

# Connections

Volume 32 Number 1 Fall 2011



## *Food*

The journal of the Global,  
Environmental & Outdoor  
Education Council



To promote involvement in  
quality environmental and  
outdoor education

# What GEOEC Does

The Global, Environmental and Outdoor Education Council (GEOEC) is an interdisciplinary specialist council of the Alberta Teachers' Association. Our mission is to provide resources and venues for dialogue and networking, as well as to promote quality professional development for Alberta teachers in the area of global, environmental and outdoor education. Members receive current news items, teaching ideas, information about our workshop series, and food for thought through our quarterly journal *Connections*. We are also active on Facebook ([www.facebook.com/geoecalberta](http://www.facebook.com/geoecalberta)) and Twitter (@GEOEC), with up-to-date information on PD opportunities and initiatives in Alberta.

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# Message from the Editor

The theme of this issue of *Connections* is food, particularly as it relates to the local organic movement.

On January 20, I saw John Robbins speak via satellite at the University of Alberta, as part of the Environmental Research and Studies Centre's Food Futures lecture series. Robbins was first famous for inheriting the ice cream mega-giant Baskin-Robbins, but he is now known for his authorship on sustainable eating and animal welfare, which he discusses in his book *Diet for a New America: How Your Food Choices Affect Your Health, Happiness, and the Future of Life on Earth* (2nd ed, Kramer, 1998). His talk was titled "The Intensive Livestock Industry: The Agony and the Ecstasy of Our Times."



Some of the more interesting elements of his talk were his gentle reminders about the inefficiency of meat eating: the same farming space can produce either one pound of beef or sixteen pounds of grains. Because of fast food and meat-based diets, Robbins noted, the US is the fattest country in the world (with Canada not far behind). Morbid obesity has been introduced as a new weight category, and our heaviness has enormous cardiovascular and planetary health costs.

Robbins stated that our food choices are due to habit, convenience and cultural conditioning, and he challenged us to instead think about what gives us joy and subscribe to a diet that can begin to heal our world. He espoused eating as an act of rebellion: a way to enact compassion and to be accountable. He also talked about alternative diets that are local, more vegetarian, and not dependent on industrial farming.

Sean Ryan's article "The Politics of Organic Food: How to Have Your Organic Cake and Eat It Too" (in this issue) offers a counterpoint to Robbins, as he discusses the inescapable complexities of the local food industry.

After listening to Robbins, I did some research and, wanting to do my yearly cleanse, came across the Engine 2 Diet, a plant-based diet that includes breads and grains, with a focus on reducing salt, sugar and fat intake. I have done many cleanses in the past, and this was one of the easier ones, far surpassing the Master Cleanse (which has you drinking water with lemon, cayenne pepper and maple syrup) and the Wild Rose Cleanse. This vegan diet came complete with recipes and a how-to manual. Although it was at times difficult, I ate delicious food and felt great. I felt less bloated and lighter.

If you don't believe that eating can be a political act, try this diet. People can react rather strongly when you tell them on a restaurant outing that you won't be eating, or that you'll be eating differently. "You're on a cleanse? But you should be happy with your body. You don't need to lose weight!" Or "You're on a cleanse? Why? Are you dirty?" A busy lifestyle doesn't always allow for the time needed to prepare an Engine 2-compatible lunch, and there are few vegan, whole grain options available for takeout (most takeout food is meat-based and has ingredient lists as long as my arm). This means that a conscious effort must be put in place at home. So, if eating like this makes me slow down and be at home, eliminates weird chemicals and preservatives from my body, and gets my friends talking about food and where it comes from, I would say that conscious eating is indeed a political act.

With that said, in this issue we have a submission from Brent Andressen about using the EarthBox in the classroom to grow herbs and vegetables. Also, Jaryd Murray explains how incorporating school-grown produce into a school culinary program can be something the whole school gets involved in, and Karen Virag cautions us to carefully read food labels.

Enjoy!

Lara Fenton

# Schedule for Submissions

*Connections* seeks articles on the following topic.

**Theme: Water**

**Deadline for submissions: November 15, 2011**

The topic for our next issue is water. We encourage submissions on topical aspects of water concerned with sustainability (such as water treatment, water cycles or water shortages), as well as submissions that challenge or problematize these concepts from a social justice perspective (for example, unequal access to clean water). We are particularly interested in articles that use classroom curriculum and school-based projects to illustrate these themes and that focus on student participation.

## How to Make a Submission

Sending submissions to the editor by e-mail is ideal, but you may also submit articles, artwork and photographs by regular mail (on disc or hard copy). Please include a short biography and your mailing address. Parental permission is required in order to print student work or photographs of children (see the form at the end of this issue). Send submissions to Lara Fenton, 58, 5615 105 Street, Edmonton, AB T6G 2N2 or [lfenton@ualberta.ca](mailto:lfenton@ualberta.ca).

# GEOEC Business and News

## President's Message

As I write this, the grass is turning green and the trees are budding, and I am preparing to finish my two-year term as president of GEOEC. I have learned a great deal and worked with some fantastic people over the past two years. My fondest memory is being part of the organizing committee for Conference 2010: "Creating a Legacy Together," where we saw teachers, administrators, ATA officials, and global and environmental educators come together with the common goal of advancing global and environmental education in Alberta. Highlights included hands-on workshops, engaging dialogue between participants and incredible keynote speakers (such as children's rights activist Craig Kielburger and environmental educator Geoff Green).

Over the coming school year I look forward to working with the new president, Jessica Scalzo, on exciting professional development for teachers in Alberta. Please stay tuned to our website ([www.geoec.org](http://www.geoec.org)) and our Facebook page ([www.facebook.com/geoecalberta](http://www.facebook.com/geoecalberta)) for more information on what we have in store.

I hope everyone has had a restful, inspiring and nature-filled summer holiday.

*Erin Couillard*



# Join the GEOEC Executive and Make a Difference

All positions except past president and president are open for election annually. If you are interested in seeking one of these positions, please contact Rita Poruchny at [reporuchny@cbe.ab.ca](mailto:reporuchny@cbe.ab.ca).

Elections will be held at the annual general meeting (AGM) during the 2011 conference. The PEC liaison and ATA staff advisor positions are appointed by the ATA's Provincial Executive Council.

**President-elect is vacant and needs to be filled as soon as possible.**

## Past President (position not available)

- Act as advisor to the president and the executive board in general.
- Ensure that the executive operates in accordance with the constitution.
- Act as keeper of the historical records as the council historian.
- Solicit nominations from membership for each of the table officer positions.
- Coordinate the GEOEC's recognition of individuals and organizations, and solicit recommendations and nominations for awards at least two months prior to the AGM.

- Report annually and maintain a registry of awards presented by the GEOEC.

## President (position not available)

- Maintain liaison with ATA personnel, PEC representative and executive staff officer assigned to the GEOEC.
- Call, set agenda for and chair all meetings of the table officers and executive board.
- Arrange for the old and new executive board to meet near the end of term of office to pass on information and receive files.
- Submit an annual written report about GEOEC activities to the ATA.
- Attend the annual seminar for presidents of specialist councils.
- Submit written reports at executive meetings as required.
- Keep executive informed of developments.

## President-Elect

- Assist the president as required and act in the absence of the president.
- Maintain liaison with committee chairs and report to table officers.
- Become president on July 1, 2013.

## Secretary

- Take minutes of all table officer and executive board meetings.
- Send minutes and action plans to executive, ATA staff advisor, PEC representative and GEOEC community liaisons.
- Have copies of previous year's AGM minutes available at the current AGM.
- Handle correspondence and communication in conjunction with the president.

## Treasurer

- Take charge of all money received and/or collected by the council, and disburse funds as authorized by the table officers.
- Keep accurate records of the financial affairs of the council for both the account held at Barnett House and the current account.
- Provide a statement of account to each meeting of the table officers.
- Have books ready for audit by Barnett House at the end of each fiscal year (June 30).
- Attend the annual seminar for treasurers of specialist councils.
- Present audited financial statement to the AGM.
- Provide consultative services to the conference director.

## Professional Development Director

- Assess needs, make recommendations and provide inservice opportunities to GEOEC members in addition to the annual conference.
- Establish, maintain and recommend a list of resource people.
- Submit a report of PD activities to the AGM.

## Public Relations/ Membership Director

- Deal with issues relating to the image of GEOEC and environmental education focusing specifically on outside groups.
- Actively promote membership among interested members of the public.
- Work with the conference committee to ensure that they have an up-to-date membership list and that the conference is promoted to nonmembers.
- Coordinate the development, interpretation and

implementation of public relations policies.

- Submit a report on PR/membership activities to the AGM.

## Publications

- Coordinate and act as editor for any publications that pertain to the goals and objectives of GEOEC.
- Attend the annual seminar for specialist council editors.
- Submit a report of publications activities to the AGM.

## Conference Chair (2012)

- In consultation with the table officers, plan and carry out an annual conference program that is to be outlined in the fall and published at least two months prior to the conference.
- Keep a conference file. Pass this file on to the conference chair-elect.
- Attend annual seminar for conference directors of specialist councils.
- Submit an audited financial statement to the table officers

within two months following the conference. Present this statement to the executive board at the first fall meeting.

- Submit all financial records to Barnett House on or before June 30 for auditing.

## Conference Chair-Elect (2013)

- Serve as a member of the conference steering committee in preparation for the following year.
- Assist the conference chair as required.

Note: It is not essential that this person attend executive meetings.

## Community Liaison (two positions)

- This is a nonvoting, appointed position, created to facilitate sharing of experience and knowledge between community (nonformal) and school-based (formal) educators. It acknowledges the significant contribution of nonformal educators to global, environmental and outdoor education.



# GEOEC Award Winners



## Award of Merit

### Polly Knowlton Cockett

Polly Knowlton Cockett makes a difference on this planet and works tirelessly to ensure that it is a better place. She has received the Award of Merit in acknowledgement of the outstanding work she is doing with the award-winning Natureground project at Dr E W Coffin School, in Calgary. Polly has worked with hundreds of students, parents, teachers, volunteers, municipal employees and the community to reclaim land and bring it back to its natural state for all people to enjoy and learn from. She led the campaign to paint over graffiti-streaked walls in Calgary's Brentwood neighbourhood, and she presents workshops at the GEOEC annual conference. To better understand her work, visit the Natureground website ([www.natureground.org](http://www.natureground.org)), or read her article "Place Value: Ecological Education in Northwest Calgary" in the last issue of *Connections*

(Volume 31, Number 1, available online at [www.geoec.org/newsletter/geoec-connections-winter2010.pdf](http://www.geoec.org/newsletter/geoec-connections-winter2010.pdf)).

