Gardening Newsletter

by Linda Gilkeson

February 27, 2024

Seeds to Start Now; Starting 'Yams'; Soil Acidity

As the warmer than usual weather continues, I can see I am going to have to dig my carrots a month earlier than usual. Carrots and other root crops still in the ground, despite being well covered with mulch, are beginning to get the message that spring is arriving. Unfortunately, the warming soil due to warmer than usual temperatures this month is causing them to resume growth and start to produce new leaves. The plants take food stored in the roots to start growing new roots and develop flower stalks. As the sugars in the roots are used up, the flavour deteriorates and eventually the roots get a bit soft with lots of weird little side roots. To prevent this loss of quality, dig root crops soon, wash them, remove any foliage still attached, and store the roots in the refrigerator in closed bags or containers. They will keep for at least a month, often longer.

Start seeds of early plants: This week is good timing to start seeds of vegetables that take the longest to grow to transplant size. This includes celery and celeriac, leeks and onions. I start them on a bottom heat mat and after they germinate move them to a separate, grow-light setup to make room for other seeds to germinate on the bottom heat. Over the years I have found that there is just no point in trying to get an earlier start for veggies. Plants started too early have to live longer, usually in less-than ideal conditions (even the best light table set up is not as good as full sunlight). If veggie starts are set out too early in the spring, they can be chomped by climbing cutworms, which feed until late April, when they change into pupae. And then there is the perennial vernalization problem with early plantings of biennial plants, such as chard, onions, leeks. When these are started too early, you risk having them go to seed their first summer. Biennial plants should only grow leaves their first summer (and bulbs in the case of onions) and not flowers. Experiencing the cold chill of winter ('vernalization') is the signal for biennials to start producing flowers and seeds in the spring. If started really early in the season, a chilly week or two in April can fool biennial vegetables into reacting as if they experienced winter. Result: some or all or your chard, onions, leeks, etc. produce flower stalks in their first summer. It is the hardest working gardeners who start plants early and grow them to a nice size, that are most likely to run into this problem! If you are getting antsy to plant something, you can experiment with biennials in case there is no cool weather in the spring, but a better bet is to plant hardy annuals, such as frost hardy lettuce, spinach, Chinese cabbage and other annual leafy greens.

For how to start seedlings indoors, see the slide presentation on my web site: "Grow Your Own Seedlings"
http://www.lindagilkeson.ca/pdf/Starting%20seeds%202022%20web.pdf

If you want to grow sweet potatoes (AKA "yams"), ginger root or turmeric plants this summer, now is the time to sprout a root from the grocery store. These 3 plants thrive in the warmest conditions so are ideal summer crops for greenhouses or tunnels. Plant a root of ginger or turmeric in a small pot, in a good soil mix, and set it on bottom heat or in the warmest place you can find. For sweet potatoes, lay a tuber on its side, half buried in coir, peat moss or growing mix and keep it on bottom heat to sprout shoots. Other methods that work for sweet potatoes: set a tuber in a glass of water, using a couple of toothpicks stuck into the sides to suspend the tuber so that half is submerged in the water. When the shoots have grown enough to

develop little roots at the base of each shoot, severe them from the mother tuber and plant in pots; or cut the tubers into large chunks and half bury each chunk in growing mix in a small pot until it sprouts roots. Once you have small potted plants by any method, grow them in really warm sunny conditions until they can go outdoors later in May. OR, wait and see if your local garden centre offers plants for sale this spring, which is increasingly common as more people learn that sweet potatoes do grow in our gardens. Plants of ginger root and even turmeric are also sometimes available from local suppliers (including Seedy Saturday vendors).

Which reminds me to remind you what great fun it is to attend a local Seedy Saturday/Sunday. Here are the upcoming events in coastal and Vancouver Island communities:
March 2: Comox Valley, Squamish, Quadra Island, Lower Sunshine Coast (Robert's Creek)
March 3: Nanaimo
March 9 Tofino, Westshore (Langford)
March 16: Cobble Hill
March 23: Campbell River
March 24: Duncan
March 30 Sooke
For more information about these and for events in other communities see the national list maintained on the Seeds of Diversity website: https://seeds.ca/events/

ABCs of Gardening: Enriching the Soil, Part 1.
Vegetables require much more nutrients in the soil than any other kind of plants because they have been bred to produce a lot of biomass really quickly. While vegetable can survive in poor soil, they can't produce the kind of harvestable crops we expect, such as heads of cabbage, plump carrots, loads of tomatoes, unless they have enough nutrients at their root tips to maintain a high rate of growth (they also need sufficient water, to be covered another time).

