

Almond

OK, so how many of you saw the headlines about Monsanto and research--was it by the American Cancer Institute?--claiming that results show glyphosate is safe to include in the food chain? This is one of those days when I feel like I am living in an alternative reality. Twilight Zone. How can you put something on food that kills life forms and believe it will not negatively affect the human biome as it accumulates? Where has social responsibility gone? To think of what some baby foods now contain... And food supplements for late stage cancer patients and those who cannot feed themselves... If you do not believe what you are told, you will need to become resourceful and take charge of your own food supply.

Truly, except for a few health food store brands with high integrity, I believe most supermarket food is unfit for human consumption. I have been busy recently and tried to avoid reading the news. Even so, I cannot avoid the radio when I travel. Has anyone else noticed the high number of greedy, perverse and malicious actions in the news? I have to wonder how much of this brain-rot-behavior is caused by what people eat, drink and are exposed to in their environment. That wacko nut job in Sutherland Texas was mental. I am still wondering whether it will eventually be disclosed that he was on some kind of psychotropic drug. It seems to be a common denominator in almost all of the massacres, so I think it is a question worth asking.

Posted On 11/19/2017

stanleybecker

him Almond - here is the Reuter report that claims Glyphosate is "harmless" and does Not cause cancer - www.reuters.com/article/us-health-cancer-glyphosate/large-u-s-farm-stu..

and here is an opposing article from CNN telling the story of cancer victims - edition.cnn.com/2017/05/15/health/roundup-herbicide-cancer-allegations..

here's a New Yorker article on "risk assessment" - www.newyorker.com/news/daily-comment/roundup-and-risk-assessment

here's a Guardian article on the EU position - www.theguardian.com/environment/2017/mar/15/no-cancer-risk-to-using-gl..

and this is a Washington Post article on farm workers NOT getting cancer from Glyphosate - www.washingtonpost.com/national/health-science/study-finds-no-firm-lin..

NOTE - all these MAINSTREAM publications are recent - will Anthony Samsel please comment on this latest onslaught by Monsanto and its MONEY POWER to discredit the facts about species die out which they claim is a delusionary fantasy of the anti chemical lobby

Posted On 11/19/2017

Guillermou

The Toxicological Anthology of Glyphosate, includes 487 scientific research works, ordered by binding diseases and most frequent pathological mechanisms, updated to February 27, 2016. It has also been directed against the "Evaluation of Scientific Information related to Glyphosate in terms of Human Health and the Environment "that defended glyphosate, based on scientific works financed and managed by the companies themselves, with interests in the production and commercialization of pesticides www.elfederal.com.ar/glifosato-487-evidencias-del-dano-que-causa-a-la-..

drive.google.com/.../view

The Glyphosat is part of the eugenics model. Genetics are the new eugenics: how gmo's reduces the human population www.geopolitica.ru/en/article/genetics-are-new-eugenics-how-gmos-reduc..

Glyphosate Formulations Induces Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells pubs.acs.org/.../tx800218n

pass the placental barrier www.infona.pl/resource/bwmeta1.element.elsevier-e50bc0cd-e079-3cc7-a67..

and induces genotoxicity www.sciencedirect.com/.../S1382668909000258

Malformations produced by glyphosate www.sciencedirect.com/.../S0378427402004836

boliviarevista.com/index.php/pediatrica/article/viewFile/2795/2793

Review of genotoxicity studies of glyphosate and glyphosate-based formulations www.tandfonline.com/.../10408444.2013.770820

Now, glyphosate has appeared in urine tests, in urban drinking water, in gardens, in groundwater, and so on. And that goes into the system of pregnant women, for example, with the embryo. Detection of Glyphosate Residues in Animals and Humans www.omicsonline.org/open-access/detection-of-glyphosate-residues-in-an..

Posted On 11/19/2017

NatureSoilProducts

You should consider reading the book, "Population Control", by Jim Marrs, if you haven't read it already. While a bit conspiratorial, it provides an interesting summary of the vast number of pollutants and toxins we're exposed to every single minute of every single day. Our food, water, air, soil, etc. have all been highly compromised, to put it mildly, if not outright totally polluted.

