic goods.

COABC continues to maintain a regional certification program. This process is in every way identical to the COR except in one thing: regional Certification Bodies (CBs) are free from some of the burden of ISO rules and paperwork around how a CB must function. The same standards and integrity of process are present and maintained by our accreditation process. Under the regional program "certified organic" is still acceptable. Within BC, however, the provin-

cial government hasn't yet legislated the use of the word organic to limit it to certified organic products only. This turn of events has lead to consumer and operator confusion in BC as anyone selling within BC can use the word organic without being certified, and many do just that.

The COABC has been working hard with the provincial government to change this since the issue first reared its head. We've also responded to the problem by initiating massive public and farmer education campaigns, as well as ongoing projects to get more farmers engaged in organic certification. The first part of this process was to research the perceived barriers to certification claimed by "uncertified organic" farmers and others through the Small Scale Certification Project funded by the OSDP. Once again, COABC leads the way—the Organic Federation of Canada is currently doing national level research into exactly the same problem.

The COABC Board examined the various recommendations of that project and determined the following:

- Inclusion of new members can never come at the expense of our standards and management practices: we must maintain the integrity of organic certification.
- Education would resolve many of the misapprehensions held by the public and farmers outside certification.
- Simple tools would enable the new generation of farmers to navigate the paperwork tools which would benefit all our members.

There are two projects underway to put these ideas into action. The first is the Toolkit project, the second is a pilot project to bring new farmers into the program using materials from the Toolkit and then some: more how-to documents, making all our forms available in interactive web formats and improving the clarity of the process. Both projects are aimed at improving the accessibility of organic certification without in any way altering our standards.

One recommendation has caused a great deal of concern within COABC's Board and membership: the idea of certifying farmers instead of farms. The Society for Organic Urban Land Care, with financial support from the Organic Sector Development Program Strategic Initiative, completed an initial exploration of this

proposal, and the results were reported upon in the Winter 2014 issue of the BC Organic Grower magazine. COABC has not adopted this idea and is not undertaking any project or activities to support it.

COABC welcomes all efforts to improve. We would like to increase some of the restrictions in the existing national standards to prevent the industrialization of organics. We would like to make sure that use of "organic" is limited to certified organic entities. We want everyone who wishes to farm sustainably to turn to organic agriculture as their first step. We want to stop the use of GMOs everywhere in BC. We want to protect and support agriculture—not just for our members, but as the most basic of requirements that we as humans be good stewards of our biosphere and of each other. And of course, underlying all of this is our commitment to maintaining the integrity of organic certification through strict standards and meaningful accreditation processes.

We know that together we can do these things. There are many new farmers and existing farmers of all sizes who want to be good stewards of the land. It is up to us to make that possible, to show them how organic certification is a good way to learn to steward, and that being part of our widespread, bickering, intense and excitable community will improve more than just their farming.

Rebecca is a member of the North Okanagan Organic Association and she has served on the Board of the COABC. Along with her partner, Brian MacIsaac, she farms and brews at Crannóg Ales, Canada's first certified organic, onfarm microbrewery. They have been certified organic since inception in 1999. Their farm (Left Fields) is a 10 acre mixed farm growing hops, fruit and vegetables as well as pigs, sheep and chickens. Rebecca has been involved in agriculture, food and social justice issues since she met her first pair of rubber boots at age 3 on the family's Nova Scotia farm.

# Fine Tuning Your Pruning How to Prevent Musculoskeletal Injuries while Pruning

by Gina Vahlas

ave you ever felt aches and pains or physical discomfort after pruning? It is common to feel some discomfort, especially if you haven't been pruning for a while, and it should go away as your body gets used to the new activity. However, if it doesn't go away, you could be on the path towards a musculoskeletal injury (MSI). If you don't make any changes, an MSI can significantly affect your quality of life.

The good news is that the risk of MSIs can be reduced or even prevented by controlling the ergonomic risk factors on the job.

### Ergonomic risk factors in pruning

Some ergonomic risk factors associated with pruning tasks include:

- Awkward postures of the wrist, shoulders, and back
- Forceful exertions in the hands and shoulders
- Repetitive motions
- Cold temperatures
- Contact stress

### Reducing the risk of Injury

To help reduce the risk of MSI from pruning, consider the following solutions:

Use a system that brings the plants between knee and shoulder height with the growth as close to you as possible. Working with growth that is too low — at knee height or below — causes your back to flex to forward, and makes wrist postures more awkward. On the other hand, pruning growth that is above shoulder height puts your shoulder into an awkward position, increasing the potential for injury.







