



Healthy Soils

Healthy Plants

Healthy People

VOL 5. | WINTER

Love Mother Nature

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OUR BEST HOPE MOVING FORWARD BY THE EDITOR

Organics Dominated in 2020 & will continue to do so in 2021

2020 was the year human health became paramount like never before and 2021 will continue this critical trend. Organics are at the forefront of this colossal societal change. Organics believe in healthy soils, healthy plants and healthy people. We can't have one without the other. Organics are based on logic, ethics and the laws of science. How true is the principle 'That Which is Biologically Correct is Always the Most Economical'.

The greatest discoveries today in human and crop health are all based on Organics. The questions always being - how do we improve performance, strengthen immunity and build greater resistance to stressors? The answers at all times, go back to proper nutrition, biological functions and the mighty microbes that exist everywhere; soil, leaf surface, human brain, human heart, human gut ... Everywhere. Who are we to tell Natural Law the way things are?

It's so much smarter, economical and compassionate, to understand creation and to assist the natural order.

Let's look at some of the reasons for Optimism in 2021:

#1 Gardening Activity jumped through the roof in 2020 and is expected to do so again in 2021. Axiom marketing just published a survey that shows great promise for our industry in 2021; see the survey here: <https://axiomcom.com/2021-garden-survey>.

Millions of new American gardeners joined our industry as DIY's or by hiring professionals. That trend will continue in 2021.

#2 Love of Mother Nature has gained new heights as we more greatly appreciate the value of Nature, the value of Mother Earth and how creation surely & freely heals us all. A wonderful video on this subject can be found here: <https://youtu.be/taP6gabvRns>.

We can't have civilization unless we have a healthy environment. Nothing surprising here as 'we' are the environment. A recent article in The Wall Street Journal reported how large, mainstream corporations are joining together for environmental protection. Gardening and landscaping bring us intimately close to Nature.



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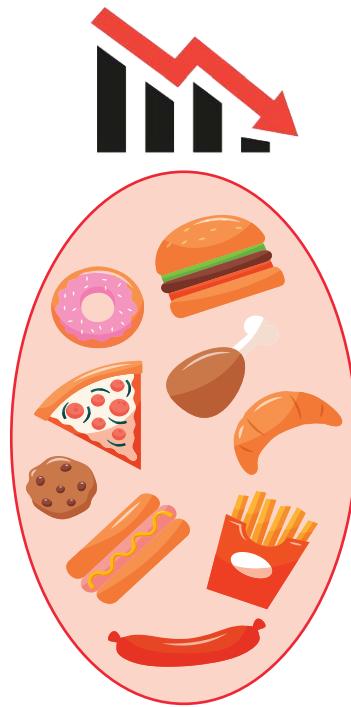
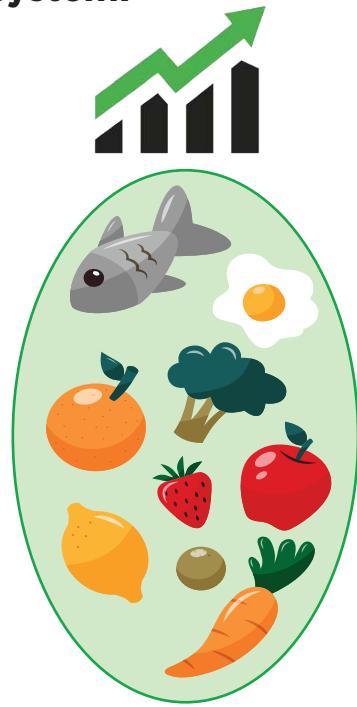
9. FURTHER ORGANIC EDUCATION

OUR BEST HOPE MOVING FORWARD

BY THE EDITOR

CONTINUED...

3 True wealth is true health. Why does America lead the world per capita in chronic illnesses? It's because of the terrible foods so many Americans are led to eat. The good news is that the Clean Food Movement is the fastest growing food sector in the US. Organic Food sales are rising approx 9.5% **EVERY YEAR**. People everywhere are making the solid connection of Healthy Soils – Healthy Plants – Healthy People. And just as important more folks recognize that all chemical pesticides weaken the human immune system.



4 The growth of a new, dynamic business philosophy called 'Conscious Capitalism' which is gaining very strong momentum in America. Major corporations like Whole Foods, Costco, Google, Southwest Airlines, etc have adopted the core principles. Conscious Capitalism basically means to make a fair profit by doing what is right. Organics by nature, resides in this realm of ethics, logic and economics.



