

LOOKING for LAND

Characteristics that Comprise a Viable Farmstead

Soil

- 0 Most soils can be made productive for growing crops, although if your intent is to market garden or run a CSA you will want to start out with the best soil you can.
- 0 The real challenge for most market gardening is to be constantly maintaining and building the soil to produce high quality vegetables.
- 0 The difference between soils is the amount of effort needed to make it fertile and keep it fertile. Soil is the prime and fundamental consideration relative to production.
- 0 Pay attention to how the land was used by previous farmers. Where did they grow vegetables, grain, hay, pasture? A year or two's rotation will amend any serious issues. These broad uses, reflect a hierarchy of soil nutrient demands/possibilities...at least in the sense of working with the land and giving your crops the best conditions for success.
- 0 If you have pure clay or pure sand and gravel it is NOT desirable. It will take substantial start-up costs and time to build the soil.
- 0 Great soil for vegetables is sandy loam with a high organic matter. Many vegetables do well in clay loam too, due to water retention and soil pressure.
- 0 There are generally 4 ingredients that make up soil: clay, silt, and sand, and gravel, plus humus
- 0 Clay – fine particles that help the soil hold water and store nutrients
- 0 Sand – larger particles, mostly silicates which keep soil open for air and water movement and easy working.
- 0 Silt – falls between clay and sand.
- 0 HUMUS or ORGANIC MATTER – key to productivity. Creates more stable conditions for water and nutrients to get to your plants This IS the key to successful organic farming. Your organic matter is what feeds the soil biology and the soil biology is what makes nutrients available to your plants.
- 0 It is a good idea to do multiple soil tests before you buy. You can also use an auger to look at the soil layers and the amount of organic matter. It is also good to look at soil maps in your region to see the soil depth etc . Although, you can not depend on any one map . . . there is great variation and maps are general by nature.
- 0 Take a garden spade or fork and see if you can sink the blade all the way in then turn the soil up and see what it looks like. Hold it, crumble it between your fingers, smell it. Get a sense of it – is it a soil you can work with?

Soil Depth

- 0 What is underneath the surface of the soil is important for the future so it is good to investigate before you settle on land.
- 0 Depth to bedrock should be considered because it can't be changed. Rock outcroppings in the surrounding and are warning signs of shallow soil and possibly poor drainage.
- 0 Depth to the water table – some land that seems fine may have a seasonably high water table which will make hard to get plants in during early spring. A very high water table limits the depth of usable soil by inhibiting root penetration. You can do surface or sub-surface drainage to modify this but it is very expensive.
- 0 Look for signs of seasonal flooding in the flora and talk to neighbors. Look at the drainage patterns on the land gulleys and rivulets, they tell the story of how the water gets away.
- 0 Depth of topsoil should be considered. It is commonly from 4 to 12 inches deep. The deeper the topsoil the better since topsoil is related to soil productivity.
- 0 Look at the growth on the surface – is it thick and lush and vibrant? If the soil is not producing and you don't have a quick ready answer why, then you've got a complication you may not want to have to solve.
- 0 You can read drainage and soil conditions certain times of the year by the colour gradient of flora alone (ie. the shade of green variations in a field).

Temperature Considerations

- 0 Frost free days – this will be the length of your season. In Ottawa the first frost free day is between May 2 and May 31. There are heat units data available from Agriculture Canada. Many 'early' varieties can be planted throughout the season.
- 0 Proximity to water, latitude, elevation, and slope will influence the temperature on your farm
- 0 Hardiness Zone will be important for you if you are going to include perennials. In Ottawa the hardiness zone is 5a. You should check the map, but there are still variations in borderline areas and anomalous pockets here and there.

Water

- 0 Droughts and Floods are both important things to consider.
- 0 Check the average precipitation in that area and do your best to determine whether that particular land is part of a microclimate ie, in hill/mountain country. You can have rain shadows that are topography based which get about half the precipitation of the "area" which may be good or bad.
- 0 The rule of thumb is that the plants will need at least 1 inch of water per week during the growing season if it is not provided by natural rainfall.
- 0 It is ideal to have a year round spring or stream.
- 0 Second best is a dependable pond from which water can be pumped. A good water wagon with an industrial gas powered pump makes irrigation simple from any adjacent hill along with the benefit of warm and nutrient rich water vs. the shock of cold well water.
- 0 A well is a good choice but it is difficult to know if it can feed an adequate supply during the height of the growing season – do not attempt to water any size of garden with your household well until/unless you KNOW it's recharge capacity. Most wells are registered by law and include the GPM flow rating -- you have the right to ask a vendor to produce this information when you are considering to buy a property. It is also worth considering though well water is COLD if applied directly.
- 0 You could also budget to drill a new and second well for farming purposes which could feed your pond. This will pre-warm and add nutrients the water to make it more crop friendly.
- 0 You will need to decide between drip irrigation or sprinkler or no irrigation at all. This can be a big investment and they all have pluses and minuses.

Air Movement

- 0 It is important to notice if the land has a lot of air movement. Be sure to ask neighbors or the people that lived their before. Good aeration will occur in virtually all locations with the exception of low and boggy clearings.

