

Monsanto Has Been Lying About Safety of Cry Proteins in Genetically Modified Bt Crops

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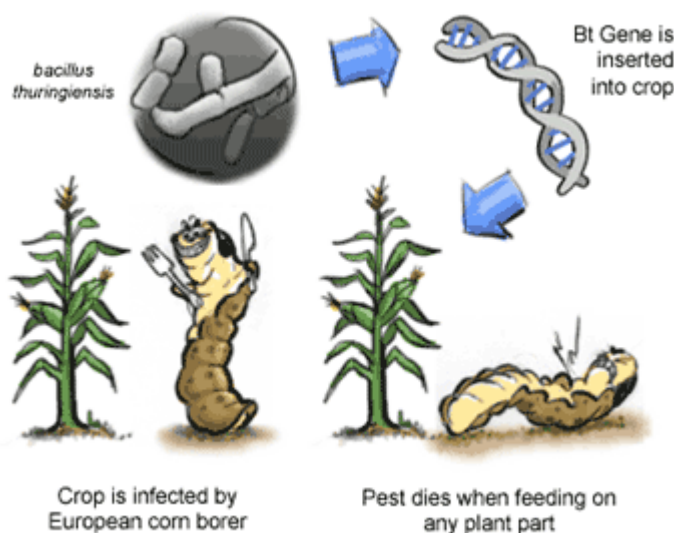
Theme: [Biotechnology and GMO](#)

In a recent interview on Food Sleuth Radio, Dr. Hansen exposes Monsanto's latest contrivance – that Bt toxic corn is 'safe' to eat. Dr. Hansen provides 'clean' science through Consumer Reports that has no private backing, and certainly none by the GM industry.

Hansen states that biotechnology allows you to move genetic traits from any possible source – viruses, bacteria, animals, humans, etc. and put them into plants. This is what allowed scientists to make [Bt corn and other Bt crops](#), and then patent them.

Bt crops are created by inserting a gene from the [soil bacterium *Bacillus thuringiensis*](#) into a plant, thereby creating a pesticide that lives within the plant from roots to stems. The plant itself, in fact, becomes a pesticide, and when insect pests eat them, their guts are altered, and the insect dies.

The first Bt corn variety made by Monsanto, MON 810 (which was submitted to the FDA with research *only* done by Monsanto itself), is [promoted by the company as being safe](#); however, the FDA has never declared that BT crops were safe, and in fact, no solid safety testing has been done on Bt toxins.



Conversely, eating Bt toxins can “[turn your gut into a living pesticide](#).” The FDA, like other agencies, has turned a blind eye to Monsanto's shenanigans, but never made a statement that GM crops were safe, only that *based on studies supplied by the industry*, they seem to be equivalent to their non-GM counterparts.

Hansen explains that Cry proteins (the Bt toxins inserted into GM corn, sugar beets, etc.) are

likely allergenic. A Dutch study conservatively [states that they](#) “found sequence homology between inserted proteins in GE products that are on the market and known human allergens,” but Hansen thinks this is shying away from the truth.

How Cry-Proteins in GMOs are Human Allergens, and Health-Damaging

To counteract this study (and other industry studies which show no correlation to Bt toxins and allergies at all) and to show that there is suggestive evidence that the Cry proteins (but especially Cry1Ab/Cry1Ac) associated with the Bt crops may be human allergens and may have adverse effects on the human gut, Hansen argues:

“In 1999, an EPA-funded study, published in *Environmental Health Perspectives* and titled “Immune responses in farm workers after exposure to *Bacillus thuringiensis* pesticides,” pointed out that “In 1992 the use of Bt in an Asian gypsy moth control program was associated with classical allergic rhinitis symptoms, exacerbations of asthma, and skin reactions among exposed individuals reporting possible health effects after the spraying operation (7).

Unfortunately, there was no follow-up to determine whether these events were Bt-induced hypersensitivity or toxic reaction or merely due to common aeroallergens coincidental to the season during which the spraying occurred (8). Similar findings occurred during another Bt spraying in the spring of 1994 (8)” (Bernstein et al., 1999: pg. 575). Since there was no follow-up, how can one say that Cry proteins weren’t the source of the allergic reactions? This clearly looks like an example of “don’t look, don’t find.”

The Institute for Responsible Technology [explains that](#) pesticide-producing crops (Bt) contaminate nearby streams, possibly affecting aquatic life. The bt toxin produced by these GM crops are far stronger than any found in nature, and are produced throughout the plant.

They may also harm beneficial insects, which is completely the opposite of what Monsanto claims. It has been found that previously-insignificant insects which are not targeted by the GM varieties develop into pests. Then pesticide spraying resumes, on top of the potential build-up of the extra strong Bt toxin in the soil. This [has occurred](#) in China, India, and the US.

Even farm workers that have been exposed to Bt pesticide-sprays exhibit skin sensitization and presence of IgE and IgG antibodies with those responses being more numerous in those workers with higher levels of exposure. Both skin sensitization and IgE antibodies are components of an allergic response.

Hansen also points out that an additional series of 5 studies published in the last 7 years and carried out by a team of scientists from two Mexican universities (Universidad Autonoma de Mexico and Cinvestav-IPN) and from Cuba have suggested that the Cry1Ac protein (found in Bt cotton) in both the full-length form (protoxin) and the truncated form (soluble form)-have immunogenic and allergenic properties.

Finally, a recent 91-day [study published in](#) the *Journal of American Science* explained that Bt corn is toxic to rats. According to researchers at Suez Canal University in Egypt, [GM corn diet](#) resulted in increased or decreased organs or body weight in lab rats. They also found that the GE corn-fed rats endured changes in blood biochemistry that indicated possible toxicity.

Yep – Bt Toxins are Toxic

Bt toxins, in summary, might very well be the reason we are seeing more food allergies than ever before – more gut disorders, more immunity problems, and other health issues as well. Cry proteins are *not* safe. The evidence is apparent, so why does [Monsanto's website](#) say:

“Regulatory authorities and other third parties have conducted extensive analysis demonstrating that MON810 [a Bt variety of corn] is safe to humans, animals, non-target organisms and beneficial insects.”

Further studies that support Dr. Michael Hansen's assertions:

Finamore A, Roselli M, Britti S, Monastra G, Ambra R, Turrini A, Mengheri E. (2008) Intestinal and peripheral immune response to MON810 maize ingestion in weaning and old mice. J Agric Food Chem. Dec 10;56(23):11533-9. <http://www.ncbi.nlm.nih.gov/pubmed/19007233>

*Bernstein IL, Bernstein, J.A., Miller, M., Tierzieva, S., Bernstein, D.I., Lummus, Z. Selgrade, M.K., Doerfler, D.L., and Seligy, V.L. (1999) Immune responses in farm workers after exposure to *Bacillus thuringiensis* pesticides. Environmental Health Perspectives. July; 107(7):575-582. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1566654/>*

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