



## *Spilling the Beans, January 2006*

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### **Un-Spinning the Spin Masters on Genetically Engineered Food**

#### **Jeffrey Smith Responds to a Biotech Proponent's Accusations and Spin**

##### **Note from Jeffrey Smith**

In September, 2005, the respected South African investigative magazine *noseweek* ran a five-page interview with me that was described by a GMO campaigner as “the hardest knock” that the country’s biotech industry had ever taken from the media. To read the interview, go to the September 2005 issue of *Spilling the Beans*, at <http://www.seedsofdeception.com/Public/Newsletter/Sept05Rammeddownourthroats/index.cfm>.

Hans Lombard, a public relations consultant for the biotech industry, wrote a rebuttal to *Noseweek* that was pure industry spin. Fortunately, I was given the opportunity to respond. Both his letter and a condensed version of mine were published side by side in their January issue. The magazine put my full response on its website.

The following is the text of Lombard’s letter, broken up so that I can respond to each accusation.

The shortened version that was published is available with graphics and photos at <http://www.seedsofdeception.com/DocumentFiles/100.pdf>.

*Noseweek* has given permission for either the long or short versions to be reprinted in whole or in part. South African publications, however, must wait until February 1, 2006. Other publications and websites can run the piece right away.

## **PART 1**

### **Lombard:**

#### **GMO FOOD SAFER THAN CONVENTIONAL**

Allegations by Jeffrey Smith of “dangers and health risks” to humans and animals posed by GMO food in the article: *Rammed down our throats*, *noseweek*, September 2005 are blatant lies. Shocking, misleading information with no substantiated scientific evidence.

What he failed to tell us is that his so-called “best seller” book condemning GMO crops which he hawked around South Africa has not received the backing of any academy of science or medicine, any faculty of agriculture/science, or any agricultural research institute anywhere in the world.

### **Smith:**

Hans Lombard, a public relations man paid to “hawk” GM foods around South Africa, provides a superb example of industry spin. He attacks so-called “lies” and “misleading information” using nonexistent safety tests that passed with flying colors, false attributions to national academies and unsupported safety claims. It is a pleasure to respond to these accusations.

*“So-called” best seller without “backing”...*

*Seeds of Deception* is the world’s bestselling book on GM foods and rated number one on the subject by the *Ecologist*. It documents attempted bribes, fired and threatened scientists, hijacked regulatory agencies, cover-ups, rigged research, and the ways in which industry manipulation and political collusion got genetically modified (GM) foods approved. It also explains why the foods threaten our health.

The revelations have had an impact. A master’s thesis, for example, concluded that the book had a major influence on the passage of the first state regulation on GMOs in Vermont. A state representative said, “It certainly colored every conversation in the Statehouse about GMOs. It was the subtext for everything after that, once it arrived.”

In the US, academic institutions don’t “back” books. The faculty use what they want. Even though *Seeds of Deception* is not an academic text book, it is assigned in several university classes, including Yale, where I spoke last year.

*Substantiated scientific evidence...*

I asked a prominent German biologist, Christine von Weizsaecker, to write the foreword to my German edition. She explained that she couldn’t put her name on anything in which the science isn’t absolutely correct. She therefore analyzed the book in great detail, and then

had another top biologist trace every quote to its original source, to make sure it wasn't used out of context. It passed inspection and she wrote the foreword.

*Hawking my book...*

My visit to Southern Africa was to speak at conferences and to share information about GM foods with the public and political leaders. It was *not* about promoting my book, which wasn't even *available* in SA bookstores at the time. This sentence, however, *is* about hawking my book, which is now available through New Horizon distributors.

### **Lombard:**

In response to only a few of his wild fear mongering and scientifically unproven allegations, here are the facts:

*\*GM crops are not adequately tested for safety.*

Quite the contrary. In fact no agricultural crop in history has been subjected to such stringent scientific and medical tests. GMO crops have passed these tests with flying colours.

The European Commission conducted 81 scientific research tests over a period of 15 years and costing R640 million. It concluded: "GM food is both safe for humans and the environment. Biotech crops may even be safer than conventional food."

After in-depth research by a panel of leading scientists, the Royal Scientific Society of London stated: "There is no serious threat or even existence of any potential environmental harm or human health hazards in GM food." Eight academies of science – Brazil, China, India, Mexico, the Third World Academy, National Academy of Science US, Germany, France and the Royal Canadian Society – concurred.

