

MicroLifeTM

ORGANIC BIOLOGICAL FERTILIZERS

Healthy Soils
Healthy Plants
Healthy People
VOL 6. | SPRING
Love Mother Nature

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ORGANICS BUILDS RESILIENCY BY MIKE SERANT

Creation is blessed with resiliency.

Hits are taken, hits are absorbed, & we bounce back, often better than ever. We see this with soils, plants, animals & humans. A spirit or force drives us forward. What makes resiliency possible is health, the inner strength to preserve in times of stress.

We have all had **major**, life changing events the last few years, Hurricane Harvey, brutal droughts, COVID, a tumultuous election & recently, the worst Freeze in 150 years. But Nature is amazing if we show her a little love & kindness. During the COVID shutdown we saw nature make incredible rebounds very quickly; air got better, the seas cleaner & wildlife more abundant. This is very important because to have a quality civilization or a future worth living, a healthy environment is essential.

Organics are civilization's best hope for moving forward.

In our farms, gardens & landscapes we build solid & lasting resiliency if we use the proper inputs. This of course means quality Organics. Take a look at this picture in the middle of the Big Freeze. The lawn was the only lawn on the street that uses MicroLife & the only lawn with green grass.



February 16, 2021
During Freeze

What happened was the heat from the beneficial microbes kept the soil warm & melted the snow, preventing extensive damage. We see this constantly, be it hurricane & flood water recovery, extensive droughts or high traffic sports fields, that given half a chance with the right nutrition, creation is amazingly able to rebound.

Now the next major plant stress to come is the wondrous Spring growth. Plants that are still alive from winter used up massive reserves of minerals, hormones, sugars & need to be replenished. Our gardens & landscapes are incredible assets that need to be well cared for this Spring of 2021. They will need our 'Tender Loving Care' & quality Organic fertilizers. Chemical fertilizers with their limited mineral profile, high salts & total devoid of essential plants hormones are the absolute wrong products to use. Create & enhance your landscapes life with Organics.

This is a great year to expand the Organic way of living as folks are more open to health & nutrition than ever before.



Mike Serant
Owner & Manufacturer of MicroLife



March 8, 2021
Post Freeze

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DR. BOB RANDALL

ORGANIC AZALEA CARE

BY BART BRECHTER | HEAD OF GARDENS
& LANDSCAPES AT THE MUSEUM OF FINE ARTS HOUSTON



When planting any plant it is fundamentally important to know where that plant is native to. If you want to have thriving plants, it is critical to know what type of environment needs to be provided for successful growth. Now you're thinking 'Well that's just common sense' but this detail is often overlooked in caring for plants that are frequently used in our landscapes, like Azaleas. Let's first look at the growing conditions of Asian Azaleas. Most grow **under a canopy of trees, in a temperate temperature situation & humid environment**. By knowing these three conditions we already know how to plant Azaleas & how to provide basic care.



Let's talk about Azalea growing conditions, a plant that is conditioned to grow **under a tree canopy** will need part of the day in some kind of shade.

In addition to shade, Azaleas will need a deep humus area to grow in. Growing under trees will often lead to shallow roots with a higher need for moisture. Another condition is a **temperate environment**, which means Azaleas really do not like it too cold or hot. Being from a **humid** area, would suggest a place that receives ample amounts of rain. Humid conditions also suggest that the soils tend to have an acidic pH.



So what does all this have to do with planting & taking care of an Asian Azaleas in Houston or the U.S.? Well first Azaleas will do best in an area of your landscape that receives some shade throughout the day. Day long dappled shade (areas where there is a mixture of sun & shade) is preferred or afternoon shade if that is your only option. Next Azaleas have very shallow roots which require a good amount of oxygen, so plant it high with the root ball 1-2" above the soil. Planting high will help create a deeper root zone when planting in Houston's shallow soils. Follow up with a heavy mulch that covers the root ball, this will keep the roots moist & equally allow excess water to drain off. Mulching with bark mulch or leaves is preferred.

Since Azaleas are a part of your landscape, fertilizer will need to be applied. Fertilize your Azaleas in April & again in May. An additional fertilization could be applied in September if you feel the plant needs it. Asian Azaleas bloom based on growth from the previous year. So that means pruning at the right time is crucial. The best time to prune is right after they finish blooming, this is April through May. If you miss this time frame & prune your Azaleas later in the summer, it could result in less or no blooms the following Spring. Applying these simple techniques will help the Asian azalea feel more at home & easier for you to grow a healthy plant for years to come.



SPRING RECOMMENDATIONS

The Perfect Color Program

It's Easy as 1-2-3!

