

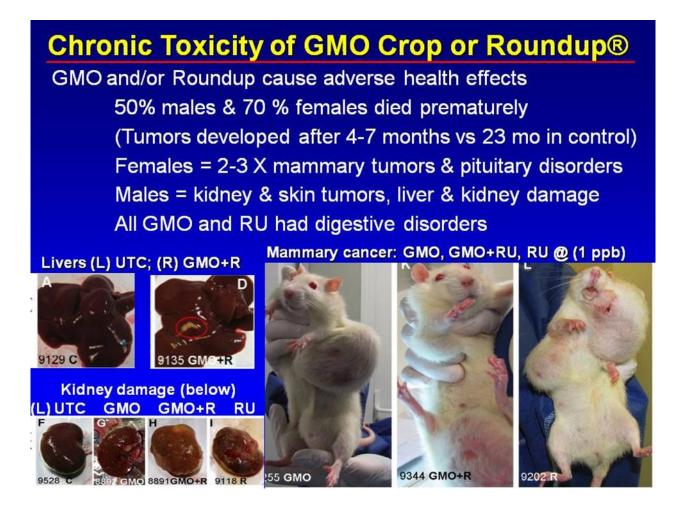
JOHN'S CORNER: NEWS FROM THE WONDERFUL WORLD OF SOIL AND PLANTS

by John Ferguson

Gardeners often use corn meal or corn gluten meal in their gardens. A topic came up the other day as to what happens if the source of the corn is from a GMO (Genetically Modified Organism) variety. GMO corn contains dangerous proteins called Cry toxins that KILL insects and other organisms. Some strains of this dangerous type corn now may contain six strains of these proteins. A study published in the Journal Toxins (2019) has found that the GMO (Biotech) industry uses other chemicals (hidden ingredients) to mask the negative effect of these toxins (effectively falsifying safety studies). These toxins work by eating a hole through the guts of the insects that eat them which causes them to die. These toxins are believed to kill other organisms from the beneficial green lace wings to many non-target species including mammals and humans (where it is suspected of causing the leaky gut syndrome). These toxic Cry proteins are found in all parts of the plant from the leave and stalks to the pollen and nectar the plant produces. As a result, many organisms are affected like swallowtail butterflies, lace wings, caddisflies, bees, water fleas, and mammals. Swallowtail butterflies can die from just 14 pollen grains (a very miniscule amount). We do not need these toxins in the environment, hence only purchase organic corn products for use in the garden.

The picture below illustrates what happens when GMO corn or products from GMO corn are used and is from previous newsletters. A few years ago, when we were taking about the dangers of the herbicide Round-Up and the real reason to create GMO corn was to sell more of this dangerous chemical.





Look at the tumors that developed when the mice were fed GMO corn!

Another study published in the International Journal of Environmental Safety has found that the glyphosate in Round-Up binds to toxic heavy metals (arsenic, lead, cadmium, etc.) and transports them to our kidneys. This effect has claimed the lives of at least 25,000 people in Sri Lanka and another 20,000 people in Central America.



Many people have reported that their trees are dying. A broadleaf herbicide Aminocyclopyrachlor often sold under the names "Imprelis[®], Perspective[®], Streamline[®], and Viewpoint[®]", is extremely toxic to trees and is often the cause. The roots of trees can often grow out to distances over 100 feet from the trunk of a tree, hence damage may occur to your trees if it was used nearby. Its use was recently banned on home lawns but it is still used on right of ways, easements, public property, etc.

More and more gardeners are growing their own herbs. A popular herb is Parsley which is native to the Mediterranean region. Even though this herb is often used as a garnish it is a nutritional powerhouse. It is a rich source of flavonoid compounds and other that have potent anti-mutagenic and anti-inflammatory properties. Several other compounds in Parsley are being studied for other health benefits. The chemical eugenol found in Parsley has been found to reduce the swelling around joints which also helps against many age-related diseases. This herb has also been found to have anti-cancer effects and in some animal studies it stopped the growth of even aggressive cancers and even killing cancer cells in other studies.

Another study published in the Asian Pacific Journal of Clinical Oncology (2019) has found that consumption of high amounts of allium vegetables (garlic, leeks, onions, etc.) reduced the odds of colorectal cancer by 79%. The greater the consumption the greater the protection.

Speaking of nutritional and medicinal plants, the pepper family (Capsicum sp.) have been known for centuries to have many beneficial health effects. The capsaicinoids compound found in peppers which are responsible for their heat or pungency have well established medicinal and anti-microbial effects. Journal of the American Society for Horticultural Science 2019. Peppers are easy to grow and the soils are now warm enough to plant them, hence no reason not to have a few in the garden.



A six-year study by Tufts University School of Veterinary Medicine has found that exposure to lawn chemicals raised the risk canine malignant lymphoma by as much as 70%! The Department of Veterinary Clinical Sciences at Purdue University has concluded that garden and lawn chemicals are linked to bladder cancer including common herbicides that contain 2,4-D or dicamba. They also found these dangerous chemicals over 50 feet from the application area as they are easily carried by the wind.

A study published in the Phytobiomes Journal (2018) by researchers at Penn State University has found that the nutrient history of a soil changes the function of soil microbes for generations! It has been known for years that phosphorous (P) is required for plant growth. However, they found if phosphorous from artificial fertilizers is applied, the microbes become conditioned not to help plants grow. The researchers extracted the microbes from the soil that had artificial fertilizer applied and then applied them to soil and plants that had never been exposed to phosphorous from artificial fertilizers and they still would not help the plant. So even one application of artificial fertilizers can have negative effects on plant growth for years. Another reason to only use organic fertilizers.

A paper from the Baylor College of Medicine has found that the equivalent of only 12 ounces of a beverage sweetened with high-fructose corn syrup accelerated the growth of intestinal tumors in animal studies (Journal Science, 2019). Another reason to use raw sugar from plants like sugarcane or sorghum that still have the minerals and vitamins in them. White or bleached sugar has these good components naturally found in sugar removed.