### Strike a Pose When Pruning

- Awkward wrist posture (wrist bending backward)
- Awkward wrist posture (wrist bending forward)
- 3. Awkward back posture (bending to the side) and awkward neck posture (looking
- 4. Angled blade keeps the wrist in a neutral posture more often than a straight blade.
- 5. Straight blade brings the wrist into an awkward posture more often than an angled blade.
- 6. Neutral wrist posture (wrist is straight)
- 7. Neutral wrist posture (wrist is straight)
- Bend forward from the hips and bend the knees to maintain better back posture 8.
- Use a rolling seat for better back posture when working at low heights



Use the correct tool for the job. Use loppers or saws for thicker, harder wood. Aluminum handles can help to reduce the weight of loppers. Also, try angled handles and blades, which help maintain neutral wrist posture better than straight tools.

#### **Select tools that fit your hand.** For pruning shears:

- Fingers should fit comfortably around the handles, without overlapping your fingers and thumb.
- The handles should be smooth (no grooves for fingers) and end past your hand.

- The edges of the handles should be smooth and possibly covered in an insulating material to reduce cold temperatures against the hand.
- The spring tension should feel comfortable and handles should return to their initial position on their own.
- Choose left- or right-handed tools appropriately (where available).

Consider using powered tools such as electric or pneumatic, which reduce the force required to cut. Even though the force is reduced, take care to use neutral wrist postures. Wear a cut-resistant glove on the opposite hand and fit any battery packs snugly to your hips to minimize weight to your back.

**Schedule preventative tool maintenance** to keep blades sharp and optimize tool function.

**Be careful not to use more strength** than the task and tool require.

**Select gloves that keep your hands warm** while also improving grip and comfort.

Use neutral postures in your wrist (straight), shoulder (arms close to your body), and back (maintain S-curve in spine) as much as possible. Bend forward from







your hips for occasional low work and consider using a rolling seat for consistent low work.

**Reduce the risk of twisting** by making sure your hips, shoulders, and feet all face the same direction.

When you are cutting vines, cut more tendrils before pulling off the cane to reduce the force of the pull.

Provide a change for your working muscles by alternating tasks and alternating tools (e.g., electric and hand powered pruning shears and loppers).

Use both sides of your body. Try pruning with your non-dominant hand to reduce working duration for muscles (yes, it will be slower but it will get better).

Keep warm. Warm up your body at the beginning of the shift and after lunch to increase circulation and get yourself ready for work. Warm-ups include large body movements such as walking, marching on the spot, squats, dancing, etc. Stay within a safe range of movement (i.e., do not touch your toes from a standing position). Dress in layers to keep your body warm and take off layers as you warm up. Take your breaks in a warm area.

Stand up straight occasionally or as you walk to the next plant to bring your body into neutral position. Also, take a microbreak to perform the opposite body movements; for example, let go of your pruning shears and reach your arms up for 1-2 seconds. Refer to FAR-SHA's "Stretches and Postures at Work" booklet as a resource.

Employers: make sure that all workers have been educated on the MSI risk factors, risk control measures, and safe working postures and practices associated with their job. Workers should also know the early signs and symptoms of MSI and report to their supervisor if they are experiencing any symptoms. To help with this education, see the WorkSafeBC publications "Preventing MSI Injury: A Guide for Employers and Joint Committees" and "Understanding the Risks of MSI: An Educational Guide for Workers on Sprains, Strains and Other MSIs."

**Supervisors**: Supervise workers to ensure that they understand and use the risk control measures, and the safe working postures and practices.

www.worksafebc.com

Gina Vahlas, B.Sc. (Kin), is a Canadian Certified Professional Ergonomist at WorkSafeBC in the Prevention and Occupational Disease Initiatives Department, where she helps companies develop systems to prevent musculoskeletal injury. She has been an ergonomist for more than 15 years and has worked in a variety of settings, including education, food and beverage processing, manufacturing, warehousing, construction, tree planting, and agriculture.