In the end, isn't it about attitude? To choose to live with Hope and not despair, to live with Joy and not sadness, to live with Courage and not fear, to live with Love and not hate, to live with Wisdom and not stupidity?



In 2020 we saw it all and came away impressed that the good of humanity prevailed and we predict that 2021 will be great year for human civilization.

Mike

Mike Serant
Owner & Manufacturer of MicroLife



UNHEALTHY PLANTS CREATE UNHEALTHY SOILS

JOHN KEMPF BLOG | JOHNKEMPF.COM/UNHEALTHY-PLANTS-CREATE-UNHEALTHY-SOILS/

The popular narrative is that healthy soils produce healthy plants. This is correct but incomplete. We need to ask the question, what creates healthy soils? “**Healthy plants**”, is the right answer. Without the contribution of plants, soil is just decomposed rock particles; sand, silt, clay.

Plants contribute the carbon, the sugars, the energy that serves as a fuel source, and substrate to develop microbial populations that build Organic matter and mineralize nutrients and make them available to plants. The humic substances and humus clay complex are the result of plant contributions to the ecosystem.

Healthy plants create healthy soil. The key adjective in this statement is ‘healthy’.

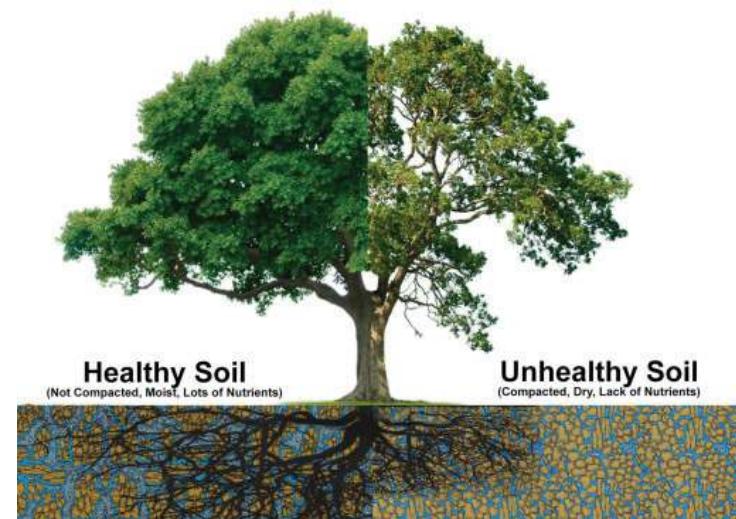
Unhealthy plants do not create healthy soil.

In fact, the opposite. **Unhealthy plants create unhealthy soil.**

Robert Kremer described how the root exudates of GMO crops can increase the virulence of soil-borne pathogens. But wait, root exudates are supposed to be a good thing, no? The influence of root exudates on soil microbial communities is determined by the complexity and quality of the compounds they transmit through the root system, not only the quantity of exudates.

Unhealthy plants will transmit simple carbohydrates, non-reducing sugars, amino acids, and other compounds in ratios that enhance the virulence of pathogens, by providing them with a ready food source. Healthy plants at higher levels on the plant health pyramid transmit more complex carbohydrates, reducing sugars, polysaccharides, enzymes, and complete proteins, as well as plant secondary metabolites. Unhealthy plants may also transmit some of these compounds, but in different ratios from healthy plants. The different ratios of complex carbohydrates, enzymes and secondary metabolites produce a different microbial community response in the rhizosphere.

Unhealthy plants that transmit a lot of simple sugars favor the development of a disease enhancing soil microbial community. They increase the virulence of disease pathogens present in the soil.



Healthy plants that transmit more complex compounds favor the development of a disease suppressive soil microbial community. They decrease the virulence of disease pathogens in the soil, and actually convert them to have a **symbiotic relationship** with the plant instead of a pathogenic one.

While healthy plants create healthy soils, unhealthy plants create unhealthy soil. This is why focusing on optimizing plant health in the current growing season provides such big soil health rewards.

