

## Biotech: Biggest abuse of technology ever perpetrated

In the Summer 2004 issue of the *Duluth Seaway Port Authority*, a Port of Duluth marketing director said, "I'm not sure people fully realize the magnitude [genetically modified] wheat would have had on the Port.... It absolutely would have killed wheat shipments out of the Port of Duluth."

He refers to Monsanto's recent decision to shelve its plan to commercialize genetically modified (GM) wheat. Contrary to the aggressive public relations campaign portraying the spread of GM crops as a financially viable benefit to consumers, independent scientist Mae-Wan Ho says, "The biotech empire is showing all the signs of collapsing because its got the science wrong."

The history of biotech is an epic story of science corrupted by big money. Breakthroughs in genetics have enabled scientists to cross natural boundaries in ways not seen in nature or agriculture to date. By taking DNA from different sources, recombining it and inserting it into the genomes of organisms, science brought about the existence of genetically modified organisms (GMOs). The common-sense precautionary principle—i.e. that the safety of GM must be proved because of its potential for irreversible harm—is undermined at every turn because the regulations amount to little more than a policy of "Don't look, don't find."

The potential problems, which regulators should be looking for, include gene escape and insertion into other species' genomes, which could destabilize them, generate new virulent diseases, and unleash a host of ecological impacts, including loss of biodiversity.

The industry will always downplay these effects. And yet GM technology could do all those things and more and is in stores now, brought to you by corporate lobbyists on an influence-buying spree and their legions of scientists-for-hire. Today the proliferation of GM technology into the human population/global environment is pathetically, farcically regulated

Year	Total Number of Permits Approved	Number with CBI	% Permits Containing CBI
1987	9	0	0%
1988	18	0	0%
1989	38	0	0%
1990	58	7	12%
1991	107	16	15%
1992	150	49	33%
1993	306	133	43%
1994	593	222	37%
1995	681	250	37%
1996	626	250	40%
1997	744	387	52%
1998	1086	673	62%
1999	986	643	65%
2000	936	621	66%
2001	1121	746	67%
2002	1112	769	69%
<b>Total</b>	<b>8571</b>	<b>4766</b>	<b>56%</b>

This chart shows the increase in GM crop permits issued by the USDA. Note the alarming increase in crops whose genetic modifications are hidden from the public as "Confidential Business Information" (CBI). [Chart after: U.S. PIRG Education Fund.]

through a revolving door of Monsanto employees who work in the regulatory agencies just long enough to write legislation favorable to the industry.

More often than not, the public is not even told where the crops are grown, which increases the chances of a non-GM crop being contaminated. Lab-born, artificial combinations of genetic material, utilizing the species-crossing abilities of viruses and bacteria, are spread through pollen drift and spread of GM seed. Once contamination has occurred, the owner of the contaminated crop often gets sued for patent infringement.

It's happening to family farmers right now. Thanks to lobbyists and the revolving door between industry and its regulatory agencies, the patent follows the gene (an industry-championed perversion of patent law). It is actually in the interest of biotech to contaminate as much of the food supply as possible, since by

legal definition they will then *own* the food supply.

If the genome was as simple as was once believed—i.e. that a single gene simply codes for a single protein—then GM might make sense. However, the suppressed evidence indicates that organisms possess exquisite and vast regulatory networks of poorly understood, highly complex processes. Biotech introduces essentially random genetic constructs into poorly understood systems—and keeps its fingers crossed.

Quality control of GM is impossible because, as Mae-Wan Ho describes it, "The insertion of foreign genes into the genome is controlled neither by the organism nor by the genetic engineer. Where in the genome the inserts end up, and in what form, are almost completely random and indeterminate.... The insert can end up almost anywhere in the genome and rearrangements and deletions of the transgenic construct

frequently occur. This results in correspondingly random, unpredictable genetic effects."

Here is a case where a wrong-headed paradigm, instead of just leading down conceptual dead ends, puts the health of everyone on the planet and the entire ecosystem at risk. In no other case of science under the influence of financial and political interest have keepers of the dominant paradigm shut down, forced out, and silenced so many dissident scientific voices and denied the sheer volume of evidence of ill effects and horrible looming possibilities. Biotech wins the Gonzo Science award for most egregious use of technology in the history of humanity, in an upset.

Passing a GMO ban locally is the only way to go since it is not happening on the federal or state level (except Vermont). The threat posed by GM agriculture and the transparent abuse of patent law by transnational corporations is an issue that affects people from all walks of life and political affiliation. The position of any local politician on this should be *the* benchmark in determining whether or not they are responsive to the public or beholden to corporate control.

We predict that the mere raising of the possibility of passing a local GMO-prohibiting ordinance will bring Monsanto to Duluth to start throwing money at the members of City Council and the County Commission, so keep your eyes peeled for that.

### Recommended Reading

- *Living with the Fluid Genome* by Mae-Wan Ho
- *Redesigning Life?* ed. by Brian Tokar; [www.i-sis.org.uk](http://www.i-sis.org.uk)

The excellent biotech expose, "The Future of Food" will be screened at the Norshor Theater in Duluth on Saturday, November 13 at 7 p.m., sponsored by the Organic Consumers Association ([www.organicconsumers.org](http://www.organicconsumers.org)). The presenters intend to use the screening of the film to garner contact information from anyone interested in further action on these issues.