

British Columbia

Organic Grower

Animal Welfare

And Organic Livestock

Managing Farmer Stress

Practical Tips

Robson Valley Sheep Farm

Farmer Focus

Journal for the Certified Organic Associations of BC - Summer 2015
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Sheep Happens!

A successful machine-free farming enterprise in the idyllic Robson Valley.

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Organic Week

Let's celebrate organics! It's not too early to start planning your event now...

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BC Organic Grower

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On the Cover: João Costa checks out a dairy operation. Credit: João Costa

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Editor's Note

By Marilee Peters

Welcome to the busy months. As you race from one farm task to the next, I hope you can spare a few moments here and there to sit down, take out the *B.C. Organic Grower*, and enjoy some of the thoughtful, interesting content that our contributors have put together for you in this issue.



Too busy? Just can't afford to slow down or take time out for reading during the hectic summer months? I promise you'll find Chris Bodnar's suggestions for managing farmer stress in this issue worth the investment of your time. (And his cautionary tale about the effects of letting stress levels spin out of control might just help change your mind about what you "haven't got time for.")

Chris suggests scheduling time for relaxation, fun, and social activities—even in the height of the growing season, when some farmers are convinced there aren't enough hours in the day to sleep, eat or bathe, much less get together with friends. It's part of his recipe for keeping life and work choices (i.e. family and friends vs. farm chores) in balance.

Take his advice and you might even discover you've got the time and energy to host a farm event during this year's National Organic Week: September 19 – 27. National Organic Week is the perfect time to reach out to your customers and community members, and communicate the benefits of certified organic food. Offer a farm tour, host a potluck, hold an open house or a hoe-down, or make a special offer to your market and CSA customers – the possibilities are endless!

Need more convincing? Turn to page 6 to find tips for creating a memorable event from the organizers of a few of BC's most successful Organic Week activities from past years. You're sure to find inspira-

tion and practical advice for planning and hosting a great event. And best of all, thinking about the fun ahead will sustain you through those long, hot, sunny days in the fields.

Best wishes for a busy, and balanced, summer. 🌿

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Intergenerational Farm Mentorships: A New Project at COABC

Passing on practical, hands-on knowledge of working with the land has always been a part of the traditional farmer education process. Young farmers learned their craft from family members and community elders, working alongside them and gathering stories, advice and support at the same time as they gained the practical skills they needed.

Today, that traditional path into farming is rapidly becoming the exception rather than the rule. Many young farmers don't start with a background in farming, and without the advice and guidance of farm elders, they risk missing out on the many benefits of learning the ropes from those older and wiser than themselves.

But thanks to a new project in the development phases at COABC, that may change. With funding from Employment and Social Development Canada's New Horizons for Seniors program, COABC plans to match a number of young farmers with older, experienced growers, in a months' long mentorship arrangement.

Even better: the benefits of the mentoring won't be confined to the mentors and mentees. Video diaries are planned and will be launched on the COABC's YouTube channel over the fall and winter of 2015 - 16, so that other young farmers looking for support can tune in.

The project will wrap up next February with an Elders Roundtable planned for the COABC Confer-

ence. Stay tuned for further updates about the project in the months ahead.

This project is partly funded by the government of Canada, New Horizons for Seniors Program.

Read All About It National Organic Week in the pages of Edible Vancouver

Wondering where to find out about events and activities during Organic Week?

As part of the lead-up to the cross-Canada festivities being planned for National Organic Week this September 19 - 27, the Canada Organic Trade Association (COTA), will sponsor a special events listing in the Edible Vancouver magazine.

You can also find information about events online, at organicweek.ca. COABC and COG will be spreading the word about events on social media, so be sure to include #OrganicWeek in all your tweets, posts and pins during the Canada-wide week of celebrations.

What's Trending on Twitter: COABC

Do you follow the COABC on Twitter? If not, here's a selection of the conversation you've been missing! By joining the social media conversation, you can find out about informative links we're sharing, and announcements you won't want to miss. (Follow @coabccanada for lots more up-to-the-minute news, opinions, and events.)

Organic Week @organicweek Jun 11

#TBT #OrganicWeek 2012: Province of BC proclaiming Organic Week. @coabccanada

KPU Agriculture @KPUAgriculture Jun 8

Farmers reap benefits of using pheromones as a green alternative to pesticide sprays #organic <http://www.cbc.ca/1.3098862> @COABC

Vancity Comm Fdn @vancity-commfdn Mar 4

RT @ffcf: Congratulations to @ffcf co-founder Heather Pritchard, lifetime achievement award @coabccanada last night! #localfood

COABC @coabccanada Jun 2

For International Year of Soil spend a minute watching a year of humus building in amazing time-lapse video #UNFAO <http://ow.ly/NGESv>

Save the Date Conference is Coming!

After a record-breaking COABC Conference in Chilliwack in February, 2015, expectations are high for the 2016 conference, so mark your calendar now for February 26 - 28, 2016. Next year's conference will take place in Vernon, at the Prestige Hotel.

The theme for the three-day event? We'll be looking at the present realities and future possibilities of agriculture in BC through the lens of "Resilience." It promises to be an exciting and thought-provoking gathering. Don't miss it!

Look for more information and announcements about the conference throughout the fall on the COABC website at www.certifiedorganic.bc.ca.

Growing Support for Organic Sector New Funding Announced

In May 2015, the federal government announced an investment of \$785,000 in Canada's organic sector to help build the Canadian and international organic markets. The Canada Organic Trade Association (COTA) will oversee a four-year \$1.5 million program aimed at increasing and expanding the Canadian organic brand in export markets.

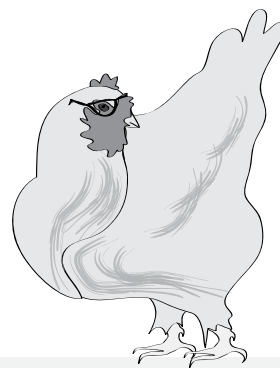
MarketSafe Online Learning for Busy People

No time to take a classroom course in food safe practices? MarketSafe is an online food safety training program for farmers, food processors and producers who make, bake or grow products to sell at farmers' markets, farm gates or other types of temporary food markets. It's convenient and economical -- a great way to learn best practices for selling goods at your local market. For more information visit, www.openschool.bc.ca/info/marketsafe/index.html

GMO Enquiry Digs Up the Answers New CBAN Campaign

Earlier this year, the folks at the Canadian Biotechnology Action Network (CBAN) wondered, "what GM crops are grown in Canada?" Now they're ready to share the answers. Here in Canada, currently just four GM crops are grown: canola, corn, soybeans and sugar

beets. But those four crops find their way into innumerable products on our grocery store shelves. Check out all the questions and answers from CBAN, part of their 2015 GMO Enquiry Campaign, at gmoenquiry.ca.



Poultry Health Update

By the end of May, 2015, 14 cases of salmonellosis in BC had been confirmed, all related to individuals handling live chicks from Alberta. In response, the BC Ministry of Agriculture issued an FAQ for farmers: **Salmonella Enteritidis Facts for Small Flock Owners**.

Among the tips for preventing and controlling SE in flocks:

- Purchase chicks or pullets from commercial sources like feed stores or hatcheries. The current situation was identified because the source flock is routinely tested, and following the positive test, corrective action was taken so new chicks should be SE free.
- Start and maintain an effective rodent control program.
- Restrict visitors to your farm, especially those who have been on other farms.
- Have clean boots for visitors so that they don't track germs onto your farm.
- Remove manure routinely from the bird area.
- Carry out a thorough cleaning and disinfection prior to introduction of a new flock.
- Consult your veterinarian about these and other options to keep your birds healthy.
- Have an "all-in all-out" policy so that there is no contact between birds from the group going out of lay and the new flock.

