To Fertilize or Not to Fertilize... That is the Question

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The first year I put in my garden in Grass Valley was 1988. It was glorious! We grew huge watermelons, big eggplants, juicy tomatoes and TONS of ZUCCHINI! We had so much that I drove around the neighborhood begging neighbors to "Please take as much as you want!" Thirty years later, my garden was pitiful. I couldn't even grow enough zucchini to save my soul. It wasn't until I became a Master Gardener that I learned, sometimes you just have to fertilize!!

I had so many questions: What does it mean to fertilize? Why should we fertilize? Do we have to fertilize? When should we fertilize? What kind of fertilizer should we use? Is organic fertilizer better than inorganic fertilizer?

Fertilizing means adding material to your garden to increase the nutrients in the soil. It is different than amending, which is adding material into the soil to improve soil structure. This difference is important because you may think you need to fertilize your garden, but in actuality you might only need to amend it. You may need to fertilize if the soil in your garden is depleted in a certain nutrient. You may need to amend the soil if your garden is mostly sandy or clay.

Most inorganic fertilizers have three magical numbers on the front of the package. These numbers correspond to the chemicals most often needed in a depleted soil: N (Nitrogen), P (Phosphorous) and, K (Potassium). Fertilizer companies sell many "specialty" fertilizer products for specific plants.

In Placer and Nevada Counties, our soils typically don't need potassium or phosphorus, but may need nitrogen, so buying a fertilizer with potassium and phosphorus included may be a waste of money and may do your garden soil and the environment more harm than good!

So how do you know what your garden needs? A soil test is the best way to discover what your garden needs. You can usually have a soil test done for less than $50, and it may save you money and headaches in the long run to determine exactly what you need.

If your soil test comes back and your garden isn't lacking in nutrients, you are FREE, and you don't need to fertilize! But if you do, then what kind of fertilizer should you use, when is the best time to fertilize and how do you do it?

Always follow the directions on the package of fertilizers. Measure so you don't over fertilize. You can broadcast before or after planting, you can side dress, which is applying fertilizer around individual plants, or you can spray a liquid fertilizer on the plants themselves.

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Many gardeners struggle with the notion of inorganic and organic fertilizers. So, what is best? Well… that depends... For quick results, the inorganic fertilizer will do the trick. If you want to build up your soil along with adding nutrients, then organic may be better. Or, you may want to start with inorganic, and then throughout the year, amend your soil with organic fertilizer, compost, or worm castings.

So, how is my zucchini doing today? Well, my two rescue horses are not for riding, but they are great composters! My soil test showed that my garden needed nitrogen, but it wasn't bad. I scooped up seasoned manure, and mixed it into my planting areas. I now have enough zucchini pickle relish to last a lifetime!

References

- Pittenger, Dennis R. *California Master Gardener Handbook.* UCANR Publication #3382. 2020.
- Downer, Jim. *Fertilizers—a cautionary tale.* The Garden Professors. 9/27/2017. https://gardenprofessors.com/fertilizers-a-cautionary-tale/