

JOHN'S CORNER: NEWS FROM THE WONDERFUL WORLD OF SOIL AND PLANTS

by John Ferguson

Researchers at Stanford University have found that conventional toxic chemical agriculture degrades 24 million acres of land per year. They also found that farmers whom converted to No-Till practices increased yields and lowered production costs.

Reduced tillage works best under continuous implementation with the benefits continuing to increase for 11 years. Benefits show up the first year and continue until full benefits are achieved. (Environmental Research Letters December 2019).

A study in Scientific Advances (September 2019) found that the appearance of plastic now showing up in the geological fossil record marks the start of the newest geological period called the "Anthropocene". As they studied costal sediments from 1834 to 2009 a steady increase in plastic and from 1945 to 2009 it increased exponentially.

There was an article in Greenhouse Management Magazine (January 2020) on fungus gnats. For gardeners this pest is often a problem during the cool wet days of winter when we bring plants indoors or keep our greenhouses closed. These pests feed on developing roots of cuttings and on young plants. They stated that fungus gnats can effectively be controlled by beneficial nematodes like Steinernema feltiae. It can be found in products like Nemashield, Nemasys, Scanmask, and Entonem that are applied as a soil drench in early mornings.



Soil dwelling mites (Stratiolaelaps scimitus), predatory rove beetles (Dalotia coriaria) and nematodes can all be used togetheras they are effective predators of fungus gnats.

The plant species we know as Cannabis easily takes up many elements, hence it is a bioaccumulator of heavy metals. This means growers of these plants should avoid sources of heavy metals like poultry manure, sewage sludge (biosolids), and artificial fertilizers.

A few days ago, I was asked by a customer "Why do we not hear more about the dangers of many toxic products?" <u>The Dr. Mercola newsletter</u> had an article on the subject last year.

Researchers have found a lot of uniformity of microbes around the planet. They found that many microbes are picked up and ride the wind to new locations. The Scientist (December 2019).

With the cool damp weather we have had, a lot of gardeners are experiencing a snail and slug problem. At the OHBA lecture last night I heard a quote that is absolutely true. "You don't have a snail problem. You have a lack of ducks problem!" Bill Mollison



Speaking of OHBA, at the next event we will be showing the award-winning documentary " A New Resistance " with Ed Brown in person. Uncover the truth about glyphosate & the next steps of action to join the fight against Round Up and how to protect your family and pets. This will be held at the United Way facility on February 13 th . <u>Go to www.OHBAONLINE.ORG to register</u>.

This is a documentary that illustrates the corruption in the USDA, EPA and many of our agricultural universities that have pushed toxic chemicals on the people of the world. It is titled "A New Resistance" and features Round-Up as it explains how glyphosate causes so many of our health problems. The trailer is less than 3 minutes in length and can be seen at the link below.

A New Resistance

The last I heard, there are now 48,000 lawsuits against Bayer/Monsanto for causing cancer and other health problems.

There was an interesting article published in The Scientist (January 2020) titled "The Influence of Soil on Immune Health". The study was done in Europe where during WWII, Finland ceded a swath of land to the Soviet Union. The Finnish side became modernized and the people on the Soviet side remained rural with a traditional lifestyle.

The researchers at the University of Helsinki found there was a high prevalence of allergies on Finland's side of the border while there was very little on the Soviet side. They found the human microbiome between the two were very different. The people living on the Soviet side had much richer skin microbiota. They had higher numbers of microbes and they had much greater diversity of microbe species.



When they examined their blood, they found more anti-inflammatory chemicals in the Soviet side where there were more microbes.

They also found that when the soil had a larger density and diversity of microbes, then the humans had the same increased diversity on their skin and digestive system. This study supports numerous others that has found that human health is tightly associated with the health of our soil and our biome.

When we use toxic chemicals from artificial fertilizers to pesticides and herbicides, we destroy soil life which makes us healthy!

The reasons to be an organic gardener and get our hands in the soil increase daily.

Note: Microbial diversity is decreasing worldwide which is leading to more problems worldwide.

One of the major problems in society today is the increase of dementia as we get older. Research on Alzheimer's has shown that heavy metals play a major factor in contributing to this disease (Journal of Alzheimer's Disease). They have found that environmental factors play a far larger part than genetics. People with this disease have significantly higher amounts of mercury (Hg), cadmium (Cd), and aluminum (Al) than people without the disease. Heavy metals accumulate in our bodies over time and over one's lifetime can reach very toxic levels.

So, what are the sources of these dangerous metals? Artificial fertilizers are one of the single largest sources. When we apply them, we breath in the dust, when we eat food grown with these toxic chemicals, we get them. Pesticides, herbicides, fungicides, etc. are another major source, from getting them on our skin, if we can smell them, they are in our lungs, and they are on the food we eat. Aluminum is in many soil amendments to



acidify our soil, it is in cook ware, aluminum cans (the carbonic acid dissolves the aluminum) like soft drinks, aluminum foil, anti-acids, deodorants, vaccines and many cosmetics.

More reasons to eat and grow plants organically.