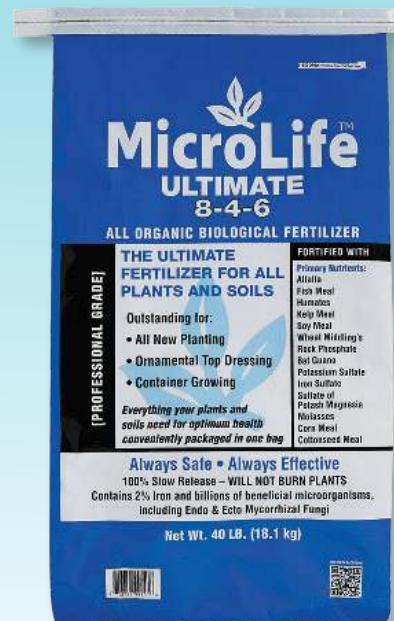


WINTER RECOMMENDATIONS

Actively Growing Plant Tips:

1. For actively growing plants, like cool season veggies and cool season flowers another application of MicroLife Ultimate 8-4-6

2. Spray twice a week with MicroLife Maximum Blooms



Dormant Plant Care Tips:

For the majority of your plants under dormancy (grass, trees, shrubs) Now is the time for soil building & preparation for the Spring! Apply MicroLife Humates Plus 0-0-4 everywhere, 10 lb per 1,000 sq ft.



ARBOR CARE IN WINTER

BRAD PHILLIPS | ARBORTRUE | ARBORTRUE.COM

Winter in the coastal plains of Texas is hardly a reliable weather period. We commonly have T-shirt weather or sub-freezing temperatures, often only days a part. It can be difficult to know what to do with the roller coaster temperatures and conditions, what is a person to do? You will be happy to know there are several ways you can improve your trees and the soil they grow in during and after the holidays.

Soil Recovery:

Summer heat and city irrigation water can skew the soil in an unfavorable direction. Winter can be a great time to build your soil back up for an **explosive Spring**. At ArborTrue we do this professionally by soil drenching large quantities of Humic/Fulvic acid. The large humic acid molecules do a great job of building soil structure, flocculating (loosening) clay, and capturing nutrients that would otherwise leach out of the soil. This pairs nicely with seaweed as well! The smaller Fulvic Acid molecules are absorbed by the roots or directly through the foliage at nutrient. The extra potassium in the humates serves an extra purpose for deciduous trees, it helps them go dormant. You may have noticed that some trees struggle to fully drop their leaves and go dormant, rather, they trickle drop leaves all Winter long. Potassium in the root zone tells the tree to move carbohydrates to the roots for storage just like winterizer does for perennial turf grass. The result? A fully dormant tree through winter and an explosive start to Spring.

Spraying:

If you don't see parasites, why would you spray? Many undesirable insects have eggs that over Winter in the twigs and bark of trees. By the time the signs and symptoms appear the next year, the problem is past the window of treatment.



The Cynipid wasp on Live Oaks will lay eggs on the twigs and release an enzyme. The enzyme causes the twig to grow a marble sized gall around the egg(s). The nymph will bore out of the gall the following year, drop to the ground and repeat the life cycle the following year. Spraying Neem Oil in winter can help smother the eggs and decrease appetite for the survivors thus causing them to die. The galls will still form that year but the following year, won't be as many. Its an easy and cost-effective way to reduce the unsightly balls of cork from taking over.



Planting:

Fall is the undefeated champion of tree planting but if you missed the season it's ok! Winter is perfectly fine for planting most native tree species. The smaller trees will still need frost protection during hard freezes, but larger trees (30 gallon plus) are normally just fine. Even though the foliage won't have explosive growth in Winter, the roots will get a head start colonizing the soil around them. This is helpful when Spring finally rolls around, especially if you planted your tree with the best Organic root stimulator, Humic Acid! With so many of us staying home for the 2020 holidays, grab some MicroLife, the sprayer, and garden spade and **show those trees some love!**

YOU HAVE PESTICIDES IN YOUR BODY BUT AN ORGANIC DIET CAN REDUCE THEM BY 70%

KENDRA KLEIN & ANNA LAPPÉ | THE GUARDIAN | THEGUARDIAN.COM



A new study shows that US families consume cancer-linked glyphosate in their food. The good news: going Organic rapidly reduces levels. Never before have we sprayed so much of a chemical on our food, on our yards, on our children's playgrounds. So it's no surprise that Roundup – the world's most widely used weedkiller – shows up in our bodies. What is perhaps surprising is how easy it is to get it out. A new peer-reviewed study, co-authored by one of us, studied pesticide levels in four American families for six days on a non-Organic diet and six days on a completely Organic diet. Switching to an Organic diet decreased levels of Roundup's toxic main ingredient, glyphosate, by 70% in just six days.