The British Medical Association says there is very little potential for GM foods to cause harmful effects.

### **Smith:**

*Stringent tests, 81 studies...*

The European Commission had *funded* 81 projects on GMOs, not conducted. As of 2001, when this count was made, most were in progress but not yet published. An analysis of *all* peer-reviewed animal feeding safety tests on GM foods, published in *Nutrition and Health* in 2003, found only 10.<sup>[1]</sup> Another comprehensive analysis published in October, 2005, raises that number to 19.<sup>[2]</sup> Most of these are industry-sponsored and are criticized as superficial and poorly designed. According to *GMO in animal nutrition: potential benefits and risks*, "relatively short-term animal feeding/production experiments, particularly as they are presently carried out, do not contribute much to GM safety."<sup>[3]</sup> Another peer-

reviewed article in *Biotechnology and Genetic Engineering Reviews* exposed numerous health risks of GM foods that are not being tested for, and cited “serious deficiencies in both regulatory oversight and corporate testing procedures.”<sup>[4]</sup> Geneticist David Suzuki said it a little clearer: “Any politician or scientist who tells you these products are safe is either very stupid or lying. The experiments have simply not been done.”<sup>[5]</sup>

### *Academies...*

To claim that there are no potential health hazards from GM is absurd. To claim this as the position of eight national academies is outrageous. I called Lombard’s bluff, and read his quote to Fran Sharples, the Director of the Board on Life Sciences at the US National Academy of Sciences (NAS). She said, “The academies have issued numerous reports on assessing the risks of transgenic plants. If the academy believed there were no such potential risks, why would we have delved into these matters in these reports?”<sup>[6]</sup> One of those NAS reports even acknowledged that the current system of regulating GMOs might not detect “unintended changes in the composition of the food.”<sup>[7]</sup>

The Royal Society of Canada stated that it is “scientifically unjustifiable” to presume that GM foods are safe, and that the “default presumption” is that unintended, potentially hazardous side effects are present. A WHO spokesperson said that current regulations are not adequate to determine the health effects,<sup>[8]</sup> the Indian Council of Medical Research called for a complete overhaul of existing regulations,<sup>[9]</sup> and the British Medical Association had called for a moratorium of GM foods altogether. Why then do we read reports from some scientific bodies that claim GM foods are totally safe?

It turns out that there is a fairly small group of biotech scientists with strong support by industry who have managed to author all sorts of “official” or official-sounding reports. The usual suspects are concentrated in the UK, and their Odes-to-Biotech are found in reports for the UK’s Royal Society and others. GMWatch.org has done a brilliant job exposing the group’s conflicts of interest, biased science, and even their repeated use of threats to other scientists who wish to publish adverse findings or opinions.

How did Lombard come up with his eight academies? I guess he’s referring to a report called *Transgenic Plants and World Agriculture* (2000), which lists seven of the eight as contributors. But the report hardly supports Lombard’s claim of no potential risks. On the contrary, it enumerates “the potential for allergic reactions” and “toxic compounds as a result of the GM technology.” Moreover, “Public health regulatory systems need to be put in place in every country to identify and monitor any potential adverse human health effects of transgenic plants.” Unfortunately, this recommendation has not been instituted anywhere in the world, so we don’t know if GM foods are already causing widespread health problems.

## PART 2

### Lombard:

*\*After GM soya were introduced in the UK allergies skyrocketed.*

The Royal Society of London denies this and says. There is no evidence that GM foods cause allergic reactions. Allergic risks posed by GM plants are no greater than those posed by conventional crops.

Long before the advent of GM crops, medical scientists determined that allergies were caused by milk, egg whites, peanuts and soya beans and will continue to do so, GM or non-GM.

If the allegations regarding allergies were true, why does the EU continue to import annually on average 17 million tons of soya from the USA and Argentina, 90% GM?

