

“Is Your Food Genetically Engineered?”

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"I have the feeling that science has transgressed a barrier that should have remained inviolate." -- Dr. Erwin Chargaff, eminent biochemist, a pioneer in our understanding of DNA and genetics

Look closely at the food you ate today. Is it genetically engineered? Did corporate scientists, in their quest for higher profits and greater control of our food supply, combine the genetic material of a very different species (like a fish, bacteria, insect, or animal) into the DNA of that innocent-looking tomato? Did they do this even though no human testing has been done on the resulting food, and they acknowledge that they only know what 1% of DNA does - let alone how the whole inter-related system works together? (What they don't understand, some presume to call just "junk.")

Hard to tell, isn't it, looking at that otherwise healthy-looking fruit or vegetable. And there surely was no labeling about this when you bought it. (Corporations have been fighting against such labeling with all their considerable might.) And yet, unbeknownst to many, major segments of our food supply are now being supplanted by new genetically-engineered (GE) varieties at an alarming rate.

Take soy, for instance. In 1997, 15% of U.S. soybeans were grown from GE seed. By next year Monsanto hopes that will be 100% (60 million acres)!! Other commodities being bioengineered include corn, potatoes, tomatoes, canola, cotton, etc., affecting a wide range of foods on our plates and crops in our ecosystems. (See sidebar.) Claimed benefits of GE (with varied success rates) include: crop plants making their own pesticides and better resisting increased amounts of herbicides; and produce seeming fresh longer on the store shelf.

Many corporations, often with histories of making toxic pesticides - like Monsanto, Dow, DuPont, and Novartis - are now betting their futures on this new, largely untested technology - buying up seed companies, changing relevant laws, and influencing government leaders. They want nothing to stop them from the immense profits they anticipate from controlling at an even greater level the food supply upon which all humans on this planet depend.

HARMFUL RESULTS

The likely harmful results of this mass uncontrolled experiment, however, are mind-boggling (some of which have already started happening). Likely harm includes: Allergic/toxic reactions (to hidden genes and combinations); loss of individual dietary choice; reduced nutritional integrity in our food supply; increased use of and dependence on toxic herbicides; errors in production; harm to farming (deformed crops, increased pest resistance, loss of heirloom and localized crops, increased farmer costs and debt); harm to, and destruction of, native species and natural ecosystems (because nature is all connected); crop failures and food shortages (from worldwide monocropping of this risky technology); unpredictable and "mysterious" wide-scale health and environmental harm rippling through communities and ecosystems (often untraceable without labeling); a new dimension of pollution by corporations with very poor track records for anticipating or being responsible for the harm they cause for profit; and an unrecalable experiment with the inter-related ecosystems upon which all life on this planet depends.

Whew! It's really hard to not sound dramatic when exploring the ramifications of this experiment. Yet top scientists agree that this is indeed what's at stake when people with little understanding make rapid and drastic changes to the DNA basis of life with which we have co-evolved and co-survived, and which makes life on this planet possible. The risks are so high and out of control that insurance companies are refusing to insure GE!

A chilling prospect to those who care about not only the health of themselves and those they love, but also the health and well-being of this beloved planet, now and for years to come.

SYSTEM CHANGES

Just as bad are the fundamental changes corporations are making to our systems for growing and distributing food. What is an increase in power and profit for them is a loss of control for us as individuals and communities.

A key part of their strategy has been changing patent law so they can patent their genetically-manipulated life forms as inventions - and often all other related variations, even trying to go back to the Creator's original! Even if one thinks it's acceptable to patent life forms, it's hard to defend this radical redefinition of "invention."

Patenting seeds is central to the corporations' goal of controlling them. It allows them to lease (rather than sell) GE seeds to people who are not allowed to save the crop's year-end seeds, but have to keep going back to the company store for more. The Creator's original design and a 10,000 year old seed-saving tradition would be gone in a snap. What we got from nature we'd now just get from corporations - greatly increasing the costs and risks to everyone - including the billions of subsistence farmers worldwide, living crop to crop, who'll likely be unable to pay the costs of this brave new world.