"If my kids have this much of a change in their numbers, what would other families have?" asked Scott Hersrud of Minneapolis, Minnesota, a father of three who participated in the study. The answer to that question is increasingly clear: a big one. This study is part of a comprehensive scientific analysis showing that switching to an Organic diet **rapidly and dramatically reduces** exposure to pesticides. That's good news, but it raises a grave question: why do we have to be supermarket detectives, searching for Organic labels to ensure we're not eating food grown with glyphosate or hundreds of other toxic pesticides?



Glyphosate was flagged as a potential carcinogen as far back as **1983** by the US Environmental Protection Agency (EPA), yet use of the chemical has grown exponentially since, with the chemical giant Monsanto – purchased by Bayer in 2018 – dominating the market.

Numerous reports have covered the internal company documents showing how Monsanto's influence over the EPA succeeded in suppressing health concerns.



In fact, rather than restricting the use of glyphosate, the EPA has raised the legal threshold for residues on some foods up to 300-fold above levels deemed safe in the 1990s. And unlike with other commonly used pesticides, the government has turned a blind eye for decades when it comes to monitoring glyphosate – failing to test for it on food and in our bodies.

The agency's slipshod regulation has led to a dramatic increase in exposure. Research shows that the percentage of the US population with detectable levels of glyphosate in their bodies increased from 12% in the mid-1970s to 70% by 2014....

Read the full article here!

www.theguardian.com/environment/commentisfree/2020/aug/11/pesticide-danger-organic-food-roundup-study

HEALTHY SOILS FOR ENVIRONMENTAL GOODNESS

LANSE FULLINWIDER | MICROLIFE | MICROLIFEFERTILIZER.COM

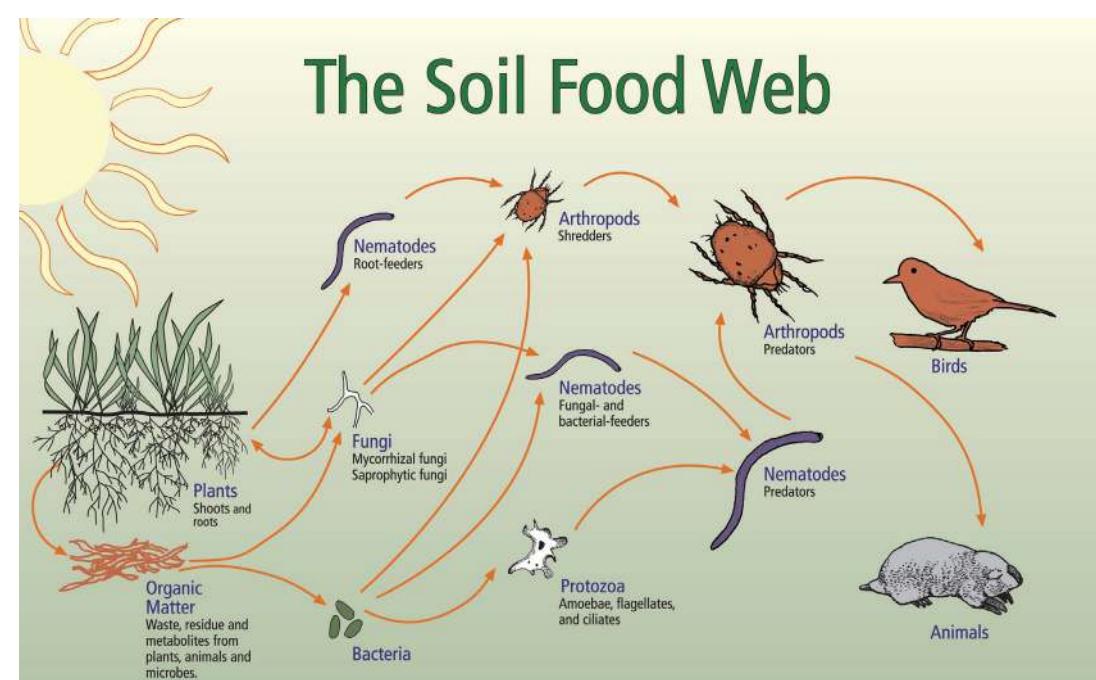
Healthy soil is the foundation of our earthly being, for without healthy soils one cannot grow nutritious foods, the earth cannot store carbon thus reducing pollution, one cannot grow healthy/safe/durable landscapes to recreate on and all plants grown are more susceptible to disease, pests, and death. All conditions that are contrary to a healthy planet.

