

High Brix Farming/Gardening – Minerals in Regenerative Organic Agriculture

Are you eating nutrient dense vegetables and fruit grown in re-mineralized soil?

“Disease is the body’s response to mineral deficiency, improper mineral balance in the body – cancer, diabetes, autism, multiple sclerosis, asthma, ADHD, Alzheimer’s and many others. Correct the cause by balancing minerals in the proper proportion to each other and the disease will go away.” Dr. Fred Eichorn, National Cancer Research Foundation - www.ncrf.org

If minerals are not in the soil, they’re not in your food and not going into your body. Conventional farmers and many organic farmers do not re-mineralize their soils. Check the Brix, the nutrient density, of your produce with a refractometer. Then find the Brix level on the chart below. If the Brix is low, change your gardening and farming methods to regenerative, high Brix, nutrient dense, biological gardening and farming. Or find a farmer to buy from who does re-mineralize soils.

Refractive Index of Crop Juices - Calibrated In % Sucrose Or °Brix

Within a given species of plant, the crop with the higher refractive index will have a higher sugar content, higher mineral content, higher protein content and a greater specific gravity or density. This adds up to a sweeter tasting, more minerally nutritious food with lower nitrate and water content, lower freezing point, and better storage attributes. This chart was originally developed by Dr. Carey Reams.

FRUITS				
	Poor	Average	Good	Excellent
Apples	6	10	14	18
Avocados	4	6	8	10
Bananas	8	10	12	14
Blueberries	8	12	14	18
Cantaloupe	8	12	14	16
Casaba	8	10	12	14
Cherries	6	8	14	16
Coconut	8	10	12	14
Grapes	8	12	16	20
Grapefruit	6	10	14	18
Honeydew	8	10	12	14
Kumquat	4	6	8	10
Lemons	4	6	8	12
Limes	4	6	10	12
Mangos	4	6	10	14
Oranges	6	10	16	20
Papayas	6	10	18	22
Peaches	6	10	14	18
Pears	6	10	12	14
Pineapple	12	14	20	22
Raisins	60	70	75	80
Raspberries	6	8	12	14
Strawberries	6	8	12	14
Tomatoes	4	6	8	12
Watermelons	8	12	14	16
GRASSES				
Alfalfa	4	8	16	22
Grains	6	10	14	18
Sorghum	6	10	22	30

VEGETABLES				
	Poor	Average	Good	Excellent
Asparagus	2	4	6	8
Beets	6	8	10	12
Bell Peppers	4	6	8	12
Broccoli	6	8	10	12
Cabbage	6	8	10	12
Carrots	4	6	12	18
Cauliflower	4	6	8	10
Celery	4	6	10	12
Corn Stalks	4	8	14	20
Corn (Young)	6	10	18	24
Cow Peas	4	6	10	12
Cucumbers	4	6	8	12
Endives	4	6	8	10
English Peas	8	10	12	14
Escarole	4	6	8	10
Field Peas	4	6	10	12
Garlic, Cured	28	32	36	40
Green Beans	4	6	8	10
Hot Peppers	4	6	8	10
Kale	8	10	12	16
Kohlrabi	6	8	10	12
Lettuce	4	6	8	10
Onions	4	6	8	10
Parsley	4	6	8	10
Peanuts	4	6	8	10
Potatoes	3	5	7	8
Potatoes, Sweet	6	8	10	14
Romaine	4	6	8	10
Rutabagas	4	6	10	12
Squash	6	8	12	14
Sweet Corn	6	10	18	24
Turnips	4	6	8	10

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Biological, Regenerative Farming and Gardening



Left: Plant roots without mycorrhizal fungi.

Right: Plant roots with mycorrhizal fungi. Fungi extend the root zone where plant roots feed sugar exudates to bacteria and fungi in exchange for nutrients.

The foundation of health whether for plant or animal is adequate mineral nutrition in the organism supplied by an active soil microbiological community.



Microbes play a critical role in the natural processes that regenerate soil. The soil around the plant roots, the root zone, is where the magic happens. In exchange for the plant releasing sugars for microbes, microbes in turn pull nutrients that plants need from organic matter and rocks in the soil. Bacteria and fungi cycle minerals into plant available forms. Organic matter causes bacteria and fungi to grow in the soil. As fungi and bacteria are eaten by protozoa, nematodes and microarthropods, amino acids are released all around the root system. Plants need minerals to form their own bodies. They feed on sugars, amino acids and minerals to build their bodies. Soil is the plant's digestive system.

Watch **Bob Wilt of Sunset Valley Organics** tell of his conversion to biological farming on his 200 acre blueberry, blackberry, raspberry and aronia berry farm near Corvallis, OR. **“It’s necessary to have minerals to feed microbes so microbes in turn solubilize minerals, making them available to the plant. Biological farming means improving and restoring soil biology and mineralization so plants can achieve their genetic potential to produce exceptionally large blueberry clumps.”** YouTube “The Benefits of Regenerative Systems in Berry Production”

www.youtube.com/watch?v=wFEleTn-NhA&sns=em

“Disease is the body’s response to mineral deficiency” - Dr. Fred Eichorn

In 1976, Dr. Fred Eichorn was diagnosed with pancreatic cancer. The doctors told him he would die within three weeks without an operation or within three to six months if he had the operation. He had the doctors check the mineral balance in his body. Several minerals were deficient so he took large doses of those minerals and in two years his pancreatic cancer was gone. In trying to understand how that worked, he went back to school and discovered that cancer is not an outside invader needing to be killed, but a symptom of mineral deficiency. The mineral deficiency causes the body to make incorrect cells (cancer). When the patient balances the minerals in their body, the body starts making correct cells again and the cancer dies. He developed a balanced mineral supplement called Collect Minerals and these diseases disappear in people who take it:

- Cancer, autism, diabetes, multiple sclerosis, asthma, Alzheimer’s, Down’s syndrome, Parkinson’s, Lymes, Lupis, glaucoma, hypertension, ADHD, fibromyalgia, allergies, depression, alcohol/drug/tobacco addiction (drug addicts are clean in two weeks). See the full list on the website.