1

**MicroLife
Ultimate 8-4-6**



Most complete, nutritious,
non-burning color fertilizer ever!

2

**MicroGro
Bio-Inoculant**



Prevents diseases that plague
color plants

3

**MicroLife Max
Blooms 3-8-3**



Organic Foliar spray for
popping flowers

Spring Lawn & Shrub Success

**CHOOSE ONE OF THESE
FOR FANTASTIC RESULTS:**

**FOR EXTRA LAWN
& SHRUB LOVE:**

**MicroLife
Multi-Purpose 6-2-4**



-OR-

**MicroLife
Hybrid 20-0-5**



**MicroLife Humates
Plus 0-0-4**



Great for keeping your lawn
green & shrubs healthy

Fast acting, soil building
& inexpensive

Outstanding soil improver,
beneficial for all soil types

THE SCIENCE OF ‘WHY ORGANICS’ & HOW TOS

BETSY ROSS | OWNER OF SUSTAINABLE GROWTH TEXAS



Oh, the Connections!

Or, Harmony in the wild, the tame, and the ‘more we see’ I love prairie, pastures, gardens and trail walks! So, come on! Let’s take a walk together. Let’s see what we can see? Let’s look for new connections, new plants, new birds, new creatures, new spider webs. Is everything really connected? The longer I am around all this, the more I see and believe it is so!



The great Spring and early Summer time is almost upon us – Life at every level - everywhere, Beauty, Diversity, Energy, Vigor, the ‘Givers’, the ‘Takers,’ Pride, Peace, - all connecting to become more than each living creature/organisms can be – but oh, yes, all living creatures working together toward heighten goals! A real Community! And the neatest thing about this very real Community is that WE – You and me – are allowed to be a part of this if we want. So come on, I invite you to journey with me.

About those connections? As we think more kindly of everything we see, the more we learn to respect the basic needs and natural processes of ‘Mama Nature,’ to help her heal more fully, the more we realize there is so much to see, feel, watch in awe. As the soil becomes healthier, as more robust natural processes are enabled, the more connections we will see. So let’s get started! Let’s go!

We are in a barren field in South Texas – nothing would grow. But we shared/ enabled some energy from the sun to the soil, gave it some basic, natural food for nourishment for what we believed that poor soil and soil life needed.



Before the soil became so degraded, before diversity was shunned, great flocks of birds were regularly sighted & their loud voices could not be ignored. What? Loud birds are a connection to healthier soil? Yes, Bird flocks with their voices – keep the leaf stomata open longer –pulling more energy from the sun into the plant.

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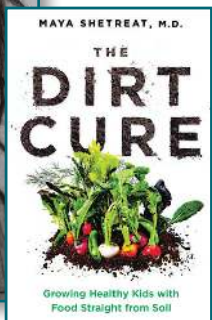
APRIL
22
2021

GET HEALTHY

AN AMAZING WEBINAR!



DR. MAYA SHETREAT THE DIRT CURE



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Register Online Today at
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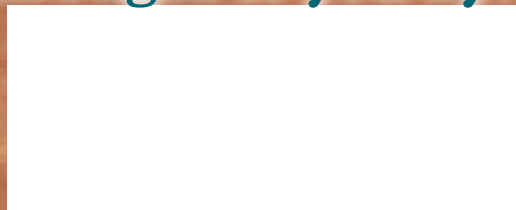
ZOOMINAR TOPICS INCLUDE:

- Why so many people are chronically ill
- Learn how to heal yourself & your family
- Build greater immunity & personal resilience
- You are what you eat: Healthy soils, Healthy food, Healthy People

PRESENTATION 6:00 TO 6:45PM CT
Q&A 6:45 TO 7:00PM CT

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JUNE (EARLY)

**ZOOMINAR WITH
JEFF LOWENFELS,**
Author of Teaming
with Microbes



JULY 15, 2021

**ZOOMINAR WITH
DOUG TALLAMY,**
Author of Bringing
Nature Home



SEPTEMBER

**LIVE Foraging with Dr.
Mark Merriwether**
Author of Idiot's
Guide: Foraging





The leaves floated to the soil, and we see the leaves curled and turning gray as our invisible friends, the bacteria and fungi pushed up to decomposing those leaves and broke it apart, releasing the carbon, nitrogen, calcium, traces, phosphors, potassium and even some trace minerals to be available for the next growth cycle.



And there they are, back with their loud ways in our fallowed field! Wonderful! We become aware of the harmonized happenings, the pull to linger, and before we knew it, the thrill of being able to be a part of this wonderment, the energy we felt and saw begins to fill us with an unusual excitement.

