

## "Homesteading & Small Scale Agriculture"

Wednesday, May 25th, 2016 Presenter: Brittany MacLean (info@freshroutefarm.ca)

## Small-scale sustainable agriculture is...

a natural outgrowth of sustainable agriculture, which is essentially agriculture that produces abundant food without depleting the earth's resources or polluting its environment. It is agriculture that follows the principles of nature to develop systems for raising crops and livestock that are, like nature, self-sustaining.

Small-scale agriculture can be achieved using a number of different systems, including:

**Organic agriculture** - an agricultural system that refrains from using chemical inputs throughout the production process

**Biodynamic** – follows the same principles as organic agriculture and it also includes viewing the farm as a holistic system that depends on ecological, social and economic balance

**Permaculture** – a practical, design-based system and philosophy based on caring for people, the environment and a fair distribution system

**Integrated Pest Management** - managing crop production on the whole farm in a way that maintains and enhances the environment for wildlife and people, while at the same time producing economic yields of high yielding, quality crops (uses biological controls until pests reach a threshold that threatens more than a 30% crop loss, and then chemicals, organic and inorganic, are applied

**Agroecology** - farming systems that utilize biological principles to improve farm production, whilst simultaneously conserving natural resources and addressing the wider social and economic landscape of the area in which it is situated, and the effect on and by local farming practices, farmers and the natural community

Regardless of the system one chooses, there are a number of practices commonly utilized by small-scale, sustainable farmers:

**Cover cropping** – planting crops for the primarily to manage soil erosion, soil fertility and quality, water, weeds and pests rather than sowing to harvest for consumption. Cover crops can be planted in the spring, summer or fall. Some are tilled and incorporated into the soil while other are chopped down and left to cover the soil.

**Crop rotations** – planting crops in different plots on a rotational basis over several growing seasons. The goal of rotating crops is to maintain and improve soil fertility and to reduce issues associated with pests and soil-borne diseases. This method is effective because each crop family has a different set of nutritional requirements and pests.

**Polycultures / Intercropping** – A polyculture is simply an agricultural system that incorporates a variety of crop (and even non-crop) species, rather than growing a large

swath of one crop. Intercropping or companion planting means growing two or more crops in close proximity to improve yield or outcome.

**Integrated forestry practices** – Including trees near garden beds to increase biodiversity, attract pollinators, provide shade for crops or provide a windbreak.

**Integrated pest management** – Introducing beneficial insects, crops or other plants to mitigate damage from pests.

**Use of compost and manure** – In lieu of chemical fertilizers to increase soil microbial activity and soil fertility, supress soil-borne diseases, improve soil structure and increase soil biodiversity.

**Animal Integration**— to create healthier pastures, to have manure for crops and to add to the economic resilience of the farm

The practices coincide with the principles and outcomes that farmers are often looking to achieve, including:

- Increasing biodiversity
- Strengthening biological regulation
- Creating a closed loop system
- Optimizing the use of local resources and their interactions
- Reducing off-farm inputs
- Improving conditions through matches between crops, livestock and environmental conditions and constraints
- Managing whole systems

- Using renewable resources
- Minimizing toxins
- Conserving resources
- Managing ecological relationships
- Diversifying
- Empowering people
- Maximizing long-term benefits
- Enhancing biological diversity in the 'natural' and farmed system; and taking advantage of local knowledge and practices
- Valuing heath

## Some additional considerations before becoming a small-scale farmer:

Consider **how much money you need to make each season**, before the season begins. Do your research to find out how much crops sell for and how much to grow to meet your needs, rather than planting and hoping you will have made a profit at the end of the year.

Consider whether or not you want to try to make an income from farming only. Farming is full of risks and financial uncertainties, which makes it difficult to leave a secure job, but it is also difficult to make progress farming part-time. Can you work another job part-time? Or work from home? Can you or your partner work while the other farms full-time?

**Be prepared to invest in tools**. Often, individuals interested in small-scale sustainable agriculture are interested in performing manual labour that does not require a huge capital investment or the use of fossil fuels. However, in order to make a profit and protect one's body, investing in the proper tools is necessary. Tools may be manual, while others may not be, but taking the time to learn what is most ergonomic, efficient and right for your farm and scale is essential.

**Be prepared to spend a lot of time learning.** Farming requires hands-on experience, including experience on other farms and time spent experimenting with your own techniques, space and practices. It also requires winter evening spent reading, attending workshops and designing garden plans.

**Consider your market** – Producing food on a small-scale sustainable farm is a niche itself, but you also need to consider if you would like to grow a small volume of high value crops, or a larger volume of storage and mixed crops and whether you will be producing value-added products or not.

Consider: Are you ready to make your hobby (gardening, homesteading, keeping livestock) into your full-time job?