All of this so wealth and power can be concentrated into even fewer hands.

ENFORCEMENT

One of the most chilling aspects of these changes is the ways that corporations plan to enforce their seed patents and prevent people from saving and planting their year-end seeds. The first is using the police and courts. The article "Gene Police", in the February 3, 1999 Washington Post, discusses in horrifying detail how corporate seed investigations and lawsuits are causing for communities what local farmers are calling a "reign of terror."

But the second way corporations plan to prevent seed-saving is even more disturbing: they're developing ways to genetically engineer plants to create seeds that won't reproduce. The seeds of life become the seeds of death. Suicide seeds. The activist group RAFI (Rural Advancement Foundation International) has uncovered over three dozen new patents for genetically-sterilizing plants and seeds, including one they nicknamed the Terminator. But what are the ramifications of neutering our food seeds - to our health, our ecosystems, our survival? Will the food still nurture us on all levels? Who knows. No testing has been done, no labeling expected. But is it really in our best interest? Don't we even get a chance to decide . . . ?

COMMUNITIES STANDING UP

And, for some, this is the most disturbing point of all - that these changes are being made without us even having a chance to discuss them, weigh the costs and benefits, decide what we as a democratic society want. Should corporations be allowed to change the DNA basis of food and life for their profit? Should they be able to patent life? What controls, testing, and labeling do we as consumers and sovereign citizens want on this process? These vital questions should at least be discussed.

And what about the alternatives - for our food, communities, world, and future? Some people would choose a very different future world - with sustainable, ecological agriculture; healthy, alive food; and communities, not corporations, making vital choices like these. When do we discuss how we create that world?

That's what citizens and consumers all over the globe are insisting be on the agenda. They are loudly protesting these untested, highly risky changes to our world, and are instead insisting on a healthier future. And they're impacting their governments and corporations. If U.S. citizens chose to get that powerful here, our impact worldwide would be astonishing. Just consider the impact last year of our record-breaking 300,000 comments rejecting the unacceptable proposed national organic rules.

So, what kind of future do you want? And what can you do (more) to help that happen?

WHAT YOU CAN DO

(1) **EDUCATE YOURSELF AND OTHERS.** This is a pivotal time when much of our future will be determined. Don't assume someone else will do this for you; be a positive contribution to a better world. Follow the leads in the Resources box; contact us for more information.

(2) **BUY ORGANIC FOOD.** This is the only food explicitly defined to keep us out of this GE experiment. Go to farmers' markets or grow your own. Invest in your health and a better world. Encourage others to do the same.

(3) **TAKE COMMUNITY-LEVEL ACTION.** Because all nature is connected, and all the world threatened by GE, community-level action is the only way we can truly protect ourselves. Write letters to the FDA, EPA, USDA, your Congressional representatives, and the media. Write articles for newsletters. Get your group to take a stand against GE. Work with local, national, and international groups to help make our voices heard. Insist that our community resources and attention be on agriculture that's sustainable and healthy, not toxic and corporately-controlled.

(4) **SUPPORT THE HEROES.** Support with your money, time, and passion the people who provide information and help us all take effective action on these issues so vital to us all.

(5) **CELEBRATE.** Enjoy deeply the better world that we together create!

Dr. Erwin Chargaff, genetic pioneer often referred to as the father of molecular biology, warned that all innovation does not result in "progress." He once referred to genetic engineering as "a molecular Auschwitz" and warned that it poses a greater threat to the world than the advent of nuclear technology.

Noting the "awesome irreversibility" of GE experiments being planned, Chargaff warned, "...you cannot recall a new form of life.... It will survive you and your children and your children's children. An irreversible attack on the biosphere is something so unheard of, so unthinkable to previous generations, that I could only wish that mine had not been guilty of it."

