

Review of  
**Caitlin Shetterly's**  
***Modified: GMOs and the Threat to Our Food, Our Land, Our Future***

Dick Atlee, 26 January 2017

[https://www.amazon.com/review/R2RI8YL9PG5XE6/ref=cm\\_cr\\_dp\\_title](https://www.amazon.com/review/R2RI8YL9PG5XE6/ref=cm_cr_dp_title)

**GMO narrative nonfiction -- something for everyone**

As a person with a background in biochemistry and a passionate interest in issues of public policy, I cut my GMO teeth on [Seeds of Deception](#), [GMO Myths and Truths](#), [Genetic Roulette](#), and [Altered Genes, Twisted Truth](#), as well as many audio and video lectures on the technical science of recombinant-DNA genetic engineering and its drawbacks and potential consequences. I'm drawn to writing that uses a straight here's-the-facts-and-laws approach, with an index to help the reader keep track of details.

Caitlin Shetterly's [Modified: GMOs and the Threat to Our Food, Our Land, Our Future](#) isn't that kind of book. It is more in the mold of many modern issues-related documentaries, a first-personal form of narrative nonfiction where the author/director plays a significant, sometimes central, role in the story being told. And as such, the book undoubtedly has a broader appeal to many who are not strict GMO-nerds like I am, and in that sense she seems successful at what I believe she is trying to achieve -- a presentation of the issue that is both personal and "balanced."

Parts of the book are like a journal of a road trip, focusing on the surroundings and the author's feelings about them and the present situation. Parts of it are akin to feature journalism, where in an interview with a source it is not just the substance that is worthy of mention, but also the ambience of the place, the food, and the clothes, personality, and tastes of the interviewee.

Hers is a quest story, rooted in horrendous/relentless health problems that were plaguing both her and her young son. She is, in a way, the poster child for the deadly ambiguity inherent in the chronic nature of the threats posed by recombinant-DNA foods and their evil twin, the herbicide RoundUp: the connection is so non-immediate and so widespread that people don't recognize it.

After much searching, she discovers an allergy to corn, and does an excellent job of showing how stunningly difficult it is to avoid corn products. Only later does she realize that it isn't the corn so much as it is the fact that almost all corn is GMO. But once that connection is made, she embarks on a quest to find out more about GMOs.

The subtitle of her book indicates her position on the GMO issue by the time she reaches the end of her quest. But she goes to great lengths to demonstrate her open mind on the subject, and emphasizes her ambivalence about it as she talks to people involved on both sides of the issue, explicitly finding it hard to avoid being swayed to whichever side was taken by the latest person she's talked to. It's a fascinating dance to watch, and (I admit) frustrating for someone as polarized on the subject as I am. It's undoubtedly one of the great strengths of the book -- an ambivalence that will be recognizable to many readers coming on the topic for the first time.

A related strength is her ability to get inside the perspective of the people she talks with, seeing the issue from their side. She does the most outstanding job of this with Zach Hunnicutt, a Nebraska corn farmer, a salt-of-the-earth true believer in GE corn (who later begins to hedge his bets). She brings who he is as a person fully to the fore as she gets to know him, riding in his tractor, and talking with him for hours. The same is true for Dave Murphy and his wife Lisa, Iowa-based activists running the organization [FoodDemocracyNow!](#), and, to a slightly lesser extent, a number of other scientists, farmers, and activists. There's a real sense here of personal involvement and drama, which isn't so widely the case in the books to which I'm more accustomed and attuned.

Another powerful section of the book concerns an issue totally new to me -- the threat of GMOs to honey, both to the bees themselves and to the livelihood of bee-keepers. It epitomizes the all-too-common economic threat posed by GMOs, in which farmers who are not growing GMOs can lose large chunks of the international market when countries that reject GMOs find GMO contamination in those farmers' exports.

Ms. Shetterly raises aspects of the larger GMO issue throughout the book, and frequently fleshes these out with good footnotes. But for someone like me, having these woven into all the personal aspects of the story makes them somehow less accessible and less connected, and thus less memorable, particularly in the absence of an index.

I missed some of the historical people and aspects of the issue that seem to me essential to understanding the GMO saga, though without an index I can't know for sure if that's just due to a poor memory. (And in any case, there is only so much an author can cram into a book.) These include:

- a) British researcher Armand Pusztai, one of the first to stumble on the health problem of GMO foods and to have his career instantly demolished as a result;
- b) author Jeffrey Smith (*Seeds of Deception*), whose work has increased GMO awareness around the world;
- c) British genetic engineer Michael Antoniou (*GMO Myths and Truths*), whose work with proteomics has clearly demonstrated the significant difference and attendant risks between GMO and non-GMO plants in their metabolism and content;
- d) a clear description of the recombinant-DNA process and the details of why it is so dangerous;
- e) the 1989 GMO tryptophan-caused epidemic that killed hundreds and injured thousands and gives the lie to the "GMOs never hurt anyone" myth, and
- f) the fraud and illegality documented by Stephen Drucker (*Altered Genes, Twisted Truth*) in both the history of genetic engineering and the FDA's 1992 declaration of GMOs as "substantially equivalent" to other foods.

Despite these reservations, I think the book is important for all those curious or concerned about GMOs. It has something for everyone. For newcomers, it is a "soft-landing" but thorough-enough entry into the issue. For hard-liners like me, it is a wonderful peek into the lives of people we've heard of (and not) on both sides. For pro-GMO people, one would hope its attempt at balance might give them a bit better sense of why their opponents are concerned about GMOs. Though perhaps that's asking too much...

