

NEWS FROM THE WONDERFUL WORLD OF SOIL AND PLANTS

By John Ferguson

A recent report in Science News (2022) stated that the food we eat is responsible for 1/3 of all global greenhouse gasses that are caused by human activities. The biggest driver is the food supply chain, this includes all the steps from the farm to the table.

The journal Nature's Food (2021) divided these emissions into four broad categories:

- Land use (agriculture and related land use)
- Energy (producing, processing, packaging, and transporting),
- Industry (production of chemicals used in farming and materials used to package food)
- Waste (over 33% of food never gets eaten)

One-way gardeners can help is to grow as much of our own food as possible. Not only does it taste better and cost less, it has far greater nutrition density and content, to help keep us healthier.

Another way to is to compost all our food waste in our backyards. It never should go to the landfill where it creates maximum greenhouse emissions.

Another benefit to gardeners is that gardening is great exercise. A study published in the journal Frontiers in Aging found that a combination of high-dose vitamin-D, omega-3s, and a simple home strength program (SHEP) showed a cumulative reduction by 61% in cancer risk in healthy adults 70 years and older.

101 Sherbrook Circle • Conroe, Tx 77385-7750
(936) 321-6990 Metro • (936) 273-1200 Conroe



www.natureswayresources.com

Gardening as we shovel mulch and soil, pull weeds, and work in our gardens in the sunlight, provides two of these three elements for better health.

There was a recent article in Acres, USA (2022) on the soil disease known as Phytophthora. The focus of the article is on preventing the disease in the first place by using microbiology and mineral nutrition.

This disease thrives in soils that are too wet with poor drainage, low oxygen levels, with low microbial density and diversity (very common in toxic chemical managed properties).

Phytophthora looks and acts like a fungus which it is not, as it is in a different kingdom called Chromista whose cells are made of cellulose. Fungicides are designed to work on chitin-based organism like fungi, hence do not work on this pathogen.

Healthy disease suppressive soils contain microbes that destroy this pathogen. The microbes in the root zone require root exudates from the plant to live and thrive. Thus, it is in their best interest to protect the plant from this pathogen.

For the microbial army of defenders to work they need organic matter and trace minerals. This is why organic fertilizers, fish emulsion, humic acids, microbial inoculants and good compost help soil become healthy.

When we use artificial fertilizers and other toxic chemicals (pesticides, fungicides herbicides, etc.) and to a lesser degree chlorinated water we kill and destroy our army of beneficial microbes.

More reasons to use modern organic methods based on biology.

101 Sherbrook Circle • Conroe, Tx 77385-7750
(936) 321-6990 Metro • (936) 273-1200 Conroe



www.natureswayresources.com

We have all heard the statement that “healthy soils = healthy plants = healthy food = healthy animals and people.”

Another article in the Acres magazine reports on a research paper by Dr. Bonnie Kaplan and others titled “Hospitalization Cost of Conventional Psychiatric Care Compared to Broad Spectrum Micro-Nutrient Treatment.” They demonstrated that trace minerals in the soil can improve mental health.

“All diseases is a result of a mineral deficiency or loss of mineral energy – in plants, animals, and humans.” Dr. Carey Reams

If you want to learn more on this subject, The Organic Horticultural Benefits Alliance (OHBA) is bringing in Dr. Arden Anderson a leader in the field of nutritional medicine for a lecture in Houston at the United Way Center on the evening of May 25th. One can register at www.ohbaonline.org

Researchers from the University of California have found that pollinators from bees to hummingbirds spend less time on flowers if there are ants present. It turns out that these pollinators could smell the chemicals (pheromones) left by the ants.

We now know that the soil microbiome is critical to plant health and similarly our gut microbiome is a major part of our immune system. It has been discovered that tumors have their own microbiome including bacteria and viruses.

More reasons to use organic methods that promote good microbes, get our hands into the soil, and get the good microbes into and on our bodies.

101 Sherbrook Circle • Conroe, Tx 77385-7750
(936) 321-6990 Metro • (936) 273-1200 Conroe



Studies have found that forests help cool the global average temperature by 1.5 degrees Celsius (2.7 degrees Fahrenheit). One third of that cooling comes from the release of aerosols and water vapor. The researcher found that the aerosols reflected sunlight and seeded clouds.

They found that canopy thickness and topography provided the greatest cooling effects. The research clearly showed that clearing tropical forests robs the Earth's climate of its cooling effects. *Frontiers in Forest and Global Change* (2022).

A recent article in *Life Extension* summarized the findings of several recent research papers. People with higher nutrient uptake (vitamins and minerals) lived longer and healthier. Another reason to grow our own food on organically enriched soils, with a functioning microbiome that have been re-mineralized using organic methods.

101 Sherbrook Circle • Conroe, Tx 77385-7750
(936) 321-6990 Metro • (936) 273-1200 Conroe