## Palisades Stewardship Education Centre

Parks Canada's Palisades Stewardship Education Centre, located in Jasper National Park, is the jewel of environmental stewardship for youth in Canada. The worthy educators at the youth education centre are promoting science, biology, geology, geography, earth sciences, wildlife sciences, archaeology, Aboriginal studies, history and outdoor education for students. Their vision clearly states their hope that youth will share their passion for and appreciation of Canada's national parks and national historic sites. The programs they provide for teachers and students ensure that their vision will be realized. Take the time to visit their website ([www.pc.gc.ca/pn-np/ab/jasper/edu/edu5.aspx](http://www.pc.gc.ca/pn-np/ab/jasper/edu/edu5.aspx)) and see for yourself why we have awarded them with an Award of Merit.

## Appreciation of Service Award

### Jere Geiger

Jere Geiger has contributed to environmental and global education in this province as GEOEC's PEC liaison for many years. This is a position that he was assigned to, but he has certainly become a part of our team. He has demonstrated a personal passion for the work of our council. No GEOEC conference is complete without a walk into the woods with Jere; his understanding of the land is admirable. He is a worthy recipient of the Appreciation of Service Award, and we welcome his return to the council.

### Kathy Satterfield

Kathy Satterfield has been a tireless worker for our council. While she was still in university, she began helping with the planning of our annual conference. Her attention to detail has kept many a conference chair on track. When we needed a president, she stepped into the position despite her lack of experience. It was a fast track of learning for her, and she served for several years on the executive. Her dedication to the council makes her a worthy recipient of the Appreciation of Service Award.

# GEOEC Member Wins a Juno

Peter Lenton, GEOEC's membership and public relations director, is now a Juno Award winner.

A teacher turned children's entertainer, Lenton—better known to children as Peter Puffin—brought home the award for Children's Album of the Year for his CD *Proud Like a Mountain*. The CD includes songs about peace-building and caring for the environment.

Congratulations, Peter!

For more information on Peter Puffin, to order a CD or to arrange a Peter Puffin visit to your school, visit [www.puffin.ca](http://www.puffin.ca).



# Your GEOEC Executive 2010/11



*(l-r) Christina Pickles, Robert Twerdoelib, Lara Fenton, Jessica Scalzo, Shashi Shergill, Erin Couillard, Sharon Vogrinetz, Peter Lenton, Karen Whitehead, Don McLaughlin, Chenoa Marcotte  
Missing: Tanya Stogre, Rita Poruchny, Patricia Hamlin*

# Articles and Features

## The Politics of Organic Food: How to Have Your Organic Cake and Eat It Too

Sean Ryan

There are many reasons one might have for choosing organic food over conventional food. It might be for taste. Nutrition could be a motivating factor. It could be to protect the environment. The not-in-my-body (NIMB) ethos could underlie the choice. Resistance to globalization might be



a factor. But whatever the reason, we should realize that the choices surrounding organic foods are anything but simple.

Myself, I choose (or don't choose) organics for complicated reasons, reflecting the complicated overlay of ethics and politics in our interconnected and globalized world. A quick story can illustrate this.

Just the other week I was in the grocery store with my 10-year-old son. We were trying to buy some organic red peppers. I say *trying* because we didn't actually succeed. Here's how it played out. I looked at the label on the organic peppers, which said they came from Israel. I asked my son if he knew how far away that was and how much energy was required to transport them to Edmonton (in a climate-controlled environment, no doubt). "Pretty far and quite a lot," he said. Then we looked at the conventional peppers, which came from southern

California but were likely grown with pesticides, fertilizers and irrigation.

What to do, what to do? Should we choose chemicals over CO<sub>2</sub> emissions? How do we measure the environmental costs of each option? As we debated the pros and cons, a woman looked over and smiled at me. I couldn't quite tell whether it was a "How nice to see a father and son grocery shopping together" smile or a "Damned if you do, damned if you don't" smile. I'm hoping it was the latter because I want more people to realize the problems we face in navigating the politics of our food choices. This was, in fact, largely why I was discussing this with my son. I don't want him to grow up making tough choices but thinking they are simple.

If I had to guess, I would say that many people who buy organic think it is a relatively simple choice: "Of course you should choose organics, if you have the money, because that's the better option." But



therein lies the second of many challenges: in addition to long-haul transport, organics can be quite costly. What used to be counter-cuisine in the 1980s is now “yuppie chow” (Guthman 2003). When four litres of organic milk costs seven dollars, it can be hard for lower- and middle-income families to afford. Who gets to put organics into their bodies and who doesn't? Better yet, who *should* get to? The idea that everyone should get to consume organics is ethical but unrealistic. The reality is that organics are priced out of the budget for some. As Guthman (2004a) notes, the main incentive for farmers to switch to organics is price differential: they know they can charge more for what has become a niche market, but that problematically links health to wealth.

This brings us to the third conundrum of organics: industrial organics. In more and more cases, large transnational agribusinesses have infiltrated the organic movement such that buying organic as a means to support small-scale farmers is problematic. For example, Mars, Gerber, Kellogg, Heinz and Dole all own at least one organic product. Also problematic is the assumption that organic farms represent an alternative to capitalism. For those who wish to resist the commodification of our food, it is troubling to realize that virtually all of the family organic farms in California are capitalist ventures and many have banded together to form larger corporations for tax purposes (Guthman 2004b). The presence of industrial

organics and the disappearance of the small family farm make uncritically buying organics as a pure act of resistance commendable and probably futile. It takes much more digging to know which products represent a real alternative to transnational corporations. As Guthman (2004b, 301) notes, the involvement of agribusinesses in the organic movement creates conditions that “undermine the ability of even the most committed producers to practice a purely alternative form of organic farming.”

Along the same lines, some choose organics as an act of resistance to free trade and free markets. Some people, me included, are concerned about the trend in government to step further out of the business of regulation and instead let the market regulate itself. The logic is that honest competition will lower prices to a reasonable level. If people cannot afford to purchase organics, the price will have to come down. If more companies are involved and they undercut each other as they try to corner the market, the price will come down. At some point, the three-way tension between the cost to produce the product, supply and demand will be resolved, and a relatively stable, reasonably priced structure will ensue.

However, for those of us who watched the 2008 financial crisis unfold and thought that more regulation of the financial sector in the US might have prevented the collapse, the logic of free markets and less government involvement is troubling. This logic places the emphasis on individuals, not

government, to determine what is the right thing to do. Individual choices dictate the shape of the market and society. Thus, if people choose not to buy a product, that product will have to change or it will cease to be a viable commodity, and once again the market will have regulated itself properly. However, as we saw with the crisis in the US, sometimes businesses, which are really only concerned with profit maximization, don't make the best choices for society. But does organic food really represent an alternative to this logic?

Many of the processes surrounding organics are classic examples of this logic. For example, instead of government regulation, third party certification has arisen as the means of ensuring the quality of and standards for organic foods. There are at least three concerns with this. First, the process of certification actually ensures the price differential that I discussed above. This happens because certification is itself a market mechanism whereby organics are niche marketed (they become specialized food), which results in a price differential compared with conventional food. Second, this logic means that organics will succeed or not based on individual choice rather than on public debate over what is good for society. Decisions about what is good for society should not be made in isolation by individuals. There should be open public debate about what is good for society, because otherwise decisions will be made without any overall sense of the issue. Furthermore, if we each

decide for ourselves whether or not to buy organics, then no one is accountable for the overall consequences of such a decision. As we saw with the financial crisis, when no one takes responsibility, unfair decisions and unethical practices can result, and it is hard to hold those responsible to account. Third, the market mechanisms used in the organic movement, like all market mechanisms, encourage profits before sustainability. In this sense, then, it is not always the case that organic food is more sustainable (Guthman 2004a). So, the idea that organics represent a challenge to the logic of free markets is probably not accurate.

Finally, when it comes to nutrition, at least one study has shown that there are no nutritional benefits in choosing organics over conventional foods (BBC News 2009). The study looked at all the nutritional and health-related studies of organics over the last 50 years. The researchers concluded that there were no significant differences in nutrients such as calcium, iron and vitamin C.

In the end, organics may not be more environmental or healthier than conventional options. They

may not represent an alternative to large-scale transnational corporations, and they may not offer a viable alternative to the logic of unregulated free markets. They are also more costly (read *elitist*).

So, should we support the organic movement or not? Absolutely. But here's the kicker: we should also seek to transform it and recognize its limits. Organic food isn't going to bring back small-scale local farms. It isn't going to solve our environmental problems. It isn't accessible to a large portion of our society. And it won't make you all that much healthier. So instead of supporting organic food in the narrow sense of individuals choosing to buy it, we should support ethical food in the broadest sense possible. That means food that has a smaller environmental footprint. Food that is accessible to all people. This food system should encourage small-scale independent farmers. Quite probably, this last point will require government intervention, because small-scale independents need protection from the vicissitudes of the free market.

Such a system doesn't exist in Alberta, as yet. But it could, if we all really wanted it and made it happen.

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*Sean Ryan teaches courses on climate change, political ecology, and the interaction between ecology and environmentalism, in Athabasca University's Master of Arts in Integrated Studies program and its Environmental Studies program. His PhD, from the University of Alberta, focused on how ecological science has shaped our views of nature and how that in turn has affected outdoor recreation and minimum-impact camping practices. His current research interests include studying how successful private efforts to protect land, such as conservation land trusts, have been in Alberta.*

# Skill Centre: Green Initiatives in Culinary Arts

Jaryd Murray

If a teacher doesn't limit himself to academic teaching, if he also takes on the responsibility of preparing his students for life, they will have respect for him and confidence in him. The things they learn from him will leave an indelible imprint in their minds.