For more information, contact Dr. Victoria Bowes, Avian Pathologist or Dr. William Cox, poultry Health Veterinarian, at BC's Animal Health Centre: Victoria.Bowes@gov.bc.ca

Find the FAQ at:

 agf.gov.bc.ca/ahc/poultry/Salmon_Enteritidis_Facts_for_Small_Flock_Owners_BCGovt_May2015.pdf

National Organic Week 101

Secrets to Hosting an Awesome Organic Event

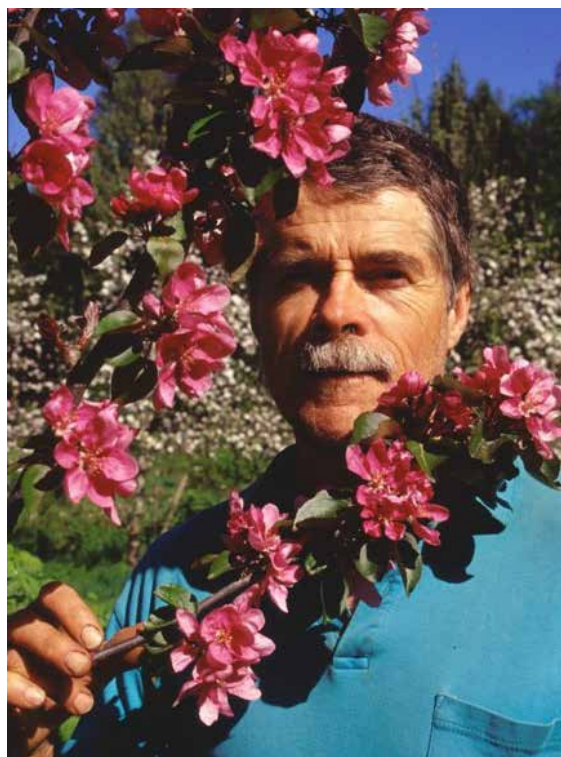


In the midst of a busy growing season, planning and promoting a National Organic Week event can seem like a daunting prospect. How will you arrange it, promote it, prepare for it, and then take care of all the last-minute details and decisions that always seem to spring up just before (and during) a public event? And most importantly -- who will do the cleanup when you're exhausted afterwards?

The answers to these questions, and many more, are out there: in the knowledge and experience of the many organic growers, processors and retailers who have hosted National Organic Week events big and small over the past several years. So we asked a few to let us in on their secrets.

Harry Burton of Apple Luscious Organic Orchard is the avid apple-grower behind the annual Salt Spring Apple Festival. The festival pre-dates National Organic Week: it has been a successful yearly event for more than a decade. In 2014, 1500 happy apple-lovers visited 18 farms, tasting over 200 varieties of apples, most of them organic. Apple Luscious alone offered tastings of 80 apple varieties last year.

So how do the participating farms ensure that the popular festival stays true to its organic roots? Harry notes that one factor that helps keep the festival crowds at a manageable level is the travel involved in getting to Salt Spring. "The BC Ferries connections to Salt Spring are both a blessing and a curse. Since our 18



Salt Spring Apple Festival organizer Harry Burton. Credit: Ellie Langford Parks

farm hosts are all small, the crowds of a big city like Vancouver would swamp us, so the ferry does act like a control on size."

That helps to preserve the local flavour of the event. "Having the locals on board is a fantastic asset, plus they also make up the enthusiastic volunteer team," Harry points out. "I consider 1500 participants to be an ideal size for the Salt Spring Apple Festival. We do have an amazing event, which connects apple lovers directly with the apple tree, the farmer and the farm on Salt Spring that grew their favourite apple. This is a very magical connection."

Across the province, another stalwart of National Organic Week is the Organic Okanagan Festival, held in Kelowna. The emphasis for OOF, as it's popularly known, is on diversity -- unlike the Salt Spring festival, they try to provide something for everyone. Wendy Wright is the festival director and the founder of the Okanagan Greens Society, which plans and hosts the festival each year. She says the "something for everyone" approach works well for OOF; "everyone will enjoy, shop, sample and learn if you make the event available for everyone and provide lots of free fun - live music, yoga, consignment fashion shows, films, lectures etc. This is a foodie event that families can afford and enjoy!"

Both Harry and Wendy agree that the success of their events depends on enthusiastic partners and volunteers. Wendy adds that to be effective, promotional efforts need to be diverse: "We have a shoestring marketing budget, but still use the layered approach with posters, handbills, sponsored ads in local newspapers, as much free air time as we can find and lots of social media. Plus we always have a volunteer orientation meeting 10 days before the OOF and the volunteers become community ambassadors for the event and tell everyone about it!"

This National Organic Week, whether you're planning an ambitious festival or a smaller on-farm event, there are valuable tips to learn from the Salt Spring and Okanagan experiences.

Plan ahead. The more prep time you have, the greater your chances of a trouble-free event. And be sure to leave plenty of time for set-up and post-event cleanup.

Find Your Friends. Partnering with another farm, local organic retailer, or community organization will increase your event's visibility and your potential audience. Gather a volunteer team to help, and give each person a specific task. Effective delegation will save you stress.

Have fun. Sometimes in the midst of planning and preparations, event hosts can lose track of the reasons they decided to hold the event in the first place, so if you feel overwhelmed, take a moment to reflect on the National Organic Week goals: to help people learn about the benefits of organic agriculture, enjoy great food, and celebrate our growing, thriving organic sector. 🌱

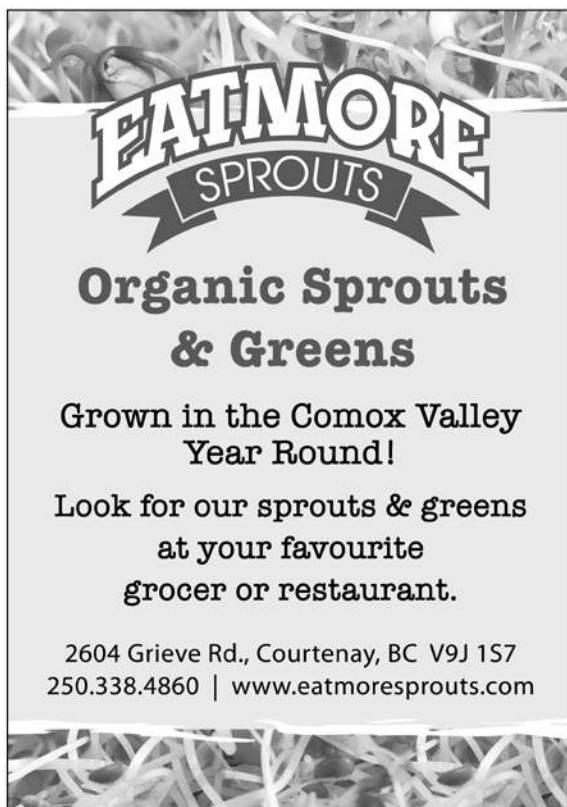
For More Information

**Salt Spring Apple Festival, Sunday,
Oct 4, 2015**

📍 www.saltspringapplefestival.org

**Organic Okanagan Festival, Sunday
September 27, 2015**

📍 www.okanagangreens.ca



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WILD & WOOLLY IN THE ROBSON VALLEY

At Robson Valley Sheep Farm



Credit: © Sian James (2015) www.sianjames.ca

GUARD DOGS HELP, BUT RAISING SHEEP DEMANDS CONSTANT VIGILANCE. HANI KEEPS A LOOKOUT.

By Marjorie Harris

Not far from McBride, BC, nestled in the beautiful Robson Valley bottom land that frames the Fraser River, is a wilderness paradise known as the Robson Valley Sheep Farm. Owned and operated by Theres and Hani Gasser, the certified organic farm is dedicated to raising high quality meat sheep, who share the land with a few dozen Angus beef cows, a few riding horses and some poultry for home use. Like most paradises, the Robson Valley Sheep Farm's idyllic appearance is the result of careful planning, good management, and lots of hard work.

THE SWISS FAMILY ROBSON

Hani and Theres, along with their three little children, came to BC from Switzerland in 1988. Hani was fresh

out of a four-year training program from a Swiss agricultural college, which included two years of hands-on apprenticeship and two years of classroom study. Hani had taken extra courses in organic farming, and was eager to put his knowledge to work in his new country.

After spending their first four years in Canada managing a biodynamic beef operation near Chase, BC, in 1992 the Gassers were ready to take the leap into farming for themselves. They bought land in Chase and for the next fourteen years they very successfully ran the well known certified organic Mountain Meadow Sheep Dairy, producing sheep milk cheeses and yogurt.

Then, in the fall of 2006, the Gassers took an even bigger leap: they moved north to McBride, onto 535 acres of beautifully forested wilderness in the Robson Valley. Situated on a big bend of the Fraser River, their new domain came complete with an oxbow lake, a full mile of river frontage and a large acreage of fertile wetland full of local and migrating birds, which the Gassers now maintain as a bird sanctuary.

What the property did not include was livable space for the Gassers. The farm hadn't been occupied for over a quarter of a century, and Hani and Theres' first project was to change the large equipment shop into a dual service timberframe home and shop. Using their own pine beetle killed timber, the couple spent several years doing all of the renovations themselves.