But I remain convinced that certain ultra-wealthy corporations (like the "big six" chemical companies, whom own over 80 percent of all worldwide seed intellectual-property patents, and have also been increasingly injecting their synthetic chemicals into everything, and I mean everything we use & consume) have been working on creating a system of total dependence on them. For instance:

- Their fertilizers replace natural organic nutrients, thereby reducing the nutrient content of food, thereby forcing us to buy vitamins, which are now mostly synthetic, and which are made by the same chemical companies. By reducing the natural nutrient content of food, we rely on them for vitamins to supplement.
- Their pesticides and herbicides are designed to destroy everything, except their own GMO brand, resistant to their pesticides and herbicides. So again, growers become totally dependent on the chemical companies. They need their seed, their pesticides, their fertilizers.
- The less healthy our food, the less healthy we become. Deteriorating health means more need for pharmaceuticals. So again, we're led to total dependence on the chemical companies.

I could go on and on with countless examples. The more we become totally dependent on the large corporations, the more they can hold us hostage for those dependencies. No one will be able to do anything for themselves in the future, without paying royalties to the corporate lords.

Posted On 11/19/2017

Guillermou

In line with Dr. Mercola, highlight the importance of the benefits of mycorrhizae oara favor the growth of plants, and get more benefits from their fermentable fibers. For sustainable agriculture, we must increase the fertility of the soil, supplying it with organic substances: natural fertilization of the animals, including bark or wood shavings, pine leaves, straw, food waste and recycled waste material, in line with the biodynamic agriculture and permaculture. On the contrary, the application of fungicides and pesticides with phytosanitary purposes have devastating effects on mycorrhizae.

These organic fertilizers provide a beneficial floor to soil microorganisms. According to Bernaza and Acosta, "mycorrhizas encourage better use of soil fertilizers and nutrients, encourage greater water and air absorption and stimulate root growth of crops, protect certain pathogens and improve soil structure." Mycorrhizals act as specialized structures established in the roots, to help the absorption of nutrients and protection against pathogens. The term "mycorrhiza" refers to this symbiotic relationship between the roots of plants and, in particular, fungi in the soil.

The potential benefits are: 1) the improvement in the absorption of nutrients, mainly nitrogen and phosphorus. 2) Improved water absorption and increased resistance to water stress. 3) Increased resistance to soil pathogenic fungi. 4) Improvement of soil structure by forming aggregates and filaments hyphae of the fungus. 5) hormonal effects on the roots that improve their development and that of the whole plant.

Posted On 11/19/2017

Guillermou

Biologist Douglas H. Chadwick explains how the relationship is a mutually beneficial symbiosis between the fungus and the roots of the plant (mycorrhizae): "Ten to 20 percent of the sugar plant produced through photosynthesis is absorbed by the mycorrhizae, and in return, the fungus provides many essential nutrients and increases resistance to drought. As the ends of the roots of the plants is too large to enter between soil particles through cracks and crevices too much, even the root of the narrowest, mycelial hyphae, becomes an auxiliary root system, in contact with subsoil volume, absorbing many more nutrients, that the plant could achieve on its own. "

DR. ROGER KOIDE, a professor of biology at Brigham Young University, is one of the leading experts on mycorrhizal fungi. He researched this topic for more than 25 years. Mycorrhizal fungi occur naturally in our soil, Dr. Koide noted, and 75% and 80% of all plants on earth are "mycorrhizal" have this important relationship with fungi. Mycorrhizal plants are often more resistant to diseases, especially diseases caused by pathogens in the soil. Interview Dr. Koide in <https://youtu.be/pr3IGUcvxNM>

On how pesticides affect soil microorganisms:

garden.lovetoknow.com/wiki/Effects_of_Pesticides_on_Soil_Micro-Organis..

www.emnz.com/blog.cfm/article/how-pesticides-affect-soil-microbes

Posted On 11/19/2017

stanleybecker

morning Gui - the value of soil microbia is totally rejected by chemical farming - chemical farming employs the scorched earth "slash and burn" policy of sterilizing the soil by poisoning it with chemicals - PURE IGNORANCE!! - the BLIND leading the BLIND - chemical farming believes that its products are "better than God" - in fact chemical farming believes that "God IS ignorant" - obviously God is ignorant otherwise God would have not created any other life forms apart from Mankind - God needs to be improved with Glyphosate - the mainstream media is declaring the naked Emperor to be wearing a FULL set of clothes - all this boils down to a "matter of belief" - you can believe in God or you can believe in Monsanto/ Bayer - you can believe in Agent Orange/ Zyklon B gas - or you can believe in fecundity and biodiversity - Monsanto is conditioning the followers of the mainstream media to believe in their brand of scientific conclusions - the American Cancer Institute that has NEVER cured anybody of cancer has joined forces with Monsanto to promote cancer for everyone - man, woman and child, also domestic and farm and wild species - "GET CANCER IT'S GOOD FOR YOU!!" - this is the take home message

Posted On 11/19/2017

headache2

Probiotic for soil.