### Smith:

*allergies ...*

An allergy specialist from Ohio told me recently, “I used to test for soy allergy. Since they have genetically altered it, I tell people just don’t eat it unless it says organic. These things are so potentially dangerous.”<sup>[10]</sup>

The British Medical Association had warned that GM foods may lead to the emergence of new allergies. A finding in March 1999 is telling. Researchers at the UK’s York Laboratory tested 4,500 people for allergic reactions and sensitivities to a wide range of foods. Soy had previously affected 10% of consumers. In 1999, however, that jumped to 15%. Soy entered the top ten list of allergens for the first time in the seventeen years of testing. Reactions included irritable bowel syndrome, digestion problems, skin complaints, chronic fatigue, headaches and lethargy. Blood tests confirmed an antibody reaction to soy. GM soy had recently entered the UK and the soy used in the study was largely GM. John Graham, spokesman for the York laboratory, said, “We believe this raises serious new questions about the safety of GM foods.”<sup>[11]</sup>

The joint FAO/WHO Expert Consultation on Allergenicity of GM foods said, “A clear need exists to pay particular attention to allergenicity when assessing the safety of foods produced through genetic modification.”<sup>[12]</sup> But GM foods have genes from bacteria, viruses and other organisms. The proteins they create were never part of the human food supply; no one knows if they’re allergenic. According to the US Food and Drug Administration’s (FDA) 1992 policy, “At this time, FDA is unaware of any practical method to predict or assess the potential for new proteins in food to induce allergenicity and requests comments on this issue.”<sup>[13]</sup> A *Washington Post* article—written seven years later—said there is still “no widely accepted way to predict a new food’s potential to cause an allergy. The FDA is now five years behind in its promise to develop guidelines for

doing so. With no formal guidelines in place, it's largely up to the industry to decide whether and how to test for the allergy potential of new food."<sup>[14]</sup> But this is problematic, according to the FDA's own scientist, who had written years earlier, "Are we asking the crop developer to prove that food from his crop is non-allergenic? This seems like an impossible task."<sup>[15]</sup> According to the US EPA Scientific Advisory Panel, "Only surveillance and clinical assessment of exposed individuals will confirm the allergenicity."<sup>[16]</sup> Unfortunately, no such surveillance exists.

The FAO/WHO does suggest criteria that minimize the likelihood that allergenic GM crops would get approved. The GM soy already on the market, however, fails those criteria—sections of its GM protein are identical to known allergens. The same is true for the GM white corn used in the South African staple, millimeal. It is engineered to create a *Bt* toxin to kill insects. Farm workers and others exposed to *Bt* spray have exhibited allergic symptoms including allergic rhinitis, angioedema, dermatitis, pruritus, swelling, erythema with conjunctival injection, exacerbations of asthma, angioedema and rashes.<sup>[17]</sup>

A November 2005 study<sup>[18]</sup> found that a GM pea under development caused severe immune responses in mice, and the plans to commercialize the crop were scrapped. The tests used, however, were those typically used for medical testing, not for GM food. If those same peas were subjected to normal GM food safety assessments, they could have sailed through the approval process. More importantly, since none of the GM crops on the market have ever been tested in this same rigorous way, they too may be harmful.

*EU imports...*

The EU imports GM soy for use as animal feed. Fortunately, European food manufacturers such as Carrefour, Tesco, Asda and Marks and Spencer, are committed to switch to non-GM sources.

### **Lombard:**

*\*GM cotton produced in Andra Pradesh, India, reduced yields by 18% and was subsequently banned.*

Again, the Indian authorities in Andra Pradesh reject this allegation as an outright lie. Chengal Reddy, chairman of the Federation of Farmers' Associations in Andra Pradesh, denies that there has been a *Bt* cotton failure.

According to him, *Bt* cotton plantings in 2002/03 was a roaring success. Mangala Rai, director-general of the Indian Council of Agricultural Research, says cotton farmers in Andra Pradesh increased their *Bt* cotton yields by 30% and reduced pesticide sprayings by 65%.

So much so, that the Indian Government approved the planting of an additional 40 000 ha of *Bt* cotton in Andra Pradesh, Karnataka, Maharashtra and Gujarat. Furthermore, the Indian Government has approved three new *Bt* cotton varieties. Andra Pradesh now has the choice of six *Bt* cotton hybrids.

If Smith's allegation is true, why is it that India increased the area under approved biotech cotton from 100,000 ha two years ago to 500,000 in 2004, involving more than 300,000 small-scale farmers?