We were surrounded by life!



And look, the sour grass with piles of blue mist shrubs and sunflowers – two of the great pollinators that support over 80 butterflies and moths – two really great ‘givers to the soil/ecosystem’. I have never seen such an array of life. And they came to help heal their surroundings. More great flocks of birds rose up from the ground, seeds from the wildflowers (please don’t call them weeds – they only want to help) dropped to the soil to happily re-seed when it was again their turn, to lay there to provide fall and winter nourishment to all the birds and little critters about.

Imagine that! The sun giving us the energy to the plant, who shares with the soil, and the soil taking care of the plants and microbes who in turn take care of the plants, providing the energy to be healthier and stronger.

The vigor and energy we felt, all Mama Nature working in unity – our smiles could not be hidden, our steps were lighter – look, look, at least 40 species of plants that we knew – nibbled on by the deer that jumped into the field. How did we become so blessed to be standing there in the middle of that field of blazing yellow and blue glory? I will remember it forever.

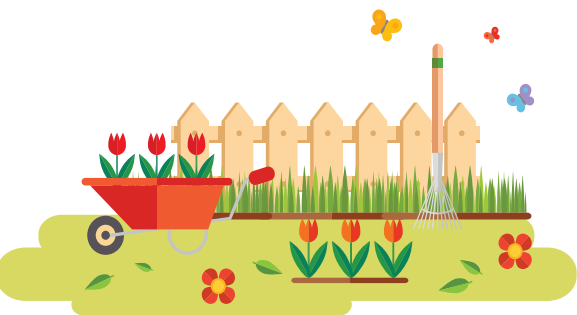
I hope you enjoy your next walk even more than before!

DIRT HAS A MICROBIOME & IT MAY DOUBLE AS AN ANTIDEPRESSANT

ZOË SCHLANGER | ENVIRONMENT REPORTER FOR QUARTZ

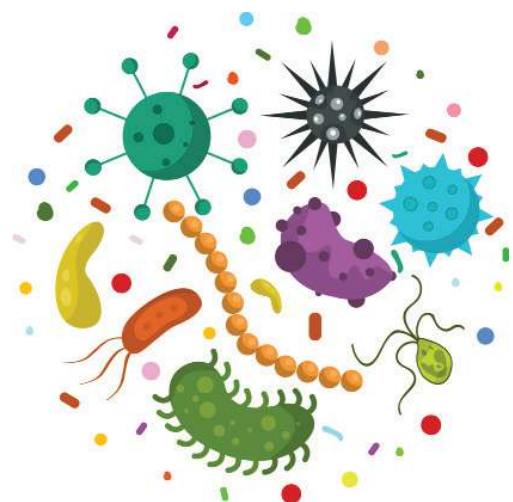
No one would blame you for not wanting your body to be infested with creatures from your garden. But maybe you should rethink your position.

Your garden has its own microbiome, and research suggests it's good for you. **Our health depends on the flourishing microbiome in our guts**—and on how much of the natural world's microbiome we let infiltrate.



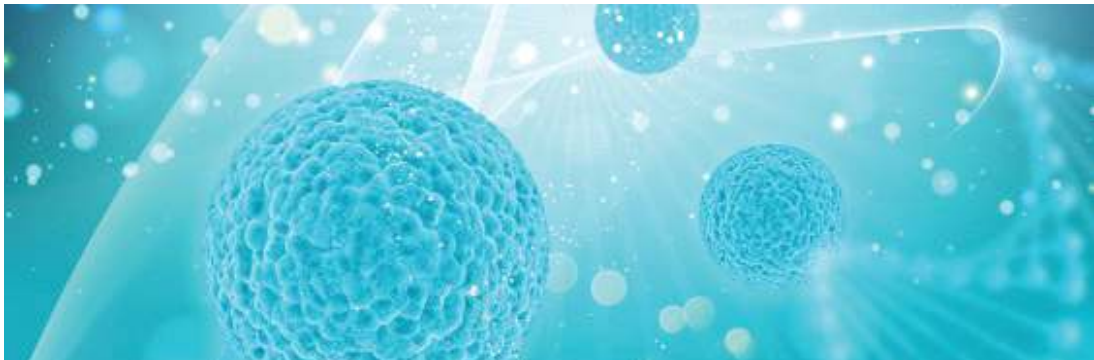
Lately, thanks to modern life, we don't let in a lot. But in a string of pioneering studies, scientists are beginning to look at what would happen if we literally inject microbes from the soil into our bodies, reintroducing us to the ancient relationship between bacteria and human. So far, the results have been uplifting—to both the scientists and the subjects they study.