—The Dalai Lama,  
*My Spiritual Journey*

Edmonton Public Schools' new Skill Centre is leading the way in green initiatives through its culinary arts program. Apprenticeship training in cooking is the main component of the new curriculum. However, just learning cooking skills, without understanding the larger context of food, is no longer appropriate for today's young chefs and journeymen of all kinds. In the culinary arts program, we need to be teaching civil efficacy, which is no longer the exclusive role of social studies teachers. One thing we can instill in our students as tradespeople is an understanding of the global and environmental impact of their actions. Therefore, the kitchen at the Skill Centre, where students cook for the school and cater for large groups of people, has started many green initiatives. These initiatives facilitate the green grooming of our aspiring young chefs, including

growing and acquiring local food, engaging in vermiculture (worm) composting, using biodegradable plates and utensils, recycling materials, and discovering how food choices affect the environment.

The growing and acquisition of local food is the biggest part of our

project to educate students on environmental issues. Our Growing Places EarthBox project, in which we created an indoor garden under full-spectrum lights, was a team effort with Alberta Agriculture and Rural Development (ARD) and its EarthBox Kids Growing Forward



*Picking berries*



*Composting and recycling*

project. ARD was very helpful in getting our garden set up, and we have grown the project from 10 EarthBoxes last year to 20 this year.

The garden is now big enough to supply all of the fresh herbs for the culinary arts program, which we use in cooking and which we also sell in order to put money back into our program. (Money doesn't grow on trees; it grows in the EarthBox.) Fresh herbs would be too costly to buy, so if it weren't for this project, my students would not be as familiar with herbs as flavouring ingredients. This year we have added 10 boxes of lettuce, which we use to make lunch salads for Amiskwaciy Academy and Skill Centre students and staff. Because my students grow and care for all of the herbs and lettuce from start to finish, they really develop a comprehensive understanding of the produce.

We can't get any more local than just outside the door of the

classroom. We also support local food producers by buying from Eat Local First for a variety of seasonal foods, as well as Innisfail Meat Packers for butchery class. We are starting to see a shift in the larger companies, which are buying more and more local food as a reaction to the sustainability movement. Two Skill Centre culinary arts classes and one Amiskwaciy class went out to the Alberta Rural Sustainable Alternatives Network (ARSAN, formerly known as the Parkland Conservation Farm) to learn about local, sustainable food and to cook lunch with the staff. The students picked rosehips, wild sage, mushrooms, potatoes, garlic, parsnip, kohlrabi, carrots, beets and some other tubers, and collected eggs from the laying chickens. All this food was brought back to our kitchen and cooked by the students who had removed it from the ground. Our students get to taste the food they grow, harvest, prepare, cook and serve, and they are proud of it.

Vermiculture composting goes hand in hand with having a garden in the school. This process shows the students the importance of food systems, from growing to composting, and their potential role in the food system as chefs. Students are taught that if a plant or animal has to die to feed people, the entire product is used and that process is good for economic, environmental and social reasons. For example, from one homegrown carrot, the peels, top and bottom all can go into a stock, along with the bones from a whole chicken. The chicken meat and the main root of

the carrot can be served for dinner. The stock can be used for the sauce and soup for both the main course and the appetizer. Lettuce can go out to a customer as an appetizer, and the stem and leaves can be used to feed the worms in the compost bins. The worms will make natural fertilizer to grow new organic herbs and lettuce for next year's crops.

Reading about the cycle of life is much different from the experience of seeing, feeling, smelling, tasting and hearing the life growing, dying, and sustaining you and others around you. This experience involves students through engaging all of their senses.

The Skill Centre also recycles and uses biodegradable plates and bowls, and is transitioning to compostable utensils, as well. These can be fed to our worms in place of newspaper. Edmonton Public Schools' waste contractor, the City of Edmonton's Waste Management, also provides a commercial composting program that helps deal with the larger volume of organic waste produced through the culinary arts program. The students learn that Waste Management accepts various organic wastes that the vermicomposting program cannot. All organics are collected in the kitchens and placed in compostable bags. The bags are placed in large green totes outside the school. Every three weeks, Waste Management picks up these totes and brings them to a commercial composting centre on the west end of the city, where the organic matter is put through a controlled composting process to create fertilizer and nutrient-rich



soil. This program is shared with the Skill Centre's aviation and manufacturing programs (for sawdust and wood shavings) and with Amiskwaciy's foods program. It is much the same for recycling the many materials used in the kitchen, including metal cans, plastic containers, paper bags, wrappers and labels. Through recycling and composting, the amount of landfill waste produced in the kitchen is reduced to a bare minimum.

The development and incorporation of these projects have been spearheaded by my culinary arts program with the support, supervision and guidance of Jan Anderson and Stephen Wright, of Edmonton Public Schools. The Skill Centre approach makes this program available to any high school student in the district who can get to our facility.

On top of our everyday lunch bistro, the culinary arts program holds catering events two to four times a month, and we have done catering events for up to 150 people (including MLAs, the mayor, school board trustees and the superintendent). Other schools also do these kinds of events, but our catering is completely student-run, as is our school lunch bistro. We are currently having Meatless Monday



*Vermicomposting*

every week to reduce the carbon emissions of our community and, in turn, the world. Providing experiential real-life learning opportunities leads to a deeper understanding and educational experience, teaching our students that environmental efficacy is a must for survival in the 21st century and vital to the future of the human race.

## Contact Information

Eat Local First food distribution  
[www.eatlocalfirst.com](http://www.eatlocalfirst.com)

Innisfail Meat Packers  
403-227-5166

Alberta Rural Sustainable  
Alternatives Network (ARSAN)  
Pamela Gottselig ([pamela@arsan.ca](mailto:pamela@arsan.ca))

City of Edmonton Waste  
Management  
[wasteman@edmonton.ca](mailto:wasteman@edmonton.ca)

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*Jaryd Murray is employed by Edmonton Public Schools and teaches the new culinary arts apprenticeship curriculum at the Skill Centre. He is interested in food and the effects that different processes have on the composition of food. For more information about the culinary arts program and its green initiatives, see <http://thewaywegreen.ca/2011/03/01/skillcentre/> and <http://enviromatters.epsb.ca/projects/school>. Jaryd can be reached at [jaryd.murray@epsb.ca](mailto:jaryd.murray@epsb.ca).*

# Growing Environmental Awareness Through Horticulture

Brent Andressen

Food is an important part of a balanced diet.

—Fran Lebowitz

*Food!* A word of only four letters. Such an easy word to spell, yet it plays a central and complex role in our lives. Food! We can't get enough of it. We get too much of it. We both crave and fear it. We spend a great deal of time worrying about food safety, nutrition and balanced diets, along with choosing just the right food to power athletic performance and to preserve health and vitality. Food is comfort, recreation, love and sustenance. And in the background linger persistent ethical concerns regarding how we treat animals, farmers, farmland and the natural systems that produce food. Our connection to food is indeed most complex.

The everyday choices we make about our diet also take place in a context in which we are becoming more deeply enmeshed in our virtual surroundings. We listen to digital music. We view digital photos. We exchange digital text messages. The power of our virtual social connections allows us to create, upload, download and share experiences with unprecedented ease. Our secrets are digitally

available to people we have never met. However, even with all these technological breakthroughs, we have yet to develop virtual food. Eating remains a most intimate act and, as a result, food remains oddly old-fashioned.

Consider what happens when we eat. Regardless of whether the context is Saturday afternoon in an unheated hockey rink or a wedding feast at a five-star mountain resort, we experience food in a very special way. First we take the food in our hands. We feel its warmth and texture; we bring it close to our faces, where we can see its colour and savour its smell. Finally, eating demands that we take the food into our mouths, chew and swallow. The food becomes us. Though we do not often take sufficient time to reflect on and appreciate this essential feast for the senses, food offers an open invitation to recognize and explore our world in *new and meaningful ways*.

For parents and teachers, the question often arises as to how we can help our children slow down and more fully experience the wonder that is food. It is challenging to find ways to connect them to food's multisensory appeal, as well as to how its growth, harvesting,

preparation and consumption affect our well-being. This task is made more difficult because we struggle with these issues ourselves.

Furthermore, our school year is a throwback to the time when schools released children each summer to help on the farm. Instruction still takes place predominantly during months of relative darkness and cold. Even more problematic is the fact that, except in rare instances, our school architecture does not take plant growth into consideration.

But there are ways to overcome these challenges and open up students to the meaning and wonders of food. In recent years, an increasing number of Alberta teachers have discovered a simple yet powerful way to reconnect children to food: classroom horticulture.

Now, the word *horticulture*, like *food*, comes with considerable connotative baggage. Despite the many joys of gardening, it can be plain hard work. Thoughts of horticulture often evoke memories of endless days spent weeding in the hot sun, of urgent, back-breaking labour to gather the harvest before an early frost, and of steamy hours spent processing what was picked. Teachers who attempt to garden in

the classroom need to shake these old habits of thought.

There is no easier way to do this than by using an EarthBox and a full-spectrum grow lamp. The EarthBox ([www.earthbox.com](http://www.earthbox.com)) is a gardening container that makes growing herbs and vegetables indoors clean and simple. It is self-watering, which takes the worry out of long weekends and other breaks in the school year, and a castor system elevates the boxes and provides effortless mobility. All teachers need to add is a little Pro-Mix soil, along with some seeds or bedding plants.

EarthBoxes are already being used in dozens of schools across Alberta—with great success. Teachers are integrating the classroom gardening experience into language arts, social studies and foods courses, as well as science, health and fine arts. Several schools are also recruiting parents, neighbours and seniors in the greater school community to grow vegetables outdoors over the summer so that students can harvest a broader variety of crops when they return to school in the fall.

As it comes time for the harvest, students explore the powerful sensations of smell and taste of

fresh produce as they prepare salads, soups and salsas. Through the experience, they learn essential food-preparation skills, and some even begin to think in new ways about future careers connected to plants and food.

Much has been written in recent years about the consequences of raising children away from nature. For example, *Last Child in the Woods*, by Richard Louv (2005), presents a persuasive argument for addressing what the author identifies as nature-deficit disorder. In a similar vein, E O Wilson's (1984) biophilia hypothesis highlights the subconscious connection humans seek with the rest of life. Teachers who work with students and gardens speak of the very positive impact on the way students relate to the plants and how they begin to take a new view of their natural context. They become increasingly aware of the importance of water, wind and sunlight; pests and pollinators; and the patient flow of time as plants mature at their own speed.

EarthBox gardening is ripe with educational potential. Even teachers with self-professed black thumbs have grown plants successfully in their classrooms and have been

thrilled with the way their students respond to the experience. "It has been the best thing I have done in my teaching career!" is how one long-time teacher summed up the experience.