Posted On 11/19/2017

bacchusp

Thank you for your post on regenerative agriculture and Gabe Brown. Your refer to the common agricultural practice as conventional. In terms of history it is not conventional but will later be seen as a blip of chemical agriculture and should be termed Chemical agriculture.

Regenerative agriculture is fostering the return of soil biology to its proper place and enabling the much talked of carbon dioxide to return to its rightful home, the soil where it is part of the soil's capacity to absorb and hold rainwater. The best fertilizer bar none is rainwater. Carbon can hold up to four times it's weight in water and the inability of soil to hold water is one of the major markers of climate change as it leads to flooding and droughts. It also moderates temperature as one farm here measured in summer in pasture. The organic farm soil was about 18 degrees centigrade and through the fence on the chemical farm measured 35 degrees centigrade. The changes air temperature, air currents, water temperature, evaporation and condensation potential, other markers of climate change. I therefore see farming methods as being a serious contributor to what is termed climate change and has the potential when farmed as Gabe Brown is doing in regenerative agriculture.

If top shelf bio dynamic practice was added to what Gabe is doing he would get a further benefit in food quality that I have seen give as much as another 50% grazing time per head per acre in New Zealand. I hope that in not too distant future you will have a posting on how Gabe Brown add bio dynamic practice to his operation.

Posted On 11/18/2017

Guillermou

Effectively bacchusp. The agricultural industrialization of the last decades, has important implications for the climate. Only agriculture is assigned 14% of total greenhouse gas emissions, if it includes the so-called indirect emissions of agriculture, such as energy spent in the manufacture of fertilizers, the production and use of agricultural machinery, transport, which are included in the sections on industry, energy and transport, can reach 30%. Industrial agriculture is increasing these emissions enormously, while agroecological production not only emits much less greenhouse gases, but also greatly increases the carbon absorption capacity of soils.

The most important emissions from agriculture are nitrous oxide (N₂O), produced in soils from synthetic nitrogen fertilizers (38%). Methane (CH₄) generated in the digestive process of ruminants (32%) and in the decomposition of organic matter in flooded rice fields (12%). The burning of biomass, emits methane and oxides of nitrogen in important quantities (11%). Manure and slurry from livestock also emit significant amounts of CH₄ and N₂O (7%). www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-frontmatter.pdf

It is estimated that synthetic fertilizers currently provide more than 40% of the nitrogen assimilated by plants, multiplying by two the volume of nitrogen [ftp.fao.org/.../a0701s00.pdf](ftp://ftp.fao.org/.../a0701s00.pdf).

However, the efficiency with which plants use synthetic fertilizers, is very low, and has fallen drastically since its introduction in industrial agriculture. It is estimated that only 17% of the nitrogen fertilizers produced in 2005 were assimilated by the crops, the rest being dispersed by the ecosystems and causing great problems of pollution and emissions www.grid.unep.ch/.../026_Erisman_2008.pdf. The use of fertilizers in organic farming, on the other hand, is much more efficient and less polluting orgprints.org/.../niggli-et-al-2009-lowgreenhouse.pdf.

Posted On 11/19/2017

Krofter

When Columbus, Cortez, Pizarro and other early European explorers first set foot on the American continents, they gazed across landscapes that had never been touched by a plow. Yet, the Inca, the Aztecs and other Native American cultures had highly developed forms of agriculture that required no plows or pesticides. The success to keeping those massive Native American populations fed (Tenochtitlan was bigger and far cleaner than London) was a very diffused network of SMALL, LOCAL farmers - the total opposite of what we have today. By the time of those early European explorers, Europe had already been ravaged by the plow. Even with the agricultural advances that the Moors brought, or perhaps thanks in part to those "advances", Spain in particular was already suffering from desertification. The Mid East had already become a full blown desert thanks in large part to the plow. Here in the US the high plains almost became a permanent desert during the dust bowl era of the 1930's, thanks to the plow. Today, in just a few short decades, the fertility that Native Americans took care of for thousands of years has been decimated by Europeans and their plows.

erdakroft.com/Erdakroftfarm/Blogs/Entries/2016/10/28_Krofting_the_wild.. -

erdakroft.com/Erdakroftfarm/Blogs/Entries/2017/1/30_feeding_the_world_..

