In the following, please find a listing of courses planned within the topics of food systems, farm management, food distribution, market gardening, environment & ecology, impact assessment, home gardening, food preparation, and property assessment. Courses and talks will be offered during winter and on request.

Please contact us via phone (519 935 3005) or email (<u>info@gbcae.com</u>) for details and prices.

We also offer workshop series, e.g. the fruit orchard management series during summer 2014 (<u>www.gbcae.com/courses\_fruits.html</u>).

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#### 1. Food systems and Agroecology

Agroecology – an introduction	The presentation outlines the basic concept of agroecological farming, and introduces agroecology as a science, a farm design and management principle, and a movement. The presentation gives examples of agroecological systems worldwide and in North America, as well as conceptual strategies.	Thorsten Arnold	Presentation	1 hour
Agroecology of soils	The presentation takes a look at the role of soils for agricultural production, contrasting farming that uses external inputs to manage fertility to agroecological farming, which fosters complex interactions for fertility, plant health and pest containment.	Jeri Parrent	Presentation	1 hour
Agroecology of food systems	Viewing farm enterprises and the whole food system with an ecosystem lens reveal a new dimension to how actors in our food system depend on each other. This presentation elaborates how farmers, processors, distributors, and ultimately consumers can only operate within the values passed on within the food system. We also present innovative approaches that maintain values and foster knowledge amongst farmers as well as consumers.	Kristine Hammel, Thorsten Arnold	Presentation	90 min
Food production in a changing climate	The presentation connects the dots between feeding the world, farm production systems, and our change climate. Participants will learn how changing weather patterns directly and indirectly affect food production, and why production systems based on healthy and biologically active soils not only improve our resilience to climate change but benefit many other parts of our society and environment.	Thorsten Arnold	Presentation	60 min
Agriculture and Empire	Explore the relationship between the structure of agriculture (who owns what, in what sized pieces) and the rise and fall of empires.	Freeman Boyd	Presentation and open discussion	2 hours

Building Local Food Systems Opportunities, challenges, barriers	This talk discusses visions of sustainable local food systems. It describes the beneficial impacts that result from a societal transition toward local food, as well as the challenges inherent in a northern climate and today's economic and political context. Challenges to the growth of local food systems, especially production, processing and distribution are described. Then current opportunities are identified, as well as political strategies that would foster systematic change.	Kristine Hammel, Thorsten Arnold	Presentation and open discussion	90 min
Why buy organic	This talk discusses the options consumers face and the compromises they can make. Scientific insights on the impacts of organic and local food on health, the environment, the agricultural labour force, and the rural economy are presented and discussed. Then, food choices are linked with cultural factors, traditions and historic events. Ultimately, we recommend strategies for food choices, cooking and shopping that support consumers in making choices that support their values and the realities of their daily lives.	Thorsten Arnold, Kristine Hammel	Presentation and open discussion	90 min
Farmers markets: their role in business incubation and community development.	In this talk, Freeman provides background, examples and numbers on how farmers markets can help to revitalize and diversify a rural economy.	Freeman Boyd	Presentation and open discussion	2 hours
Local organic food systems - Impacts on health, the environment and our society	This talk is based on findings from a study of a local organic farm that supplies food to 650 customers in Toronto. The talk also gives a broader perspective on food system resilience, health, behaviour changes, environmental and economic impacts.	Thorsten Arnold	Presentation	60 min
Introduction to agricultural economics	This workshop takes the premise that all farmers should have a basic understanding of economic concepts. Using simple everyday examples, participants will be introduced to marginal analysis and the most useful concepts for analyzing costs and identifying comparative advantages. Opportunity costs, partial, whole enterprise and cash budgeting form the basis of the workshop, along with balance sheets and income statements, in order to support whole farm business analysis.	Brenda Hsueh, Thorsten Arnold, Kristine Hammel	Workshop	2 days
Regulations impacting small scale food production, processing and marketing	The presentation provides a detailed overview of regulatory barriers and opportunities that a small-scale food chain faces, and lays out individual and political strategies to address these issues.	Freeman Boyd	Presentation and open discussion	2 hours
Local Food Purchases by the Broader Public Sector Market	This workshop will provide staff in broader public sector institutions an understanding of the realities of the local food movement in Ontario and what is required of them in order to successfully incorporate local foods into their food services. A hands-on SWOT (strength, weakness, opportunity, threat) assessment will help buyers assess their current capacities to use local foods and identify potential next steps for increasing their use in the future.	Kristine Hammel, Brenda Hsueh	Workshop	half day