Dr. Eichorn has shown that “Disease is the body’s response to mineral deficiency.” National Cancer Research Foundation www.ncrf.org and www.collect.org

John Kempf Has Converted over 4 Million Acres of Farmland to Regenerative, Biological Farming

In 2006, John Kempf’s family farm in Ohio was declining, profits were dropping. He was sixteen at the time. He interviewed soil scientists and successful farmers to see why and found that it was because of his farm’s conventional farming methods using toxic pesticides.

John applied the biological farming methods they suggested. The farm turned around and began to make a profit. Other farmers followed him with success. Farmers use their customary machinery and crops, but **apply microbe inoculants, mycorrhizal fungi, minerals, trace minerals, liquid fish, liquid kelp and other natural products to regenerate biologically active soils**. John says the two keys are mineral nutrition and microbiology, soil biology. He created a company Advancing Eco Agriculture. Their consultants across the U.S. help farmers convert. Watch their many informative YouTube videos at www.advancingecoag.com. Read Anatomy of Life and Energy in Agriculture.

“I started Advancing Eco Agriculture because I wanted to help farmers learn how to grow crops without using pesticides. My mission is to change agriculture, to change the way food is grown in the world, to remove pesticides from our food supply, and to help farmers learn to grow crops that are resistant to disease, insect pests and weeds. We grow plants with optimum quality, optimum immune function, optimum health, and get substantial yield increase. Our produce has higher nutrient density, is more flavorful, and stores better. Crops are more resilient to negative weather impacts. Farmers get premium prices for their crops.”

AEA foliar sprays and fertigation products favor beneficial soil microbial communities and the development of disease suppressive soils. Developing and maintaining aggressive communities of beneficial soil microflora is crucial for maintaining good levels of mineral and trace mineral availability in the soil profile, and enabling disease resistance. www.advancingecoag.com

In the 1980's, Dr. Teruo Higa became ill from pesticide exposure working on farms in Japan. He sought another way and discovered a combination of naturally occurring bacteria and yeast that, when sprayed as a microbial inoculant on agricultural crops, increased yield and eliminated the need for chemical pesticides and fungicides. **EM1, effective microorganisms, is now used as a foliar spray and top dressing on the soil in 120 countries worldwide to rebuild soil, increase nutrient density, increase drought tolerance, increase yields, decrease need for irrigation and dramatically reduce costs.** www.teraganix.com

Blossom Consulting Services www.blossomera.org at Black Lake Organic www.blacklakeorganic.com in Olympia, WA offers professional soil testing, mineral mixes to correct mineral deficiencies, PacificGro liquid fish, liquid kelp, EM1, Seacrop, biochar, Azomite and many other beneficial soil building products. **Gary Kline's "Nutri-Culture,"** which builds on his Mineral-Augmented Organics, aims to create and restore soil health. Read many "Articles" on his website.

By 2025, 1 in 2 Children will be born with Autism due to Glyphosate (Roundup)

"Dr. Zach Bush, a cancer specialist, was asked by patients, "Why do I have cancer? Why do I have diabetes?" He couldn't answer, although he was a cancer expert.

He discovered that the way glyphosate kills plants is to block an enzyme pathway in the plant. These enzymes make some of the most important compounds in food. Glyphosate wipes out 4-6 of the essential amino acids which are the building blocks for all proteins in the human body. Glyphosate removes alkaloids from plants, our food, leading to the disease burst we have going on across so many organ systems in our bodies. We added the chemical to our food chain that blocks out all the production of this in our food, lost the medicinal quality of our food that has existed for thousands and thousands of years.

Humans can't make their own alkaloids or essential amino acids. They have to get them from the plants that feed off of the bacteria in the soil. Glyphosate is an anti-biotic that kills bacteria in the soil instantly. Farmers are now dumping 5 billion pounds of glyphosate worldwide yearly. All of that soil now cannot produce alkaloids or critical amino acids or critical proteins. Glyphosate is water soluble so now has infiltrated every sector of the water cycle, runs into rivers, and into our deep fossil aquifers; 75% of rainfall and 75% of air is now contaminated with glyphosate. This is why we have a disease rate like we have today.

In 1975, the year before glyphosate began being used, 1 in 5,000 children were born autistic. Now 1 in 42 children are born with autism. Dr. Stephanie Seneff, MIT doctor, predicts that at this rate, by 2025, 1 in 2 children will be born with autism. Cancer rates are exploding. Now 1 in 2 males will get cancer in their lifetime, 1 in 3 women will get cancer. A tsunami of Alzheimer's is coming, although many older people will die of cancer before they can get Alzheimer's. Brain tumors are epidemic in children. Diabetes, Parkinson's, ADD, food and environmental allergies, eczema, asthma, kidney failure, depression and bipolar, IBS, leaky gut, seizures, epilepsy, Crohn's disease in kids, all are attributed to glyphosate. Remember, glyphosate kills microbes in the soil instantly, the microbes that would have provided minerals for the plants that people eat, leading to mineral deficiency."

See the full interview with Dr. Zach Bush on YouTube "Dr. Mercola and Dr. Bush on Microbes" (Full interview) www.youtube.com/watch?v=vqKIX6rC4EQ&sns=em