A HARDY HERD FOR A NORTHERN CLIMATE

The sheep on the Robson Valley farm are a variety of mixed breeds, resulting in a robust and healthy herd that can tolerate the cold winters and thrive in the wilderness environment. The Gassers brought their original dairy herd north with them, and since then have crossed the sheep with breeds that can lamb out at one year old, successfully mother the first time with a sin-



Credit: © Sian James (2015) www.sianjames.ca

gle lamb and then mature into an ewe that gives twins, while living on grass and hay alone. The Robson Valley sheep do not receive any grain. The size of the flock each year varies from about 100 to 300 mother sheep depending on the amount of hay produced by the start of winterfeeding. The sheep live outdoors all year round except during lambing, when the ewes are moved close to the house into the lambing barns where they can be checked every three hours.

Since sheep and parasites love each other, parasite prevention dictates the rotational grazing schedule for the Robson Valley flock. The Gassers are careful to ro-



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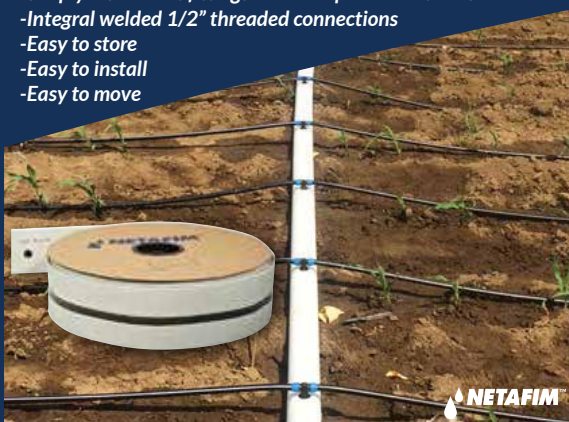
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Robson Valley Sheep Farm photos © Sian James (2015) www.sianjames.ca

tate their sheep out of a pasture ahead of the parasites' maturation cycle. This means moving the sheep every week, or at the very longest, before 14 days. Thanks to electric fencing, the paddocks are kept small enough so that the sheep can be moved easily.

This rotational grazing pattern mimics natural ruminant behaviour of grazing the valley bottoms in the spring and winter and moving up to fresh mountain pastures during summer and autumn. The Gassers also practice multi-species grazing, keeping cows and horses in the pasture along with the sheep. Combined with regular haying, the practices help to prevent the sheep from grazing in the same paddock more than once a year.

Inevitably though, occasionally a parasite appears. Whenever the Gassers detect evidence of parasites in one of the sheep, they are quick to administer their custom-order herbal de-wormer. The de-wormer, developed by the Gassers themselves with assistance from the staff at Urban Spice in Vancouver, contains

wormwood, fennel seed and gentian. The Gassers' have now started growing their own wormwood to ensure a ready supply of this key ingredient.

A MACHINE-FREE FARMING LIFESTYLE

Since neither Hani nor Theres enjoy doing mechanical repairs, they have reduced their reliance on farming equipment down to haying and fencing machines. When the pastures are in need of reseeding with red and white clover, timothy and orchard grasses, the Gassers simply hand broadcast the seed into a pasture just before the sheep flock is moved in, and rely on the sheep to trample the seed into the earth.

Alternatively, in the summer they add seeds to the cattle salts and let the cows do the work of spreading them -- with organic fertilizer included for free! While these methods are slower than working the soil with equipment, the Gassers find them simpler, much less expensive, and less work-intensive. Currently their biggest problem in pasture maintenance is the

encroaching advance of hawkweed and foxtail barley. Hani and Theres would love to hear from other farmers with suggestions for combating these weeds.

Because sheep require a diet much higher in protein than beef cattle do, growing, growing high-quality hay is crucial to sheep herd health, Hani explains. This is partly due to the fact that a cow weans a calf when it only about half the weight of its mother and a ewe weaning twin lambs has to raise nearly double her own weight.

That need for protein can make sheep fussy eaters, and very talented at nibbling off all the leaves and discarding the rough stems of the hay. And that can lead to a lot of wastage, so the Gassers have solved the problem with winterfeed by allowing only their sheep into a pasture to feed on a new hay bale first. When the sheep have finished picking over the bale, the following day the cows are brought in to clean up the leftovers. This method leaves very little waste and helps keep the Gassers' collies busy herding all winter long too.

DOGGY DEFENDERS

Because of intense predator pressures in this neck of the woods, very good livestock guard dogs are required to be on duty at all times. Two or three Akbash or Akbash-crossed dogs (preferably Comondor) live with the flock all year long. The dogs are with the flock 24/7 — except when a female is in a 'standing heat' and needs to be temporarily kenneled.

Thanks to the watchfulness of their guard dogs the Gassers lose very few animals. In fact, in the last nine years they report they have lost only 5 ewes — to an attack by a pack of wolves. The secret to their success? According to the Gassers, the critical trick to developing an excellent sheep guard is that between its 6th and 10th week of age, the puppy must bond with livestock. And they're careful not to make pets of the dogs. As Hani says, "A livestock guard dog has no business in your yard, in a kennel, or on your porch. And it should only be fed and receive affectionate petting when by the flock. We are the Alpha dog to our guard dog pack and they come when called."

Where the Akbash specialize in guarding the sheep flock, the Gassers use Border Collies and one New Zealand Huntaway to herd the sheep from pasture to pasture. Theres and Hani love to train and work with their guard and herding dogs and occasionally sell puppies.

If you would like more information on sheep farming, Hani and Theres are happy to share their ideas, opinions, and their years of experience and wisdom on shepherding. 🌿

You can get in touch with them through their website:

📄 www.sheephappens.ca

Marjorie Harris, P. Ag., IOIA V.O., lives in Armstrong, BC and works locally and internationally. She can be reached at marjorieharris@telus.net.

Special thanks to Sian James for the photos of Robson Valley Sheep Farm. You can see more of Sian's photos of local food and farms at:

📄 www.sianjames.ca/portfolio/agriculture



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Guts & Glory EARTH WORMS The Intestines of the Soil

By Marjorie Harris

Happy worms make for a fertile garden -- at least that's what gardening folklore tells us. This wisdom stretches all the way back to Ancient Greece and Egypt: in recognition of the fertility worms had brought to the Nile River Valley, the Egyptian Pharaoh Cleopatra declared that the lowly worm was sacred, and granted earthworms special protection.

Not to be outdone, the Ancient Greek philosopher Aristotle (384 – 322 B.C.C.) memorably described earthworms as 'the intestines of the soil.' Sometimes it does indeed seem like my little garden is full of insatiable earthworms. They eat all of the compost, manure, straw and fall leaves that I shovel in and reward me by churning and fluffing my garden soil, leaving topsoil and tunnels behind. Ever since the time of Cleopatra and Aristotle, this busy work by earthworms had been regarded as good biological activity, and their presence is seen as an indication that soil is healthy and fertile.

But do earthworms belong in Canadian soil? A surprising and little-known fact is that our vital gardening partner is actually not native to Canada.

Nurturing the Soil

5.4.1 The main objective of the soil fertility and crop nutrient management program shall be to establish and maintain a fertile soil using practices that maintain or increase soil humus levels, that promote an optimum balance and supply of nutrients, and that stimulate biological activity within the soil.

CAN/CGSB-32.310-2006 Organic Production Systems - General Principles and Management Standards

The Secret History of the Earthworm

About 12,000 years ago, during North America's last glacial period, the Laurentide Ice Sheet covered most of Canada and extended down into the United States. This permanent icy layer was responsible for the extinction of native earthworms in Canada. After the ice age ended, the forest floor habitat gradually accu-

mulated deep layers of calcium-rich duff, depending solely upon fungus, bacteria and insects to release and redistribute trapped nutrients.

Virtually all of the 60 or so species of earthworms found in our gardens today have been introduced to this continent since the first contact between North American peoples and European explorers, conquerors and settlers, beginning in 1492. Pilgrim ships commonly carried soil and rocks as ballast, which was dumped on shore on arrival. Settlers also imported soil products and plants. In either case, earthworms came along for the ride.

Even now very few worms are found in the boreal forests that span Canada. However, the story is quite different in the eastern hardwood forests. These ecosystems have been profoundly changed by the presence of earthworms and their prodigious work at clearing the forest litter layer. Because of earthworms' activities, grass cover has grown up in the forests, altering the natural forest habitat for the native plants, animals, birds and insects. This "earthworm effect" has generated some heated dialogue amongst scientists, who disagree about whether the changes have been positive, and about whether anything can or should be done about it. For our gardens though, the presence of the imported earthworm is still accepted as very good thing.

