

Do you GMO? You may not know!

by **Lauren Turner**

Many people don't realize that much of the food they eat has been altered by genetic engineering. This altering is accomplished in not in a farm field, but in a lab, using technology that forces genetic material from one species into the DNA of an unrelated species. This method commonly is referred to as genetically modified organisms (GMOs) or genetic engineering (GE).

Twenty years ago large chemical/pharmaceutical corporations found ways to alter seed to produce crops that could withstand the use of glyphosate herbicides that kill weeds while leaving the crops unaffected. These corporations patented the GMO seed and today they control the seed supply of those altered crops. Approximately 86 percent of the corn, 93 percent of the soybeans, plus canola, cotton and sugar beets produced in this country are grown from GMO seed. According to the California Department of Food and Agriculture, 70 percent of processed foods in American supermarkets contain genetically modified ingredients.

While seed breeding by selection has a long and accepted history in agriculture, the difference with genetically modified organisms is that they are created mechanically or chemically in a lab by

injecting bacterial and viral DNA into plant cells, creating DNA that never before has occurred in nature. The altered DNA occupies every cell of the plant, which is consumed directly by humans or fed to the animals we eat. This means that GMOs may show up in your eggs, meat and dairy products, as well as any processed product containing corn, soy, canola, sugar from sugar beets or other GE crop.

GMO crops are the source of many by-products used in processed foods and they have spread rapidly since first being introduced into the food supply in the early 1990s. Most GM crops are grown in the United States and they have slipped into our food supply quietly, and without our consent, even though our health and the environment may be at risk.

There isn't enough independent research into the impacts of genetic engineering, but during their relatively short history, health issues attributed to GMOs have become apparent. These include infertility, immune problems, accelerated aging, poor insulin regulation and changes in major organs and the gastrointestinal system. Animal studies have shown links to premature births, infant mortality, obesity, altered sperm cells, lower birth rates, sterility and liver problems.

Monocropping with GMO crops and intensive herbicide spraying made possible by their

herbicide resistance have degraded thousands of acres of agricultural lands and have promoted the evolution of antibiotic-resistant bacteria and superweeds.

Contamination of conventional and organic crops by pollen drift from GMO crops is another huge threat. A recent decision to allow widespread planting of GMO alfalfa is being challenged in court by a coalition of environmental and advocacy groups. Alfalfa is the primary food source for cows and it can cross-pollinate across miles. There will be no way to ensure that the GM variety doesn't cross with non-GM varieties. This could mean the end of organic milk and other dairy products, since GM ingredients are illegal in the production of anything labeled "organic."

There are many reasons to avoid GMO products, but that is difficult to do. GMOs are pervasive in our food system and labeling is not required to identify them. There is a nationwide campaign under way to demand labeling and petitions for a ballot initiative sponsored by the Organic Consumers Association are available at Nash's Farm Store and The Red Rooster Grocery.

In the meantime there are many clues for the savvy label-reader, so do read those labels. If you want to avoid GMOs, you probably will have to reject processed foods, since most contain GMOs.

Be aware that you can't trust a product labeled "natural." If a product contains such ingredients as high fructose corn syrup, canola oil, maltodextrin, soy lecithin, xanthum gum, and even sugar (unless cane sugar is specified), chances are high the food contains GMOs.

Eating fresh and organic is the best way to ensure your food has not been altered by GMOs and to have an impact by voting with your dollars against GMOs. GMOs are not allowed in certified organic products.

In Sequim we benefit by access to a group of local producers who belong to the Sequim Locally Grown Mercantile, an online farmers market. These farmers are not all certified organic, but all of them farm without the use of synthetic fertilizers, herbicides, pesticides or GMOs. Purchasing from them is another vote with your dollars. See <http://sequim.locallygrown.net/> for more information about the benefits of locally grown and where to find it.

Growing your own is another option. If you don't have land, anyone can rent a garden plot through Community Organic Gardens of Sequim (COGS) for a nominal annual fee, which includes a series of classes on organic gardening. Others who don't rent a plot can still take the classes. Visit COGS' website at <http://cogs.thecascadian.net/>. Stores such

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as The Red Rooster Grocery, McComb Gardens, Sunny Farms Country Store and Nash's Farm Store offer selections of heirloom, organic seed and organic plant starts.

If this issue concerns you and your family, get involved. A growing group of concerned citizens has formed a GMO Awareness Group that meets monthly at the Sequim Library. Meeting dates and times are published in the local media. Learn more and download a free GMO Shopper's Guide from the Center for Food Safety at <http://truefoodnow.org/shoppers-guide/>.



Traditionally, farmers have been the stewards of seed, but in the past 30 years, the ownership and sale of seed have become dominated worldwide by five huge chemical/pharmaceutical companies, the largest and most notorious being Monsanto. Is it ethical that these companies own and patent life forms that have been available to farmers all over the world for 10,000 years? These issues are complex. Learn more at the Organic Seed Alliance website at www.seedalliance.org.