

GMO's

Dr Ronald C Wichin

January
2011

Have you seen the scientific evidence that genetically modified foods are 100% safe with no long-term health related side effects? Neither have we. What is emerging is more startling evidence that the government and seed industries "solution to world hunger" is creating a potentially irreversible pattern of destruction in agriculture, wild life and human health.

What is a GMO?

Genetically modified organisms (GMO's) are created by meshing genes from one species into the DNA of a food crop or animal to produce a new trait. Because living organisms have natural barriers to protect themselves against the introduction of DNA from a different species, genetic engineers must force the DNA from one organism into another. Their methods include:

- Using viruses or bacteria to "infect" animal or plant cells with the new DNA.
- Coating DNA onto tiny metal pellets and firing it with a special gun into the cells.
- Injecting the new DNA into fertilized eggs with a very fine needle.
- Using electric shocks to create holes in the membrane covering sperm and forcing the new DNA into the sperm through these holes.

By inserting certain bacterial genes into crop seeds it allows farmers to spray otherwise deadly doses of weed-killer directly on the crop without killing it. Other seeds are inserted with soil bacterium *Bacillus Thuringiensis* (Bt) to produce an insect-killing pesticide within every cell of the plant. When insects eat the plant, they get a mouthful of toxins which cause their stomachs to erupt, killing the bug. These GM plants are so toxic they are registered as pesticides with the Environmental Protection Agency, and for good reason. Mass deaths have been seen in livestock allowed to graze on GM Bt plants in both the US and abroad. If bugs and livestock die after eating Bt plants, what effects will be seen on humans?

Biotech companies like Monsanto and DuPont claim the Bt-toxin has a history of safe use citing even organic farmers use Bt bacteria spray for natural insect control. However they fail to point out that the Bt-toxin produced in GM plants:

- Is thousands times more concentrated than the natural Bt spray used by organic farmers.
- Is designed to be *more* toxic.
- Has properties of an allergen.
- Unlike the spray, cannot be washed off the plant.

Risks

The American Academy of Environmental Medicine reported serious health risks associated with GM foods in animal studies including infertility, immune problems, accelerated aging, faulty insulin regulation, and changes in major organs and the gastrointestinal system.

- Mice fed GM soy had fewer, and smaller, babies.
- More than half the babies of mother rats fed GM soy died within three weeks.
- Testicle cells of mice and rats on a GM soy diet changed in color and size.
- By the third generation, most GM soy-fed hamsters became infertile.
- Rodents fed GM corn/soy showed signs of toxicity, lowered immunity & increased allergies.
- The stomach lining of rats fed GM potatoes showed excessive cell growth, a condition that may lead to cancer.
- Studies also found organ lesions, altered liver and pancreas cells, changed enzyme levels, etc.



Unfortunately, no clinical study has looked at the effects of GMO's on humans. The only published experiment found that once GM soy is ingested by humans, the genetic material forced into the food will remain inside our intestines and continue to function. This means the potential for super diseases, antibiotic resistance and internal pesticide production.

In December, the International Journal of Biological Sciences reported that all three GM corn options produced by Monsanto created kidney and liver dysfunction, which are the main organs that respond to chemical food poisoning. New evidence has also come to light exposing the recommendations of at least a dozen FDA scientists who urged long-term safety studies before GMO's hit the market in the mid 1990's. Despite these warnings, the FDA approved GMO's addition to food without requiring product labeling. In 1996 widespread crops hit the market and nine years later the number of people suffering from three or more chronic diseases nearly doubled from 7% to 13%, allergic reactions treated in emergency rooms doubled and overall food related illnesses doubled according to the CDC.

The Creation of Superweeds

Bio-tech companies flourished after FDA approval even up until 2009 when Forbes magazine named Monsanto "company of the year". But as more studies into the effects of GMO's emerge, questionable company ethics come to light, bioengineered corn seeds fail to produce and super-weeds resistant to herbicide creep across 11 million acres of U.S. farmland (5x more than just 3 years ago), Forbes retracted their statement saying they were "wrong, really wrong".

Last year in France, the Supreme Court found Monsanto guilty of advertising their herbicide Roundup as "biodegradable and environmentally friendly." The active ingredient in Roundup (glyphosate) is acutely toxic to fish, birds and beneficial insects. We now have farmers dousing their fields with 10x the recommended amount of herbicide (which studies show may not even be enough to kill the superweeds!) which seeps into the soil, nearby streams and the air. Farmers are fed up, stocks are plummeting, but Monsanto says it will make a comeback. They are in the process of producing a new soybean seed with high levels of omega-3 fatty acids to appeal to health-conscious consumers who they hope will demand the product from farmers.

Shopping

Read your labels!!! Right now, more than 70% of foods on supermarket shelves contain derivatives of the eight GM foods on the market - soy, corn, oil from canola and cottonseed, sugar from sugar beets, Hawaiian papaya, and a small amount of zucchini and crook neck squash. Currently, about 85% of corn, 92% of soybeans, 76% of cotton, 75% of canola and 50% of Hawaiian papaya grown in the U.S. is genetically modified.

- Look for Non-GMO Project Seals Products – see pervious page for seal example
- Buy organic/local when possible. Certified organic products cannot intentionally include any GMO ingredients.
- Honey and bee pollen - may have GM sources of pollen
- Sugar - If a non-organic product lists "sugar" (not pure cane sugar) as an ingredient it's most likely a combination of sugar cane and GM sugar beets.
- Meat/Eggs - Unless specified on the label, products may be from cows injected with the GM bovine growth hormone or from animals fed GM soy or corn feed. Look for labels stating no rBGH, rBST or artificial hormones.
- Enzymes, flavorings, processing agents & additives including aspartame (NutraSweet®) may contain GMO's
- Other common items which may include GMO's –

Infant Formula	Hamburgers/Hotdogs	Chips	Tamari & Soy Sauce
Salad Dressing	Margarine	Veggie Burgers	Baking Powder
Bread	Mayonnaise	Meat Substitutes	Soy Protein Powder
Cereal	Fried Foods	Tofu	Peanut Butter
Enriched Flour	Pasta	Cosmetics	Soaps
Detergents	Shampoo	Bubble Bath	Soy Cheese

**Don't Guess About Your
Health...
Schedule a Nutritional
Consultation Today!**

Federal Law requires that we warn you of the following:

1. Your individual health status and any required health care treatments can only be properly addressed by a professional healthcare provider of your choice. Remember: There is no adequate substitution for a personal consultation with your chosen health care provider. Therefore, we encourage you to make your own health care decisions based upon your research and in partnership with a qualified health care professional.
2. The Constitution guarantees you the right to be your own physician and to prescribe for your own health.