The Earthworm Diet: Transforming Minerals

Earthworms can munch through their own body weight in organic matter each day, and while they're eating they're also busy transforming the soil's unavailable minerals into highly available mineral nutrients for plants to absorb. Earthworms have three calciferous glands that take the calcium carbonate (lime) found in the soil and use it to neutralize soil minerals as they are ground up in the gizzard. The result? Worm castings that are rich in the absorbable nutrients crops require; nitrates, phosphates and potash (NPK), calcium, and magnesium.

As well, earthworms add plant growth stimulants, mucoproteins, urine and dead earthworm tissue to the soil. Studies have shown that worm castings help a beneficial soil microbe, Actinomycetes, to thrive. The numbers of these microbes present in worm castings can be up to six times higher than in undigested soil.

✧ Soil Fertility Tip

5 Tips to Keep Earthworms in Your Soil

Encourage earthworm activity in your soil with these simple suggestions.

1. Earthworms multiply in direct relationship to the amount of organic matter they are fed, so make sure you give them lots of compost, manure, straw and leaves to munch on.
2. Protect your worms from the hot, dry conditions of summer and the cold freezing temperatures of winter with plentiful mulching.
3. Keep your soil citrus-free. Citrus peels (orange, lemon or grapefruits) release chemicals that kill earthworms.
4. Balance the pH levels in your soil. Most worms do best when pH is near neutral, and keep in mind that acid-based fertilizers are often poisonous to earthworms.
5. Don't use chemicals! Pesticides and fungicides are especially toxic to worms.

Enjoy your earthworms! Under the right conditions they can live as long as 15 years.

Improving soil with macropores, micropores and immunity

Repeated tillage and cropping can compact soil, reducing the number of macropores and decreasing the soil's productivity. Earthworms churn up the soil, loosening it and gradually increasing the depth of topsoil. Some earthworm species can tunnel fifteen feet deep, leaving macropores that allow the movement of oxygen into the soil and improve water infiltration and drainage. The mucoproteins secreted by earthworms cause the soil particles to "stick together," forming aggregates that contain micropores. These in turn increase the soil's water-holding capacity, key to the survival of soil bacteria during dry periods.

Continued on page 19....

IT'S ALL ABOUT THE SOIL

Great soil resources are at your fingertips online in past issues of the BC Organic Grower!

By Marilee Peters

Over the past several years, the pages of the BC Organic Grower have featured a wealth of information about soil. In recognition of the International Year of Soil, here are excerpts from a few of our favourites. You can find them all online at certifiedorganic.bc.ca.

Peak Soil

By David Montgomery. Summer, 2009.

"Among soil scientists, concern over the world's fast depleting soil is almost universal. Unfortunately, saving dirt just is not a very sexy issue. However, time grows short and industrial agriculture is proving an expensive and increasingly risky dead end. We are left with a fundamental challenge: how do we merge traditional agricultural knowledge with modern understanding of soil ecology to promote and sustain intensive agriculture? Herein lies our real hope for feeding a hungry world."

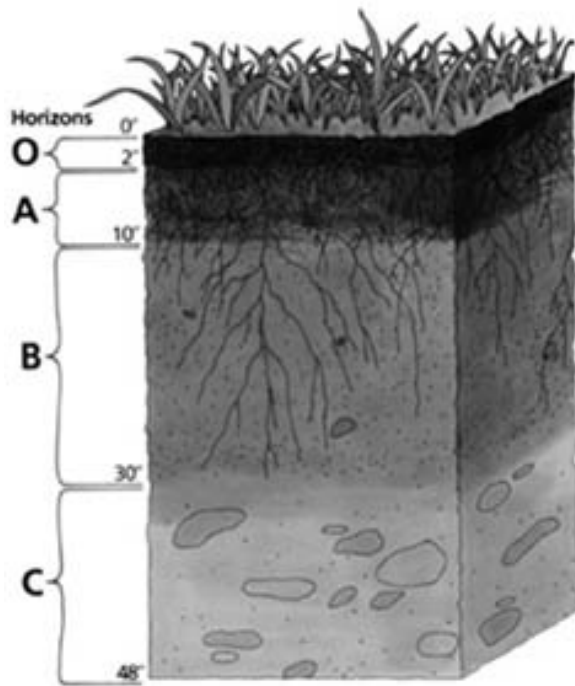
🔗 certifiedorganic.bc.ca/publications/bcog/issues/Vol12N3.pdf

Bringing Soil to Life: A Soil Management Plan with Room to Grow

By Rebecca Harbut, Spring 2014

"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)!"

🔗 certifiedorganic.bc.ca/publications/bcog/issues/Vol17N2.pdf



Managing Soil Structure for Profit

By Robert Dixon. Spring 2006

"Aggregate Stability is at the heart of good soil structure, but the lab test used to measure this is technical and requires lots of practice to get accurate readings. Here is a quick field test growers can do at their kitchen table that will tell them the same thing, at no cost."

Take a bowl and fill it with water, drop in a clump of soil from your reference soil plot and stir. If the soil clump does not break down, the water stays clear and bubbles come out of the clump then your soil has good wet aggregate stability and your soil has good soil structure. This one simple test will give you guidance about whether frequent tillage operations, especially with a rototiller, are hurting your soil structure. If this test shows weak aggregate stability then you should examine your tillage operations and see how things could be done differently (for example, allelopathic cover crops as an alternative to tillage for weed control)."

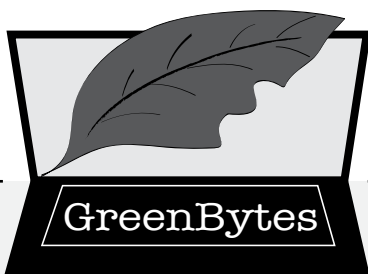
🔗 certifiedorganic.bc.ca/publications/bcog/issues/Vol9N1.pdf

🔗 Soil Health

By Julia Jamieson. Spring 2003

“What are the strengths and weaknesses with the current use of the standard soil test which is required for organic certification? What other approaches are farmers using to understand soil health? Do farmers in a region share key soil health management issues? Can soil health assessment and management be strengthened by farmers working together? What is the process for developing acceptable, reliable, and useful soil health assessment strategies that contribute to both short-term and long-term soil management and sustainability goals?”

🔗 certifiedorganic.bc.ca/publications/bcog/issues/Vol6N1.pdf 🌱



BC Passes Water Sustainability Act

Last May, the provincial government passed the Water Sustainability Act into law, replacing our century-old Water Act.

The new Act has been lauded as a promising piece of legislation, with potential to offer us a better understanding of how much water we've got above and below ground, how much is being taken by different users, and how much is needed for a healthy environment. In January 2016, the Act will be brought into full force, and government is currently developing regulations.

For more information:

🔗 freshwateralliance.ca

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ORGANIC LIVESTOCK PRACTICES

And Animal Welfare Standards



How Do Current Practices Measure Up?

João Costa with calves. Credit: João Costa

By João Costa

In the past few decades we have seen significant progress in farm animal welfare awareness among consumers in Canada and elsewhere around the world. Most recently, there has been a growing commitment for changes from food retailers, especially to end gestation crates for sows and battery cages for laying hens. Two of the biggest food retailers in North America, Loblaws and Walmart, recently announced animal welfare positions and guidelines for their suppliers.

Consumers have always associated organic livestock products with higher standards of animal welfare than conventional products and these remain in an excellent position to meet the increasing demand of modern consumers for “animal friendly” animal products. Many studies that have asked customers why they chose to buy organic products found that people ranked animal welfare as one of the strongest motives.

But do animals on organic farms really experience better welfare than conventionally-raised animals? Unfortunately, there is no clear “yes” or “no” answer.

Consumer Expectations and Organic Livestock Standards

Certainly the lack of explicit welfare standards in some of the organic guidelines might come as a surprise to consumers. For example, farrowing crates for sows are not specifically prohibited in the Canadian organic guidelines. In dairy, the use of individual housing of calves is allowed on organic farms until they reach 3 months of age. This is in contrast to nature and even beef farms, where the young calf spends its first 6-8 months in a highly social environment. Social isolation during infancy has been associated with numerous negative effects including abnormal behaviour and developmental problems in a range of species, including cattle. Group-housing of calves is now a reality in many organic standards around the world but while it is encouraged in the Canadian organic standards, it is still not required.



Credit: João Costa

Other Canadian organic guidelines are outdated, such as the disbudding or dehorning of dairy calves, which is done when they are young to reduce the risk of injury to farmers and to other animals. The organic guidelines require sedation and a local anesthetic to carry out the procedure, but dehorning injuries can be

painful for many hours after they occur, and long after the local anesthetic have worn off. Many animal welfare certifications and organic certifications in other countries require the use of post-procedure painkillers, which are inexpensive and very effective.