### Resources

For more information, check out the following:

#### WorkSafeBC

(click on "Safety by Topic", then select "Ergonomics") www.worksafebc.com

### Farm and Ranch Safety and Health Association (FARSHA)

www.farsha.bc.ca

### Booklet: "Stretches and Postures at Work" (FARSHA)

www.farsha.bc.ca/resources\_publications.php?resource=203

### BC Wine Grape Council

www.bcwgc.org

### "Ergonomic evaluation of winegrape trellis systems pruning operation."

- Journal of Agricultural Safety and Health (2006)

### "Ergonomic design criteria for pruning shears."

— Occupational Ergonomics (2000)

...OVCRT: continued from page 7

- implementing a risk management strategy to mitigate risks and threats to the Canadian organic sector and brand;
- identifying research priorities and providing input to the Organic Science Cluster Program;
- collaborating with the other 10 national value chain roundtables to address cross sectoral issues such as Market Access, Labour, and Regulatory Modernization (i.e. new Safe Food for Canadians Regulations, and omnibus Bill C-18)
- working with regulatory agencies to address the use of bio-pesticides, including food-on-food applications:
- identifying opportunities to increase domestic production and processing to meet national and international demand.

Gunta Vitins of Resilient Solutions Consulting has been spearheading innovative agri-food initiatives in the organic public and private sectors over the past 25 years, across Canada. Her work experience spans government, academia, and the private sector and includes business development, agricultural production, processing, distribution, sales and marketing.

### **OVCRT** Reports Available

If you would like to obtain any of the following OVCRT reports, please email

RoundTable-TableRonde@agr.gc.ca

- Organic Value Chain Roundtable Strategic Plan 2013 – 2018
- Addressing Labour Shortages in Agriculture & Agri-Food Industries Recommendations for a National Labour Strategy and Plan
- Challenges and approaches in mitigating risks associated with the adventitious presence of GM products in organic crop production in Canada
- Carbon and Global Warming Potential Footprint of Organic Farming
- Canadian Organic Promotional Opportunities Project
- Marketing Board and Commodity Association Project Results on Treatment of Canadian Organic Products
- · Organic Beef Benchmarking Study
- Benchmarking Study for Organic Tomatoes



#### **Nutrients and organic matter**

The goal of soil management is to build the soil's capacity to provide necessary nutrients to the crop while maintaining the soil's functional integrity as a biological system. The goal is not to simply provide nutrients to the plant, but to build the capacity of the soil to meet crop demands without compromising soil health. Organic matter is a key component — it contributes to soil health by improving nutrient availability, soil structure, moisture retention and by serving as a nutrient 'reservoir.'

To effectively build organic matter in the soil, it is essential to understand nutrient cycles and to know what is being added into the soil through crop demands, rotations and residue, manures, compost and other soil amendments.

#### Soil Tests

Soil testing is a valuable tool that can provide the data you need to understand the soil. A soil analysis should always be done prior to planting as this is the best time to incorporate necessary soil amendments. Soil analysis is also a useful way to learn about the amount of organic matter in the soil.

Regular soil sampling can be used to identify trends in nutrient levels of the soil. For example, phosphorous is a nutrient that does not move through the soil very readily, so it can accumulate over time. Although nutrient concentrations reported in the soil analysis often have a poor relationship with the nutrient levels in plants, the analysis can provide useful information on longer term trends in the soil. Soil analysis can be effectively coupled with a plant tissue analysis to better understand the dynamics between the soil and crop.

### Step 2: Make a Plan...

Remember that map you made in the first step? Get it out!

#### Establish 'Management Zones'

...and name them.

Variability is a constant! Soil is a living system and therefore dynamic and influenced by a host of factors, including what you — the farmer — introduce into the system by way of soil amendments and crops. Depending on the cropping system you use and the natural variability of the soil, the soil dynamics will vary across your farm. The establishment of management zones can help manage inputs and simplify record keeping (which you have to do anyhow)!

### Identify potential areas of concern

There are very few farms that do not have that 'wet spot' or 'dry spot' or that one field that just seems to grow excessive amounts of weeds. Identify those locations on the map and keep a separate section of notes dedicated to these problem areas where you can document activities and observations, and the outcome of specific approaches.

### Establish soil management plans for each zone.

A management plan should include and take into consideration all the available data and observations. Each zone should have a unique plan that addresses the unique characteristics of that zone.