## 2. Farm Management

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Selling Food to the Broader Public Sector Market	This workshop will provide producers with an understanding of the realities of the broader public sector market and what is required of them in order to be able to enter the market. A hands-on SWOT (strength, weakness, opportunity, threat) assessment will help producers assess their current capacities to pursue the broader public sector market and identify potential next steps for increasing their capacities in the future.	Kristine Hammel, Brenda Hsueh	Workshop	half day
Introduction to agricultural economics	This workshop takes the premise that all farmers should have a basic understanding of economic concepts. Using simple everyday examples, participants will be introduced to marginal analysis and the most useful concepts for analyzing costs and identifying comparative advantages. Opportunity costs, partial, whole enterprise and cash budgeting form the basis of the workshop, along with balance sheets and income statements, in order to support whole farm business analysis.	Brenda Hsueh, Thorsten Arnold, Kristine Hammel	Workshop	2 days
Regulations impacting small scale food production, processing and marketing	The presentation provides a detailed overview on regulatory barriers and opportunities that a small-scale food chain faces, and lays out individual and political strategies to address these issues.	Freeman Boyd	Presentation and open discussion	2 hours

Small scale feather farming in a supply managed market	Learn about the limitations and niche opportunities that today's supply managed market means for small-scale producers and processors	Freeman Boyd	Presentation and open discussion	2 hours
Funding ecological projects on your farm	Species at Risk Farm Incentive Program (SARFIP), Grassland Habitat Farm Incentive Program (GHFIP), Water's Edge Transformation Program (WET), ALUS, Environmental Farms Plans, and more programs are presented in plain language.	Freeman Boyd, Thorsten Arnold, Jeri Parrent	Presentation and discussion	2 hours
Software for the Market Garden and CSA	Managing market gardens and community supported agriculture programs can require a significant amount of administration time and technical knowledge of spreadsheets and databases. However, increasingly off-the-shelf software is available to help growers spend less of their time fighting with spreadsheets and more of their time growing. This workshop will look at three types of software currently available: (1) crop production planning software, (2) CSA administration software, (3) website management, describing the options available, their capabilities and costs.	Kristine Hammel	Workshop	1 day
Benchmarking Vegetable Production for Production Clubs	In order to set and meet livelihood goals, farmers can analyze their operations and share information with other farmers. This process is called benchmarking, which can also be described as the process of comparing one's farm processes and performance to sector bests. The goal is to learn how well each farm is doing in various dimensions of farming and, more importantly, learn what contributes to success. Joining together in production clubs with other growers provides a great learning environment and is the basis for carrying out benchmarking with operations in your region. Beyond the selection of scale and level of mechanization, benchmarking can help growers continually improve their production practices and learn from their peers. This workshop will provide groups with the tools to start benchmarking their production practices and learning together.	Kristine Hammel, Brenda Hsueh	Workshop	1 day
Greenhouse gas accounting of food distributors	The workshop provides local food suppliers and distributors with a perspective to improve the environmental impact of their operation, while also highlighting opportunities for improving overall business efficiency and economic performance. The key audience are local food distributors who are interested in measuring their greenhouse gas (GHG) emissions, reducing their operation's overall emissions, and identifying opportunities to improve financial performance through increased energy efficiency. Comparing one's own GHG emissions with other food chains also provides a useful marketing tool for the local food sector.	Thorsten Arnold	Workshop	3 hours
Pollinator Habitat Assessment on your farm	Assess how your farm provides foraging and nesting habitat to native and non-native pollinators and learn how to improve	Jeri Parrent	Workshop	Full day

# 3. Market and Home Gardening

Title	Description	Presenter	Туре	Duration
Agroecology in the Market Garden	Agroecology can be defined as the application of ecological concepts and principles to the design and management of sustainable agroecosystems. The idea of agroecology is to develop agroecosystems with minimal dependence on agrochemical and energy inputs, emphasizing complex agricultural systems in which ecological interactions and synergisms between biological components provide the mechanisms for the systems to sponsor their own soil fertility, productivity and crop protection (Altieri and Rosset 1995). This workshop focuses on practically applying these concepts to market gardens (less than 3 acres), by providing a foundation in agroecological concepts, describing techniques and approaches for	Kristine Hammel, Laurie Thomson	Workshop	2 days
	agroecological concepts, describing techniques and approaches for applying these concepts to the market garden and offering			