These and other examples may cause the consumer to question whether organic animals experience significantly better welfare compared to conventionally raised animals, especially given the development of other labeling systems that make more specific claims regarding high levels of animal welfare. In BC, animal welfare certification has been a reality since the early 2000s, when the BC SPCA introduced its animal welfare certification program. To become BC SPCA certi-

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fied, farmers must follow the guidelines and must submit to third party on farm audits to ensure that farmers are following the guidelines. These guidelines and practices are based where possible on the best available scientific evidence.

The Challenge Ahead

The challenge for the organic livestock sector will be to promote animal welfare within the organic standards. There is definitely motivation to do this. In Canada, a positive example is the Expert Committee on Organic Agriculture Animal Welfare Task Force (AWTF) that defines itself as “a group of individuals interested in the relationship between animal welfare and organic agriculture.” This group has worked at identifying and proposing changes to make organic standards stronger with respect to welfare issues and translating scientific information to become more accessible to organic farmers.

In the meantime, some farmers that are already certified organic may choose to pursue independent animal welfare certification, such as that provided by the

BCSPCA. A downside is that this will lead to a proliferation of labels, and reinforce the perception that organic standards do not currently reflect best practices in terms of animal welfare. This stands to weaken the brand, and it may be difficult to regain credibility on welfare when standards are eventually changed. Clearly the ideal approach is to work now to update and expand the organic production standards regarding animal welfare. 

João Costa is currently a PhD Candidate in Animal Science in the Animal Welfare Program at the University of British Columbia. He received his Agricultural Engineer and MSc degrees from the Federal University of Brazil in 2009 and 2012, respectively. He has worked on many projects with the organic production of milk, which increased his interest in researching new practices that aim to improve the life of farm animals within these systems.

Editor's note: In the soon to be released revised standards, the Technical Committee endorsed many of the Livestock Working Group's recommendations addressing a variety of animal welfare issues.



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Worm castings are odourless and sterile and yet somehow they increase the soil's immunity. The evidence for the soil's increased immunity can be seen in measurably greater biological pest control, fewer soil-borne diseases, and far fewer parasitic nematodes.

While North America's non-native earthworms have been mostly positive contributors to the chemical, physical and microbiological health of our garden soil, worms have some unusual habits that even their most fervent admirers should be aware of. For instance, they collect weed seeds.


Earthworms are among nature's most effective weed farmers: they line their burrows with seeds that are too large to ingest, often planting them deep underground. Researchers have identified the earthworm's favourite weed seeds, which include giant ragweed, bur cucumber (*Sicyos angulatus*) and sunflower (*Helianthus annuus*). Scientists estimate that up to two-thirds of the giant ragweed plants emerge from worm burrows. 

Marjorie Harris, P. Ag., IOIA V.O., lives in Armstrong, BC and works locally and internationally. She can be reached at marjorieharris@telus.net.


★ Further Earthworm Reading

Learn more about the history of worms, as well as their care and feeding with these selected resources:


Rod Saylor, "**Are Worms Natural?: The Global Worming Debate.**" in *Nature@WSU*. January 29, 2012.

 <http://wsu-nature.org/2012/01/29/are-worms-natural-the-global-worming-debate/>

Did You Know...Earthworms. Louisiana Department of Environmental Quality.

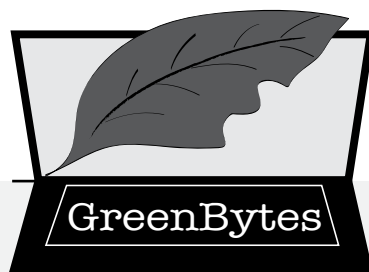
 <http://deq.louisiana.gov/portal/Portals/0/assistance/educate/DYK-earthworms.pdf>

Food and Agriculture Organization of the United Nations. **On Farm Composting Methods...Vermicomposting**

 www.fao.org/docrep/007/y5104e/y5104e08.htm

COG Organic Field Crop Handbook.

 http://eap.mcgill.ca/MagRack/COG/COGHandbook/COGHandbook_1_3.htm



Seeding Your Knowledge

The Bauta Family Initiative on Canadian Seed Security is hosting a 2015-2016 webinar series called "Seed Systems: Broadening our Knowledge." The webinars will explore a wide variety of topics near and dear to seed-savers hearts, including:

- Pest and disease solutions for your seed crops
- Exploring approaches and models for seed banks and libraries
- On-farm research and trialing
- Your seed questions! Send your feedback and burning questions to design this special webinar, that will answer your most important seed related questions.


Past webinars are available for viewing, and include:

Exploring Participatory Research: Part 1, Participatory Plant Breeding

Information, insights, and stories from the field about participatory plant breeding, and why it is important to Canadian agriculture.

Exploring Participatory Research: Part 2, Trialing & Record Keeping

On-farm trialing is an effective way of comparing varieties to find out which may be a good fit for your operation. Beware: record keeping is a must if you're trialing varieties! Helen Jensen and Rupert Adams explore the "why" and "how" of effective on-farm trialing.

 seedsecurity.ca/en/117-webinar-series

PREPARE ORGANIC FOOD

A New Online Toolkit Helps Processors Go Organic

by Rochelle Eisen and Marilee Peters

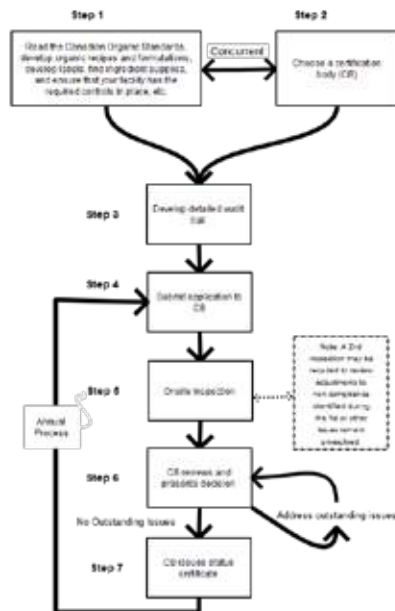
Every week Canadians continue to add more organic products to their grocery baskets. Along with the organic produce, meats and dairy, there is a growing demand for prepared products, particularly for young families and busy individuals for whom convenience is a priority. Consumer surveys indicate Canadians intend to keep buying organic produce and prepared products, and to increase their purchases of organic meat, poultry and dairy products. There are also growth opportunities for products catering to the ethnic market—67% of those who identify as non-Caucasian ethnicity purchase organic groceries weekly, a higher proportion than Caucasian Canadians.

To help BC's food processors and preparation operators meet the burgeoning demand for prepared organic foods, the COABC launched the third in its popular online toolkit series: "Prepare Organic Food" in June 2015. The toolkit builds on COABC's successful 'grow organic food' and 'market organic food' toolkits introduced in 2014.

Like its predecessors, the 'prepare organic food' toolkit is designed to be an accessible, easy-to-use resource. It brings key information sources together, so that processors and other operators involved in food handling and preparation now have quick access to up-to-date information, and answers to common questions about the certification process, standards interpretations, import requirements, food handling procedures, and more. It is a tool that will be useful not only to processors, but also to certification bodies and the COABC, helping them to handle enquiries from farmers, processors, and retailers about prepared certified organic foods.

Check out the prepare organic foods toolkit for information on

- What are organic prepared products?
- What is the demand for organic prepared products?
- Acceptable product claims
- The certification path for preparation operators
- Supply chain challenges
- Post harvesting handling procedures
- Import requirements



- What is the difference between a Certificate, an Attestation of compliance and an affidavit?
- Tools to help with certification documentation 🌱

You can find all three organic toolkits online at:

 certifiedorganic.bc.ca

The Organic Toolkits 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.

Rochelle Eisen is a standards junkie, working in organics for over 20 years as well as other certification systems. Like Einstein she believes "What is right is not always popular and what is popular is not always right" and assurance programs are a means to level ecological playing fields. Rochelle works with Dr. Brenda Frick and Gunta Vitins under the banner of Resilient Solutions Consulting.

Supply Chain Challenges

Excerpted with permission from the prepare organic foods toolkit

The demand for organic products has increased substantially over the last decade and market research confirms that consumer demand will continue its steady climb. However, expansion of organic agricultural production in Canada and elsewhere is not keeping pace with demand. This lack, along with navigating the ever-changing phytosanitary and import requirements for regulated fresh produce can create serious supply challenges as more processors look to source more organic ingredients.