In 2004, Mary O'Brien, an oncologist at the Royal Marsden Hospital in London, published a paper with unexpected results...



She injected lung cancer patients with a common, harmless soil bacteria, **Mycobacterium vaccae**, to see if it could prolong their life. *M. vaccae* had some success in earlier trials where it was tested for its abilities to fight drug-resistant pulmonary tuberculosis and boost immune system response. O'Brien thought maybe the bacteria could help her patients' immune systems beat back the cancer in their lungs. It failed.

Only, it succeeded elsewhere: the bacteria injection “significantly improved patient quality of life,” O'Brien wrote in the paper detailing the findings. Her patients were happier, expressed more vitality, & better cognitive functioning—in short, it reduced the emotional toll of advanced cancer.



A few years later, Christopher Lowry, a neuroscientist at the University of Bristol, injected *M. vaccae* into mice and subjected them to a series of stress tests. The ones inoculated with the bacteria showed far less stressed behavior than their untreated counterparts—in fact, they acted as if they were on antidepressants. In a 2007 paper published in the journal *Neuroscience*, Lowry and his team wrote that the bacteria activated groups of neurons in the mouse brains responsible for producing serotonin—a neurotransmitter that, when impaired, can cause depression. Even more intriguingly, the neurons that lit up were also known to be related to immune response, suggesting an intimate connection between the immune system and emotional health...

Read the Full Article Here:
qz.com/993258/dirt-has-a-microbiome-and-it-may-double-as-an-antidepressant/

FREEZE AND FOOD PLANT RECOVERY

BY DR. BOB RANDALL | CO-FOUNDER OF OHBA & URBAN HARVEST

Whenever there is a vortex freeze here, the same questions about food plants come up. This happened in 1962, 1983, & 1989 previously & I was growing vegetables & fruits in the 80’s but not the 60’s here so have some experience. As well, there were in the 1980’s much research done on the problem especially by the late Stewart Nagel, Ph.D. Generally how cold did it get where you are? Most of Southern Houston was about 15F, Conroe got to 1F, & Galveston Island was 21. The Houston Weather Station at IAH was 13F & Cypress 12F. This was the coldest temperature in 32 years & likely the coldest February weather since 1951, 70 years ago. This last February had a low temperature for the month that was about 22 degrees below the normal temperature for the month, so the plants were as surprised as you were.

There are generally three questions here:

- 1. What to do about non-woody food plants like broccoli, oregano, or tomatoes?
- 2. What to do about fruit trees that look bad?
- 3. What sort of preventative measures should you take the next time a horrible freeze happens?



1. Vegetables and other non-woody plants may recover or they may not. Whether it is worth keeping them or just killing them & replanting something else appropriate to the temperatures & month is a judgment call.

Our unprotected 2020 collards for example killed a few leaves, but the stem & tip is fine and likely to produce for several months if not years. Our perpetual spinach that wasn’t protected is coming back as is leaf lettuce & should have a crop yet this spring. Same with cabbage. Whether the unprotected beets or carrots will develop into eating size is unknown—they are alive & growing. Onions and older bulb fennel ditto. Greek oregano badly damaged. Garlic and parsley had no damage.



On the other hand, garlic, parsley, newer bulb fennel are all OK. Anyone who left tomato or pepper plants outside likely lost them and sugar snap peas are dead. Time to plant pole beans!

2. Fruits Temperate fruits like blackberries, blueberries, apples, pears, persimmons likely had no damage. Some temperates like plums & peaches that were in bloom as well as blueberries probably lost most of their crop for this year but all but the smallest twigs are likely OK.





B. Another question is whether the fruit is grafted or on its own roots. Anything on its own roots (like many lemons, bananas, or blueberries) will likely come back from its roots & if the tree is a good size, quickly. In 1983 I had a Meyer lemon killed to the ground & it had lemons on it in 3 years.

C. For older trees that are grafted and now have brown leaves, the main advice is to wait at least until August before giving up on them. Smaller trigs & branches less than 1/4 inch in diameter can be cut sooner if they are clearly dead, but trunks and branches have large numbers of dormant buds that may come out now that other leaves are dead. This can take a while. If bigger wood does bud out, wait a bit before doing serious pruning of what is dead.



D. Usually after these freezes, horticulture people will get questions for the next 15 years about grapefruits that turned into lemons or such. People who bought citrus usually at big box stores (or the previous owner did) find that after the die back of the tree, these less hard sour orange & rough lemon rootstocks kill down to the graft, but the rootstock roots come back because it was below ground. Sometimes if it got cold enough like in Conroe, even trifoliate will come back. Mystery solved. Solution: sponsor a grafting class.



