More myths dispelled about GMOs creating food allergies

Kevin Bonham, a *Scientific American* blogger and graduate student working on a PhD in the Immunology Program at Harvard, where he studies how the immune system detects the presence of infectious microbes, addresses the whack-a-mole claim that GMOs are creating food allergies. He specifically discusses the Bt (*Bacillus thuringiensis*), which is a soil-dwelling bacterium that can produce a variety of crystal-shaped proteins that are toxic to specific strains of insects.

The insecticidal nature of these bacteria has been known for over 100 years, and spraying cultures of Bt spores has been (and still is) an effective strategy for controlling insect pests. It's also incredibly safe – Bt Cry proteins are non toxic to mammals even in extremely high doses, and Bt is used in organic agriculture. But as I explained in <u>my previous post</u>, since these Cry toxins are proteins, we can insert the gene for Cry into plants so that they produce the proteins in their leaves, no spraying required.

Could GM Bt crops pose any dangers to humans, such as causing 'unknown' allergies?

First, the notion that you should separate out Bt from other GM because "the allergenic response might be different from other GM technologies" is non-sensical because the allergenic response will almost certainly be different from other GM varieties. But then, glyphosate resistance will also be different from other GM varieties, so will the modifications in golden rice. Every single gene product will have different potential to cause allergy, and that's true for the products currently on the market and those that will be introduced in the future. They should certainly be evaluated and monitored, but there's no reason *a priori* to treat a new GM variety any different from a new fruit that hasn't been on American shelves before (no one freaked out about allergenicity when quinoa started to make it big for instance), and there's certainly no reason that technologies classically labeled as "GE" are any different than things like mutation breeding that don't fall under GMO opponents' radar.

Read full, original post: Another Year, Another Post on GMOs and Allergies