The shortage of certified organic ingredients is most acute for those sourcing products where imports are limited, including dairy products, eggs and meat. Shortages of grain and other proteins can happen as well. Factors such as pricing, acres planted, herd size, weather, yields and global conditions can all affect supply. However, there are strategies some organic processors are successfully using to secure a dependable supply of organic ingredients, meet growing consumer demand, and protect product quality. There are also many opportunities to re-build historical food processing capacity to supply the market with local, organic foods.

Key strategies for building a dependable organic supply chain:

- **Strong relationships:** Good relationships with suppliers are key to success in any business, but even more important when you are sourcing organic ingredients. Building strong relationship with your suppliers will help ensure they will give you advance notice of any potential for supply shortages and put extra effort into finding supply for you if challenges arise.
- **Match your scale:** Small-scale processors may not be able to access organic commodities from large brokers who prefer selling to larger scale manufacturers. Conversely small-scale organic growers may have supply that large brokers are not accessing. Connecting

with organic growers that match your scale helps to ensure access to organic ingredients and build a more traceable, transparent supply chain.

- **Time it right:** Shortages of grains and proteins follow annual cycles. Typically they become scarce in the two months prior to harvest. Processors can time their buying and production cycles to avoid shortage periods as much as possible. If you need animal protein, it is very important to plan well in advance and build a good relationship. Often more than one supplier is needed because of quota limits and production capacity constraints.
- **Plan for the best, but be prepared for the worst:** Having a primary supplier for your main organic ingredients is a good plan, but having a relationship with secondary and back-up suppliers, whose certifications you have already reviewed and products you have already tested for quality, will give you more options for accessing supply on short notice.
- **Consider flexibility of inputs during product development:** Building a more resilient supply chain can start in the product development phase. Testing how variations of ingredients perform in your manufacturing process can give you greater flexibility by allowing a greater range of inputs to be sourced.
- **Start small:** If you are concerned that you will not be able to source all of your inputs as organic you can still begin the path towards a fully organic certified product and communicate this to your customers.

Invest in the future of organic: With market demand for organic products growing steadily, the key is to grow supply. Talk with your suppliers about their challenges. Consider how your company may be able to work in direct partnerships with organic farmers, support the purchase of organic land and livestock, or assist with transition costs. The end result is a benefit to all: a more secure supply of organic ingredients and an expanding organic sector.

BEEFING UP

ORGANIC MEAT PRODUCTION

By Dr. John Church

Research from Thompson Rivers University demonstrates that beef from organic feeding systems in western Canada is superior to both “natural” and conventional beef.

In western Canada, the majority of beef products available in most retail grocery stores is produced using conventional finishing practices in big beef feedlots. In these feedlots, often more than 70% of the cattle’s diet comes from one source: barley grain. The cattle are fed this extreme grain-based diet because it is an efficient way to put on a lot of intermuscular fat (marbling) in the carcass, even though it often takes a lot of ionophores and other antibiotics for cattle to be able to tolerate the high levels of grain.

These grain-based diets also negatively affect the health of the final beef product because they decrease the proportion of healthy polyunsaturated fatty acids, especially the omega-3 fatty acids, and negatively affect the ratio of omega-6 to omega-3 fatty acids in the beef. It also negatively affects another healthy fat, conjugated linoleic acid or CLA, which may ultimately increase the risk of hardening of the arteries in people who regularly consume grain-finished feedlot beef.

Many progressive producers across Canada have been responding to consumers’ increasing awareness of the relationship between diet and health by producing niche market beef products. This beef is produced using alternative finishing practices that can potentially improve the healthfulness of beef. The increased presence in grocery stores of beef produced under organic grain- or grass-fed systems appeals to a growing number of consumers who are interested in healthier beef alternatives.

In Canada, certified organic labelling requires organic beef producers to follow strict guidelines governing animal production, including the use of certified or-



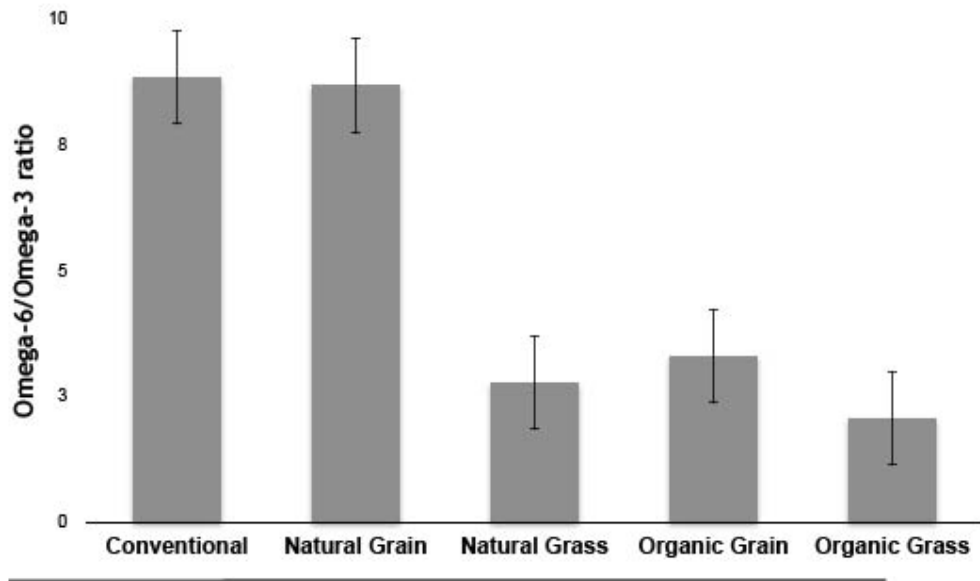
Credit: John Church

ganic feeds (Canadian Food Inspection Agency 2011). The main challenge for many organic beef producers is in maintaining a consistent supply of certified organic feed ingredients. The reduced availability and higher cost of organic feed contributes to the premium price required for certified organic beef products.

As a result, a new niche market alternative in Canada has emerged. Using the label of “natural,” some producers are following many of the organic grain- and grass-fed certification guidelines for beef production (such as restricted use of hormones and antibiotics), but without the requirement to use certified organic feed ingredients during beef production. One question this raises is: does this make a difference to the healthfulness of the final beef product?

To find out, my research team at Thompson Rivers University set out to compare and evaluate the fatty acid profile of retail beef from niche market organic and natural grain- and grass-fed production systems

Omega 6/Omega 3 Fatty Acid Ratios in Western Canadian Conventional, Natural and Organic Beef available at Retail Grocery Stores



in western Canada. We compared this to the conventionally produced beef readily available in most large retail supermarkets from large national beef suppliers such as Cargil and JBS.

We purchased beef ribeye steaks from 16 different retail grocery stores in western Canada that provided niche consumer choices based on alternative production systems (i.e., certified organic and “natural” beef). These products were sold under various brand labels at the retail outlets. The alternative niche market beef categories that we tested included Canadian certified organic grain-fed beef, where up to 40% grain can be fed on a dry matter basis. We compared this product to “natural” grain-fed beef, where conventionally produced grain could be used in the diet. In addition, we also looked at strictly forage-fed organic grass and “natural” grass-based beef production systems.

All of the certified organic beef production systems had to adhere to national regulations requiring the use of certified organic feed, whereas no feed guidelines are set for “natural” beef production systems, and it can be assumed that due to costs they were using conventionally produced feed in the majority of cases. “Natural” and organic beef products both guarantee consumers that no growth promotants or antibiotics are used during beef production. Steaks from each brand label were purchased over a period of several months to adequately represent the supply that is readily available to consumers. We of course compared both of these niche market products to conventional

beef, such as Cargil’s “Sterling Silver” grain-finished brand.

The results really surprised us.

As expected, the proportion of healthy omega 3 fatty acids was greatest for both organic and natural grass fed beef. But the levels of omega 3 fatty acids observed in organic grain-finished beef was also very good, which we did not expect! Cumulatively, the greater total omega-3 proportions in organic grain-finished beef resulted in a dietary omega-6/omega-3 ratio below 3 to 1, a level that has been advocated for many years by a majority of health professionals to promote the optimal balance of inflammatory/anti-inflammatory responses in humans.

In fact, we determined that consuming either organic grain-finished beef or grass-fed beef could supply an extra 30 to 40 mg per serving of more healthy omega-3 fatty acids than either conventional or “natural” grain finished beef. Positive health effects from the regular consumption of grass finished versus conventional beef has recently been demonstrated to increase plasma omega 3 levels in healthy consumers in Britain. Consuming organic grain and organic grass-finished beef would elicit a similar response in Canadian consumers, given the omega 3 proportions and the healthy omega-6/omega-3 ratios observed, suggesting many potential human health benefits for Canadian consumers who choose to consume alternative beef compared to conventional or “natural” grain finished beef.

