What is the difference between organic and chemical fertilizers ? I'm so glad you asked!!!

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For a long time I have wanted to find the words to explain the answer to this question. I have always known the answer myself -but I felt that I needed more words to explain the answer.

I have been an organic consultant for over thirty years and I have been a gardener for over sixty years. All during my training to receive my credentials and also in many articles that I have read and lectures that I have attended ---I have been told that plants did not know the difference between a chemical and an organic fertilizer. *(This has long been an argument to make using chemicals seem perfectly all right)* The soil knows the difference-and it gives the message to your plants-in terms of a long healthy life.

If you choose hardy plants for your area-and plant them in the right sun or shade and use healthy organic choices and water wisely -your plants will be long lived (because you won't kill them eventually with built up chemicals in the soil).

The Words—against chemical fertilizer

When you use chemical fertilizer—you are throwing out a carrier (some kind of salt) with a chemical on it—you water this into the soil—a small amount (about 2%) is absorbed into the rhizosphere (the zone around the roots) the rest of the chemical continues to drain through the soil until it hits the water table. (Notice how high the NPK numbers are on chemical fertilizers.) This is known as water pollution--**# 1 reason against using chemicals.** (We all drink water)

Chemical fertilizers negatively impact the soil web by killing off portions of it. Some of the salt carrier sticks to- and after repeated use-builds up in our soils. The salt sucks the water out of the fungi, bacteria, protozoa, and other beneficials killing them. That's why you have to keep applying chemical fertilizer so often---the microbiology that should be there to feed the plants in the rhizosphere is continually killed off. By using the chemicals you actually continue to make the condition of the soil worse each time**. #2 reason against using chemicals**—you destroy the soil food web by polluting the soil.

The Case For Organics—

Most of us are never completely taught how plants really live. They get nutrients from their root system (we all know that) but they also produce (through photosynthesis) secretions known as exudates—a form of carbohydrates sugars and proteins. These exudates grow all of the soil life that is needed to fuel the metabolic functions of the larger microbes—what is not needed is excreted as waste and taken back into the plants roots as nutrients. *(You see-- plants control the soil food web for their own benefit—a fact that is not fully appreciated by gardeners-because no one ever explains this.)* Now you know!

I remember my grandmother being really tickled upon hearing that anyone would go to a store to buy something to feed their plants—*" Your plants are supposed to feed you!"* she would say. Of course -we today -do not live in my grandmothers world -and our soils have usually been made very poor by all sorts of 20th century chemicals and pollution.

The good news is- you can fix that with successful /easy organic products and procedures.

If you look at the report in your water bill that usually comes out in February you will see listed among the chemicals that our water is tested for -- Nitrates (from chemical fertilizers) (Organophosphates (chemical pesticides) and Atrazine (chemical herbicides).

<u>You might be asking your self-how did this happen?</u> To quote Pogo (remember Pogo in the Sunday funnies?) "We have met the enemy and the enemy is us"

<u>We can change this</u>- one organic gardener at a time- and that starts with you when you make the choice to be organic in your gardening practices. We now have great organic products to choose from now. They are user friendly and actually build the soil life. The best products for achieving this are compost, good organic fertilizers and natural mulch that isn't painted.