For more information about classroom horticulture, please contact Brent Andressen, agriculture education specialist with Alberta Agriculture and Rural Development, at 780-427-4225 or [brent.andressen@gov.ab.ca](mailto:brent.andressen@gov.ab.ca).

A garden manual for teachers can be downloaded at [www.agric.gov.ab.ca/agawareness](http://www.agric.gov.ab.ca/agawareness).

## References

Louv, R. 2005. *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Chapel Hill, NC: Algonquin Books.

Wilson, E O. 1984. *Biophilia*. Cambridge, Mass: Harvard University Press.

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*Brent Andressen has taught Grades 2–12 during his 25-year teaching career. He has long been interested in helping young people understand and value the natural systems that sustain us. Brent is currently working with Alberta Agriculture and Rural Development as an agriculture education coordinator.*



# Seeds of Change: A Multidisciplinary Study of Local Food Growth and Sustainability

Pamela Clark

Living in the inner city of Calgary, my family did not have a garden. My neighbours did not have gardens, either, but in recent years, two community gardens have been established where families can rent a plot and grow produce all summer long. This community spirit was also evident in our local farmers' market (which has since been relocated). It was this market and the concept of community gardening that provided the initial impetus for a Grades 3/4 classroom food growth and sustainability project.

On the weekends, many in our neighbourhood walked to the farmers' market to relish in the fresh food available from local vendors. After feasting on living lettuce, I decided to bring the wound-up rope of roots to class on the day we were planting seeds for Earth Day. I thought this would be an excellent introduction to our science unit on plant growth and change.

The lettuce root was passed from student to student, with the tenderness only children can provide. With characteristic wonder, they asked where I got it. I told them it was part of living lettuce I had bought from a local vendor at our farmers' market.

While some students said they also had visited the market, many stared at me blankly and asked, "Do you mean Safeway?" It was at this moment that the project took root, literally, and Seeds of Change was born.

My goal was to integrate the curriculum areas to make student learning come alive. I wanted a project that would be meaningful for every student, where students would use their skills and knowledge in an integrated way. Combining science, social studies, language learning, health, art and mathematics, this unit would continue until the end of the school year. It would be hands-on, and research- and inquiry-based. I wanted students to be inspired and to understand the power they had

to effect change in our world. I wanted it to be a celebration!

It all started with one seed. Well, many seeds. Earth Day was our planting day. We began with a deep observation of the seeds we were going to plant. The students examined the properties of each seed (size, shape, colour, texture) and recorded them in a chart they designed themselves. Then came the predictions of what these tiny seeds would become. Our class enjoyed sharing their predictions, especially their predictions of what the cotton candy plant seed would turn into.

Next, we brought out donated plant trays and counted the tiny plots, using our knowledge of mathematical arrays. Group



*Planting seeds for Earth Day*

members collaborated to determine their choice of seeds to plant and divided up the arrays so they all had a row of their own. Student comments revealed the mathematics connection when they were able to select fifteen plots each and have five left over to share. Measurement of soil, humus and vermiculite was integral to balancing the soil for our seeds, and students took great ownership of this process.

The entire planting and growth process was an extraordinary experience for students, some of whom had never planted a seed in their lives. Knowing that the seeds would grow into edible items was exciting for them, and their nurturing senses tingled. Each morning, students rushed into class to spray water on their rows, and some groups had a designated water person each day. This sense of responsibility demonstrated students' engagement in this process of growth.

And the plants did grow. As sprouts turned into seedlings, students got out their rulers and measured—first stem height, then the leaves. They made charts, they made graphs and they took notes, lots of them, on the minute changes they noticed daily. They made tally charts of how many plants in their array had sprouted each day. This had them using their knowledge of fractions. For example, a student might note that one-tenth of her row of green peas had sprouted.

In our high-speed world, slowing down and looking deeply at how many millimetres a sunflower's leaf had grown, or taking the time to notice a sprout just peeking out of the soil, showed remarkable

patience and perseverance on the part of students. An example of a student's reflection is "Our organic garden has been growing for five weeks. Our lettuce is three centimetres tall and the leaves are one centimetre in diameter."

Sometimes the seedlings did not survive. When our class wrote poems about our plants, some students wrote heartfelt verse. The poem that follows shows the deep attachment of an eight-year-old boy to one of his seedlings that was struggling and his commitment to helping it with a Popsicle stick and some yarn.

#### 911 Seed Emergency

"We are on the way!"  
Here is a cane to help you  
Stand strong and tall  
As you were meant to be.  
How old are you, Seed?  
You are wrinkled and  
Crinkled,  
But . . .  
SAVED!

We have an amazing naturalization area at our school, and students were intent on using their leftover seeds for a project. We cut out cardboard circles, squares and triangles and divided them into two or three parts. Students used lard and then their seed choices to make seed mandalas for the birds to enjoy. They loved making the connection that birds would eat the same things they ate. Student reflections resembled this one: "Today I made a seed mandala. I measured the circle and cut it in half and half again until it was in eight triangles. I did  $\frac{2}{8}$  sunflower seeds,  $\frac{2}{8}$  flax seeds,  $\frac{2}{8}$  barley

and  $\frac{2}{8}$  oatmeal. I wanted to do a pattern."

We updated parents on our thriving project through e-mail and notes, such as the one shown in Appendix A.

While the planting part of our project was in full swing, our class was also planning a trip to the farmers' market. We had viewed *The Story of Stuff* ([www.storyofstuff.com](http://www.storyofstuff.com)) and completed an origin project that looked at where everyday items came from. Now it was the students' opportunity to find out where farmers' market items came from.

As a class, we developed a series of questions we wanted to ask vendors, and the market gave us a list of vendors who were willing to speak to students. Some of the students' questions were about why the vendors wanted to grow food. One question asked how far the food item had travelled to the market and what the vendor thought its *real* cost was. The questions showed insight into the marketplace, and when students used vocabulary words such as *organic*, *sustainable* and *pesticide-free* in their questions, I knew they understood them.

Students also participated in a scavenger hunt at the farmers' market. This scavenger hunt was tied to Alberta's health curriculum and the food groups. It also ensured that students visited a wide variety of vendors. See Appendix B for the scavenger hunt questions.

Our trip to the farmers' market was extraordinary. The vendors were gracious and gave the students time to ask questions and record the answers in their logbooks.

Students learned things they didn't know before, such as "Ostrich



*At the farmers' market*



### Students' Journal Reflections

"Vendors at the farmers' market want pesticide-free food. The farmer said he grows 50 plants and it takes three months. Costs include seeds (\$1.49), soil (\$500), electricity (\$200/month). They do this to give Calgarians pesticide-free foods."

"It takes eight to nine weeks to raise a chicken to full-grown—free-range. It takes six months to raise a pig and it costs \$140."

eggs are enormous," "Honey is bees' saliva," "Some vendors buy their seeds from Europe—that's far!" and "The chicken farmer raises chickens in Calgary!" They were engaged and full of excitement to share their findings upon their return to the classroom.

Students continued to write about our experiences in journal reflections and poetry. At our school's annual volunteer tea, students presented their poems in pairs as wandering troubadours. The parent volunteers were both entertained and inspired by the words and wisdom of these eight- to ten-year-olds.

And the plants continued to grow. Our school art walk was fast approaching, and our class had done fabric weavings that represented the four elements of our world. Our display area was near the front of the school, quite far from our classroom. "What should we display for parents here?" I asked. Students were unanimous. "Our plants!" they exclaimed. "They're art, they're beautiful and they're alive! Art should be alive!" They were right, of course, and our display of plants and logbooks glowed that night.

Students transplanted their treasures in June and took them

home, so I never saw the plants reach maturity. However, in the weeks following, I loved hearing their stories of how their bean plant was thriving in their garden or how their lettuce tasted like pepper. Then came September, and a Grade 4 student was presenting her Me Museum with artifacts chosen with care. She had brought in the head of a sunflower that had grown to over 10 feet tall. She spoke lovingly of the sunflower and how she had nurtured it over the summer. The other students oohed and aahed over this achievement, and then she said, "This is from the tiny seeds we planted in class last year."

*Our art walk display*



## Appendix A

### Seeds of Change Project Update: April 20–24 Earth Day is April 22!

This week our class will be presenting our origin projects in order to better understand the role the Earth plays in creating our “stuff.” Our seeds in our organic garden have been planted, and soon we will begin to measure and chart our seedlings’ progress and journal our findings in our Seeds of Change notebooks.

In addition, we will be preparing for our field trip to the Calgary Farmers’ Market, where we will interview vendors and discover what organic farming and sustainability mean to our city.

This week’s spelling words reflect this field trip, and we will be using our words in our project rather than having a formal test on them.

On Earth Day, our class will be joining in an all-school yard cleanup, as well.

On Tuesday, we will have our second-last day of our Weaving of the Earth Elements, with Kevin Gabbert, and we invite you to mark your calendars for our first annual Altadore Art Walk on May 7.

Happy Earth Week from Room 5!

## Appendix B

### Calgary Farmers’ Market Scavenger Hunt

Name: \_\_\_\_\_

1. What food group does Terra Farms grow and sell at the market?

\_\_\_\_\_

2. What is the original element of the crib game boards at the first booth we saw when we entered the market?

\_\_\_\_\_

3. Blush Lane is famous for \_\_\_\_\_. Which food groups are missing from this booth?

\_\_\_\_\_

4. Spragg’s Meat Shop specializes in this kind of meat that comes from pigs.

\_\_\_\_\_

5. What is one quality that makes the cotton used in products at Nature Babies organic?

\_\_\_\_\_

6. The byline in the sign of Rustic Bakery says, “Artisan Breads.” What does this mean?

\_\_\_\_\_

7. At Jammin’ It, what is your favourite kind of berry (jam)?

\_\_\_\_\_

8. At Gull Valley Greenhouses, how many sizes of tomatoes can you find?

\_\_\_\_\_

9. At Gull Valley, how many colours of tomatoes can you find?

\_\_\_\_\_

10. What is one kind of unique sausage at Missing Link?

\_\_\_\_\_

*Pamela Clark teaches with the Calgary Board of Education. She is passionate about connecting children to their natural world through meaningful learning opportunities. She is an active member of GEOEC and her school’s naturalization committee, and she relishes any opportunity to take classroom learning outside.*

# Eight Food Rules from My 10-Mile Diet

Vicki Robin

When Tricia Beckner asked me to eat only what she can produce on her CSA (community-supported agriculture) farmette for a month, just to see what happens, I was game. We widened the circle a little to include food produced 10 miles from my home on Whidbey Island, with exceptions made for four essentials: oil, salt (and five other spices), caffeine and limes. Read more on my blog about my 10-mile diet.<sup>1</sup>

I'm noticing that the heightened awareness of savoury and sweet flavour that came with being on a 10-mile diet is fading as I expand my circle of food to include nuts and cheeses and things that come in jars with labels. I'm inclined to develop some food rules to remind me of the clarity that came through the experiment.

