USDA: GMOs represent cost savings for consumers and benefits for farmers, environment

The Economic Research Service of the U.S. Department of Agriculture has just released a report titled “Economic Issues in the Coexistence of Organic, Genetically Engineered (GE), and Non-GE Crops.” It estimates the costs to producers of delivering harvests using organic methods versus “genetically engineered” (GE) seeds versus non-GE seeds, and it concludes that “In 2014, 1 percent of all U.S. certified organic farmers in 20 States reported that they experienced economic losses (amounting to $6.1 million, excluding expenses for preventative measures and testing) due to GE commingling during 2011-2014.”

To put these numbers in perspective, in 2012, organic crops were grown on 5.4 million acres, nearly 1.4 percent of the total U.S. crop area of 390 million acres. Despite “organic corn and soybean prices that are generally two to three times higher than conventional crop prices,” they accounted for less than half of 1 percent (366,000/390M) of total crop area. The total value of US agricultural production in 2012 was “nearly $395 billion.” In other words, though the injury to the farmers affected was no doubt significant, in the overall picture it falls several orders of magnitude below rounding error (6.1/395,000 = 0.0000154).

Even so, there are a number of weaknesses in the methods ERS used to come up with these cost estimates: They are based on incomplete responses to a survey (response rate ~19% of 1,500 growers contacted, suggesting a non-representative sample), and all the data derive from self-reporting by the respondents with no verification, among other limitations. To its credit, though, ERS makes clear deep in the body of the report that organic producers who claim to have suffered losses are themselves responsible for taking measures “to minimize the presence of GE materials in their crops.”

ERS leaves unstated the fact that all the losses claimed by these organic producers fall into the category of “self-inflicted” injuries. The biotechnology improved seeds they refuse to use have been improved with the most precise, predictable, and safest plant breeding technologies in history—consider the worldwide scientific consensus, which is even stronger on the safety of GE products than it is on the issue of anthropocentric climate change. Organic growers chose to deprive themselves of the freedom to use these improved seeds over the objections of those in their community who value the many benefits that have caused them to be the most rapidly adopted innovation in the history of agriculture.
It is worth noting that while the USDA Organic Standard prohibits organic growers from using biotech-improved seeds, it set no threshold for allowable levels of biotech-derived material in organic harvests. Consequently, no organic producer in the U.S. has ever lost certification for any level of accidental presence of biotech-derived materials in his or her harvests. Yet these same organic producers who prohibited themselves from using biotech-improved seeds have voluntarily entered into contracts with private buyers stipulating allowable levels of biotech material in the products they deliver to their customers. Thus it is solely from their own voluntary actions that organic growers have suffered the reported losses. As ERS noted, “Organic and non-GE producers, in order to receive the price premiums associated with organic and non-GE production, need to minimize the accidental occurrence of GE materials in their crops.”

One is reminded of the (possibly apocryphal) tale of the man who kills his parents then throws himself on the mercy of the court because he is an orphan.

Nevertheless, a cadre of campaigners has noisily clamored for the growers of biotech crops—safe, legal, crops warmly embraced by farmers around the world on account of their significant safety, economic, and environmental benefits—to compensate the minuscule fraction of organic growers claiming injury for their self-inflicted wounds. In other words, so that they can secure a premium price for little or no apparent value added, these organic partisans seek to externalize the costs of organic production by exporting them onto the shoulders of their neighbors, who are growing safe, legal, beneficial crops. Nice work, if you can get it.

These organic campaigners have gone so far as to file a lawsuit seeking protection against any accidental encroachment of biotech material into their harvests and the consequences they have themselves caused to flow from such events. The lawsuit failed, of course, with the judge dismissing the suit as “a transparent effort to create a controversy where none exists.”

The ERS appraisal of the economics of coexistence of organic vs. non-GE vs. GE agricultural production is oddly one sided, however. There is no mention of the “halo effect” through which organic growers benefit from the superior suppression of pest and weed populations provided by neighboring GE fields. This has, for example, made it possible for an organic papaya industry to exist in Hawaii, thanks to the superior control of the Papaya ringspot viral disease which had eliminated commercial papaya production from Oahu and Maui and threatened the same on Hawaii before biotech came to the rescue. And it is estimated that farmers who planted non-GE corn seed in Illinois, Minnesota, and Wisconsin saved $2.4 billion over the course of 14 years. There is also no mention of costs that GE crop growers face dealing with pests or weeds dispersing from reservoirs created by their organic or non-GE neighbors using sub-standard and inferior control measures.

At the end of the day, the facts and the numbers show that many organic producers choose to expose themselves to possible losses rather than enjoy the benefits enabled by GE seeds, and that the minuscule losses they have reported are dwarfed by the halo effect benefits from proximity to GE crops that they have enjoyed but not earned. Perhaps it’s time to start considering some proportionate tax on organic and non-GM growers to compensate their GE-growing neighbors to whom they are in debt, and to atone for the ill-considered propaganda campaigns of disparagement they’ve waged in lieu of the appropriate
expressions of gratitude.

The central truth is clear: GE food represents real cost savings for consumers, and widely shared benefits to farmers and the environment worldwide. Organic foods are essentially a luxury good. If some folks want to pay a premium for organic food, they have every right to do so. But the defensible policy objective is a higher standard of living for all citizens, not a more indulgent quality of life for Whole Foods shoppers in tony neighborhoods.

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