

JOHN'S CORNER:

NEWS FROM THE WONDERFUL WORLD OF SOIL AND PLANTS

by John Ferguson

More and more folks are growing their own fruits and vegetables. The reasons range from avoiding toxic pesticides to better quality, flavor and health benefits. Genetically modified crops are among the worst for our health and there is no labeling to tell us they are GMO. A short video on the dangers of GMO's can be found at:

https://www.brighteon.com/6034723760001

The extremely toxic pesticide chlorpyrifos has already been banned by most countries due to the negative extreme health effects. The EPA, marching to the instructions of the toxic chemical industry, still allows it to be used. However, there is a growing movement to ban it at the state level. "This pesticide is a neurotoxin," California Environmental Secretary Jared Blumenfeld tells the <u>Associated Press</u>. Because the federal government has allowed its continued use, California is joining Hawaii, New York, Oregon, Connecticut, and New Jersey, which have all approved bans or have bills under consideration to remove chlorpyrifos from the market, in taking matters into its own hands. The California ban, or cancellation, could take up to two years to go into full effect.

Another development in California where a jury awarded a couple \$2 Billion in damages for Roundup causing their cancers. See the link below for more information. This is the third case to trial and Monsanto has lost all of them. Over 13,400 cases are still awaiting trial. https://www.nbcbayarea.com/news/local/BAY-DSJ-BCNJury-Awards-1B-to-Livermore-Couple-Claiming-Roundup-Caused-Both-to-Develop-Cancer-509867471.html



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Below is a link to a short video on how chemical companies (using Roundup as an example) manipulate regulators into approving dangerous chemicals so they can make a profit at the expense of our children, our health and the environment. https://www.brighteon.com/6036612501001

After reading a comment on Facebook a few weeks ago that all mulches are the same and talking with many customers, there is a very large lack of understanding in our society about mulches. For most gardening projects for use in our flowerbeds here is a quick summary from best to worst of the many types of mulches available in the market.

Mulch can be broken into three basic types based on its quality and usage which are: Biological, Commercial, and Industrial.

Biological – This is the highest quality mulch and therefore the most beneficial in improving soils, preventing disease, protecting plants, etc. It has a low carbon-to-nitrogen ratio so it does not steal nitrogen and other nutrients from the soil which would weaken or stress plants making them more susceptible to insects and disease. It has been composted to kill weed seeds and pathogens. Composted "native mulch" and "coarse screened compost" are examples of this class of mulch. The bag will have holes in it so that air can enter allowing the beneficial microbes to breath and be kept alive. The composted ones in this class tend to be very fire resistant. This type mulch will typically sell retail for \$6-8 per bag (2 cubic feet).

Commercial – This is a middle to a low grade of mulch, made from tree barks (pine, hardwood, etc.) and is the most common. It includes single species mulches like cedar, redwood, cypress, etc. It will be in a sealed bag and may have a sour, stale or strong odor. It has a high carbon-to-nitrogen ratio and robs soil of nitrogen and other nutrients which can lead to increased insect and disease issues. Some types tend to float off in a heavy rain or develop unsightly molds and



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fungal mats. They may also attract fire ants or termites. These mulches tend to ignite and burn easily. This mulch will typically sell retail for \$4-6 per bag (2 cubic feet).

Industrial – This is the lowest grade of products called mulch. It is made from industrial wastes like old pallets, construction wood, used tires, etc. It is often chemically burned black with industrial hazardous waste and will sometimes rub off in your hand, and it is often dyed various colors. It may contain arsenic from CCA treated waste wood used to make it. It has a very high carbon-to-nitrogen ratio and robs nitrogen and other nutrients from the soil for a long time. It is often the source of many disease and pest problems, poor growth or even plant death. Additionally, it may be extremely alkaline and high in toxic salts. Most are very flammable and may contain toxic chemicals. This product will typically sell retail for \$3-4 per bag (2 cubic feet)

For a quick reference, the highest quality and the most beneficial mulch to soils and plants are at the top of the list below. As one goes down the list quality decreases, problems increase, and flammability increases. If one wants more detail go to our website where there is a detailed explanation of the good and bad of each of these type mulches.

www.natureswayresources.com/mulchcorner.html

Biological:

Native Mulch Aged (composted and coarse screened)
Compost – Leaf Mold (coarse screened)
Native Mulch Double Ground (Aged)
Pine Straw or leaves
Straw



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Commercial:

Pine Bark Nuggets or Shredded Pine Bark

Hardwood Bark

Cedar

Redwood

Cypress

Industrial:

Ashen Mulches (Pine or Hardwood Bark chemically burned black)

Spent mushroom substrate (aka Mushroom Compost)

Saw Dust or wood shavings

Dyed mulch

Rubber Mulch