Continued on page 29...

MANAGING FARMER STRESS

Practical Tips to Recognize Early Warning Signs of Stress



Wireworm stress with Russell Heitzmann of Umbella Farm Credit: Moss Dance

Ah, the idyllic country life. The early mornings. The late nights. The chore list that just keeps growing. The crops that won't grow at all. None of us is immune to stress — but some manage it better than others. What's the secret? Self-care.

By Chris Bodnar

Last June I was driving down the highway, headed to market at about 7 a.m. Suddenly I realized that an RCMP vehicle was following me with its lights flashing, signalling for me to pull over. I had no idea why this was happening.

It turned out that the insurance on my trailer had expired – more than a year earlier. I had received the renewal notice, made a decision to place it in my glove compartment, and promptly forgot about it. This was during a time of immense stress on the farm – in fact I

was under so much stress that even now I can't recall how or why I made the decision to stuff the renewal notice in the glove box.

In the end, I drove away with a \$600 ticket and I had to find an insurance office that was open on a Saturday morning if I wanted to get my product to market. And I was lucky. Had I been in a collision with an uninsured trailer I could have faced criminal charges.

What this incident made clear to me was that I needed

to find ways to better manage my stress amidst the hectic pace of the season. I had overlooked my insurance renewal during a period when farming had gone sideways – a time of unusual stress that I wasn't prepared to face. If that should happen again, I wanted to be better equipped to deal with it.

Identifying Stress

We all face stress on a daily basis. Usually this stress is motivating. It helps drive us to do our best and to juggle the many tasks inherent in running a farm business. It is, for the most part, healthy.

At times we face another type of stress. This stress is overwhelming and all consuming. It can impact our ability to eat, to sleep, and to deal with basic tasks on a daily basis. Left unaddressed, it manifests as anxiety, panic attacks, or depression. When this type of stress arises, we can find ourselves struggling to cope.

We can only live with bad stress for so long before something breaks. We might get sick. We might burn out. Sometimes, bad stress contributes to farm accidents, the development of serious mental health issues, or worse.

It's important to be able to identify what kind of stress you're carrying at any given time. Take a moment to



Resilience & the unexpected: a freak June windstorm blows your row cover into the trees...

Credit: Chris Bodnar

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consider how you're feeling: Are you motivated or discouraged? Do you want to get to work, or are you looking for excuses to procrastinate? Is your body energized and ready to go, or are you already exhausted before you even start work? When you take a break are you able to relax, or are you completely stiff and tense?

By paying attention to a variety of indicators when you're feeling extra stress you can start to recognize potential problems and take proactive steps to managing difficult periods. When you notice the symptoms of stress, ask yourself: what were you doing before the stress arrived? Can you identify triggers that signalled the arrival of the stress?

Five Tips for Taking Care of Yourself

Imagine a job where taking care of yourself took a back seat for about 8 months of the year. It doesn't sound like a good idea, or a recipe for a happy life, but it's exactly what too many farmers do every spring, summer and fall. During the season, stressed and overworked farmers may sacrifice everything from healthy eating habits, to adequate sleep, to exercise, or personal health . . . right down to basic hygiene (yes, I'm talking to you, stinky farmer).

Farmers often set up imperatives in their minds: "I just can't socialize during the season." "They simply don't know what farming is like. I can't sleep more than five hours." "I'll spend time with my family after the season."

We all know that there are times when we have to put some tasks on hold in order to get through a busy period. When putting things off becomes the norm, however, it means we aren't taking care of ourselves. Simply put: you have to take care of yourself for more than four months of the year.

With that in mind, here are five tools that I've used to help see me through times of bad stress, and to prevent stress from overtaking my life again. There's no mystery to any of them, but during busy times we can all use a reminder to slow down and be mindful of the need to care for ourselves.

1. Get adequate sleep

Let's be honest about sleep for a moment. Too many farmers put sleep aside throughout the season, saying they'll catch up in the off-season. But here's the thing about sleep: You need it now and you need it regularly.

A lack of sleep impairs your mental functions and reduces your ability to cope. At best, this makes you a grumpy farmer that people won't want to be around. At worst, it makes you a danger to yourself and to others. Too many sleep-deprived farmers hit the road to get to a farmers market or to do deliveries when they aren't in a functional state of mind.

2. Find Alternatives to Self-Medicating

It's worth saying out loud: stress leads many people to self-medicate. The reality is that caffeine and alcohol are not good allies for stressful times. One coffee in the morning might be a pleasant start to the day. Obsessive amounts can fuel anxiety, the jitters and poor sleep.

Likewise, a beer at the end of the week might be a nice way to celebrate; multiple drinks every night should be a sign that something's out of balance.

Instead of reaching for a drink, find small things you can do that help to reduce your stress. Go for a walk, take a few minutes to wash your hands, focus on your breathing or do some stretches. Find out what helps calm you down and use these positive actions rather than resorting to habits that can make things worse.

3. Maintain perspective

Being told to maintain perspective seemed cliché to me, but it ended up being a great tool for me to manage tasks when the season got busy.

What does maintaining perspective look like? Here are a few things to do:

Do you have a business plan? When things get busy, take it out and read it – at least the overview. Remind yourself what your goals are and the reasons you farm. Write three clear goals from your plan and post them in a place you're going to see them: in your truck, in the barn or next to the mirror in your bathroom. Use these goals to maintain perspective on what you are accomplishing and why you are farming.

Keep track of things that work – and things that don't. When things go wrong, take a moment to record what happened and how things could go better. Do this when the memory of the event is still fresh. Decide what you can change now and what you want to work on for the next season. Put your notes about changes for the next season in a folder labeled "November" to make sure you have a reference point when you sit down to plan the next season. Likewise, take a mo-

Farmer Stress Needs Farmer Solutions

A 2005 national survey of Canadian Farmers from the Canadian Agricultural Safety Association found that although half of farmers described themselves as “somewhat stressed” and one in five admitted to being “very stressed,” only a small proportion had sought help for managing their stress levels. Why not? Nearly half of the farmers surveyed pointed to pride and farmer independence as factors that deterred them from seeking help.

When farmers seek help, they want to get it from someone who understands the unique challenges they face. 92% of farmers agreed it was important that anyone delivering stress counselling or mental health services to farmers must be knowledgeable about agriculture.

ment to write out things – processes, tools, ideas – that are working. Don’t lose sight of the things that are going well. Build off of these successes.

Get a reminder. My best reality checks come from friends and family who aren’t farming. They are great resources to check in with – they often remind me of the things I’ve said in the past . . . things I’ve forgotten about my objectives and outlooks.

Be positive. During one conversation with my sister, after I responded to her question “How did your season go?” she remarked, “You just listed off a bunch of problems. Did things really go that poorly? Can you tell me something that went well?” I realized that sometimes we all need to look up and put things in perspective. Negative thinking can be our worst enemy. Being positive isn’t always easy. If you can’t figure this one out, find someone to help you – whether a friend, partner or counsellor.

Use your off-season wisely. Don’t leave planning until you’re starting up the new season. Use your downtime to review records, make decisions and put processes into place. Having systems and processes in place (for example, a crop plan) before the season gets going will help you avoid stress and save you from trying to do more than you can handle. You wouldn’t try drawing a

Got Stress? There’s an app for that!

Earlier this year the Manitoba Farm and Rural Support Services program released a stress-management app for farmers called The Calm in the Storm. Available as a website and as a free app on the Apple i-Tunes store, the app helps users to rate their stress levels, includes tips on managing stress, guided meditation and breathing exercises as well as resources on where to look for help.

 calminthestormapp.com

map while driving to your destination; likewise, don’t leave your planning until you’re the midst of trying to get your work done.


4. Ask for help

This is the biggest stress-management tool, and the one that too many farmers ignore. Asking for help can go a long way to working out problems. This might mean discussing how things are going with a friend or colleague. It might mean asking employees to give an extra hand to get a large task done. It could mean seeking out a professional counsellor that can help you maintain perspective during the season. The best advice I have received while farming – and it has never let me down – was to ask for help when you need it. It’s not always easy, but you won’t regret it.

5. Don’t forget to have fun

It’s remarkably easy to forget to have fun when things get busy or stressful. Plan fun events in advance. Put gatherings with friends on the calendar before the season gets busy. Don’t use farming as a way of avoiding summer activities – the time when everyone else has the opportunity to enjoy some fun. You can afford to make time to attend weddings, birthdays, even long weekend bar-b-ques.