**Smith:**

According to the April 13, 2005 *Deccan Herald*, "A study that tracked genetically modified *Bt* cotton crop for three years in Andhra Pradesh has proved conclusively that it has failed on all fronts including yield, cost of cultivation, returns to farmers and resistance to pests. On the other hand, the non-*Bt* cotton performed better on all counts."<sup>[19]</sup> This was the only independent study "on *Bt* cotton done on [a] season-long basis continuously for three years in 87 villages." Conducted by Dr Abdul Qayoom, former Joint Director of Agriculture in Andhra Pradesh, and Mr Sakkari Kiran of the Permaculture Institute of India, the study showed that growing *Bt* cotton cost 12% more, yielded 8.3% less, and the returns over three years were 60% less.<sup>[20]</sup>

Problems with the GM variety included failure to germinate, drought damage, root-rot, leaf curl virus, brittle stems, increased pests, smaller bolls, increased labor requirements per acre and a shorter harvest season. According to three year study, some farmers complained "that they were not able to grow other crops after *Bt* because it had infected their soil very badly."<sup>[21]</sup>

Years earlier, approvals of *Bt* cotton had been secured by an "expert team" that visited a few farmers growing it for the first time. The team issued a glowing report, claiming higher yields, less pesticides, and greater profits. When a film crew interviewed those same farmers, they discovered that just the opposite was true. They also described problems with the cotton's quality: GM cotton was more light weight, weaker, less bright, had shorter staple length and sold for less. One farmer said, "We have to beg the traders to sell the cotton to them." When government officials saw the video, they investigated and confirmed that the expert team's report contradicted the facts.

Another report identified a yield loss in the Warangal district of 30-60%. The official report, however, was tampered with. The local Deputy Director of Agriculture confirmed on Feb 1, 2005 that the yield figures had been secretly increased to 2.7 times higher than what farms reported. Once the state of Andhra Pradesh tallied all the actual yields, they demanded approximately \$10 million USD from Monsanto to compensate farmers for losses. When the company refused, on June 3 the government banned Monsanto from the state. According to state agricultural commissioner Poonam Malakondiah, the state will not even allow Monsanto to carry out trials.<sup>[22]</sup> The *Bt* varieties that Lombard says are now sold in Andhra Pradesh are other companies' products. But a November 8, 2005 report by the Monitoring & Evaluation Committee shows stunted growth and massive pest damage to these varieties as well.<sup>[23]</sup>

Lombard can easily obtain contradictory statistics. Ask Monsanto. They commissioned studies to be done by market research agencies, not scientists. One, for example, claimed four times the actual reduction in pesticide use, twelve times the actual yield, and 100

times the actual profit.<sup>[24]</sup> Lombard quotes Chengal Reddy. Of course Reddy will use Monsanto's statistics, as "he has worked closely with the company since the mid-1990s,"<sup>[25]</sup> and even proposed to that his group "be the operational arm"<sup>[26]</sup> of the biotech organization in the state. GMwatch.org exposes more on this "non-farmer" and his "federation" that appears to be "significantly different from that which it claims."<sup>[27]</sup>

In spite of Monsanto's ban in Andhra Pradesh, their faulty cotton was allowed in Madhya Pradesh. According to a November 14, 2005 article in NewKerala.com, it has been a disaster there too. Rampant wilting in 200,000 acres caused an estimated \$87.5 million USD in damages. The article also described a health report that showed "Bt cotton was causing severe to moderate allergy to people coming in contact with it."<sup>[28]</sup> On November 10, 2005, *The Hindu* reported that "Up to 75 per cent of the *Bt* cotton seeds" planted in parts of Tamil Nadu "failed to germinate this season,"<sup>[29]</sup> and on November 27 they said that India's central government "conceded the failure of Bt cotton in Andhra Pradesh and Rajasthan."<sup>[30]</sup>

Why are farmers still buying *Bt* cotton. I'm not sure. But the following accounts may help explain it. Monsanto ran a poster series called, "TRUE STORIES OF FARMERS WHO HAVE SOWN BT COTTON." One featured a farmer who claimed great benefits. When investigators tracked him down, he turned out to be a cigarette salesman, not a farmer. Another poster gave the yield figures of the featured farmer—which was four times what he actually achieved. One photo of a farmer standing next to a tractor was used to suggest that sales of *Bt* cotton allowed him to buy it. But the farmer was never told what the photo was to be used for, and said that with the yields from *Bt*, "I would not be able to buy even two tractor tires."

In addition to posters, the cotton marketers used dancing girls, famous Bollywood actors, even religious leaders to pitch their products. Some newspaper ads looked like a news stories and featured relatives of seed salesmen claiming to be happy with *Bt*. Sometimes free pesticides were given away with the seeds, and some farmers who helped with publicity got free seeds.