I'm not alone in generating food rules. Michael Pollan's (2008) short set in his wonderful book *In Defense of Food* is (1) eat food, (2) mostly plants, (3) not too much.

Another friend's simple rule: I don't eat anything with eyes.

I mentioned before a diet book that recommended (1) eat when you are hungry, (2) stop when you're full, (3) eat what your body wants, (4) don't eat standing up.

I've watched a clerk in a store I frequent melt away. Her dieting rules: (1) No sugar. (2) No eating after 6 PM. (3) Lots of water.

Vegans have rules. Vegetarians have rules. Health nuts have rules. And locavores have rules.

Here are my 10-mile-derived truths, which do have rules associated with them—rules that I will surely break, but that will be there for me from this day forward to reorient.

1. All food comes from somewhere.

I want to find out where so that I can in some way thank those that feed me,<sup>2</sup> reward good practices and protect the livelihoods of small to mid-sized farmers. This could be a daunting but fascinating task. Eating local solves that issue,<sup>3</sup> so . . .

**Rule: I will purchase as much as possible direct from the producer.**

2. Food is sacred. Producing it. Cooking it. Eating it so that your body may be nourished. Death as an animal or vegetable and rebirth as us, living one more day. Our own death, if we don't rest and rot forever in stainless steel boxes, feeds life. This doesn't imply we must slather food with unctuous sanctity, but

that we can make a good faith effort to honour the life sacrificed that we may eat. In the community where I lived for 35 years, we said grace before every meal.<sup>4</sup> Rub dub, thanks for the grub. Bless this food to our use and our lives to your service. Thank you. Yay God.

I will savour, say grace, and eat slowly and with others as often as possible in my solo, willful and busy life.

The pausing and holding hands bound us together at the end of busy, dispersed days, slowed us down to the speed of savouring, honoured the cooks and began the happy ritual of sharing our days as we shared our food.

Food is social. It reminds us that we live in community—of people and food and the living world.

**Rule: I will savour, say grace, and eat slowly and with others as often as possible in my solo, willful and busy life. I will cook for others as much as possible. From scratch.**

3. I am my food system, not separate from it, picking and choosing, but part of it, giving and receiving. This is a shift from seeing food as an automat, where we select this over that. Once



you see yourself as woven into a food system,<sup>5</sup> not just a shopper in a market where the system is hidden from view, it transforms more than what goes into your mouth.

Apart from all the other learnings—the threshing wheat with an eggbeater,<sup>6</sup> the economics of paying my neighbours for food they raised—there is this startling shift of awareness that feeds my soul as well as my body.

**Rule: I will allow my life as an eater to make me aware of the web of life that supports me, and all of us. I can use a phrase as simple as *food system* to remember.**

4. Food is political; there's no way around it. From raw milk being illegal to politically distorted feedback systems that make packaged food cheaper than real food,<sup>7</sup> from school lunches of pizza and purple milk<sup>8</sup> to the ever-growing number of hungry people in our midst.

**Rule: I will inform myself about the regulations, laws and customs that give us both obesity and starvation. I will vote about it. I will write about it. I will donate.**

5. Food is complex. The way we live is shaped around the food we eat—even when eating is done in cars or cities far from its source. The spread of the human species comes from our mastery of food production. Civilization itself has marched across the face of the Earth—as Bonaparte said of armies—on its stomach. Feeding. Occupying now almost all niches

where energy (food) is available for the picking or planting.

Agriculture, as we all know from our history and geography lessons, permitted human settlements, which permitted stratification of societies, money, specialization, slavery—you name it, taming grains and animals gave it to you. The intoxicating aroma and effect of spices and drugs connected the known world, Asia to Europe to Africa, from millennia before the Common Era.

Breakthroughs in food technologies—selective breeding, the Green Revolution,<sup>9</sup> genetic modification, industrial agriculture, even the farm bill—feed the problems of starvation

at the same time that they solve them.

Food is complex because of this history and its unintended consequences. The food problem is also the population problem, and if you want a hot potato, try talking about that! I am dedicated to the work of learning to live well together within the means of the Earth. No amount of “Eat your peas, think of the starving children in China/Korea/Bangladesh/Pakistan/Africa” can solve our problems of nourishment and distribution. They are systemic. Hunger, I fear, is going to creep into lives that thought they were secure.<sup>10</sup> And when we are hungry we are cranky. I don't know if I will



live to see the consequences of our choices in my one short lifetime.

**Rule: I can nudge the system in the right direction with my choices, and I intend to. I will support local sustainable agriculture everywhere.<sup>11</sup> I will work toward the ideal John Robbins talks about: “May all be fed.”<sup>12</sup>**

6. Food is highly emotionally charged. People feel pride and shame, fear and longing, around weight, size, diet du jour, longevity, inability to feed the family, diet-related illness. And I am people. I am a lifelong dieter—and even if I were as thin as a rail, I’d still somehow have an eating disorder since I look at food as a threat or reward, as comfort or sport, as right and wrong—and myself as good or bad depending on which system I’m beating myself up with now.

**Rule: I will ground myself in the presence of judgment—my judgment of myself and others; others’ judgment of me—and just love the one I’m with. We are all such marvellous Day-Glo beings, full of colour and life.**

7. Food is great. Tasty, tangy, creamy, yummy, oily, colourful, salty, biting, sweet, juicy, spicy, crunchy, crisp, meaty, fishy, slithery, chewy, nutty, hot, refreshing, subtle. Lord strike me

dumb (or dumber) if I don’t fully savour every bite of that miracle called food.

**Rule: I will enjoy the sensual, delicious act of eating.**

8. Food is fun. It’s always there to select and cook and eat, to think about, to learn about, to write about and especially to enjoy. It shouldn’t be stuck between “more important things,” like a gas station and wherever we’re headed next. My agent thinks this endless stream of words that has poured out of me in this last month may be a book. Ten-mile eating isn’t a new food system, but it does open a new set of imperatives. For myself, I have stumbled into a new relationship with food. I can offer others this way of engaging with food—which may result in more justice, health, sustainability and fun. What do you think?

**Rule: Continue to write about, think about, research, advocate for—and eat—food. Bon appétit.**

## Notes

1. [www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet](http://www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet)
2. [www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet/eat-blog-love](http://www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet/eat-blog-love)
3. [www.yesmagazine.org/issues/food-for-everyone/8-ways-to-join-the-local-food-movement](http://www.yesmagazine.org/issues/food-for-everyone/8-ways-to-join-the-local-food-movement)
4. [www.yesmagazine.org/issues/food-for-everyone/saying-grace-around-the-world](http://www.yesmagazine.org/issues/food-for-everyone/saying-grace-around-the-world)

5. [www.yesmagazine.org/issues/food-for-everyone/everybody-eats-how-a-community-food-system-works](http://www.yesmagazine.org/issues/food-for-everyone/everybody-eats-how-a-community-food-system-works)

6. [www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet/my-kingdom-for-a-cracker](http://www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet/my-kingdom-for-a-cracker)

7. [www.yesmagazine.org/issues/food-for-everyone/4-ways-to-fix-the-farm-bill](http://www.yesmagazine.org/issues/food-for-everyone/4-ways-to-fix-the-farm-bill)

8. [www.yesmagazine.org/happiness/smarter-school-lunches](http://www.yesmagazine.org/happiness/smarter-school-lunches)

9. [www.yesmagazine.org/planet/vandana-shiva-alternatives-to-monsanto-in-india](http://www.yesmagazine.org/planet/vandana-shiva-alternatives-to-monsanto-in-india)

10. [www.yesmagazine.org/issues/a-resilient-community/crash-course-in-resilience](http://www.yesmagazine.org/issues/a-resilient-community/crash-course-in-resilience)

11. [www.yesmagazine.org/issues/food-for-everyone/food-rebellions-7-steps-to-solving-the-food-crisis](http://www.yesmagazine.org/issues/food-for-everyone/food-rebellions-7-steps-to-solving-the-food-crisis)

12. [www.yesmagazine.org/new-economy/what-is-real-wealth](http://www.yesmagazine.org/new-economy/what-is-real-wealth)

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*Vicki Robin is blogging for Yes! Magazine (www.yesmagazine.org), a national, nonprofit media organization that fuses powerful ideas with practical actions, about her experiment with a 10-mile diet on Whidbey Island, Washington. The coauthor of Your Money or Your Life, Vicki teaches classes about frugal, creative and self-sufficient living (see www.yourmoneyoryourlife.org).*

*Reprinted with permission from Yes! Magazine, October 19, 2010, www.yesmagazine.org/blogs/vicki-robin-my-10-mile-diet/8-food-rules-from-my-10-mile-diet. Minor changes have been made to spelling, punctuation and documentation to fit ATA style.*

# Locally Grown Produce

Brian Dunning

Is locally grown produce as green as its proponents seem to think it is?

Today we're going to be politically incorrect again and point our skeptical eye at another sacred cow: locally grown produce. Particularly in the United States, but in many other countries as well, one of the newest and fastest-growing market segments is locally grown produce. The claims are that locally grown produce is less wasteful of fuel because it doesn't need to be delivered over long distances; it's fresher for the same reason; and it supports a small local organic farmer instead of an immoral megacorporation that sources food from cheap overseas producers.

I discussed one of these claims, about local delivery burning less fuel, in a May 2009 entry on *SkepticBlog*.<sup>1</sup> It must have been pretty inflammatory, because it generated a huge number of comments. Most of them followed this pattern: the commenter begrudgingly agreed with the mathematics of the delivery question, but then claimed that I missed the point completely because the real reason to like locally grown produce has nothing to do with a low carbon footprint of minimal delivery miles. I'm not sure I buy that—virtually everyone I've ever asked says that's what locally grown is all about—but, hey, I'm fair, we'll give them all a voice here.