In our house, Friday nights are pizza and movie nights. This is a ritual our kids look forward to and it helps us to regroup at the end of the week, before the weekend farmers markets and CSA packing.

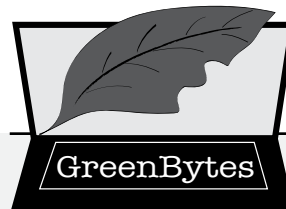
There will always be difficult times while farming. There's no rulebook about how you must respond to each given situation. But just as you stock your tool shed with a variety of tools for your farm work, make sure you have a variety of resources and supports to handle the eventualities that arise while farming. (And, above all else, don't forget to ask for help!) 

Chris Bodnar owns and operates Close to Home Organics at Glen Valley Organic Farm in Abbotsford with his wife, Paige. Now into their ninth season of farming, Chris and his family have learned some of the challenges and opportunities of farming on a small scale in the organic sector. They operate a 135-member Community Shared Agriculture program and sell at two weekly farmers markets during the farming season.

Further Resources

The government of Saskatchewan operates a Farm Stress Line, available 24-7 at 1-800-667-4442. Find more information online at:

 agriculture.gov.sk.ca/FarmStressLine



Summer Reading Suggestion

Resilient Agriculture: Cultivating Food Systems for a Changing Climate

By Laura Lengnick

As BC heads into a hot, dry summer this book from American researcher, food activist, farmer Laura Lengnick is more relevant than ever.

Resilient Agriculture recognizes the critical role that sustainable agriculture will play in the coming decades and beyond. The latest science on climate risk, resilience and climate change adaptation is blended with the personal experience of farmers and ranchers to explore:

- The "strange changes" in weather recorded over the last decade
- The associated shifts in crop and livestock behavior
- The actions producers have taken to maintain productivity in a changing climate.



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We also observed a greater proportion of healthy conjugated linoleic acid or CLAs in the beef that fed on more forages during beef production. The organic grain-finished beef also had higher beneficial CLA levels, likely because even though it is labelled “organic grain-finished”, the producers are using a higher proportion of forages (either grass, hay or silage) than what is typical in most conventionally produced beef.

Overall, meat from organic-grass and natural-grass production systems was leaner, with greater proportions of desirable omega-3 polyunsaturated fatty acids, a lower (desirable) omega-6/omega-3 ratio, and greater proportions of potentially beneficial CLAs. This was not a surprise: many other researchers at other universities have observed these effects between grass finished and grain finished beef. What was different about our research is that we determined that organic grain finished beef was largely comparable with grass-fed beef in terms of total fat content as well as in proportions of desirable fatty acids, potentially presenting a preferable compromise between pure grass-fed and grain-fed production systems to retain a preferable fatty acid profile.

Organic producers can potentially improve the efficiency of their operation through the use of moderate levels of grain to finish the beef animals (which can be challenging to do on conserved forage), while still producing beef with a similar eating quality that consumers have come to expect. In contrast, our research determined no health advantages between natural grain-finished beef compared to conventionally produced beef. They were virtually indistinguishable in total fat content, and both showed higher omega-6/omega-3 ratios (unhealthy) and lower proportions of fatty acids with potential bioactivity (CLA).

What these progressive organic beef producers have taught us is that the overall healthfulness of Canadian grain-fed beef could benefit from the adoption of more moderate dietary forage-to-grain rations similar to those used in organic grain-finished beef production systems.

Bottom Line: Grass finished beef is generally the healthiest, but beef consumers that are concerned about health could turn to organic grain finished beef, especially if grass finished beef is unavailable. It is unquestionably a much healthier choice than conventional grain finished beef. 

Dr. John Church is currently an Associate Professor in Natural Resource Science at Thompson Rivers University as well as the BC Regional Innovation Chair in Cattle Industry Sustainability. John started Canadian Rocky Mountain Ranch in 1997, a large bison, elk and cattle operation east of the Rockies just southwest of Calgary, owned by Canadian Rocky Mountain Resorts. Dr. Church earned his Ph.D. in Agriculture, Food and Nutritional Science from the University of Alberta, studying the effects of production practices on the behavior and management of bison, elk and cattle on farms. He now leads a multidisciplinary research team dedicated to the exploration of innovative practices and technologies leading to the sustainability and enhancement of the cattle industry, rangelands, and meat production and related products.

Funding for this project was provided by the Canada-BC Ranching Task Force Initiative. We acknowledge the Thompson Rivers University Faculty of Science and Agriculture and Agri-Food Canada's Lacombe Research Centre for use of their facilities and instrumentation. The full study on which this article has been based (Comparison of fatty acids in beef tissues from conventional, organic and natural feeding systems in western Canada) was recently published in the Canadian Journal of Animal Science (2015) 95: 49-58 doi:10.4141/CJAS-2014-112

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News & Announcements

National Organic Week September 19-27

The largest annual celebration of organic food, farming and products across the country! Hundreds of individual events showcase the benefits of organic agriculture and its positive impact on the environment. Get involved in organic week this year! Check out the Organic Week website, www.organic-week.ca, for an event near you - or plan an event in your community. Look for other events planned near you at

📱 www.organicweek.ca/find-an-event

Farm Folk City Folk's Feast of Fields

Feast of Fields celebrations are your chance to experience the harvest, gourmet-style. Held in Metro Vancouver, the Okanagan and Vancouver Island, at these 4-hour wandering harvest festivals you'll taste the best from BC's farmers, fishers, ranchers, chefs, brewers, vintners, and distillers. Find more info online at

📱 www.feastoffields.com.

Advanced Inspector Training

Co-sponsored by the International Organic Inspector Association in conjunction with the Guelph Organic Conference will be held on Friday, Janu-

ary 29. In anticipation of the forthcoming revision of the Canadian Organic Standards, the training will focus on standards updates and equivalency issues. For more details and to register:

📱 www.ioia.net

Save the Date! COABC 2016 Conference

The COABC 2016 Conference is coming up, on February 26-28. Locations, presenters, workshops and registration information will be announced later this fall. Stay tuned!

Young Agrarians

The Young Agrarians are hosting events across BC all summer long. Find an event near you and share your experiences with other young farmers.

📱 www.youngagrarians.org/events

Why Organic?

The Canadian Organic Growers want to know why you choose organic products. Share your story with them through their online survey and they'll share the resulting knowledge with farmers, processors, retailers and consumers. Find it at:

📱 www.cog.ca

Are you a Seed Saver?

If you are, be part of the "I am a Seed Saver" campaign for BC. This simple campaign will be highlighting BC seed producers in words and images using social media throughout 2015. Share the amazing diversity of seed production talent in BC. Share your thoughts and pictures on instagram and twitter. More info at

📱 www.bcseeds.org

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For more information, contact Moss:

bcogadvertising@certifiedorganic.bc.ca



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202-3002 32nd Avenue, Vernon, BC V1T 2L7; p: 250.260.4429; f: 250.260.4436; office@certifiedorganic.bc.ca

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- ☐ Option 3: Certificate of Exemption
Farmer exemption: 0458FILL.pdf
Other enterprises exemption: 0490FILL.pdf
or request the appropriate exemption form from the office.

Item	Units	Unit Price	Quantity Discount	Quantity	Total
Stickers 1" round	1000 pc roll	\$13.50	10 rolls \$120.00		
Stickers 1 1/4" square	1000 pc roll	\$10.50	10 rolls \$90.00		
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).

Have you signed a Consent to use Official Marks Declaration Form (July 2006 revision)? Y/N Are you Certified? Y/N

With which products will you be using the packaging materials? _____

Promo Materials: available to everyone	Member \$	Non-member \$	Tax		
Bucket Hats size M or L *	\$15.75	\$15.75	PST taxable		
Ball Caps	\$13.10	\$13.10	PST taxable		
Green T-shirts L or XL *	\$18.00	\$18.00	PST taxable		
Natural T-shirts (Logo) M *	\$7.25	\$7.25	PST taxable		
Natural T-shirts (Plain) S, XL or XXL	\$5.00	\$5.00	PST taxable		
NEW!! COABC T-shirts Designed by Brian MacIsaac Men's size S-XXL & Ladies sizes S-L	\$17.85	\$17.85	PST taxable		
Organic Tree Fruit Management	\$19.95	\$25.95	No PST		
Western Canada Organic Directory	\$6.00	\$6.00	No PST		
Sub-total (before taxes and shipping):					

*Limited quantities available - please contact the COABC office for availability

GST # 887782431

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An invoice will be sent with your order. Postage and applicable taxes will be added to your invoice.

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