Semitropical fruits like citrus, pomegranates, bananas, kiwis, figs, loquats, avocados, feijoas, bunch grapes & muscadines have likely been damaged badly. Whether they can recover depends on several factors:

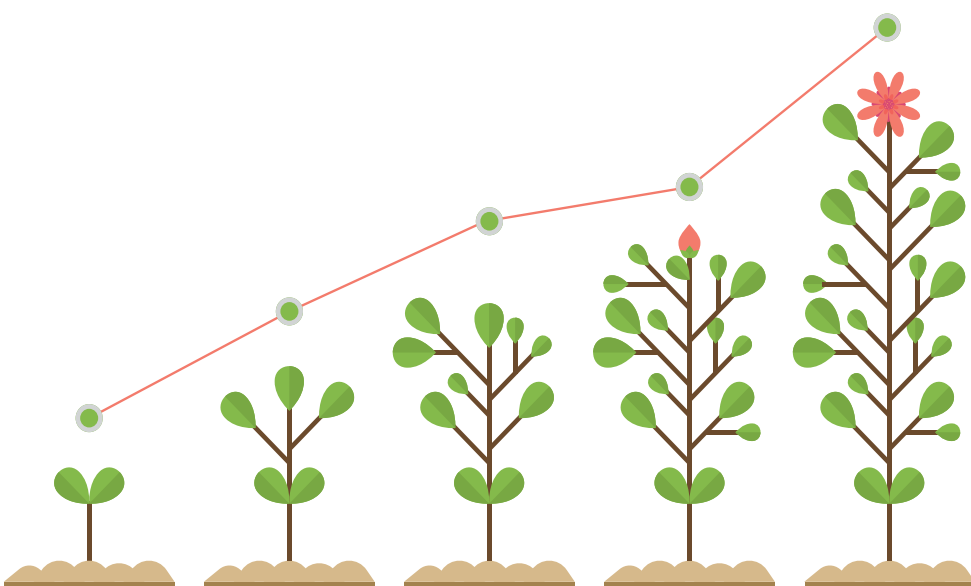
A. How many hours were temperatures below the killing point for the particular fruit? Most citrus like oranges & grapefruits for example if it is on trifoliate rootstocks can survive 22F almost indefinitely. Below that they start dying with small branches & new growth first, then bigger wood, then trunks. Generally the larger the branch the better its chances. Most Meyer lemons can only take 25F; most key limes/ Mexican limes and papayas only about 30F; most tangerines (mandarins) including satsumas can handle 18F. Kumquats can often handle 12F or lower.

Whatever temperature you got, your satsumas likely had far fewer hours below killing temperatures than did your lemon.

3. What to do the next time?

Of course with climate change, these vortex events may get rarer. This event was 5-8 degrees warmer than the 1980s freezes & the spacing of them is much less frequent (there were 3 in 27 years from 1962-89) & 1 now in the last 32.

But we don't know. Some climate scientists have proposed a warming link to the arctic vortex's incursions to the South, a highly sinusoidal jet stream, & the Greenland ice melt may be forcing the vortex winds south rather than southeast toward New England or Georgia. So we may be getting more of them rather than less.



So, what to do if this were to happen again?

A. Be prepared. I use frost cloth—lots of it—and large numbers of gallon plastic bottles filled with water. Water in non-breakable containers—buckets work—is a powerful heat source in a freeze. In order to freeze, water gives off 80 calories per gram. A liter (1.09 quarts) gives off 80,000 calories or 80 Kcal. A gallon of water at 32F gives off about 340,000 calories when it freezes. If you trap this heat around a plant, you can give it quite a lot of protection. On smaller trees, I put about 4 gallon bottles of water around the trunk, then put a 5 ft. remesh tomato cage around the bottles and tree, & then wire or clothespin frost cloth to the remesh & seal the bottom with weights. This keeps the heat around the bottom of the tree & forces it upwards.

For vegetables, you can simply pot the frost cloth over the plants but stationing water bottles under it will add to protection a lot.

How well does it do? About 10 years ago we protected about 20 2-ft tall tomato plants in cages through several degrees below freezing that way. During Uri a few weeks ago we got we think a tender tropical grumichama through at least in the crucial bottom foot, and a Sarawak pummelo is already budding out in the lower trunk. Sarawak of course is in Borneo & not a very cold hard plant at all.



For More Growing Information
Check out Dr. Bob's Book
Year-Round Food Gardening