As for Lombard's increased acreage statistics, according to the Executive Director of the Centre for Sustainable Agriculture, (the organization that helped investigate these marketing deceptions) "The assertion by Monsanto that the increase in acreage of *Bt* Cotton is an indication of the success of *Bt* Cotton is as questionable as their false advertising."<sup>[31]</sup>

In Andhra Pradesh, 71% of farmers who used *Bt* cotton ended up with financial losses. When they realized that they were deceived, farmers attacked the seed dealer's office and even "tied up Mahyco Monsanto representatives in their villages," until the police rescued them.<sup>[32]</sup> Tragically, other farmers committed suicide. In Vidarbha, Maharashtra alone, between July 2 and November 17, 2005, an estimated 114 impoverished cotton farmers have taken their own lives.<sup>[33]</sup>

## **PART 3**

### **Lombard:**

*\*Rats fed on GM Potatoes developed potentially pre-cancerous cell growth – Pusztai. Rats fed on GM tomatoes – seven of 40 died within two weeks.*

These tests were never peer-proven. No scientific peer-proven data in support of these tests exists. They were dispelled as flawed by scientists worldwide.

A report in the influential Lancet magazine claimed that scientists who reviewed Pusztai's experiments came to the conclusion that:

- The study was flawed, since it had been poorly conducted and did not meet acceptable scientific standards.
- The UK Advisory Committee on Novel Food Programmes (ACNFP) concluded that “no meaningful conclusions could be drawn from Pusztai's study”.
- The Royal Society of London stated: “We found no convincing evidence of adverse effects from GM potatoes. The effects were uninterpretable because of technical limitations of the experiments and the incorrect use of statistical tests.”

Pusztai was subsequently fired from the institution where he worked.

On the tomato issue Pusztai, who had nothing to do with the experiments, said the rats died with unstated reasons.

The GM tomatoes were on the market for three years and consumed by thousands of people, without any ill-effects reported by any medical or health institutions.

They were withdrawn when the company that launched the project ran into technical and financial problems.

### **Smith:**

*Potatoes...*

I describe Dr. Pusztai's story in great detail in the first chapter of my book. I interviewed him over several months, and pored over leaked documents, scientific reports and testimonies. Here's a synopsis.

Dr. Pusztai was awarded a grant by the UK government to develop a safety testing protocol, which would eventually be required for all GM foods. Pusztai's 20-member research team created a GM potato, engineered to produce its own insecticide, and tested it on rats. The design for the animal feeding study had already been used by Pusztai in about 60 out of the more than 300 peer-reviewed studies he had published, and it was also approved in advance by the UK government.

The results of the potato study were shocking. Nearly every system in the rats' bodies was adversely affected by the GM potatoes. Another group was fed natural potatoes that were spiked with the insecticide that the GM variety produced. Those rats did fine. Thus, the insecticide didn't cause the damaged organs and immune system or the prolific cell growth. Rather, it was probably changes in the potato resulting from the *process* of genetic engineering that was the culprit. (During the GM process, for example, natural genes can be turned off, permanently turned on, deleted, reversed, scrambled, moved or fragmented, all with potential side effects.)

When Dr. Pusztai publicly expressed his concerns about GMOs, he was a hero at his institute. But this quickly became a serious problem for the biotech industry and the pro-GM Blair government. Dr. Pusztai was the world leader in his field; he worked at the country's most prestigious nutritional institute; using cutting edge research funded by the government, he found problems; and now he claims that GM technology may be inherently unsafe. The press was ravenous. For two days, the institute's director led the publicity efforts, describing Pusztai's research as a huge advance in science. Then two phone calls were allegedly placed from the UK prime minister's office, forwarded through the receptionist, to the director. The next morning, Dr. Pusztai was released from the institute after 35 years and silenced with threats of a lawsuit. His research team was disbanded and the government never implemented any long-term testing protocol. Disinformation was widely circulated. The institute and the biotech gang at the Royal Society staged so-called peer-reviews, but didn't use all the test data, had no nutritionists doing the critique of a nutritional study, and made sweeping claims that contradicted the research. According to a leaked document obtained by the *Independent on Sunday*, even three government ministers prepared "an astonishingly detailed strategy for spinning, and mobilizing support for" GM foods, including rubbishing Pusztai's research.<sup>[34]</sup>

When Pusztai's gag order was eventually lifted and he gained access to his data, 23 top scientists from around the world reviewed the research and came to his defense. The study was peer-reviewed and published in the prestigious *Lancet* (in spite of threats made to its editor by a Royal Society official). Nonetheless, as you can see in Lombard's reply, the disinformation campaign continues.[For the record, Lombard's attribution to the *Lancet* is misleading. A letter from the editor included a quote from the Royal Society's review, which said the study was "flawed." But the editor was actually chastising the Society for "criticizing reports of research . . . before those data were reviewed and published in the proper way."<sup>[35]</sup> Pusztai's study, including the statistics, did pass the *Lancet* review.]