What is more appealing, a vibrant colorful landscape or a dreary, off-color, weedy, & sad-looking environment?



What is in healthy soil? Massive quantities of fungi, bacteria, protozoa, nematodes, plus critters of all sizes which form a mutually beneficial circle of life for the apex predator on land called man.

Poor soil is typically created by repeated chemical use and is virtually devoid of all, if not most of the above listed beneficial life, causing compaction, poor aeration, and stale soils with a generally higher pH, none of which are conducive to good healthy growing conditions.



Our heavy clay soils are typically plated, sticky, and non-aerated, ie; compacted, thus prone to runoff after just 3-5 minutes of irrigation or rainfall. These soils typically lack porosity, have low (<2%) in Organic matter, and lack microbiology that glues soil particles into aggregates, so are non-conducive for natural growing conditions be it your garden, yard, sports field, or cropland.



And as a side note on irrigation, the rest of your station cycle time is thus wasted as it runs off into the gutter wasting money and a highly valuable resource, so cycle and soak your irrigation multiple times per night to let the water seep deep into your soil, and reduce your watering habits to once or twice per week vs 3-5 times.



HEALTHY SOILS FOR ENVIRONMENTAL GOODNESS

LANSE FULLINWIDER | MICROLIFE

CONTINUED...

**HEALTHY
SOILS**

VS

**CHEMICAL
SOILS**

**Plump &
generous
Alive & full
of Organic
matter
The ability to
help plants
grow to their
full potential**

**Awful &
distressed
Non-
productive
slabs of
compacted
matter
Lacks physical
properties to
support life**

When one applies microbiology to build soils, what feeds them? Once they start colonizing the soil and plant roots, plants support them through photosynthesis extracting sugars from carbon dioxide, those sugars are passed to the roots, through mycorrhizae and out into the soil world feeding those beneficial bacteria and fungi in the nearby soil in the form of carbon.

This thriving microbial colony then mines soil minerals into nutrients that feed plants, helping them to exude health, fight disease, and insects, all for a win-win healthier planet.



We all want healthy plants! So build soils by applying Organic matter containing beneficial bacteria that produce natural antibiotics to fight plant disease, and fungi that work hard gathering nutrients and water for plants. All work together in a complete cycle of life making minerals and nutrients available to each other in a symbiotic relationship. And don't use typical salt-based fertilizers and chemicals as they destroy the beneficial Organic matter/microbiology and make beef jerky out of what was once a Filet Mignon.

Do you want Filet Mignon or Beef Jerky?



So, build Mother Earth's soils with sound Organic matter to create life vs destroying it with chemicals. It is a sound, common sense, ethical thing to do for the sake of Mother Earth's long term environmental safety and health.



Join OHBA Today

If you believe in the Organic movement & work in the green industry, join OHBA today!

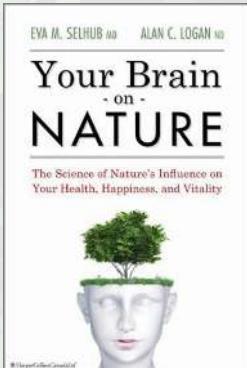
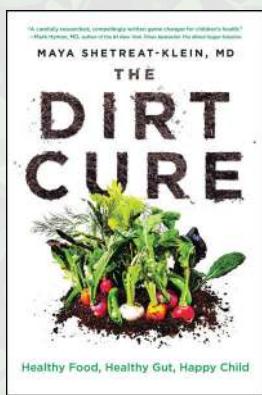
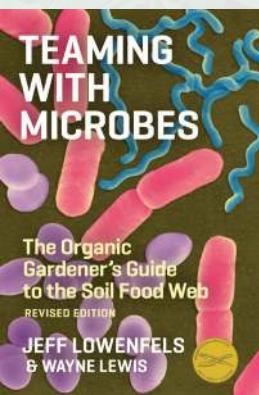
Take a look at the Zoominars from last year, free to check out here: ohbaonline.org/webinar-events. OHBA has a very exciting event schedule for 2021, so stay tuned!

2021 is a new chance to start the year off right with Organics.

For More Information
Visit ohbaonline.org

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