Windy location		Less windy location	
Pros	Cons	Pros	Cons
Good aeration	More soil erosion	Less soil erosion	Stagnant air encourages fungus diseases
Cooler to work	More plant damage	Easier to lay row covers	Stays colder on frosty nights
	Wind has a cooling action on the plants	Less plant damage due to wind	If in a low area it acts as a sink for cold air
Dries out faster	Dries out faster	Retains moisture	Retains moisture

Exposure to Light

- 0 An often overlooked consideration . . . especially in wooded areas where you may have limited arable land and you may not wish to cut down trees, exposure to the azimuth (seasonal angle and trajectory of the sun) is a consideration.

Southerly Exposure

- 0 This is worth it's weight in gold from the point of view not only of available light but especially the opportunity for passive solar & geothermal opportunities especially in hillsides, not only for your house and outbuildings, but also geothermal-solar greenhouses.

Access

- 0 Proximity to markets – There will need to be a population to support your farm and unless your customers come to your farm, you will have to deliver your produce to them. There are also co-operative opportunities in certain communities with for example shared transportation-shipping costs etc. or access to a number of smaller local markets.
- 0 Proximity to customers -- For a CSA the rule of thumb is that people will drive 20 - 25 minutes to come to a farm.
- 0 Is your land easy to get around on? If you have members visit your land, how do they get around and do you limit where they can go?
- 0 Is it accessible to bigger machinery for deeper cultivation and manure spreading? It is surprising how much room it takes to maneuver even compact farm equipment.

Security and Privacy

- 0 Dirt bikes and other off road vehicles are a common occurrence in rural settings and can easily destroy fields - it is unlawful for these or others to enter onto private property. Know your rights.
- 0 Birds, rodents, deer can do major damage in a VERY short time. Domestic (livestock) creatures can do this too.
- 0 Solutions to keep animals and pest under control are organic repellents, fences, radios, well trained dogs etc. There are many different ways to keep animals out. Ask local farmers about how they handle the wildlife.

Pollutants

- 0 If your land is close to the road or has been farmed before using non-organic substances it is a good idea to have your soil checked for pollutants.

Acreage

- 0 1 -5 acres is enough to run a successful CSA – they generally say you can do about 30 boxes/acre. More land allows for more rotation and farm expansion. It is up to you what will work best.
- 0 The smaller the acreage, the more intensive the gardening tends to be. We have seen farmers doing over 50 shares/acre and providing food for over 750 shareholders.

Zoning

- 0 Check what your land is zoned as and what that zoning entails.
- 0 If you would like to build on that land or you want the land to be subdivided you must inquire about these possibilities on that particular zoning.
- 0 It is also important to be zoned agriculture if you are looking to be able to access farm start-up grants.

History of the Land

- 0 It is a good idea to get the whole story of what went on with the land in the past. It is a sizeable or a long term investment . You can search the title at the registry and get a hold of as many of the past owners as you can.

- 0 History is especially important if you would one day like to be certified organic. They will need to know the history of the land and you will also need affidavits from the previous owners saying that they did not use chemicals.

Insects

- 0 An attractive piece of land or farmstead in certain locations can be plagued with mosquitoes (near low lying areas) or black-flies and deer flies which make gardening a miserable experience, at certain times of the year.

Trees

- 0 A forest is quite beneficial to decreased heating bills in the winter and cool the house in summer.
- 0 A relatively large section of bush is also a great asset for timber (building materials and fence posts) not to mention firewood. Heat with wood and save money for where it really counts. Also maple sugar is a huge financial asset.

Flora

- 0 An abundance of indigenous medicinal herbs is also a very valuable asset. Ginseng, Golden seal, St. John's Wort, Valerian, Angelica, etc. etc. and the list goes on and on.

Fair Condition Outbuildings

- 0 These are a huge asset and can save lots of time, money and energy, when it comes to getting up and running with survival and production
- 0 These are valuable for numerous other opportunities, from housing seasonally woofers and apprentices, to the ongoing necessities of farming from equipment and tool storage, hay, straw and wood. You WILL need a workshop and a place for tools and equipment relative to vehicle and implement repair.

Community

- 0 Supportive neighbors are wonderful to have. It is always advantageous to be near to friends or like minded people in order to take advantage of exchanges and co-operative relationships.

Electrical and Plumbing Infrastructure

- 0 Available amperage and number of panels in various buildings, as well as amps present is a consideration.
- 0 New electrical facilities are expensive, as are plumbing installations. Existing electrical and plumbing facilities in good repair are immensely valuable for many future activities.

Price

- 0 You will need to consider purchase price and carrying charges on a mortgage.
- 0 If you choose to carry a mortgage it is a HUGE consideration. Make sure that you have a very realistic business plan.
- 0 If you are considering joint ownership . . . for the advantages which that represents, ensure you have clear intent and contractual commitment from everyone involved. Political wrangling has destroyed many a collective. Be clear about friendship first and construct a specific partnership agreement, parallel to the ownership documents, to facilitate any conflict resolution process.

*This information has been adapted from **The New Organic Grower by Eliot Coleman** and has been added to by various local farmers.*