First, let's give a brief overview of the mathematics of local delivery. Think of the travelling salesman problem. This is where you speckle a map with all sorts of random locations. The travelling salesman's problem is to find the shortest possible driving route, called a tour, that visits each of the locations. It's among the most computationally difficult problems in mathematics. But there's a cool piece of free software by Michael LaLena that finds one efficient solution using a genetic algorithm.<sup>2</sup> Try to stump it with a pattern of hundreds of dots that you think will be hard to connect, and the software blows your mind with a surprisingly simple tour that visits all the locations.

Many years ago I did some consulting for a company that was then called Henry's Marketplace,<sup>3</sup> a produce retailer built on the founding principles of locally grown food. Henry's had evolved from a single-family fruit stand into a chain of stores throughout southern California and Arizona that sold produce from small local farmers. Part of what I helped them with was the management of product at distribution centres. This sparked a question: I had assumed that their "locally grown produce" model meant that they used no distribution centres. What followed was a fascinating lesson where I learned part of the economics of locally grown produce.

In their early days, they did indeed follow a true farmers' market model. Farmers would either deliver their product directly to the store, or they would send a truck out to each farmer. As they added store locations, they continued practising direct delivery between farmer and store. Adding a store in a new town meant finding a new local farmer for each type of produce in that town. Usually this was impossible: customers don't live in farming areas. Farms are usually located between towns. So Henry's ended up sending a number of trucks from different stores to the same farm. Soon, Henry's found that the model of minimal driving distance between each farm and each store resulted in a rat's nest of redundant driving routes criss-crossing everywhere. What was intended to be efficient, local and friendly turned out to be not just inefficient but grossly inefficient. Henry's was burning huge amounts of diesel that they didn't need to burn. So, they began combining routes. This meant fewer, larger trucks, and less diesel burned. They experimented with a distribution centre to serve some of their closely clustered stores. The distribution centre added a certain amount of time and labour to the process, but it still accomplished same-day morning delivery from farm to

store, and cut down on mileage tremendously. Henry's added larger distribution centres, and realized even better efficiency. Today their model of distributing locally grown produce, on the same day it comes from the farm, is hardly distinguishable from the model of any large retailer.

Compare the travelling salesman's simplified tour to a

tangle of criss-crossing bicycle spokes, and the inefficiency of direct delivery between farm and store becomes acutely clear. If we want to minimize the carbon footprint of the entire food cycle, eliminating direct delivery is the easiest place to make the biggest gains. So, right off the bat, the main reason most people prefer locally grown produce is shot down,

and shot down in big flames. But let's turn to the *SkepticBlog* commenters and see what people had to say.

As did a number of readers, Ian pointed out that you have to consider the total price. Not just the cost of distribution, but also the cost of the retailer's wholesale purchase. Total them all up, and in some cases it might be cheaper to buy from ridiculously far away:

Wal-Mart [buys] fruit from South Africa, coffee from Kenya, etc. Flying this produce around the world is clearly using more fuel than even an inefficient model for distributing food locally. The efficiency comes not from reducing fuel usage, but from paying significantly less for the produce.

This was underscored by another poster, "Old White Guy":

As someone who spent a good chunk of his life controlling distribution for several large companies, I can say the only thing that matters is getting the product to the point of sale as inexpensively as possible. If that [means] the cheapest wine in the store comes from another continent, so be it.

This suggests that in some cases, huge container-sized purchases might still be cheaper for the large retailer, even though their delivery produces a lot of wasteful emissions, and their production might be with some godawful third-world high-pollution child-labour dogs-and-cats-living-together environmental disaster. That might be true in some cases, but those



would be the exception, not the rule. Most of the time, produce is cheaper from those countries because the native growing conditions are much better for that particular crop. Tomatoes flourish in Spain but require heated greenhouses in the United Kingdom, and so the overall energy efficiency of growing them in Spain and transporting them overseas to the UK is actually better.<sup>4</sup>

A number of people who disagreed with my article repeatedly referenced Michael Pollan's (2006) book *The Omnivore's Dilemma*. Pollan devotes one of the book's four sections to the practices of holistic cattle farmer Joel Salatin. One of Salatin's rules is that, in the interest of a minimum carbon footprint, he won't ship his beef at all; customers have to drive to him to pick it up. While I applaud Salatin for having the right idea and the right motivations, I don't believe he thought through this particular point very critically. Salatin should instead design practices that more directly address his desire: he should allow only shipments that use a minimum amount of fuel per pound of beef delivered. Instead, he adopts a rule that might put hundreds of cars and vans on the road, each delivering only a few pounds of beef. Salatin's solution is emotionally satisfying and makes for a fine sound bite, but its underlying science is flawed and counterproductive to his stated goals.

The elephant in the room on Joel Salatin's farm is that his near-total self-sufficiency methods require an outrageous 550 acres

to support only 100 head of cattle and a herd of pigs, plus some turkeys and chickens. Most of the acres are used to grow the feed and raw materials the animals require. I didn't find any valid defence of this, and Pollan's book simply avoids the issue. Typically, pasture-fed cows require half an acre each,<sup>5</sup> so Salatin is using about 10 times as much land as he should.<sup>6</sup> Such wasteful land usage might work well in the case of a high-end boutique retailer like Joel Salatin, but it's clearly well beyond the limits of practicality for the world's real food needs.

The overall picture is often a lot more complicated than simply "locally grown." Let's say you want sheep or dairy products, and you live in New York. Where are those products going to come from? Certainly not from anywhere local. If you get them from a state or two away, which is about as local as possible, what went into their production? A lot of feed, for one thing. But spin the globe and look at New Zealand. New Zealand has the world's most efficient sheep and dairy industries, and one big reason is their climate and conditions that allow year-round grazing. According to the *New York Times*,

Lamb raised on New Zealand's clover-choked pastures and shipped 11,000 miles by boat to Britain produced 1,520 pounds of carbon dioxide emissions per ton while British lamb produced 6,280 pounds of carbon dioxide per ton, in part because poorer British pastures force farmers to use feed. In other words, it is four times more energy-efficient

for Londoners to buy lamb imported from the other side of the world than to buy it from a producer in their backyard. (McWilliams 2007)

And yet many of the same people who are so vocal about a minimum carbon footprint consider this massive net energy savings to be immoral because it includes overseas transport. Why? Is it a geopolitical preference? Is it a matter of supporting farms from your own country instead of sending money overseas? OK, fine, that's an absolutely valid point of view. But if your true motivations are political, don't greenwash them and claim that you're really interested in environmental science.

If it's support for small business, if you'd rather support someone like Joel Salatin than a megacorporation like Wal-Mart, that's also an absolutely valid point of view. Just call it what it is instead of greenwashing it and claiming environmental awareness. To get the premium boutique experience, Salatin's customers burn way more gas per pound of beef delivered than do Wal-Mart's container ships from New Zealand. If you have other reasons to object to Wal-Mart's New Zealand beef, fantastic; just be aware of what your objections really are. It's more intellectually honest, it's more insightful, you'll learn more and you're not being disingenuous.

Don't get me wrong, I love farmers' markets. We go to our local one sometimes, and it's a fun family event for us. We love the giant, wonderful tomatoes and strawberries



that you can't get at the supermarket. But I understand that farmers' markets are more of a community experience than an efficient (or "green") way to buy food. The real reasons to enjoy your farmers' market have nothing to do with it being somehow magically environmentally friendly. Too often, environmentalists are satisfied with the mere appearance and accoutrements of environmentalism, without regard for the underlying facts. Apply some mathematics and some economics, and you'll find that, more often than not, a smaller environmental footprint is the natural result of improved efficiency.

## Notes

1. <http://skeptictblog.org/2009/05/28/the-fallacy-of-locally-grown-produce/>
2. [www.lalena.com/Al/Tsp/](http://www.lalena.com/Al/Tsp/)
3. [www.henrymarkets.com](http://www.henrymarkets.com)
4. <http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=15001>
5. [http://wiki.answers.com/Q/How\\_many\\_cows\\_can\\_you\\_graze\\_on\\_one\\_acre&altQ=How\\_many\\_cows\\_can\\_you\\_graze\\_per\\_acre](http://wiki.answers.com/Q/How_many_cows_can_you_graze_on_one_acre&altQ=How_many_cows_can_you_graze_per_acre)

6. Author's correction: This is true only in places with the best conditions: 550 acres could support anywhere between 0 and 1,000 head of cattle, depending on where it is.

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Science writer Brian Dunning is the host and producer of the podcast *Skeptoid: Critical Analysis of Pop Phenomena* (<http://skeptoid.com>), which applies critical thinking to urban legends and popular pseudoscientific subjects promoted by the mass media. He is also the author of three books based on the podcast. A computer scientist by trade, Brian uses new media to showcase the rewards of science and critical thinking. He has appeared on numerous radio shows and television documentaries, and also hosts the science video series *inFact* with Brian Dunning (<http://infactvideo.com>).

Reprinted with permission from *Skeptoid* 162, July 14, 2009, <http://skeptoid.com/episodes/4162>. Minor changes have been made to spelling, punctuation and documentation to fit ATA style.

# *Caveat Consumptor:* Food Consumers Must Protect Themselves

Karen Virag

Once, as I entered a Superstore, a sample giver asked me if I would like to taste some “homemade” spaghetti sauce.

Beside her booth stood a veritable Mount Everest of jars of sauce, mass-produced by a major food conglomerate. If that sauce was made at home in someone’s kitchen, that was one busy babushka. And I don’t know about yours, but my granny sure didn’t keep aspartame and calcium phosphate in her cupboard.

“Isn’t this stuff made in a factory?” I asked.

“Well, yes.”

“So how can it be homemade?”

I immediately regretted my churlishness—but only for a second, because as a lover of the English language and of good food, I am both affronted and taken aback by food companies’ misuse of language to take advantage of people who are either too busy to think about what they buy or trying to have a healthier diet. From “fat-free” carrots to “natural additives” to “free-range” chickens (raised in slightly larger cages) to “fresh from concentrate” juice, the oxymoronic flim-flammetry of food selling can

make one’s head spin faster than Linda Blair’s in *The Exorcist*.