Posted On 11/19/2017

stanleybecker

Krofter - quote from Dylan's "All Along the Watchtower" - "ploughman dig my earth/ but none of them know/ what any of it is worth"

Posted On 11/19/2017

iamblessediam

PERMACULTURE...everyone can do a "form" of an edible landscape which has no exposed earth - from flowers to bushes to trees - everything is edible and really more nutritional. Be well! LBP!

Posted On 11/19/2017

Guillermou

Very well exposed Krofter, if nothing is done to limit global warming and intensive agriculture, all of southern Spain will become a desert, deciduous forests will invade the mountains, and scrubs will replace most of the large deciduous forests. part of the Mediterranean basin. The "European garden" is a crop under plastic where the largest vegetable production in the world is concentrated. In Spain, the environmental organization WWF ensures that illegal industrial agriculture is behind the drought of the Doñana aquifers. In total, there could be more than 1,700 irrigation ponds, which reduce biodiversity, from a unique natural environment.

In general, the most affected region is found in North Africa, the Middle East and southern Europe, with desertification due to climate and human impact such as intensive agriculture, and urbanization, The consumption of pesticides increased fivefold and that of fertilizers doubled in the seventies. These have caused pollution of various types and depletion of soils, which fail to recover their nutrients. Mechanization has produced soil compaction, unlike traditional methods. This compaction reduces the porosity and shortens the growth of the roots.

In addition, many of the new agricultural varieties require large amounts of water, which depletes water resources, and in some cases causes soil salinization. Seed uniformity reduces biodiversity and decreases resistance to pests. According to a WWF report, industrial agriculture is one of the main causes of global warming. Intensive agriculture is destroying the planet, in the words of Eva Hernandez: "It is the main cause of the loss of forests." "40% of the fertilizer production of the planet is in the hands of a company, 50% of the production of pesticides is in the hands of four, 35% of the production of seeds is in the hands of a single company that at the same time is producing pesticides."

Posted On 11/19/2017

Krofter

stan - Looked for a nice version of Dylan doing his song, or even Hendrix who made it an even bigger hit. Unfortunately, the quality of performances from that era is really bad. Here's a version by Clapton and Kravitz - they nail it - www.youtube.com/watch

Posted On 11/19/2017

Krofter

yam - Permaculture has much to offer. Wish they'd lift the proprietary restrictions and allow it to be 100% open source.

Guillermo - Thanks for the details about your region of Ma Earth. It helps paint the bigger picture.

Posted On 11/19/2017

grulla

In a similar vein, the native wild alkaline Sacaton grasses were almost totally decimated by the horse wagon hay harvesters in the 19th century here in the desert SW.

thewanderingnaturalist.wordpress.com/2016/01/12/saving-the-giant-sacat..

Posted On 11/19/2017

Krofter

grulla - An important story for our region. Sacaton grass, which was THE primary soil building grass in bottom lands throughout much of the Southwest, is almost gone. I feel lucky to be living in one of the few places where healthy populations still exist - thanks in large part to a 120,000 acre wildlife refuge that protects it. Because its favorite habitat is bottom land - the best soils for farming - the plow and overgrazing of cattle have nearly wiped it out. When heavy rains bring flash floods It has the unique ability to just bend over - its incredibly deep roots are highly resistant to erosion. Those flooding events would create a ripple effect that allowed sediments to settle out, which developed ever deeper soil. With sacaton gone, many of those bottom lands have become deeply eroded gullies with millions of cubic yards of beautiful soil, which took tens of thousands of years to develop, having been washed away.

Posted On 11/19/2017

iamblessediam

Yo Krofter...I wasn't aware there were "proprietary restrictions" associated with permaculture practices. All anyone has to do is follow guys like Geoff Lawton on YouTube: [www.youtube.com/watch] or browse through web sites like permaculturevoices: [www.permaculturevoices.com] or use a favorite web search engine or buy books on permaculture principles [which I never did - but that's an option] - take notes to general learn the principles and then look at and study how Nature recycles itself. Before long an edible landscape appears in the mind's eye. Here's the tricky part in a word - commitment. Everyone gets "blinded" by words like "organic" or "regenerative" or "biodynamic" or "permaculture" when all they have to do is take a walk in the woods and do some observations. That's how indigenous peoples live off the land to this day. Truth be told anyone can get a lot of their nutrient needs met via growing sprouts - then add in healthy sources of fat and protein. It really boils down to commitment - which typically gets convoluted by greed in one form or another. People would do well doing this: [kisstheground.com/?gclid=CjwKCAiA9MTQBRAREiwAzmytwwnz3DjL3S210wuhI-KHq..]. Be well! LBP!

