

Time to talk about GMO's



With recent news that Germany has joined Scotland and a smattering of other countries in banning or trying to ban GMO seeds, time for a fast review.

First, although there have been many research studies into the impact of GMO's and our bodies, the main impact is the class of GMO plants that are called "Roundup Ready". That means the plants are naturally resistant to the chemicals in Roundup, (glyphosate herbicide) so fields can be sprayed, and everything will die except, for instance, the corn crop.



Second, not that many food crops are genetically modified – but the ones that are, specifically corn and soy, find their way into virtually every processed food, from tortilla chips to soft drinks – some estimates are that up to 80% of grocery foods contain GMO's – except those specifically marked as non GMO, or that are certified organic. Canola, Corn, Potato, Rice, Soybeans, Sugar Beets, Squash and Tomatoes are all approved for GMO production, and for some of these crops, 90% of what is grown in Canada and the US, especially canola in Canada and corn in the US is genetically modified. Well, try to figure out, with that list, how many items in the grocery department are not 'tainted' with GMO's – most estimates are over 80%, from corn flakes to baby formula.



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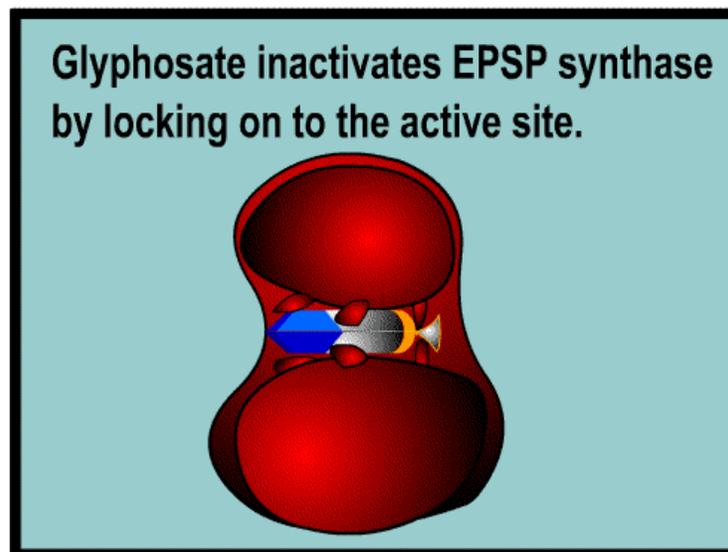
The science will rage on for years, because for every study that tries to link GMO to human disease, the biotech companies like Monsanto, Dow, Bayer etc. will have a study that shows there is no problem with GMO's, or glyphosate herbicide.

Right or wrong, the debate has been about how GMO's affect human cells, and that is not the story that should be written.

For every cell in the human body, there are 10 bacteria – the little people that digest our food – (creating heat that keeps us warm), making nutrients available, running our immune system etc. That doesn't mean we're 90% bacteria by weight (or we would be very ugly and slimy.)

Monsanto has long argued that glyphosate is perfectly safe for humans. That's because glyphosate works by disrupting the shikimate pathway in a plant's metabolism and ultimately kills them. Human metabolism does not have the shikimate pathway, so the herbicides don't kill us (based on Monsanto science) But when they are safe for humans, they are referring to our human cells – and not referring to the little work-horses that run our metabolism, only to our own body functions run by human cells, tissue, muscles and organs.

The shikimate pathway is the metabolic route used by bacteria (including fungus and algae), as well as parasites and plants, for biosynthesis - turning minerals and nutrients into amino acids and hormones.



This is where the concern is, and while the scientists will battle back and forth about the impact of GMO's on our cells, those bacteria, outnumbering our cells 10:1, have the same metabolic system as the plants that Roundup Ready kills. Recent on-going medical problems including increases in auto-immune disorders, leaky gut syndrome (often blamed on glutens), celiac disease, hormone imbalances, mental illness, brain inflammation etc., which are controlled by gut bacteria are more and more being linked to problems related to our bacteria based metabolism systems.



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It is very likely that scientific opposition to GMO's will more and more focus on the impact, especially of so-called Roundup Ready crops, on our bacterial population instead of the impact of skin cells.

