February Veggie Garden

by giantveggiegardener

February is upon us and although for most of us gardeners it is a quieter time of year, there are still things we can start to do to prepare for this coming season.

WEATHER- As you know, I'm a big weather bug and look at a weather app on my phone daily, partly because I have barn animals, and I like to add water to their troughs on warmer days. Many nights have been in the single digits and daytime highs in 30's. And that does not include wind chill which has been brutal. **Did you know that plants can feel wind chill too?** I didn't know that until recently. Do not plant anything outside right now. February is usually our coldest month so one more month to go before it warms up a little.

GOOD NEWS-the daylight hours are now **over ten hours** a day starting from January 15th on. This means you can start cold weather crops like spinach, arugula and some lettuces in early February, inside your house, under lights with NO heat mats and transplant them out of their germination trays and into pony packs once they get their first true leaves. I don't start them in pony packs as they take too long to germinate, and you take the risk of the soil being too wet and the seeds rotting. I transplant them again out of the pony packs and into my unheated green house by early March. I still must put row cover over them at night (and sometimes 2 row covers over them) so they don't freeze at night. In the morning, I pull back the row covers unless the weather is bitter cold. I have had some of the best greens doing this.

IMPROVING YOUR VEGGIE GARDEN SOIL
Today I want to talk about some of the different ways to improve your garden soil. Fertile soil is healthy soil. Healthy soil means healthy food crops, healthy food crops mean healthy earth.

Spread a few inches of compost over the bed, and cover with mulch. The mulch protects the soil over the winter conditions, while the compost adds nutrients over the winter.

Before we get too far let's talk about the pH in our soils. pH tells us how acidic or alkaline the soil is. The pH scale goes from 0-14 with 7 being neutral. Most soils back east or in the northwest are acidic with their pH being below 7 and out here in the southwest, we have very alkaline soil with the pH being above 7. **So how can we find out the pH of your soil?**

Get a soil test-I got a soil test in one of my sections that didn't do well last year, and many things are way off.
I cannot speak highly enough about the benefits of getting a soil test. A professional soil test will not only tell you what the pH of the soil is but also the N-P-K, minerals, micronutrients and macro-nutrients. Why should we be interested in lowering our pH?

The growth of most vegetables will not be hindered if the soil pH is between 6.0 and 7.5. Below 5.5 and above 7.5, soil treatment or modification often is necessary. **Mine was 7.2**

How can we lower the pH? Organic matter lowers the pH of our soil.
Most of our gardens out here don't have enough organic matter. **How can we improve our organic matter?**

Plant a cover crop
When thinking about replenishing nutrients in raised beds, don't forget about cover crops.
A cover crop is a crop specifically planted to:
• protect the soil from erosion
• suppress weeds
• maintain soil moisture
• increase organic matter in the soil
• recycle soil nutrients
Cover crops aerate the soil, especially if you plant a cover crop with a deep root system like alfalfa. The root system will pull nutrients deep in the soil to the surface, which will make nutrients readily available when it comes to planting time. A few weeks before planting time, till the cover crop into the soil before it goes to seed. This increases organic matter, building healthier soil and increasing nutrients.

Two types of cover crops can be planted outside-legume and non-legume cover crops.
Legume cover crop-
If you want to add nitrogen to the soil, consider planting legumes as a cover crop. Examples of legume cover crops are alfalfa, fava beans, vetch, and crimson clover. Legumes can "fix" atmospheric nitrogen gas into "soil nitrogen", which is available to plants. I'm going to try Hairy Vetch which will add nitrogen and tomatoes are supposed to love it.

Non-legume cover crop-
Non-legumes are planted primarily to provide biomass, i.e. carbon-based plant material that includes stems, roots and leaves. Non-legumes consist mostly of grain crops such as oats, rye, and buckwheat.

A third type of cover crop is brassica crops-
Several brassica crops like mustard and turnips are also valued non-legume cover crops. Natural chemicals produced in the roots of some mustard brassica crops have shown promise for the management of some soil borne ***Mighty mustard*** is one source.

After you've closed the raised bed after the growing season, try winter cover crops to protect and aerate your raised bed soil, as well as add nutrients. If cover crops are not terminated before seed formation, then their seeds may become weeds in a later crop. Cover crops or "green manures" are not harvested but rather contribute to soil improvement in the place where they are grown. Most gardens benefit from the use of cover crops when not planted vs leaving the garden fallow (unplanted). If the garden is in use for most of the year, arrange crops into warm- and cool-season groups. This makes it possible to rest a portion of the site for cover cropping. Cover cropping is a valuable component within a crop rotation plan for pest and disease management. Cover crops are divided into two primary groups: legumes and non-legumes. Many seed catalogs sell premixed cover crop combinations.

Make compost-
Compost needs three essential ingredients for the magic to happen:
• Green material-50%- any kitchen waste that doesn't have meat
• Brown material-50%-
• Sufficient moisture
Green material-
It is high in **nitrogen**. So, when making compost without manure- coffee grounds are a good substitute for manure plus add egg shells, fruit, peelings, shredded leaves, comfrey cuttings, vegetable kitchen scraps-any plant that has not gone to seed, including weeds.
Brown material-Brown material is high in **carbon**. Paper, sawdust, small branches and twigs, and straw all fall into this category.
Water-Water is the final key ingredient in a thriving compost pile. Without moisture, your pile will take months to do anything, and if dry enough, will not break down at all. If your pile is too wet, it will smell and become slimy as the ratio of bad bacteria outweighs the good. You want it to remain damp but not dripping wet**.** Turn your compost pile every few weeks or not.
I stop adding stuff and watering my compost pile in winter and restart watering in spring.

Compost can be added to your raised beds in the fall or spring. You only need 1-2 inches on the soil lightly turned in the top 3 inches. In the fall, compost will sit on the bed all winter, so it does not have to be completely broken down.

Vermicomposting-
Get some Red Wigglers, not the regular earthworm and start a vermicompost pile. Add newspaper, coffee grounds, eggshells and kitchen scraps. This is the easiest way to make compost. I add it to each hole when planting instead of the whole bed.

Use soil amendments-
A soil amendment is any material added to a soil to improve its physical properties, such as water retention, permeability, water infiltration, drainage, aeration and structure. The goal is to provide a better environment for roots. Some organic soil amendments you might want to investigate to improve your raised bed soil quality are worm castings, compost, greensand (*Greensand* fertilizer is a rich source of iron, potassium and magnesium), rock phosphate (Soft Rock Phosphate should not be confused with Hard Rock Phosphate. Although both products contain calcium and phosphorus, the nutrients in soft rock phosphate are more readily available for your plants to use), alfalfa meal, straw and kelp meal.

Remineralize your soil-
A few years ago I added Azomite. AZOMITE is a natural mineral product that contains a broad spectrum of over 70 metabolically active minerals and trace elements that is mined in the Utah desert. It made a huge difference in the crops that year and this year. You can use it in the fall or in the spring. Just sprinkle it it on surface kinda heavy and litely turn it in the top 3 inches of soil. I use the micronized version (ie; flour like consistency)