Posted On 11/19/2017

Krofter

yam - Unless things have changed since the last time I looked into it... To teach Permaculture courses or use the term in any publication, one must first fork over a sizable bundle of money to become a certified Permaculture instructor. Given that much of what makes up Permaculture has been "borrowed" from numerous indigenous people as well as from the early version of Big Hugh Bennit's U.S. Soil Conservation Service, these types of restrictions are off putting.

Posted On 11/19/2017

mar6915

Excellent tunes. I think the native prairie strips mentioned in this article are of great importance.

Posted On 11/19/2017

Acroyali

Thank you Krofter, this means a lot. We no longer observe Thanksgiving in the traditional way. Day of Mourning for us.

Posted On 11/19/2017

LNLNLN

In Uk at least there is a misleading word trick involving use of the word 'organic' to describe garden composts and growing compounds as well as other treatments. It's not just in cheapo shops either. The word 'organic', as opposed to 'inorganic' is used for the whole branch of chemistry of carbon compounds - and that includes many of the organo-phosphates and petro-chemicals, pesticides and growth boosters - when it appears on the packet do think to check out which use of the word 'organic' is being employed, it may be to lure you into buying the opposite of what you wanted.

Posted On 11/19/2017

Guillermou

Yes LN. The trap of the organic and not organic. Organic fertilizers are those that can be used in organic farming in accordance with an international standard (European, North American, Japanese, etc.) and certified by an accredited external company, while a more generic concept is, as recently defined in the working groups of the European Commission, fertilizers whose nutrients are contained in organic material, animal, vegetable or other natural organic origin constituted by compounds / materials, in which the main nutrients are chemically linked or are part of these matrices organic. In the Spanish regulations an organic fertilizer is defined as a product whose main function is to provide nutrients for the plants, which come from carbon materials of animal or vegetable origin. Not all organic fertilizers can be used in organic farming.

The nutrients of organic origin contained in organic fertilizers, must be transformed in the soil thanks to microorganisms in mineral nutrients to be assimilated by plants, and their incorporation into crops is more gradual and gradual than if they come from mineral fertilizers. The real interest of organic fertilizers is the incorporation of organic matter, because the extractions of crops with crops and stubble, tillage, and meteorology with mineralization, reduce the levels of organic matter in soils, so it is necessary to replace it.

Posted On 11/19/2017

Krofter

True enough. The choice to use the term organic was not the best, but during the 1930's the Brits, Baron Northbourne, Sir Howard, Pfeiffer and somewhat later the American, J.I. Rodale, opted to back away from some of most esoteric practices of Steiner's biodynamics and chose to go with term "organic". Biodynamic is much less prone to misinterpretation. I'm so glad the good doc is promoting biodynamic.

Posted On 11/19/2017

A few added thoughts: • Along with the 5 strategies for growing topsoil, it's critical that whenever you plant a plant in your garden, you don't break up the clumps of soil that are removed from the planting hole which will then be backfilled around the new plant. • In addition, if the plant is container grown (becoming more and more common), be sure to break up the root ball when you remove it from the container and before it goes in the ground. Most container grown plants are grown with "soiless" soil which will not support the microbial community nor will it readily allow roots to expand into the new soil as it forms an "interface". The roots in the ball need to be teased out and as much of the original planting medium removed to allow your own soil to be incorporated around the roots. • Regarding the use of mycorrhizal inoculants, which is what these additives are called, the research has not shown worthwhile results over the long term. First, it has to be the correct mycorrhizae for the plant that will be grown - the most important subdivisions are Ectomycorrhizae for many woody plants and Endomycorrhizae for most of the rest of the world's plants. Within Endo, the most common is Arbuscular mycorrhizae, often referred to as AM.

Not only would the inoculant have to match the plant that will be grown or is growing, there are geographic issues as well. Mycorrhizae are geographically specific so just buying an inoculant will not tell you where those spores came from, even if they do tell you which mycorrhizae they are. The most efficient and correct way of inoculating your plants with mycorrhizae is to have them in a soil that has an active microbial community and an organic content - 7-8% - that will support that community. They will do the rest. Critical to this, as Gabe's interview has attested, it to never leave soil uncovered. If you are a gardener, don't remove grass clippings from grass or leaves that fall from plants unless there is a foliar disease.