However, in the meantime, the most recent news is this:

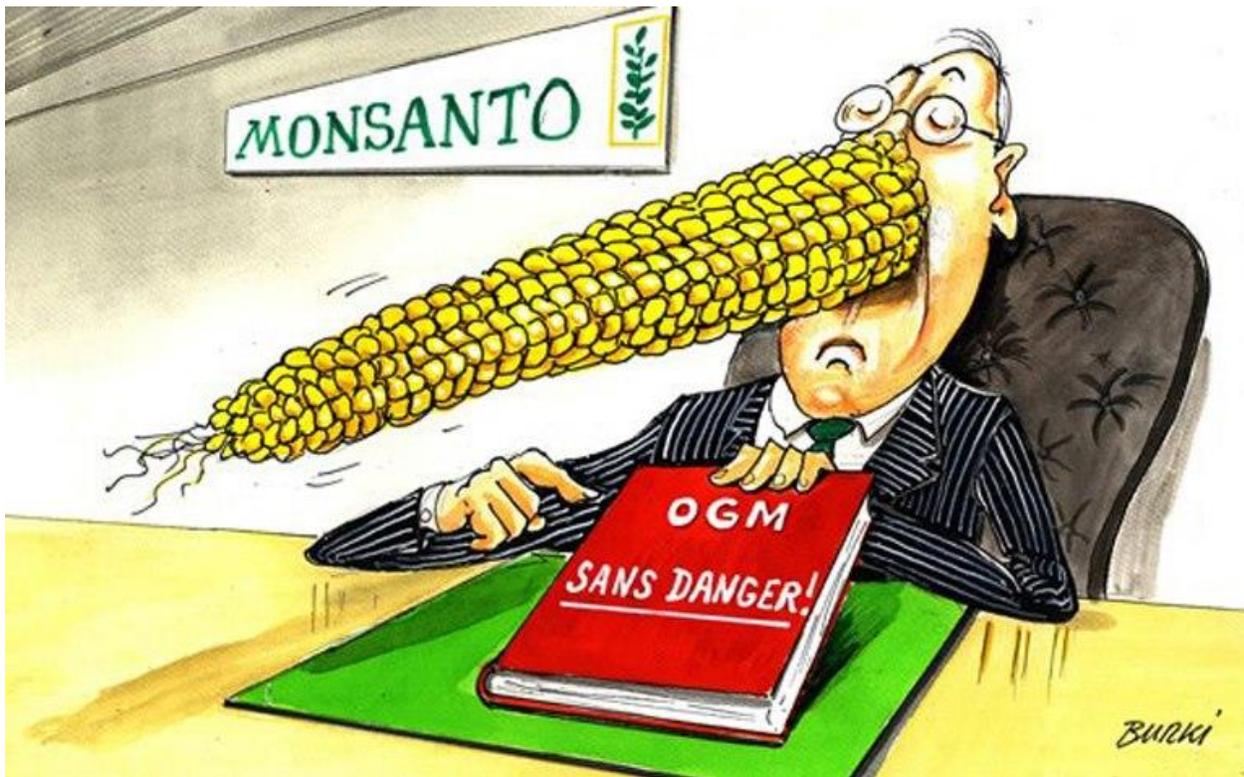
Germany Joins Scotland in Seeking Ban on Gene-Modified Seeds

Germany is taking steps to outlaw the cultivation of genetically modified crops in Europe's biggest economy.

The Agriculture Ministry plans to officially request that producers of GMOs exclude Germany when applying to sell seeds in European Union, Christian Fronczak, a spokesman for the ministry, said Tuesday. Scotland took similar measures earlier this month.

"The German government is clear in that it seeks a nationwide cultivation ban," Fronczak said by phone from Berlin. "There's resistance from all sides, from the public to the farmers."

Germany is taking advantage of new measures allowing countries to opt out of growing gene-modified crops. Switzerland's Syngenta AG and U.S. rival Monsanto Co. have been among the strongest proponents of the seeds, which are mostly banned in the EU because of what some say are uncertain environmental and health effects. Monsanto maintains the products are safe."





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