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[SIDEBAR #1] What GE Food Have You Eaten Today?

Here are just some of the foods on the market that might be genetically-engineered:

* CORN-BASED: Corn oil, corn starch, corn meal, baking soda, and baking powder. Corn syrup and fructose (found in almost all beverages and sodas, even health food brands, and almost all sweet products, yogurt, and aspirin).

* SOY-BASED: Soy milk, infant formula, baby foods, diet and protein shakes, protein bars, chocolate and candy bars, margarine, ice cream, pet food, soy sauce, soy lecithin, and soy oil (like in salad dressings and snack chips). Soy flour (in baked goods, pizza, cookies, cakes, and pasta). Fillers in meat products (like Big Macs). Vegetarian meat substitutes (like tofu, tofu burgers, tofu hot dogs).

* MILK-BASED: Milk, cheese, butter, and products made with them. (When cows are injected with the GE cow growth hormone rBGH, their milk has shown an increase of a human growth factor linked to increased cancer. Also most non-organic cheeses are made with a GE rennet, chymosin.)

* ASSORTED: Tomatoes, potatoes, canola oil, cotton seed oil, yellow crook-neck squash, papaya, pork, fish, livestock who eat GE feed, dough conditioners (Amylase, Catalase, Lactase), etc.

And much more coming - as well as GE insects, viruses, bacteria, etc....

----- "Our families are now guinea pigs in the largest food experiment of all time - without our knowledge or consent." Laura Ticciati, Mothers for Natural Law ----- (Thanks go to Judy Kew and Peter Ligotti for gathering most of this food list.)

[SIDEBAR #2] If I eat 100% organic food, can I ignore GE?

A resounding "No!" (1) Do you really eat 100% organic - in your home, restaurants, potlucks, at friends' homes, school, and work? (2) Does everyone you care about eat only 100% organic, everywhere they go? (3) When all nature is connected, how can even the most diligent organic farmer prevent GE seeds and resistant pests from eventually drifting into their fields? (4) Can

anyone really be untouched if our world's food supply, community structures, ecosystems, and DNA code are radically and irretrievably harmed?

Eating organic is a key step, but it's only part of the solution until we end this GE madness.

[SIDEBAR #3] Resources for Information and Action

* Mothers for Natural Law (877) REAL-FOOD (515) 472-2809 (Iowa) < <http://www.safe-food.org> >. Great GE information; sign their "right to know" petition for labeling GE food.

* Campaign for Food Safety (218) 226-4164 (Minn.) < <http://www.purefood.org> > <alliance@mr.net>. Information and e-mail list covering GE, factory farming, citizen action, etc.

* Alliance for Bio-Integrity (515) 472-5554 (Iowa) < <http://www.bio-integrity.org> > <info@bio-integrity.org>. Coordinating broad-based lawsuit against the FDA for failing to label and demand testing of GE food.

* Dr. Ron Epstein webpage < <http://online.sfsu.edu/~rone/gedanger.htm> > Compilation of powerful essays on "Genetic Engineering and Its Dangers."

* Rural Advancement Foundation International (RAFI) (919) 542-1396 (NC) < <http://www.rafi.org> >. Information about suicide seeds, corporations, patents, and more.

* Ecologist Magazine (510) 527-3873 (CA) < <http://www.gn.apc.org/ecologist> >. Get a copy of their Monsanto issue.

* Physicians and Scientists for Responsible Application of Science and Technology < <http://www.psrast.org> > <info@psrast.org>

* Council for Responsible Genetics (617) 868-0870 (Mass.) < <http://www.essential.org/crg/> > <crg@essential.org>. Sign their "No patents on life" petition.

* Center for Ethics & Toxics (CETOS) (707) 884-1700 (CA) < <http://www.cetos.org> >. Their offerings include their book "Against the Grain: Biotechnology and the Corporate Takeover of our Food."

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