Many food manufacturers are adept at evoking positive, if misleading, associations for their products. Take Bee Hive Corn Syrup, for example. You might have heard about the alarming disappearance of honeybees from fields across North America, but there is another bee missing—the one from Bee Hive syrup. Even though the label plainly says corn syrup, the consumer might be a bit confused by the invocation of the honeybee and the picture of a beehive, both of which suggest that fuzzy black-and-yellow creatures have contributed to the production of this syrup. Not so. The closest a bee ever got to this stuff was flying over the cornfield that furnished the raw material to make this glucose-fructose syrup.<sup>1</sup>

Other soft-sell buzzwords are *traditional* (a term that rivals *homemade* in loosey-gooseyness), *light*, *cholesterol-free*, *transfat-free* and *natural*. Indeed, in their quest for profits, food conglomerates have jumped on more bandwagons than campaigning politicians. At least sometimes they get pushed off, as in a case last year in the US, when the Center for Science in the Public Interest threatened to sue Cadbury Schweppes for labelling



7Up as “all natural.” The Center claimed that the ingredients of 7Up, which include highly processed high-fructose corn syrup and a genetically modified enzyme, are not what one would call natural. In January 2007, Cadbury Schweppes agreed to drop the term, though it still sells varieties of Snapple that contain high-fructose corn syrup labelled as “all natural.”

Savvy consumers concentrate their purchases in the outer rim of the supermarket, in the dairy, bread, produce and meat sections. They know that the middle is a den of overpackaged, chemically processed goods, saltier than the Dead Sea yet bearing names that conjure images of svelteness and health, from SnackWell’s to Thinsations to Healthy Choice—the last a pasta sauce that has glucose-fructose as its fifth ingredient and corn syrup as its sixth. (And if this mention of high-fructose corn syrup is starting to sound like a trend, you are not imagining things, as a little judicious label reading and a little knowledge of the power of the US corn lobby will attest.)

A particularly egregious example of another trend in food nomenclature is exemplified by Mr (or should that be Signor)

Noodles, which produces disposable microwavable bowls of dried pasta called Delecta (varieties of which contain up to one-quarter of daily recommended sodium intake—let’s think of it as the environmentally unfriendly meets the nutritionally indefensible). The Italian-sounding name suggests Italians’ well-known appreciation of good food. Indeed, the shameless appropriation of not only Italianness but of a nebulous idea of Europe is a common selling practice in North America, be the product dried pasta or cars.

Consider the Europe’s Best brand of frozen raspberries, which come from Chile, and its blueberries, which come from Canada.

And though Canadian back bacon is one of the few Canadian food items one can sometimes buy overseas, my local Save-On sells back bacon labelled “European back bacon with maple flavouring.”

Oddly enough, it looks just like Canadian back bacon and contains the quintessential Canadian condiment. I asked the person at the counter what was European about this stuff. “Oh,” he said, “that’s just what they call it. It doesn’t really mean anything.”

I couldn’t have said it better myself.

False advertising is nothing new. That the ancient Romans coined the phrase *caveat emptor* (buyer beware) many centuries ago tells us something. Companies exist to make money, after all, and though it is certainly a good thing that we have mandatory nutrient labels now, in the end it is up to consumers to inform themselves. In other words, *caveat consumptor*—consumer beware.

## Note

1. High-fructose corn syrup is corn syrup that has been subjected to enzymatic processing to increase the fructose (sugar) content. The processed syrup is then mixed with pure corn syrup (which is glucose, another kind of sugar). In the US, import quotas on cane sugar and the efforts of the corn lobby have combined to make corn syrup the sweetener of choice of most food and beverage manufacturers.

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*Karen Virag is supervising editor at the Alberta Teachers’ Association. A former member of Slow Food Canada, she has published many food-related articles in such forums as the Globe and Mail, City Palate and The Tomato.*

*Reprinted with permission from City Palate Edmonton. Minor changes have been made to spelling and punctuation to fit ATA style.*



# Food for Rot: Community Gardens Inspire New Lesson Plans

Mark Stumpf-Allen

Opportunities for outdoor pursuits often take the classroom to wild places, but some of the most wonderful outdoor classrooms are often overlooked. A September field trip to a community garden will cement the link between soil and food, and introduce all participants to the array of life that inhabits our agricultural soils.

The soil is our nutrient bank; it feeds us and heals us. If we want a snack, any old plastic-wrapped thing will do, but when we need to be fed, plants are the ATMs that supply a seemingly endless supply of nourishment from the soil. For optimal health we look to food in its most natural state—fresh from the garden.

In time, fertility and yields decline, plants lose their vigour and our harvest loses its flavour. Eventually we have to make a deposit, and the soil's army of tellers waiting to receive your input are the decomposers.

Any community garden worth its rhubarb has a few compost piles in various stages of decomposition.

When gently guided through the dark decay, even picky parents armed with an arsenal of hand sanitizers will surrender to the magic of nature at work. Autumn in a veggie patch is the perfect time to find our place amid the cycles of food and rot.

Compost is the best gift we can give the soil, because next year it gets gifted right back. For educators, it is one square metre of waste reduction, environmental efforts, stewardship, health, philosophy and spirituality. With so many opportunities in one place, why not pack a lunch?

Gardens are often within walking distance of schools,<sup>1</sup> and the only price of admission is respect. They become sites for exploration and discovery, therapy, community involvement and enterprise. With guidance, they contain ample topics for writing, art and social commentary on themes of waste, resources and sustainability.

Anyone who has pulled a carrot, rubbed off the soil and tasted the cool, sweet flavour not only learns

about food and nutrition but builds a dependence on the soil in new ways. (You also get asked to leave the garden, because those veggies aren't yours.)

An hour in a community garden gives kids a head start toward making healthy choices. Through composting we see the magic of soil at work, and begin to understand the complexity in the thin layer of the planet that sustains us.

## Note

1. In Edmonton and area, find a garden near you at [www.edmcommunitygardens.com](http://www.edmcommunitygardens.com).

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*As the City of Edmonton's compost programs coordinator, Mark Stumpf-Allen visits Grade 4 classrooms in Edmonton and area with his bin of activities that encourage kids and their parents to play in the dirt. Teachers can book an in-school visit from a waste-reduction specialist by calling 780-496-5404. Mark is a vocal advocate for the growing community garden movement; his garden nourishes his body, community and soul.*

# Your School Community Garden

Karin Davidson-Taylor

Imagine creating a village in your school garden. The garden would represent different components of your community while exploring sustainable gardening practices. Creating a garden benefits both students and their community. Gardens promote academic achievement by providing a dynamic place to learn, explore and experience the natural world first-hand. They also provide opportunities to promote a healthy lifestyle, encourage environmental stewardship, and support community and social development.

Educators want their students to succeed. School gardens offer a variety of hands-on learning experiences for any subject. Science is the most common link since gardens are dynamic ecosystems and living laboratories. Real-life

experiences contribute to comprehension and retention, resulting in improved academic achievement. Concepts that are dry in the classroom come alive in the garden. Rather than charting numbers from a textbook, measure your beans' growth daily and chart that growth, which will lead to great discussions based on personal observations.

Community gardens promote healthier, active lifestyles, encouraging healthy eating habits and proper nutrition in children and their families. Gardening programs provide first-hand experiences—eating fresh fruits and vegetables, and discovering that they do not magically appear in grocery stores. Pulling out that first carrot they've nurtured, washing it and taking a bite can spark children's curiosity

and pride in what they have grown, leading to positive attitudes and improved eating habits. They are also more likely to try something new if they've grown it themselves, thus broadening their food horizons.

At the Royal Botanical Gardens in Hamilton, Ontario, Veggie Village is a display garden that was created to help people from different backgrounds and lifestyles make a connection to gardening in one form or another while promoting sustainable gardening practices. Students and the public can explore these gardens for ideas for growing their own food sustainably based on the resources they have available. The gardens differ based on the location and amount of space they take, as well as the types and arrangement of the plants. For instance, there is Grandma's Garden. This traditional garden is planted with heritage seeds from plants bred for local conditions. Open-pollinated seeds, sourced from local organic gardeners, can be harvested and sown the following year, as our ancestors would have done. This presents an opportunity for intergenerational interactions—what did your grandparents plant?

Not everyone has access to land, especially in cities. Students can create an urban garden using containers. Instead of buying planters, they can reuse items like old rubber boots. Design a garden



*Old boots and buckets. Why not reuse and garden at the same time?*



*From veggie scraps to nutritious soil, thanks to your composter.*



*Create a plan for your garden before you plant.*

based on geometry and patterns. Create an herb garden or a food-themed garden (such as a pizza garden) to promote understanding of the origins of our food. Encourage families to plant culturally important vegetables, broadening your students' food horizons while promoting social and community development. School gardens are one way to reduce poverty and encourage social responsibility. Students decide how to distribute the bounty—to school families or social organizations.

Gardens are an excellent way to promote environmental education and stewardship. For their garden to succeed, students need to look after this dynamic ecosystem. Through practising sustainable growing practices, they are better able to explore the web of interactions among living and nonliving garden components. Biodiversity is the key. In Grandma's Garden, planting garlic between

flowers, or interspersing marigolds with tomatoes, helps reduce pests. If you notice bugs, decide if they are damaging your plants. If they are eating more of the plant than you are, pick them off or spray them off with water. Predacious insects and birds will take care of the rest. This is an opportunity to encourage the junior entomologists in your class.

Regardless of the garden type, involved students learn to care for natural resources and will reduce their ecological footprint while making the critical connection to their natural environment. Don't trash food waste after lunch. Classes can make their own outside

composter, or classroom vermicomposter, using the organic product in their garden. Rainwater can be collected rather than allowing it to flow off asphalt playgrounds into the sewer. All of these efforts will save money while demonstrating what can be done by people from a variety of cultural and economic backgrounds.

Gardens are fun! Once the basic skills are acquired, gardening can become a lifelong interest. Gardens give students opportunities to explore the outdoors, connect with nature and improve their academic performance. They also provide opportunities for socializing with classmates and community

members, and helping those in need while learning how we can step lighter on our earth.



*Share the bounty with local community groups.*

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*Karin Davidson-Taylor is the outreach education coordinator at the Royal Botanical Gardens, in Hamilton, Ontario.*



# Resources

## *Schoolyard Habitat Project Guide*

The US Fish and Wildlife Service's Schoolyard Habitat Program is proud to announce the availability of the brand-new *Schoolyard Habitat Project Guide*.

The guide is your road map for transforming your school grounds into a destination that will engage the entire school community in habitat restoration. Once you use this how-to guide, your school community will connect to the natural world, not by sitting inside and looking out but, instead, by being outside and looking deeper.

