A couple of weeks ago a federal bill that would mandate the labeling of genetically engineered ingredients in food or beverages sold in the U.S. was revived in Congress. Here at www.freshfruitportal.com, we spoke with parties on both sides of the debate to hear some key arguments on the divisive issue that could greatly influence the agricultural sector.

Someone who has been vocal in his criticism of genetically modified organism (GMO) labeling is Mischa Popoff, the author of the critically acclaimed book *Is it Organic?* and a former organic farming and process inspector.

One reason for Popoff's opposition to the bill is that he said it might give consumers the impression there was something 'wrong' or harmful with GMOs, thus deterring sales.

"Here we are 20 years into the genetic revolution, and for all the humans and animals that have consumed GMO crops there is not one instance of an ailment or a foodborne illness or an allergic reaction - there's been nothing," he said.

Popoff also said there were some aspects of the organic sector - one of the main industries pushing for GMO labeling - that were known to be harmful, such as manure that was not properly decomposed but still used on farms.

"Some people think that's sort of a red herring when I bring that up, that I'm trying to sort of malign the organic industry and thereby bolster the GMO industry, if you will, but I think it's an entirely fair argument," he said.

"Let's face it, most if not all opposition to the science of genetic engineering is really coming from the organic industry, an industry I grew up in and of which I'm a great supporter, and they don't even do basic testing on things like that.

"They just go on and on about how harmful GMOs might be, but we know now that uncomposted manure is deadly, so to me it seems like a huge logical disconnect right now."

Popoff - who emphasized that he was in fact pro-organic as well as pro-GMO - also said he expected there to be a huge number of law suits if the bill were passed due to farmers suing other farmers for the 'GMO contamination' of their crops.

He said this would largely depend on the federal threshold level, but if were to be 0.9% - as it is in many other markets like the EU - it would open the door to lawsuits for farmers who could no longer sell their produce as 'non-GMO'.

"So using 0.9% as a threshold, if an organic crop was found to have contamination - whether

it's pollen or material from a crop blowing across the fence line, like actual crop foliage, green leaf - then they would sue. Because he would still technically be organic, but he no longer claims to be GMO-free," Popoff said.

"It will open a whole Pandora's box really. And to make it clear, right now organic farmers are prevented from using GMOs, but there is nothing that says at any point that they become uncertified for contamination'."

'As good as a ban'

When asked whether consumers had a right to know exactly what was in their food, be it good or bad, Popoff said he would be okay with GMO labeling if mutant breeding - the process by which seeds are exposed to chemicals or radiation to produce desirable new traits - was also labeled.

"We've been using those techniques for decades, but it's completely haphazard. We don't know the consequences," he said.

"Sure you might get a variety of seed that has some beneficial traits, but no one ever took the time to say, 'well sure there are some beneficial traits but are they any side effects?' These techniques are allowed in organic production.

"Why would you demand labeling for GMOs, when you don't care about labeling on chemical and nuclear mutagenesis? I guess if we started labeling all those things, of course they'd be no room left on the label, but sure, if we're going to down that road then we've got to label everything."

Another point Popoff raised in opposition to GMO labeling was that it would greatly hinder scientific and agricultural advances in an area that was still in its 'elementary phase', as he said major biotech companies would see GM crops as 'too much of a headache'.

"We should by now be at the point where the GMO industry doesn't just concern itself with volume, but starts to concern itself with quality, in other words providing us with healthier more nutritious food, and we have no example of that yet – none that are worthy of discussion, anyway," he said.

"The whole agricultural sector has never even stepped over the line into the health sector. There should be a convergence of the minds, we should be there, but we won't even be there in 10 or 20 years. Do you hear anyone - Simplot, BASF, Monsanto – any of them talking about high beta or omega oil crops they're going to produce? No, they're moving

away from GMOs because they're such a headache.

"But this science of genetic engineering - which I liken to the lightbulb - could open whole new vistas of health and well-being, and we're not even at square one on that. We're stuck on just getting crops bug-resistant. We're stuck at the elementary stage of this science."

He added GMO legislation would slow GM development down so much that it would essentially be 'as good as a ban'.

'Adequate protection' through legislation

One organization on the other side of the debate is the Washington D.C.-based Center for Food Safety, which has been working at federal and state levels for consumers' 'right to know'.

The group's director of government affairs Colin O'Neil said the idea that GMO foods should not be labeled if they don't pose a danger was 'ludicrous'.

"If you follow that line of logic we would only be labeling foods that are dangerous, and the simple truth is in the U.S. we don't label dangerous foods - we take dangerous foods off the market," he said.

"Labeling is about providing consumers with fundamental information with what they're buying and feeding their families, and labeling is a vital way of preventing consumer confusion in the market place."

He also said genetic engineering was different to mutant breeding in that it was a 'very intentional and novel process', and pointed out that GM labeling was compulsory in a large number of countries.

"Currently, 64 countries require the labeling of genetically modified food, and one of the major issues is we think it's high time that consumers in the U.S. have the same information as countries that are part of the European Union, China, Russia, Brazil, Saudi Arabia, South Korea," O'Neil said.

"We feel that labeling should be based on sound science, and that's why legislation that's been introduced here in Congress defines genetic engineering using the Codex Alimentarious' definition of genetic engineering."

Transparency to 'foster' innovation

O'Neil went on to say he believed the legislation that was recently introduced to Congress took 'great strides' to alleviate concerns GMO labeling could lead to a large number of lawsuits due to crop contamination.

"[The legislation uses] the well-established thresholds that have been adapted by international market places for GM labeling and non-GM labeling.

"We feel there are adequate protections written into both these laws as well as in the proposed legislation to address related to potential contamination."

On the issue of whether the legislation could hinder the development of new GM crops, O'Neil pointed to Brazil as an example where he said there was a 'robust labeling system', but the country was still the second-largest producer of GM soya beans.

"Each country's agricultural and food policies are different, but Brazil's clearly an example where transparency in the market place didn't equate to a rejection of the technology," he said.

"With that said, the biotech companies to date have provided no value added product to the consumer, and so if anything labeling could be a way of incentivizing the production of crops that actually would provide some benefit to the consumer.

"Transparency in the market place could foster innovation and also could level the playing field to allow consumers what they should have had in the beginning – the ability to choose what they buy and feed their family."

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