Each management plan should include:

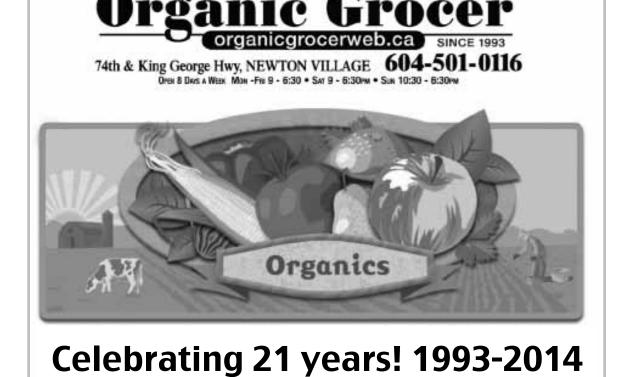
- 1. Map including notes about unique features and drawn in management zones.
- 2. Baseline soil data: soil test results, observations, context map.
- 3. Goals: what are the primary areas that need to be addressed in the field (e.g. improve water holding capacity, improve organic matter). Your soil management plan should be focused on the objective of building soil health and capacity and increasing organic matter, rather than focusing on the output of the soil (ie. providing nutrients to crops). While this is obviously important, it should not be the driver of your management plan, but rather the outcome. In cases where soils are deficient in a particular nutrient, factor this into the development of the plan, but do so with the mindset of addressing the overall soil capacity and health.
- Approaches: a plan including information on necessary soil amendments, a crop rotation that optimizes the characteristics of the soil dynamics and improves soil health and capacity, detailed water management plan and nutrient management.
- 5. Records and Observations: This may be the most valuable section as you develop a deep understanding of the land and how it responds to your management approaches. Include information about inputs, weather, crop performance and pest management. The observations and crop responses will provide the insights to help you refine and grow your understanding of soil management.

## Step 3: Implementation and Revision

The soil is a dynamic living system. It's constantly changing. Therefore, a good soil management plan is also dynamic and is constantly improved by the insights that each season brings. Reviewing your observations and records can provide valuable insight into how you can improve management techniques to better address the specific needs of your land and your soil.

Dr. Rebecca Harbut is delighted to have returned to BC after spending several years in Ontario and the US. Rebecca received both her BSc and MS degrees from the University of Guelph in Ontario and then completed her PhD in Horticulture at Cornell University in Ithaca, NY where she conducted research on fruit crops. Most recently, Rebecca was a faculty member in the Department of Horticulture at the University of Wisconsin where she developed a fruit research and extension program. Rebecca recently joined the faculty at Kwantlen Polytechnic University where she is the lead faculty in the Sustainable Agriculture program.





## Events & Announcements

### **Announcements**

Learn Organic Vegetable Production Online - The Organic Farming Institute of BC launches its third course in an online series of organic trainings. The latest addition, Organic Vegetable Production, is intended for individuals wanting to begin organic vegetable production on any scale, or to improve practices in an existing operation.

Special Introductory Pricing for ORG 103 is \$350.00 CDN

IOIA\AOPA\COG Basic Crop Insepction Training June 16-20, 2014, Lamont, Alberta. Four days of instruction including a field trip to a certified organic crop operation, plus a half day for testing. A minimum of 15 participants is required. For more info visit: http://ioia.net/images/pdf/Alberta\_Crop\_Info\_Sheet\_2014\_Final.pdf

IOIA\AOPA\COG Basic Livestock Inspection
Training June 23-27, 2014,
Lamont, Alberta. This basic course includes 4 days of instruction including a field trip to a certified organic crop operation, plus a half day for testing. A minimum of15 participants is required. For more infovisit: http://www.ioia.net/images/pdf/Alberta\_Livestock\_
Info Sheet2014 Final.pdf

**Soil Mate** is an online tool that allows consumers to find who grows, raises and produces what in their local

area. Farms and Farmers' markets create a free profile so their story and products can be found. Soil Mate filters results to 160km/100mi to serve local communities but is a North American tool. Growing fast, in the 3 weeks since launch Soil Mate is already in 7 Canadian Provinces and 13 US States. Create your free Soil Mate profile now at soilmate.com

### **Events**

Farm to School BC Webinar - Imagine a school where students know where their food comes from, who eat the freshest produce delivered from their local farmer. A school where students learn about the food system, and gain the valuable skills required to grow and cook food, all while building valuable relationships with community members and organizations. Look no further than Farm to School BC.

Many schools are interested in starting a Farm to School program and are keen to partner with farmers like you.

Farm to School BC will be hosting a provincial webinar for farmers to learn the ins and outs of partnering with schools, and the benefits. Practical tips and resources will be suggested, with the goal of inspiring a new wave of farmers to join the Farm to School movement in BC.