	participants the opportunity to create plans for how they will apply the concepts and techniques in their gardens, which will be shared and discussed with the group.			
Cover Crops in the Market Garden	The workshop starts with an overview of the potential benefits of cover crops for vegetable growers. We then describe several ways in which to incorporate cover crops into your production system, including their use instead of fallows, during non-crop periods, as an intercrop and as an in-situ grown mulch. Tips on how to start including cover crops in your production system are followed by descriptions of key cover crops, including cereals, legumes, buckwheat, brassicas and others. The workshop concludes with a chance for growers to brainstorm ways they would like to use cover crops and then share their ideas with other participants for feedback.	Kristine Hammel, Laurie Thomson, Brenda Hsueh	Workshop	1 day
Intercropping in the Market Garden	The workshop starts by describing different degrees of intercropping and their potential benefits. It then provides a detailed summary of beneficial and antagonistic relationships between vegetable crops, as a basis for designing intercrop systems. Next, different approaches to intercropping in a commercial operation are described, with a discussion of the associated advantages and disadvantages. Finally, participants will have the opportunity to apply these concepts to their operations and present them to the group for discussion and feedback.	Kristine Hammel	Workshop	1 day
Crop Rotation in the Market Garden	The workshop starts with an overview of the potential benefits of crop rotation for vegetable growers, including impacts of soil fertility, plant health, weeds and pests. We then take growers through a step-by- step process to help them manage their crop rotation. The process includes identifying goals, recording the farm's crop mix, checking for adequate return times, identifying short sequences that work for you, mapping your crop rotation, describing each of your fields, planning your rotation, addressing fall-planted crops and cover crops, and making contingency plans. The workshop concludes with a chance for growers to share their crop rotation plans with other participants for feedback.	Kristine Hammel, Laurie Thomson, Brenda Hsueh	Workshop	1 day
Tools, Techniques and Ergonomics for the Market Garden	Efficient and comfortable tools are essential to operating a successful market garden. Many of the necessary tools cannot be found at local hardware and farm supply stores. This workshop will start by reviewing some ergonomic principles for protecting the body and avoiding fatigue, as well as observations that market gardeners should keep in mind. We then showcase a range of tools for the market garden, describe how they are used, identify suppliers, compare options and provide participants with the opportunity to get their hands on them!	Kristine Hammel, Laurie Thomson, Brenda Hsueh	Workshop	1 day
Fruit orchards: Resurrecting old apple orchards	This full-day workshop introduces you to the art of pruning apple trees. We focus on dealing with trees that have not seen any pruning in a long time and need to be trimmed back into shape.	tbd	Workshop	half day
Soil and Soil Health	This in-depth workshop provides participants with an introduction to soil science in order to support participants' ability to mange their soils for health and quality. Topics include basic concepts and terms such as parent materials and weathering, horizons, soil texture (sand, silt, clay) and physical properties, soil structure, water and air in soil, colloids and cation exchange capacity, pH, organic matter, soil organisms, macro nutrients (nitrogen, sulphur, phosphorous, potassium) and micro nutrients, and soil classification/taxonomy.	Kristine Hammel, Laurie Thomson, Jeri Parrent	Workshop series	5 weeks, 2.5 hours
Greenhouse gas accounting of food distributors	The workshop provides local food suppliers and distributors with a perspective to improve the environmental impact of their operation, while also highlighting opportunities for improving the overall business efficiency and economic performance. The key audience are local food distributors who are interested in measuring their greenhouse gas (GHG) emissions, reduce their operations overal emissions, and identify opportunities to improve financial performance through increased energy efficiency. Comparing own GHG emissions with other food chains also provides a useful	Thorsten Arnold	Workshop	3 hours

	marketing tool for the local food sector.			
Pollinator Habitat Assessment on your farm	Assess how your farm provides foraging and nesting habitat to native and non-native pollinators.	Jeri Parrent	Workshop	Full day
Container Gardening for Food & Pollinators	This family-oriented 90-minute workshop introduces participants of all ages to the basics of container gardening for food production and attracting pollinators, and provides a hands-on opportunity for participants to plant their own container gardens to take home.	Laurie Thomson	Workshop	90 min
Through the garden year to good food	This series of workshop for home gardeners provides theory and hands-on exercises during 6 full-day workshops. Topics include full- season crop planning, transplant production, composting, soils, organic weed and pest management, harvesting and post-harvest handling. There will be plenty of time for coffee discussions and conversation.	Kristine Hammel	Workshop series	6 full-day workshops
Exploring Food Plants & Their Edible Parts	This 2-hour family-oriented workshop provides participants of all ages an opportunity to do a hands-on investigation of several edible garden plants and to learn more about the various plant parts we eat, including roots, stems, leaves, flowers, fruit, and seeds. The workshop wraps up with a collaborative group effort of harvesting ingredients, preparing a salad and eating it together.	Laurie Thomson	Workshop	2 hours
Creating a pollinator garden	Learn how to arrange native plants and provide nesting habitat for bees, bumble bees, and butterflies.	Jeri Parrent	Workshop	Full day