Posted On 11/19/2017

Almond

There is no one way to manage all parcels of land. The most effective fertilizer is the farmer's foot walking the land regularly, observing and then taking necessary actions. If I did not weed and till under, the first year, my weeds would be 6-8' tall--prob higher after that. I would get no harvest. My problem is not introducing livestock onto the land, but controlling rapidly reproducing wildlife resulting from the good water and soil fertility that yields many food sources. Wildlife stalks the perimeter of my garden fence many times a day, looking for an opening, like an alcoholic wanting to break into a liquor store. We will need to hot wire for bears when we get around to introducing bee hives.

My garden has a very high sturdy fence around it, but even that is not enough to deter much of the wildlife--it is a constant struggle. I must be extremely conscientious about closing the garden gate because if I leave it open even a sliver, the deer will nudge their way in and follow me around like puppy dogs while munching everything in sight. Over time, we will continue to make improvements and gain ground. New gardens when breaking virgin soil are always challenging. Another thing we do not have, unlike North Dakota, is high winds, blizzards and prolonged freezing temperatures to help kill soil insects and soil diseases. However, what we do is organic. We constantly build the soil. When we have lived a place for a few years, the garden is always higher than the land around it. Our standing joke is, that, just when we get a garden producing really well, "it must be time to move". However that has prob also kept us healthy. There are so many minerals you can break lose from virgin soil even if it is a struggle. Many of the earlier settlers moved on because the soil was worn out. Their cabins did not last forever, either. About 20 years for both to wear out. So, when it was time to build a new cabin, many moved on if there was more fertile land to be had elsewhere.

Posted On 11/19/2017

Almond

Weeds can be considered a cover crop. The native ones provide valuable minerals and wildlife is often dependent on them for health. Animals do not do as well on land that is weed-free. However, weeds are not a complete source of soil supplementation. In spite of that, we will replant some of the native weeds that large companies have tried so hard to eradicate. I think we already have plenty of native species of plants to keep bees happy without planting more.

We USUALLY also plant a cover crop. However this year, voracious birds ate at least half of our cover crop seed in fall and almost all of my sunflower seed in spring! (We tried!) It doesn't work out well every year, but with persistence, you slowly gain ground. Our harvests keep improving and we beat the critters to the ripe crops this year with minimal loss.

I was lucky and got the last of our harvest in on a sunny day before a frost and do garden clean up, pulling posts, trellises, hoses, etc.. Now, all harvest chores are done except making sausage and bottling wine. :-) It is also delightful to have a dozen Christmas melons in cold storage that are keeping extremely well while we are still eating cold storage apples and pears. I know how and where my food was raised.

Posted On 11/19/2017

dan15375

Since money talks and seems to be the driving force in every facet of our lives today...

VOTE with your pocketbook

VOTE for (and financially support) political candidates with integrity and a backbone

VOTE for political candidates that have the testicles to pass laws that PROTECT the environment instead of raping and plundering it for the greed and avarice of a few.

If candidates do not have to "depend" on "benefactors" (I'm trying to keep it clean here) and know that we will actually get off of our butts and vote in support of our values, then maybe we can eliminate the garbage going on in Washington this very minute and change this country for the better.

I BELIEVE in the power of each and every individual. You may think that you are only one, but in reality you are ONE MORE in a vast ocean of folks who really want change.

Posted On 12/05/2017

Livewhileyoustillcan

My first year planting cover crops in my yard and my soil already seems a bit darker than when I started. Looking forward to building the soul of my soil up to grow the most nutrient dense food possible. Thanks for the videos.

Posted On 11/23/2017

Good article.

We're always told of the benefits of soil microbes, fungi, etc., but we're rarely told more in-depth why they're important:

1. Enzymes are necessary in the building of cells. Enzymes help break the cells of existing matter down (like digestion) into their molecular & atomic components, and assist in allowing those molecules and atoms to regroup and form new cells, and new matter. Enzymes help the molecules and atoms in soil to transfer to and become new plant cells. Enzymes, in human and animal saliva for example, help break down the cells in foods we eat into their molecular and cellular components, and assist in regrouping those atoms and molecules to build new tissue cells, muscular cells, etc.