To enrich the soil of an organic garden, we need to add amendments that increase soil organic matter (e.g., compost) and, at least in the first years of a new garden, most soils will also require organic fertilizers to provide enough nutrients. Acid soils also require the addition of ground up limestone, which makes the soil less acidic and also adds calcium taken up in high amounts by vegetables. I will go into composts and fertilizers in later messages, but am starting with notes on soil acidity because making sure the soil is the correct acidity for vegetables is key to making nutrients available from soil.

The acidity of water, soil and other substances, is measured on a pH scale, which goes from 1 (extremely acid) to 14 (extremely alkaline)—so 7, in the middle, is perfectly neutral. A lot of coastal soils are naturally acidic with a pH in the 5.0- 5.5 range. The soil acidity is due to high rainfall, and also depends on the type of parent soil and native vegetation. Vegetables generally grow best in soil that is closer to neutral, at pH 6.5 to 6.8 because that is the range when the most nutrients are available to the roots. And nutrient availability depends on the activity of the multitude of microbes that live in a healthy soil. Key among these are bacteria that decompose organic matter and release nutrients for plants, that capture nitrogen from the atmosphere and that benefit plant growth in many other ways. If you want to read more about this amazing world of beneficial bacteria, fungi and other organisms, here is an online resource: https://www.envirothonpa.org/wp-content/uploads/2014/04/7-Soil-Biology-Primer.pdf

One reason that soil acidity is important is that bacteria do not thrive in acid soils. Without these beneficial bacteria there is less nitrogen, phosphorus and other soil nutrients available to the plants. Also, in acid soil, heavy metals naturally in the soil (aluminum, iron, and others) are too easily available to plants. While rhododendrons need readily available iron from acid soils, other garden plants grow better if they don't take up toxic amounts of aluminum. We can raise soil pH by adding ground up limestone, which is sold at garden centres and agricultural suppliers. Not all soils on the coast are acidic, however: In the dry rain shadow of coastal mountains, soils don't have the acidifying influence of high rainfall; some soils are on geological deposits of limestone found in some

places on the coast; soils where a lot of forestry slash has been burned have a higher pH because ashes are alkaline.

So how do you know the pH of your soil? You need to have it tested, but don't bother with the fiddly little kits or more expensive probe tools sold at garden centres. They are notoriously inaccurate and can't tell you the average pH over the area, which is what you need to know. Have a pH test done at a soil lab, such as MB Labs, Sidney, BC or other local lab. You only need to have a soil pH test, not a full nutrient test, which is considerably more expensive, and you only need to check pH every 3-5 years because it changes slowly. If you do tests for pH this month, you will have results along with recommendations from the lab on how much lime is required in time to amend your soil this spring.

It is important to collect the soil carefully for an accurate test: scrape away the surface litter and debris and using a trowel, dig small amounts of soil from the root zone, around 4-6 inches deep. Collect these dabs of soil from 10-15 places over the area you are testing and mix them all together in a clean bucket. Take out a subsample of 1-2 cups of soil, put it in a zip lock bag, label it, and take it or send it to the lab. If the soil is really wet, spread the sample out on paper to let it dry a bit first before packaging it up. If you are testing soil from a garden area that has pretty much the same history, then one sample based on dabs of soil over the whole area is enough. If you have different areas that look markedly different or that you know have a different history, then these should be sampled separately. For example, although the soil in my greenhouse originally came from the same soil as my garden, the greenhouse soil has never been rained all winter like the garden soil so is always tested separately. If you have newer and older garden areas, then test them separately.

Next time: Amending soil with limestone.

Last year I wrote an extensive list of ways to keep costs of garden supplies and tool as low as possible and it seems even more relevant today. Rather than duplicate it here I refer you to my Feb. 20 message http://www.lindagilkeson.ca/gardening_tips.html