

GMO Lies: Study Shows How Pesticide Use Soars with More GMO Crops

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Theme: <u>Biotechnology and GMO</u>

Remember those flagrant claims that Big Biotech made, that genetically modified foods were a big reason why the world was enjoying food with less pesticide residues? Well, it turns out, those promises were like all the other biotech claims - baseless.

What has really happened is one class of harmful pesticides has simply been <u>replaced by another</u>. A massive increase in bee-toxic neonicotinoids has replaced chemical insecticides used previously.

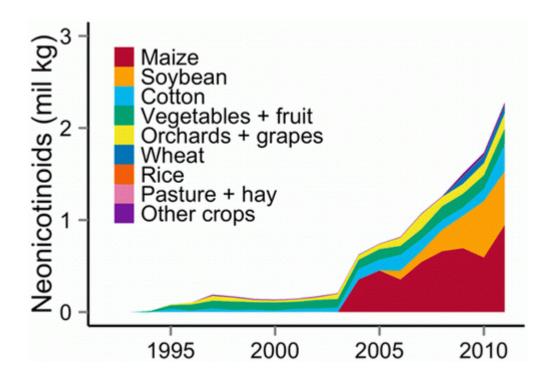
This isn't the first time a <u>scientific study revealed</u> that Monsanto and their ilk actually cause greater pesticide use, but <u>a new</u> study points out specifically how biotech has caused a "rapid increase" in neonicotinoid insecticide use - especially in the widely planted GM corn and soy crops. Just how much of an increase are we talking about, for all who want to claim there is no 'statistical' evidence against GM agriculture?

More neonics were used to the tune of 34–44% more for GM soybeans and 79–100% of GM corn hectares being treated in 2011.

I'd say that accounts for a 'dramatic increase' no matter how you want to look at the numbers. We aren't arguing over half a percentage point here – biotech has caused an almost 100% increase in damaging chemical pesticides in the last several years.

Margaret Douglas, graduate student in entomology at Pennsylvania State University and an author of the study, <u>commented</u>:

"Previous studies suggested that the percentage of corn acres treated with insecticides decreased during the 2000s, but once we took seed treatments into account we found the opposite pattern. Our results show that application of neonicotinoids to seed of corn and soybeans has driven a major surge in the U.S. cropland treated with insecticides since the mid-2000s."



No wonder the bees and butterflies are dying. The study also found that over 40 million hectares of land are doused in neonics since the industry has promoted an "insurance-based approach to pest management" causing a now limited availability of neonicotinoid-free seed, farmers are running out of other options.

What's more, the study outlines that Bt crops planted were not included in the original Big Biotech studies which allowed them to claim that their manipulated crops were allowing for fewer pesticides to be sprayed – that's because Bt crops ARE a pesticide. The Bt toxins are inside every fiber of the plant once it grows, and insects that eat them end up, essentially, with an exploded gut as their form of a quick and painful death.

Put more gently, the researchers stated that studies claiming that Bt crops have decreased insecticide use "do not seem to have considered seed treatments, and so may have overstated reductions in insecticide use."

I'll say. Monsanto's Bt toxins don't just kill insects. They have also been known to <u>harm human embryo cells</u>. E Toxin Bacillus thuringiensis (Bt) has also been found in the blood of pregnant women and baby's cordblood. Yet Monsanto asserts that their pesticide in the form of Bt crops are safe.

Read: List of Foods we Could Lose Without the Bees

Straight from Monsanto's Pages:

"Are foods and ingredients developed through biotechnology (or GMOs) safe to eat?

Yes. Plants and crops with GM traits have been tested more than any other crops—with no credible evidence of harm to humans or animals.

As consumers ourselves, we place the highest priority on the safety of our products and conduct rigorous and comprehensive testing on each. In fact, seeds with GM traits have been tested more than any other crops in the history of agriculture – with no credible evidence of harm to humans or animals.

Governmental regulatory agencies, scientific organizations and leading health associations worldwide agree that food grown from GM crops is safe to eat. The World Health Organization, the American Medical Association, the U.S. National Academy of Sciences, the British Royal Society, among others that have examined the evidence, all come to the same conclusion: consuming foods containing ingredients derived from GM crops is safe to eat and no riskier than consuming the same foods containing ingredi—ents from crop plants modified by conventional plant improvement techniques (i.e. plant breeding)."

Misleading Studies

As just an example of the type of data switcheroonie that Monsanto likes to play with, there was a <u>meta-analysis</u> published by Klumper and Qaim, which claimed a 37% reduction in chemical pesticide use from GM crops overall and a 42% reduction from Bt insecticidal crops. Of course this study was hyped by pro-GMOers – "look, see, we aren't really poisoning you!" This report completely disregarded insecticidal seed treatments when claiming reductions in chemical insecticide use from GM crops. This has been highlighted in of <u>GMO Myths and Truths</u>, as well as by Dr <u>Doug Gurian-Sherman</u>.

Gurian-Sherman explains, "In reality, corn engineered to kill certain insect pests – AKA Bt corn – has mainly resulted in the replacement of one group of chemical insecticides with another." The new study proves the point with hard data.

The study's authors warn:

"This pattern of use may have unintended consequences, namely resistance in target pests, outbreaks of nontarget pests, and pollution with detrimental effects cascading to wildlife... some of these effects have already emerged."

It is certainly advice to heed considering that another new study found the neonicotinoid insecticide, clothianidin, has been found in milkweed (the food of the monarch butterfly) at levels harmful to monarch larvae (abstract below).

This means that bees, butterflies, etc are being decimated due to additional 'stressors' in the form of GM herbicides, pesticides, and insecticides – it doesn't matter what you call them, or how they are applied – sprayed on, or genetically insinuated into the plant by altering its DNA – its toxic #%&%*% that shouldn't be used in our food supply.

A good read for the biotech industry would be Prof Robert Van Den Bosch's book "The Pesticide Conspiracy," which explains that pesticide use actively creates pest attacks by wiping out the natural pest predators. A more recent book, Poison Spring, by former US EPA staffer Evaggelos Vallianatos, <u>demolishes</u> the notion that pesticide use is based on any kind of sound science at all.

The abstract says:

"Monarch butterflies (Danaus plexippus) frequently consume milkweed in and near agroecosystems and consequently may be exposed to pesticides like neonicotinoids. We conducted a dose response study to determine lethal and sublethal doses of clothianidin using a 36-h exposure scenario. We then quantified clothianidin levels found in milkweed leaves adjacent to maize fields. Toxicity assays revealed LC10, LC50, and LC90 values of 7.72, 15.63, and 30.70 ppb, respectively. Sublethal effects (larval size) were observed at 1 ppb. Contaminated milkweed plants had an average of 1.14 \pm 0.10 ppb clothianidin, with a maximum of 4 ppb in a single plant. This research suggests that clothianidin could function as a stressor to monarch populations."

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