Enzymes break down the cells in organic matter so microorganisms like bacteria and fungi (molds) can feed on those partially digested cells. Most fertilizers lack enzymes, therefore they don't promote healthy microorganism growth. Organic matter contains enzymes in itself, aiding in it's own decomposition, often leaving those enzymes (as "free" enzymes) in the soil after decomposition. I

2. Vitamins are created thru an action involving enzymes, bacteria, and fungi (molds). Modern produce has seen a great reduction in the nutrient content due to a reduction in the quantities of enzymes, bacteria, and fungi (molds) in soils. Fertilizers don't have the components necessary to create vitamins.

3. Antibiotics are created thru a process involving enzymes, bacteria, and fungi (molds). Food, especially produce, should be healthy. This health includes a healthy quantity of natural antibiotics. I don't have the data to back it up, but I remain convinced that pharmaceutical antibiotics would be mostly unnecessary if humans were to eat healthier produce with more natural antibiotics.

Produce which lacks sufficient quantities of enzymes, vitamins, and natural antibiotics, yet contains traces of pesticides or other synthetic chemicals, is not healthy.

Posted On 11/19/2017

frankfv8

here's the catch all synthetic fertilizer has an electric charge that drives it away from the plants

Posted On 11/19/2017

19beets

What a brilliant dedicated American farmer ... I hope he regularly speaks at farming conventions!

Posted On 11/19/2017

Krofter

The fried cauliflower and prawn recipe looks great. I'd throw in some more fat in the way of goat caul and/or leaf-fat, but that's just me. Looking forward to the cookbook.

Posted On 11/19/2017

johnsher85

Some some great ideas regarding this subject, see "Back To Eden" gardening with Paul Gautschi. Use no chemicals, little to no watering, very little effort once established. I'm just now setting up my Back to Eden garden at my place and can hardly wait!! Makes more sense than anything I've tried before!!

Posted On 11/19/2017

GrayRaven

Additionally, mined phosphorus brings with it cadmium. Cadmium is not harmful to plants but it is a chelate that enters plants and becomes part of the food chain. Cadmium is harmful to the health of animals, damaging the liver. Another reason hydroponics is not a viable option to earth grown food. Hydroponic growers will tell you that they "flush" the plants prior to harvesting. However, plants do not have a digestive system. Once in, it stays. There is no such thing as flushing plants. Biological ignorance by growers creates toxic food...sigh...

Posted On 11/19/2017

Liz Smith

I have gone back to growing our own food (not totally) but one thing I have got going is a system of compost heaps. No cooked food is used on it just raw produce from the material used for cooking. Lots of cardboard is added for good basis and when I start a new compost heap I buy a kilo of red worms which start off the heap. There is nothing to beat home grown food, and if we have any surplus we barter with neighbours for their surplus. This helps everyone as we get together and find out what they are growing as we do not want everything to be the same. Works out well. This system means no money passes hands just produce.

Posted On 11/19/2017

Acroyali

Bingo!!!! If Neighbor A grows Zucchini and Neighbor B grows legumes and Neighbor C grows tomatoes, imagine all the waste avoided if people choose to barter. And imagine all the headaches avoided if people refuse to squabble over what would "Cost" more, and insists the zucchini and tomato guy give more to receive less. Everyone has a full plate, everyone is happy, and balance (IMO) is restored and "neighbors" become neighbors again.

Nice post, Liz Smith =) Please comment more!

Posted On 11/19/2017

AllenCSC

Thank you for the interview with Gabe Brown. Joel Salatin farms in the Shenandoah Valley of Virginia and has written several books about regenerative agriculture. Greg Judy in Missouri has perfected the grazing cycle for his cattle and sheep to allow permanent pasturage. There may be hope for America's food supply if the USDA and FDA would get out of the way.

Posted On 11/13/2017

Acroyali

Hm, we've always used good old compost and horse crap. Sounds simple, because it is =)

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Well, well, well. Long expressed here is how growing soil uses Carbon the First Fertilizer, the Foundation Fertilizer to regenerate a living soil. In the process a superior method to Syn - Sin -Farming with it having massive expensive inputs putting Carbon in the air while upsetting the balance the plant life creates as just part of their natural functions. Expensive inputs fouling nearly all elements of life. Also long expressed is how an approx. 1% increase in organic matter holds an additional 20,000 gallons of water per acre, while it filters and microbes' scrub and clean it. NOW, we can add how growing healthy soil also takes away not only the bogus Slick Messaging of Globalist about Carbon, and water shortages, but we can take away the newest bogus kid on the block - increased nitrogen levels.