#### *Tomatoes:*

Lombard is right that the tomato study was not peer reviewed. It was submitted by Calgene (now a subsidiary of Monsanto) to the FDA for their FlavrSavr tomato review. Industry submissions are almost never peer-reviewed and are usually so poorly designed or reported, they are actually unworthy of publication. In fact, when I asked Dr. Pusztai what his greatest shock was, it turned out to be when he read the confidential studies submitted to the UK government to get GM products approved. This was months before his controversial sacking, while he was still an ardent GM advocate. He described the

industry's studies as so superficial and so poorly done, it was clear that they were doing as little as possible to get their products on the market as quickly as possible. They were not doing real safety assessments.

In the case of the tomato, FDA documents made public from a lawsuit reveal that GM-fed rats developed stomach lesions. In spite of Calgene's attempts to explain it away, agency scientists maintained that the findings did not meet their standard of a "demonstration of reasonable certainty of no harm."<sup>[36]</sup> The political appointees, however, ignored their scientists and approved the tomato.

When the same lawsuit made Calgene's rat study available, Dr. Pusztai reviewed it for the attorneys. With respect to the rats' bleeding stomachs, he pointed out that if similar reactions were to occur in humans, "they could lead to life-endangering hemorrhage, particularly in the elderly who use aspirin to prevent thrombosis."<sup>[37]</sup> Pusztai also discovered a paragraph in the appendix which said 7 out of 40 GM-fed rats died within two weeks and were replaced. The cause of death was obliquely described as "husbandry error." Pusztai was astounded. It is entirely unacceptable for such a study to leave out the data from rat autopsies and substitute only meaningless, unsupported opinions. Likewise, replacing dead animals in the middle of a feeding study is not scientifically justified.

One of the scientists who developed the tomato for Calgene told me that her team had been asked to evaluate the results of the rat experiment. She admitted that as plant molecular biologists, the study was totally out of their field, and they could easily have overlooked the appendix and its implications.

*Consumed by thousands without any ill-effects...*

Since no one monitors the health impacts of GM foods, to make the claim that there are no ill-effects demonstrates a profound ignorance of the issues.

### **Lombard:**

*\*Philippines living next to a Bt maize field developed respiratory and skin reactions.*

The person who published this information was Norwegian scientist Prof Terje Traavik, an ardent anti-GMO activist. His studies were, however, never peer-proven. When he was challenged to provide scientific data by Dr Nina Gloriani Barzaga from the University of the Philippines-Manila College of Public Health, he said his studies were "only preliminary and not complete."

He was also challenged by Prof Rick Roush, director, Statewide IPM Program, University of California, USA, who comments as follows: "Traavik never allowed any of his work to be peer-reviewed. He never offered any details of his research to any of the rest of us scientists. His work remains nothing more than a wild and implausible allegation."

The area was visited by the Philippines Department of Agriculture, a team of medical doctors, and representatives from the College of Chest Physicians and the Manila College of Health. They came to the conclusion that the villagers showed no allergic symptoms or signs of viral respiratory infection.

More than 20 000 ha of GM maize has been grown in the Philippines during the past three years by more than 5000 farmers. Nobody has complained of an allergy.

**Smith:**

*Nobody has complained of an allergy...*

According to the Philippine publication *Mindanews*, “On August 8, 2003, about 100 residents from Sitio Kalyong were documented to have been suffering from headache, dizziness, extreme stomach pain, vomiting and allergies.”<sup>[38]</sup> The Filipinos lived adjacent to a GM cornfield and developed symptoms only while the corn pollen was airborne.

According to the article, similar symptoms appeared in different locations during the following two years, also corresponding with the time of pollination.