## 4. Ecology, the environment and food

Title	Description	Presenter	Туре	Duration
Food production in a changing climate	The presentation connects the dots between feeding the world, farm production systems, and our change climate. Participants will learn how changing weather patterns directly and indirectly affect food production, and why production systems based on healthy and biologically active soils not only improve our resilience to climate change but benefit many other parts of our society and environment.	Thorsten Arnold	Presentation	60 min
Local organic food systems - Impacts on health, the environment and our society	This talk is based on findings from a study of an local organic farm that supplies food to 650 customers in Toronto. The talk also gives a broader perspective on food system resilience, health, behavior changes, environmental and economic impacts.	Thorsten Arnold	Presentation	60 min
Greenhouse gas accounting of food distributors	The workshop provides local food suppliers and distributors with a perspective to improve the environmental impact of their operation, while also highlighting opportunities for improving the overall business efficiency and economic performance. The key audience are local food distributors who are interested in measuring their greenhouse gas (GHG) emissions, reduce their operations overal emissions, and identify opportunities to improve financial performance through increased energy efficiency. Comparing own GHG emissions with other food chains also provides a useful marketing tool for the local food sector.	Thorsten Arnold	Workshop	3 hours
Farm botany	Learn to identify forbs in all stages of development and what they tell you about the soils and microhabitats on your farm	Freeman Boyd, Ivan Chan	Presentation and open discussion	2 hours
The Kingdom of fungi	Learn the ecological functions of fungus and the importance of mycorrhizic (symbiotic) relationships for forests and crops. Field trip	Freeman Boyd, Jeri Parrent	Presentation and open	half day

	on basic mushroom ID (depending on season).		discussion	
Building bird habitat	Learn the benefits our nesting birds bring to your farm, and how to attract them	Freeman Boyd, Peter Middleton	Presentation and open discussion	2 hours
Creating a pollinator garden	Learn how to arrange native plants and provide nesting habitat for bees, bumble bees, and butterflies.	Jeri Parrent	Workshop	Full day
Pollinator Habitat Assessment on your farm	Assess how your farm provides foraging and nesting habitat to native and non-native pollinators.	Jeri Parrent	Workshop	Full day

## 5. Food Preparation

Title	Description	Presenter	Туре	Duration
Cooking from Scratch: Healthy, efficient and delicious	The focus of the series is to provide participants with basic cooking tools, skills and planning tools that they can use to make nutritious and delicious dinners for their families without spending all their time in the kitchen. You'll go home with a two week menu plan that includes both meat and meatless dinners, all the recipes, shopping lists and most importantly the skills and confidence to make these dishes at home. In addition to practical tips in the kitchen, the workshop also covers planning your week and shopping trips, affordability, finding right portion sizes, tips for freezing and leftover use, and sourcing good food.	Sabine Robart	Workshop series	6 sessions, 2 hours each
What to do with your CSA basket	This workshop series focuses on the vegetables that are currently in season and the ones that will be coming up shortly. We'll cover what to do with your veggies when they come home to you – washing and storage, shelf life (ie what should I eat tonight and what will keep until the end of the week), how to prepare and cook the veggies, and how to preserve any surplus (freezing, canning, drying, etc). Each workshop will end with the preparation of a lunch where we practice what we learned.	Sabine Robart	Workshop series	monthly, half-day each
Pies and Tarts	This workshop is an introduction for the beginner baker on how to make pies and tarts. Pies and tarts are incredibly versatile. Our workshop will teach you how to make a great pie dough and then use that dough in a few different ways. We'll make a traditional fruit pie with whatever fruit is in season (rhubarb, strawberry, peach apple, etc.), butter tarts, a quiche and a fruit tart filled with pastry cream and covered with a variety of fruits. The workshop is half a day and includes lunch.	Sabine Robart	Workshop	Half day
Home-made cider	This one-day workshop offers background on the making of hard and sweet apple cider and basic equipment. Then, the group will press and make cider practically.	Kristine Hammel, Thorsten Arnold	Workshop	Full day