Many of the plants described in the article are nitrogen fixers building it up in the soil where microbes, soil life and plants want it. Here, temporarily, in the personal garden space cover crops, mostly Buckwheat for the first round is chopped with a weed whacker and the litter left. After a few days to a week then another seeding with a mixture cover crop of different soil builders. (It is basically beach sand here.

While Organic Gardening Methods definitely improved the plants, the updated knowledge of no till, grow healthy living soil greatly raises the bar for nearly anything one can think of.) The very last one will be an Oats and Peas mixture to be knocked out by frost and then a metal tee post with a rope harness will be used to step on to crush and overwinter. This should build ever increasing soil life and health for no till, or little till methods. Once things are up to speed, a rotation schedule for such use will be practiced. Some Eden Gardening for those plants enjoying that will still have some space.

Posted On 04/14/2024

Guillermou

Mr. farmer, you present great knowledge. Highlight the importance of the benefits of mycorrhizae to promote the growth of plants, and obtain more benefits from their fermentable fibers. For sustainable agriculture, we must increase the fertility of the soil, supplying it with organic substances: natural manure from animals, including bark or wood chips, pine needles, straw, food waste and recycled waste material, in tune with the biodynamic agriculture and permaculture. On the contrary, the application of fungicides and pesticides for devastating phytosanitary purposes also has effects on mycorrhizae.

These organic fertilizers provide a beneficial soil for soil microorganisms. According to Bernaza and Acosta, "mycorrhizae encourage better use of fertilizers and soil nutrients, encourage greater absorption of water, air and stimulate the growth of roots of crops, protect certain pathogens and improve soil structure." Mycorrhizae act as specialized structures established in the roots to help absorb nutrients and protect against pathogens.

The term "mycorrhiza" refers to this symbiotic relationship between plant roots and, in particular, fungi in the soil. The potential benefits are: 1) improved absorption of nutrients, mainly nitrogen and phosphorus. 2) improved water absorption and increased resistance to water stress. 3) Increased resistance to soil pathogenic fungi. 4) Improvement of soil structure through the formation of aggregates and hyphal filaments of the fungus. 5) hormonal effects on the roots that improve their development and that of the entire plant.

Posted On 04/14/2024

Guillermou

Biologist Douglas H. CHADWICK explains how the relationship this mutually beneficial symbiosis between the fungus and the plant works. "Ten to 20 percent of the plant sugar produced through photosynthesis are absorbed by mycorrhizae. In return, the fungus provides many essential nutrients and increases drought resistance. As the ends of the plants' roots are too large to get between the soil particles through the cracks and crevices too, even the root of the narrowest, the hyphae of the mycelium, becomes an auxiliary root system, in contact with subsoil volume, absorbing many more nutrients, that the plant could achieve on its own." DR. ROGER KOIDE, Professor of Biology at Brigham Young University, is one of the leading experts on mycorrhizal fungi, having researched this topic for more than 25 years.

Mycorrhizal fungi occur naturally in our soil, Dr. Koide noted, and 75% to 80% of all plants on earth are "mycorrhizal" have this important relationship with fungi. Mycorrhizal plants are often more resistant to diseases, especially diseases caused by pathogens in the soil. Interview Dr. Koide at <https://youtu.be/pr3IGUcvxNM> <https://youtu.be/pr3IGUcvxNM>

Posted On 04/14/2024

lottaviano

Dr. Mercola, please consider sharing a video of your garden/orchard and chicken set up. I'm sure your viewers would be interested in seeing it. Thanks!

Posted On 04/14/2024

Rosebud10000

Fabulous article and videos. Regenerative farming and gardening is the only way to go. I am lucky in that in our family each of us children grew up having our own little vegetable garden using composted chicken, cow and pig manure from our own animals. We also had every fruit tree imaginable. It wasn't called regenerative or organic or permaculture back then , but that's certainly what it was. None of the other kids at school were interested in doing it though, so it wasn't that it was common practice. But even the bought vegetables and fruit were much more flavoursome and nutrient dense than now. I am convinced that those foundational first 17 years of my life have given me the resilience to stand a chance of staying healthy now.

Posted On 04/14/2024

pecanroll

I have 180 spring plants ready to go in the ground. I guess I will try cover crop with 1/2 for next year. just to see how it goes next year. Pollinators....lots of flowers that bees love is necessary. They definitely are not as abundant as in years past.

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