Join us on Wednesday May 7th from 3:00-4:30pm for an

### **CLASSIFIEDS**

2 ac Grand Forks, fenced garden, 2 bdrm 1 bath full basement. New flooring/paint. Chemical-free rockfree fertile soil, good well water. Some underground sprinkling. Some outbuildings. 250-443-9058, di\_klein@telus.net

### Place your classified ad in the BC Organic Grower for only \$25/ issue!

Events listings are free!

For more information, contact Moss at:

bcogadvertising@certifiedorganic.bc.ca

informative session which will include plenty of time for questions. If you are unable to join the webinar, please connect with us via our website, social media, newsletter, or by email if you are interested in learning more information on how to get a Farm to School program up and running in your community.

Please visit our website to register, and for more information:

www.phabc.org/farmtoschool





### ORDER FORM

Certified Organic Associations of BC 202-3902 32nd Avenue, Warren, BC VTT 2L7; p. 250-290-4429; f. 250-290-4436; office@certifiedorganic.bc.ca

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Stickers 1 1/4" aquare	1000 pc rell	\$10.50	10 mile \$90.00		
Twist Tiss 10" (15,000 per case)	1000 pc	\$13.00	Full Case-\$165.00		
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TO ORDER ONLINE VISIT: WWW.CERTIFIEDORGANIC.BC.CA

<sup>&</sup>quot;Limited quantities available - please contact the COABC office for availability."

## COABC 2014-2015 Board of Directors

#### **Executive 2013/14:**

Terms are for 2 years

Co-president: Susan Snow (FVOPA) Co-president: Mary Forstbauer (BDAS) Vice President: Corey Brown (SOOPA) Interim Treasurer: Andrea Turner (PACS)

Secretary: Arzeena Hamir (IOPA)

Certifying Body	Position	Name
BC Association for Regenerative Agriculture	Director	Chris Bodnar
BC Association for Regenerative Agriculture	Alternate	Dave Reid
Bio-Dynamic Agriculture Society of British Columbia (Bio-D)	Director	Mary Forstbauer
Bio-Dynamic Agriculture Society of British Columbia (Bio-D)	Alternate	Gabe Cipes
Boundary Organic Producers Association (BOPA)	Director	TBA
Boundary Organic Producers Association (BOPA)	Alternate	TBA
Fraser Valley Organic Producers Association (FVOPA)	Director	Susan Snow
Fraser Valley Organic Producers Association (FVOPA)	Alternate	Doug Luder
Island Organic Producers Association (IOPA)	Director	Arzeeena Hamir
Island Organic Producers Association (IOPA)	Alternate	Mary Alice Johnson
Kootenay Organic Growers Society (KOGS)	Director	Abra Brynne
Kootenay Organic Growers Society (KOGS)	Alternate	Alys Ford
Living Earth Organic Growers Association (LEOGA)	Director	Karl Eriksen
Living Earth Organic Growers Association (LEOGA)	Alternate	Clive Johnson
North Okanagan Organic Association (NOOA)	Director	Michelle Tsutsumi
North Okanagan Organic Association (NOOA)	Alternate	Michael Rudy
Pacific Agricultural Certification Society (PACS)	Director	Walter Makepeace
Pacific Agricultural Certification Society (PACS)	Director	TBA
Pacific Agricultural Certification Society (PACS)	Director	Terra Park
Pacific Agricultural Certification Society (PACS)	Director	Ezra Cipes
Pacific Agricultural Certification Society (PACS)	Director	Andrea Turner
Pacific Agricultural Certification Society (PACS)	Director	Ed Clark
Pacific Agricultural Certification Society (PACS)	Alternate	Gay Hahn
Pacific Agricultural Certification Society (PACS)	Alternate	Linda Edwards
Pacific Agricultural Certification Society (PACS)	Alternate	Yvonne Kosugi
Similkameen Okanagan Organic Producers Association (SOOPA)	Director	Corey Brown
Similkameen Okanagan Organic Producers Association (SOOPA)	Alternate	Moses Brown
Shuswap Thompson Organic Producers Association (STOPA)	Director	Ed Basile
Shuswap Thompson Organic Producers Association (STOPA)	Alternate	David Comrie
Consumer and Environment Rep (BC Food Systems Network)	Director	Rosemary Plummer / Carol Kergan
Ministry of Agriculture (BCMA)	Ex-Officio	Susan Smith