This simple guide will take you and your students through each step of the process: planning, installing and sustaining a project. This is not a book about why schoolyard projects are important; rather, it is a guide to how to plan the schoolyard project best suited to your site.

This free guide is available at [www.fws.gov/cno/conservation/schoolyard.cfm](http://www.fws.gov/cno/conservation/schoolyard.cfm). To request a hard copy, e-mail [R8schoolyardhabitat@fws.gov](mailto:R8schoolyardhabitat@fws.gov).



# E-SAGE

So you want to live a more sustainable lifestyle . . . but where do you start?

Edmontonians Supporting a Green Economy (E-SAGE) was founded three years ago to address just that question. E-SAGE wanted to make it incredibly easy for local community members to find whatever resource they need to take the next step in making their lifestyle or business more sustainable.

E-SAGE encourages Edmonton-area businesses and community members to become greener, to think local first and to make informed, socially responsible choices about how they earn and spend their money. E-SAGE works to support them in contributing to the development of a vibrant local living economy, community and environment through networking events and workshops.

For more information, visit [www.e-sage.ca](http://www.e-sage.ca).



# EarthSave

EarthSave ([www.earthsave.org](http://www.earthsave.org)) is a nonprofit organization formed in 1988, with the mission to educate and to teach people how to make healthy food choices. Its 30-day Meals for Health intervention program helps low-income participants reduce their health-care costs and puts them on a path of wellness and recovery, using a low-fat plant-based diet.

EarthSave is guided by the philosophy of founder John Robbins: May all be fed. May all be healed. May all be loved.



**EarthSave**<sup>®</sup>  
HEALTHY PEOPLE HEALTHY PLANET

# One Simple Act

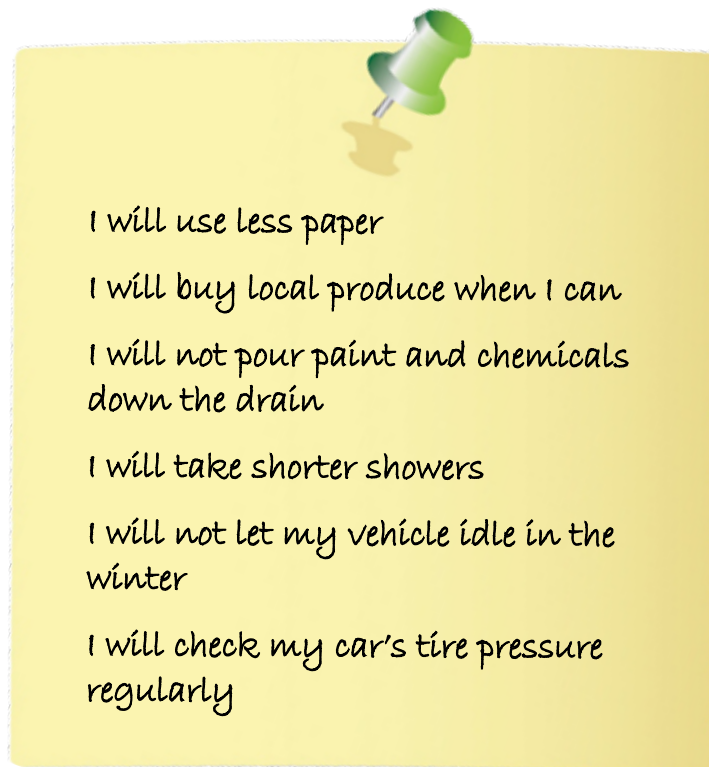
The Government of Alberta has created a website to show Albertans how even small choices made at work, school or home can have a positive impact on the environment.

One Simple Act ([www.onesimpleact.alberta.ca](http://www.onesimpleact.alberta.ca)) contains tips, news, challenges and success stories related to the environment.

The section of the website devoted to schools ([www.onesimpleact.alberta.ca/get-involved/schools.asp](http://www.onesimpleact.alberta.ca/get-involved/schools.asp)) advises educators to

choose environment actions that can easily fit within your school's culture. For example, build awareness of water conservation and have students use refillable containers, adopt a school-wide zero-waste lunch program and/or turn off the lights when rooms are empty. One Simple Act has collected some tools and materials to help your school succeed on its journey to sustainability.

The toolkits and resource guides for K-12 cover topics such as air quality, waste reduction and water conservation. You can also sign up to receive the free *One Simple Act* newsletter.



# Global, Environmental and Outdoor Education Council

## Mission Statement

To promote involvement in quality global, environmental and outdoor education

## Objectives

- To provide a vehicle for Alberta teachers for professional development and communication in global, environmental and outdoor education
- To study and make professional recommendations about global, environmental and outdoor education issues
- To network with other provincial organizations that have similar concerns

## Membership

- Regular member—Active and Associate members of the Alberta Teachers' Association, as specified in ATA bylaws, are entitled to full privileges of council membership including the rights to vote and to hold office.
- Student member—Student members of the ATA are entitled to all benefits and services of council membership except the right to hold office.
- GEOEC members may also choose to belong to the Canadian Network for Environmental Education and Communication (EECOM) for an additional fee.
- ATA members may sign up for a GEOEC membership through the ATA website as their choice of one free specialist council membership included in the ATA annual fee.
- ATA members and subscribers may also sign up for a GEOEC membership and pay a fee determined by the GEOEC executive. From time to time the executive may decrease the fee to provide incentives for membership recruitment.

## Subscribers

- Persons who are not ATA members as specified by ATA bylaws receive all the benefits and services of

council membership except the rights to vote and hold office. Subscribers do have the right to serve as community liaisons on the council executive.

## Publications

- The GEOEC recognizes the wide range of interests among members and strives to foster the exchange of ideas and provide information and articles relating to the various components of the elementary and secondary curricula through the publication of *Connections*.
- The GEOEC maintains a website in order to publish timely information and provide access to like-minded organizations and individuals.

## Annual Conference

- The annual conference features a blend of activities, indoors and outdoors, ranging from hands-on workshops to social gatherings. All grade levels are represented in sessions. The emphasis is on practical information and application. The annual general meeting of the GEOEC is held in conjunction with the conference.

## Executive

- Members are elected to serve on the GEOEC executive.
- Contact the president or past president of the GEOEC through the ATA office if you are interested in seeking a position.
- Elections take place at the annual general meeting during the annual conference.

## Workshops

- Various activities and workshops are organized by the GEOEC either as standalone events or in conjunction with other organizations.

### Join now and become involved in the Global, Environmental and Outdoor Education Council

Name \_\_\_\_\_ Alberta Teaching Certificate No \_\_\_\_\_

Address \_\_\_\_\_ Postal Code \_\_\_\_\_

School or Employer \_\_\_\_\_ Grade Level/Specialty \_\_\_\_\_

New Membership

Renewal of Membership

\$25.00 Regular Membership

\$12.50 Student Membership

\$30 Subscription

\$10 EECOM Membership (in addition to GEOEC membership)

Make cheque payable to the Alberta Teachers' Association and mail it with the application to the Association at 11010 142 Street NW, Edmonton AB T5N 2R1.



# Permission for Use of Photographs or Student Work

The Alberta Teachers' Association (ATA) requests the permission of parents/guardians for the reproduction of photographs depicting their children and/or the reproduction of work assignments completed by their children. The photograph/work will be reproduced in the Global, Environmental and Outdoor Education Council (GEOEC) newsletter, *Connections*, and is intended for teacher professional development.

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**Name of student** \_\_\_\_\_

**I, \_\_\_\_\_ (printed name of parent/guardian of student), agree to the use of this photograph/work for the purpose stated above.**

**Signature** \_\_\_\_\_

**Relationship to student** \_\_\_\_\_

**Address** \_\_\_\_\_

**Postal code** \_\_\_\_\_

We have recently begun posting archived issues of *Connections* on the GEOEC website ([www.geoec.org/newsletter](http://www.geoec.org/newsletter)). Are you willing to have your child's written work posted on the Internet as well?

- Yes, I agree to have my child's written work posted on the GEOEC website.
  - Yes, I agree to have my child's written work posted on the GEOEC website, using a first name only.
  - No, I do not want my child's written work posted on the GEOEC website.
- 

**Please fax or mail forms to**

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## **Specialist councils' role in promoting diversity, equity and human rights**

Alberta's rapidly changing demographics are creating an exciting cultural diversity that is reflected in the province's urban and rural classrooms. The new landscape of the school provides an ideal context in which to teach students that strength lies in diversity. The challenge that teachers face is to capitalize on the energy of today's intercultural classroom mix to lay the groundwork for all students to succeed. To support teachers in their critical roles as leaders in inclusive education, in 2000 the Alberta Teachers' Association established the Diversity, Equity and Human Rights Committee (DEHRC).

DEHRC aims to assist educators in their legal, professional and ethical responsibilities to protect all students and to maintain safe, caring and inclusive learning environments. Topics of focus for DEHRC include intercultural education, inclusive learning communities, gender equity, UNESCO Associated Schools Project Network, sexual orientation and gender variance.

Here are some activities the DEHR committee undertakes:

- Studying, advising and making recommendations on policies that reflect respect for diversity, equity and human rights
- Offering annual Inclusive Learning Communities Grants (up to \$2,000) to support activities that support inclusion
- Producing *Just in Time*, an electronic newsletter that can be found at [www.teachers.ab.ca](http://www.teachers.ab.ca); *Teaching in Alberta*; *Diversity, Equity and Human Rights*.
- Providing and creating print and web-based teacher resources
- Creating a list of presenters on DEHR topics
- Supporting the Association instructor workshops on diversity

Specialist councils are uniquely situated to learn about diversity issues directly from teachers in the field who see how diversity issues play out in subject areas. Specialist council members are encouraged to share the challenges they may be facing in terms of diversity in their own classrooms and to incorporate these discussions into specialist council activities, publications and conferences.

Diversity, equity and human rights affect the work of all members. What are you doing to make a difference?

Further information about the work of the DEHR committee can be found on the Association's website at [www.teachers.ab.ca](http://www.teachers.ab.ca) under Teaching in Alberta, Diversity, Equity and Human Rights.

Alternatively, contact Andrea Berg, executive staff officer, Professional Development, at [andrea.berg@ata.ab.ca](mailto:andrea.berg@ata.ab.ca) for more information.

# GEOEC Executive 2010/11

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