

Workshop Title: Extending the Harvest: Growing more Vegetables in a Short Growing Season

Speaker & their title: Alyson Chisholm of Windy Hill Farm

Executive Summary: Alyson Chisholm goes in detail about what options there are for extending your garden's season and maintaining a continuous harvest.

Detailed Notes:

Planning stage

- She highlights the importance of deciding what you want to grow.
- Factor in your region and consider early varieties for a quicker harvest.
- Question what plants need additional preparation such as chitting potatoes.

Transplanting

- Ensure you have a good potting mix.
- Crops such as beets can be started indoors in order to have a faster harvest date.
- Corn for example thrives when transplanted because it avoids seeds rotting in cold ground
- Establish a South facing green house, allowing the ability to begin growing in the middle of February. Adequate light helps prevent spindly sprouts.
- In her greenhouse she uses heating cable on the base of tray platforms. It is then covered with sand before setting the transplant trays down.
- Small seeds do better in smaller cells, that can be transplanted to a larger when the seedling gets bigger.
- Some of the first seeds she plants are early spinach, lettuce, spring turnips, radishes, onions, mustard greens, chard and kale.
- Row covers are used when early transplants are first put out.

Plastic mulches/Landscape fabric

- Landscape fabric can be walked on, help with weed suppression and protects any fruit of the plant from directly touching the soil.
- Plastic film comes in a variety of colours and is single use.
- The biodegradable plastic mulches cannot be store for a long period of time and fragments still appear in the soil years afterwards. No longer approved for organic farming.
- Landscape fabric can be reused, but plant spacing holes will remain the same and don't allow for any variance.
- Burn the holes in landscape fabric to prevent the ends from fraying.
- Local sources include Feeds n Needs, Vesey's and Quebec-based Dubois Agrinnovation Inc.

Q: How do you burn holes in the landscape fabric?

A: A metal coffee can is heated and used to burn holes. The material is not very forgiving;

be sure in advance exactly where you want the holes/plants to be.

Floating row cover

- A polyester material rests on top of the plants. This helps prevent bugs such as flea beetles and aids in heat retention.
- A heavier weight has less light transmission, but retains more heat.
- She uses the 19 grade in the spring which offers enough heat and also allows in enough light
- She uses rocks to hold down the cover and suggests weighing it down instead of pegging which offers not as firm of a hold.

Plastic high and low tunnels

- High tunnels allow you to walk through, where low tunnels need to be removed for garden prep.
 - High tunnels offer the added benefit of structure for taller plants such as indeterminate tomatoes.
 - Plastic is removed at the end of the season which reduces need for building for snow load and extends the life of the plastic
- The Johnny's Seeds bender is used to bend the posts for her high tunnels.
- The top beam, made of galvanized steel, offers additional support.
- Parachute cord is used to tie down the plastic in a crisscross pattern.
- Ventilation is mandatory during the summer months and is achieved by raising the plastic along the sides. Clamps, purchased from Princess Auto, help hold the plastic up.
- Her 100 and 150' tunnels accommodate 4 rows, with the tallest plants getting the middle rows. She recommends making better use of square footage and growing vertically when possible.
- Her low tunnels sometimes have holes directly in the plastic for permanent ventilation.

Q: How are the tomatoes held up?

A: Wire runs along the hoops and string is tied to it or else wrapped around hooks that hook onto it.

Q: What is the top beam of the greenhouse made of?

A: She uses galvanized steel for all the beams and does not recommend using hollow plastic PVC piping for a large frame.

Greenhouse

- A permanent structure that allows year round growing.
- The most expensive of the options with more maintenance required, though they accommodate a large variety of crops and make for a warm working environment later in winter or early spring when planting your early crops.
- Salt build up is a downside of fixed greenhouses. Soil management systems, including regular soil tests should be carried out.
- Each layer of plastic on the greenhouse moves the indoor climate 500 mile south, therefore 2 layers would create 1000 mile difference in temperature.
- Crop rotation is important though difficult when you are trying to grow mainly high value crops in the greenhouse

Q: If you do not have drip irrigation, do I still water in the winter time?

A: There is no real need to water as since there is no direct sunlight drying the soil or other elements such as the wind. Plants are dormant in the winter so aren't transpiring or respiring and using water as much.

Recommends Eliot Coleman and Niki Jabbour as useful references for overwintering crops and 4 season gardening. Green houses can be made mobile, like those of Eliot Coleman, to help with soil management and the option of portability.

Storage Crops

- Looks for plants that have hardier qualities and chose the right varieties for your specific needs.
- Go by the seed company's recommendations.
- General rule of thumb, the bigger the vegetable the better it will store.
- Store only those that are in great condition.
- Do not skip curing if the vegetable requires it to prolong storage, such as potatoes, onion, shallots, garlic etc.
- Harvesting at the right time will help ensure better storage.
- Wait till the tops of onions and shallots fall over. They are finished drying when no liquid comes out of the top when squeezed.
- There is more room for error if you harvest the crop too early oppose to too late.
- Watch for frost but leave squash out in the field for as long as possible. Look for varieties that store better like spaghetti squash. Varieties like red kuri squash is best cooked and frozen after a shorter storage period as they don't keep well.

Continuous harvest/late season harvest

- Plan succession planting appropriate to each vegetable.
- Tomatoes will be planted once whereas crops like carrots can be grown via successions throughout the year varying in size depending on the season.
- Rely on seed catalogues and companies to inform you of which varieties are best for each situation. Certain vegetables are better harvested after a frost such as Brussel sprouts – recommended to mark these vegetable in the event of the snow cover if you plan to harvest during the winter.
- Row covers help prevent damage from the fluctuating temperature we experience here on the coast.

Q: How do you keep the snow from crushing the leeks?

A: Alyson does not take any additional steps. There are straw bails surrounding the garden bed, which help to insulate and keep the row cover in place.

Biannual crops, need to be removed before they store to flower to preserve the roots, once it goes to seed the root loses nutrients and eating quality quickly.

Q: What if you wanted to collect the seeds of a biannual?

A: In the fall dig up the carrots, store them a cellar and plant the following spring to the plant to go to seed.

Q: Do pots work for overwintering?

A: She recommends using hay for insulating the pots or burying them in the ground.

Q: How often should you test the soil?

A: Tests should be taken at the same time of the year, either spring or fall. Take note of where the garden is trending.

Q: How do you remediate the soil?

A: Soaking the soil will help wash out the salt build ups. She aims to build an additional greenhouse, to rotate between cover crops, livestock and to benefit soil and pest management.

Q: What other seeds can you plant in the fall for the spring?

A: She recommends fall plantings of green garlic and sunchokes which will be ready to harvest the following late summer. Fall planting offers larger harvest oppose to spring planting.