THE GMO DECEPTION

"The GMO Deception: What You Need to Know About the Food, Corporations, and Government Agencies Putting Our Families and our Environment at Risk," ed. Sheldon Krimsky and Jeremy Gruber (2014) gathers 57 essays by biologists, social scientists, public health and environmental policy experts, all challenging big corporations' claims that their genetically modified organisms, so far from being bad for us or our world, are instead one of its saviors.

Though as one writer points out, Montsano corporation also claimed Agent Orange, dioxin and PCB's as harmless, when it first introduced them.

Because the essays range from the 1980's through 2013, it's not easy to grasp the current global status of GMOs. Here are my impressions.

Herbicide resistant and insecticidal crops, corn, soy, cotton, have been widely planted, by one estimate on ¼ of the world's farmland. As of 2000, there were at least 27 GM (genetically modified) foods on the market, fruits, vegetables, meats, often with human genes built in. The U.S. is almost alone worldwide in not requiring labeling of GM foods.

Most studies are of volume, transportability and shelf life; not one GM crop has been engineered for increased yield, drought or salt tolerance, enhanced nutrition or disease resistance.

Montsano and similar purveyors claim GMO's will end world hunger. In fact they've not significantly increased yields, and instead often contribute to basic food surpluses. There's plenty of food worldwide; the hungry either can't afford it or don't have access to it.

Global food prices rose 83 percent from 2005 to 2008; the world's hungry may double, to 1.2 billion, by 2025. In 2015 an estimated 122 million people will die of starvation, "hunger during times of plenty."

In India, Montsano hiked the price of cotton seed by 500 percent; most of the cotton grown there is GM. There were 17, 368 farmer suicides in India in 2009 alone, most small farmers deeply in debt for GM seed.

So far from increasing food security, GM crops have helped destabilize it, as a few corporations control more and more seeds, and agriculture moves toward increasingly huge industrial monocultures.

And when rich nations, like the U.S., dump surplus food on poor nations, small indigenous farmers suffer; it's "like importing unemployment."

How harmless are GM crops? Today, “it’s well-established that genetic engineering causes foods to be allergenic, toxic, reduced nutritionally, damaging to the environment, damaging to agro ecology.”

Once introduced, GM crops can never be controlled, and accidental releases can occur in the lab, in a production/fermentation facility, the greenhouse, during field tests or in the waste stream. Poisonous GM crops, like Bt cotton, will be poisonous forever.

Herbicide tolerant crops, like Montsano’s GM glyphosate tolerant corn, greatly increase herbicide use, and create herbicide resistant super weeds, “a chemical arms race between crops and weeds.”

Corporations like Montsano describe genetic alteration as simply adding new genes to incorporate new properties. But genomes are like ecosystems, and adding to them will always cause other, unpredictable, uncontrollable changes, for good or ill.

We don’t know nearly enough about this because the industry conducts its own studies, keeps the results secret, and denies study materials to independent researchers. Once again the fox guards the henhouse.

How do GM crops compare with those organically grown? GM maize increased yields, but less than crops grown successively to trap and repel insect pests. Organic farming can increase yields up to 200 percent, with few inputs and improved, not degraded, topsoil.

And plant breeding is more efficient and much cheaper than GM at improving key botanical features.

So the repeated advice is, encourage small, diversified farms, practice crop rotation, control erosion, carefully time plantings, plant with high density, practice cover-cropping, inter-cropping and biological pest controls.

In other words, go with sustainable, time-honored agriculture, not Frankencrops.