Dr. Traavik, a prominent EU virologist and director of the Norwegian Institute for Gene Ecology, tested the blood of 39 of the villagers during the first year. The blood developed an antibody response to the *Bt*-toxin—the pesticide that the corn was engineered to produce. Dr. Traavik presented preliminary findings in February 2004, at a Malaysian conference on GM food safety. Dr. Traavik explained to the audience, which was mostly delegates to the UN Biosafety Conference that started the next day, that the blood response increased the probability that the symptoms came from the corn. But it wasn't proof.

I attended Dr. Traavik's talk, in which he also presented preliminary results of four other studies. Two included results that challenged the safety claims of GM vaccines. Two studied promoters—the viral sequences that turn on the foreign genes that are inserted into GM crops. One study showed that the promoter was active in human cells, and the other showed that the promoter survived digestion in rats and ended up in their organs three days later.

Since I was giving a presentation on the health risks of GM foods at the UN conference, I spent two days interviewing Dr. Traavik and other senior scientists from his Institute about the research. When I gave my talk, I explained, as Dr. Traavik had, that his research was not yet finished, peer-reviewed or published. My job was to explain the preliminary findings in the wider context of known GM health hazards.

On the Philippine study, for example, I described how the potential dangers of breathing GM pollen had been identified years earlier by the UK Joint Food Safety and Standards Group. They had even postulated that inhaled genes might transfer into human DNA, and wrote to the US FDA, warning them about these risks of GM crops. Thus, the link between GM corn and the reactions in the Philippines is far from “wild and implausible,” as Lombard claims.

In accordance with normal scientific protocol, Dr. Traavik said he would not circulate his data or methodology until the papers were published. He is still working on the Philippine study. Three of the five presented in Malaysia have already been published, including the study confirming that GM promoters function in human cells.<sup>[39]</sup> This means that if promoters were to transfer out of GM food (which they do) and integrate into human DNA (which needs to be studied), they might permanently switch on random genes inside of us, overproducing a toxin, allergen, carcinogen, etc. In fact, if the promoters were to be inhaled in GM pollen and then transfer to human DNA... But wait, that's probably "wild and implausible."

*19.3 million ha ...*

JS: GM crops are planted to 1.6% of all arable land, 98% of which is found in only 5 countries, 99.9% of which comprise only 4 crops: soy, corn, cotton and canola.

*No reports of adverse effects...*

This is one of the most unscientific—and dangerous—statements made by Lombard. Thousands of people had died before AIDS was discovered. Millions suffered from cigarettes before the health effects were known. Food-related illness in the US doubled between 1994 and 2001, during the time GM foods were introduced. But I can't say that the disease rates were GM-related, and Lombard can't say they're not. Since no one is monitoring the population for health effects of GM foods, it could take decades to identify even serious problems.

Lombard's statement is also an insult to the 5,000-10,000 people who fell sick due to a genetically engineered brand of the food supplement called L-tryptophan, which was sold in the US in the 1980s. More than 100 people died and many are permanently disabled. There is a new report on L-tryptophan at [www.seedsofdeception.com](http://www.seedsofdeception.com), by a journalist who spent nearly a decade investigating this deadly epidemic. He reveals how evidence was suppressed or not followed-up, and how the FDA withheld information from the public and Congress in an apparent attempt to protect the biotech industry.

*Comments...*

Monsanto is a chief contributor to Lombard's Public Relations services. That is the same company that was fined for bribing 140 Indonesian officials, that sues farmers for patent infringement when the company's GM seeds blow onto their land, that assured us Agent Orange was safe, and whose executives' described the ideal future as a world in which 100% of all commercial seeds were genetically engineered and patented. On February 22, 2002, Monsanto was found guilty for poisoning a town next to their factory and covering it up for decades. They were convicted of negligence, wantonness, suppression of the truth, nuisance, trespass, and outrage. According to Alabama law, to be guilty of outrage typically requires conduct "so outrageous in character and extreme in degree as to go beyond all possible bounds of decency so as to be regarded as atrocious and utterly intolerable in civilized society."<sup>[40]</sup>

This same company is responsible for conducting the safety studies on its own GM foods. And in South Africa, the only country that allows the genetic modification of a food staple, the government has entrusted Monsanto with the health of its people.

Jeffrey M. Smith is the author of the bestselling book on GM foods, *Seeds of Deception*, and producer of the DVD, *Hidden Dangers in Kids' Meals*, available at [www.seedsofdeception.com](http://www.seedsofdeception.com) or by calling 888-717-7000. He is working with a team of international scientists to compile all known risks of GM foods.

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