



Parallel universes: A rice farmer's point of view on U.S.-European GMO attitudes

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By [Greg Massa](#)

I'm a California rice farmer, but recently in Germany I was a rock star.

Or at least that's what it felt like. Oddly, my celebrity status came from a speech I gave to European farmers about genetically modified organisms ([GMOs](#)). I've spoken and written on this topic numerous times here in the U.S., but never received anything like the welcome I got in Germany.



First, some background. I'm the fourth generation of my family to plant rice in California, so I have some stake in this industry. (That's me on the right in the photo, standing in my rice fields with a visiting Thai ~~journalist~~ farmer.) I'm the president of a farmer group called [Rice Producers of California](#) and on the board of the California Rice Commission (CRC), a complicated, quasi-governmental trade organization that purports to represent the entire rice industry but in reality does little for farmers. In December 2003, I attended a meeting of the CRC in which a small biotech firm called Ventria Bioscience gave a presentation on a genetically modified rice variety that they were planning to grow. Ventria had inserted human DNA into rice, thereby making the rice produce two proteins found in human breast milk, tears, and saliva. Their plan was to grow and harvest the rice, and then extract the proteins from the grains. (See [SF Chronicle story](#).) The proteins would then be used in anti-diarrheal medicines.

Interesting stuff, right? From a scientific perspective: yes, very cool. But from a “Do I want drugs in my Rice Krispies?” point of view, scary.

You see, the problem is that there is no way to contain the genes that get inserted into a GMO crop plant. Through nature’s mechanisms of cross pollination and seed dispersal, or simply through human error, the genes spread. They can contaminate food crops with things you don’t want in food — say, for example, human saliva proteins masquerading as anti-diarrheal drugs.

This CRC meeting made me into an anti-GMO activist overnight. Ventria was putting a \$500 million American industry at risk to grow 120 acres of their pharmaceutical rice. They were threatening my family’s livelihood, and my heritage, and they had to be stopped.

Against the grain

To make a long story short, we succeeded. A tiny handful of farmers, with some valuable background support from other groups, eventually forced Ventria to leave California and plant their rice elsewhere — the one aspect of the outcome I’m not happy with. Outside of our small group, nobody thought it could be done. Even we doubted it. The California Rice Commission showed itself to be very pro-biotech at the expense of farmers. They sided with Ventria again and again, and even voted to allow Ventria to plant their rice. Thankfully, the public outcry following the CRC vote [forced the California Secretary of Agriculture to deny Ventria’s planting scheme](#).

Our victory was sweet, and I’m extremely proud of it. But it came at significant cost to me personally. The fight was a full-time job and took much time away from my young family and our farm. I edited press releases at midnight. My phone rang constantly with journalists looking for a quote. I was alternately ignored, threatened with lawsuits, and bullied in public and private meetings. The stress was immense, and it took a toll on my life and relationships. A friend and ally in this fight had his tires slashed repeatedly and found dead animals on his doorstep.



This is why I was so very surprised at the reaction I received to my story in Germany. I had been asked by a group called the Small Farmers of Germany to do a short speaking tour about U.S. perceptions toward GMO crops. I jumped at the chance to go, mainly because I like to travel, not because I felt a burning desire to discuss GMOs. The trip was fast and furious — five cities in

five days, with talks every night. I spoke to farmers, beekeepers, academics, and activists. In a small farming village outside Dresden, 180 people showed up to a meeting where they originally expected 30. In another meeting, the people listening to my speech didn't just applaud when I finished, they *cheered*.

Old World, new fights

Everywhere I went, I found people to be aware of the problem posed by GMO crops and very engaged in finding solutions. There are 186 GMO-free regions in Germany, and thousands of farmers have signed pledges not to grow GMOs or feed them to their animals. Farmers and community members blockade fields that are slated for GMO field trials so that they can't be planted. Unlike the U.S., Germany requires that field trial locations be publicly disclosed. If the GMO seeds actually make it into the ground, the people rip them out. A citizen doing these sorts of thing in the U.S. would likely find themselves being prosecuted under the Patriot Act.

The difference between German and American attitudes towards GMOs couldn't be more stark. American farmers planted [an estimated 130 million acres](#) of GMO cotton, corn and soy in 2007, and [like the fact that](#) herbicide-tolerant GMOs let them unthinkingly spray Roundup on their crops. One farmer told me that it lets you "farm dumb" so that you don't actually need to think about farming anymore. In fact, it appears that convenience is the primary reason farmers continue to use biotech seed, as there are no crops that have been genetically engineered for higher yields. Like any herbicide that sees repeated use, however, Roundup is losing its efficacy, as weeds evolve tolerance to the chemical. In fact, according to this [BioTech InfoNet](#) report ([PDF](#)), GMOs have led to a 4% *increase* in pesticide use since their introduction in 1996.

Yet American consumers seem largely unaware of GMOs, or the fact that most processed foods in the US contain GMO corn or soy. As reported by the Food Policy Institute at Rutgers University ([PDF](#)):

...the American public is generally unaware of GM food. Most Americans have heard or read little about it, are not aware of its prevalence in their lives, and are confused as to which type of GM products are available. Respondents struggled with factual questions related to GM food and the science behind it, could not recall news stories related to the topic, and were not very knowledgeable about laws regarding the labeling and testing of GM food. Americans are also unsure of their opinions about GM food and split in their assessments of the technology when forced to take a position.

German consumers on the other hand, resoundingly reject GMO-tainted food, and there has actually been [some research done on the difference](#) between German and American acceptance of biotech foods. It appears that we Americans place more trust in our private and public institutions than do Germans, and we have a lower appreciation for nature. Both of these topics are predictors for acceptance of GM food.

The US Government actively promotes GMO crops at home and abroad. Two weeks before my trip to Germany, the U.S. Embassy had been touring with two biotech cheerleader-farmers.

When we forced Ventria to leave California, the [state of Kansas offered them millions of taxpayer dollars to relocate there](#).

Thankfully, the California rice industry is still GMO-free, though we've been lucky. After Ventria, we dealt with another problem with biotech rice — [the accidental contamination](#) of U.S. Southern long-grain rice (NOT California rice) with an unapproved line of GMO herbicide-tolerant rice. Almost immediately after the contamination was announced, Europe and Japan stopped importing U.S. long-grain rice entirely. The resulting market fallout has cost U.S. rice farmers well over \$1 billion in lost sales, proving many of the arguments we used against Ventria. These two incidents have caused an almost 180-degree switch in industry attitudes about biotechnology since that first CRC meeting in 2003.

But despite the progress, I'm tired from five years of fighting this issue, and the threats just keep coming. The CRC is again planning to allow field trials of GMO rice this year, despite repeated calls from farmers [to ban such trials in California rice](#), and the fact that allowing field trials violates [the commission's own biotechnology policy](#).

It's frustrating to wage this battle here in California, but at least in Germany, I'm a rock star.

Greg Massa and his wife, Raquel — both tropical ecologists and conservationists — grow organic rice for [Massa Organics Rice](#).

To learn more about the use of biotechnology in our food supply, and/or do something about it, start by contacting the [Center For Food Safety](#) or [Californians for GE Free Agriculture](#). A great recent book on the subject is "[Uncertain Peril: Genetic Engineering and the Future of Seeds](#)" by [Claire Hope Cummings](#).