

How anti-GMO advocates hijacked German science, blocking agricultural innovation and threatening the CRISPR revolution: A farmer's perspective



# GMO Beyond The Science

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Susanne Günther, Farmer, Blogger, and Winner of the InnoPlanta Prize for Objective Reporting on Modern Plant Breeding | July 12, 2018

## **Highlights:**

- *Germany, like most of Europe, is effectively blocked from growing sustainable genetically engineered crops although the EU remains one of the world's largest importers of GMO crops*
- *Advocacy groups that have supported the illegal destruction of GMO research crops are now guiding rule making on New Breeding Techniques (NBTs), including CRISPR*
- *New coalition German government appears intent on crippling new biotechnologies, even in defiance of regulatory support from EU courts*

There are tough times for farmers in Germany and much of Europe who want to take advantage of the most advanced and most sustainable agricultural technology. Anti-GMO advocacy groups demonize innovations. They often tactically employ buzz word terms with a negative connotations, like "Massentierhaltung" (large-scale livestock farming), "Agrarindustrie" (agricultural industry, used as a synonym with a negative association with "Big Ag" ), "Insektensterben" (extinction of insects) and "Ackergift" (field poison, to imply that conventional farmers who use pesticides and synthetic fertilizers are harming the environment).

These words inflame and suffuse the debate, but they don't contribute to public understanding. They do impact how the media cover these issues and what restrictions politicians impose on farming and food, often without much backing in science and in contradiction of sustainable agricultural practices.

Consequently, politicians, pressure groups and even some scientists who take ideological positions on these issues talk about imposing new requirements on farming: increased animal welfare, sustainable

practices, protection of ground water, response to climate change, biodiversity and fairer trade. These are all notable goals, but how to achieve them is debatable.

There is a great deal of irony in the current situation because while there is a general belief that family farming is an ideal production model, the policies promoted by pressure groups have significantly increased statutory requirements that boost the extinction of family farms.



### **GMOs in Germany and Europe: Advocacy groups destroy research crops**

Against this background only a few farmers in Germany even care about GMOs. Farmers here are not allowed to grow genetically engineered crops. The only GE seed ever approved in the European Union is [MON 810](#). It's grown in six EU countries: Spain, Portugal, Czech Republic, Slovakia and Romania. Six others ban its cultivation: Germany, Austria, Hungary, Greece, France and Luxembourg. Safety is not an issue, however; every European country imports GMO corn and soybeans in massive quantities to be used as animal feed.

The MON 810 seed has been modified to generate a [bacteria-based natural insecticide](#) (used in spray

form by organic farmers). Versions of insect-resistant GE seeds (corn/maize, eggplant, poplar, potato, rice, soybeans) have been used safely for two decades or more in the US, Canada, Bangladesh, India, Argentina, Brazil, China and elsewhere. They have been [embraced by farmers](#), who have benefited from a [dramatic decrease](#) in the use of sometimes highly toxic synthetic and natural pesticides—by as much as 90 percent.

The use of MON810 was [prohibited](#) In 2009 in Germany after safety concerns propagated by GMO opponents scared politicians into passing moratoriums and eventually bans, almost always over the objections of farmers and the mainstream science community. Since 2013, European scientists have not even participated in any field tests of genetically modified plants. The rules for growing GMOs in Germany, if any new seed varieties should ever be approved, are very strict. If a farmer plans to seed a GMO crop she has to report this project to the [Bundesamt für Verbraucherschutz und Lebensmittelsicherheit](#) (Federal Office of Consumer Protection and Food Safety).

The public has access online to where GMO crops are planted. That sounds like a nod to transparency, but in reality in the past such disclosure has resulted in anti-GMO activists destroying academic and government research field tests in Germany, France, Switzerland and the UK.

In addition, a farmer growing GMOs is responsible if the seed should cross pollinate a neighbor's field—what activists call “contamination.” Cross pollination happens in farming all the time to no harm, with issues amicably resolved between farmers. But when GMOs are involved the issue is elevated to a serious violation with potentially catastrophic legal and economic consequences, even though safety and health concerns are nil. As a result no farmer would dare risk using GE seeds.

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### **Advocacy groups politicize and inflame the debate over new technologies**

Even though these obstacles effectively block the growing of any GE crops, the new government is intent on implementing a new although legally unnecessary opt-out-ban for GMOs. Advocacy groups aligned with the Green Party (Bündnis 90/Die Grünen) never tire of publicly arguing the importance of such a ban even though it would not change the status quo.

Over the past year as the [politicized debate](#) about EU reauthorization of the herbicide glyphosate (aka Roundup) has unfolded, we have seen how science can easily be shouted down by advocacy groups. I am still in a state of shock as I reflect on the vociferous reactions to former German agricultural minister Christian Schmidt's 2017 [decision to vote for the re-approval of glyphosate](#). Schmidt even received death threats.

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In this position, the agency raised concerns about possible indirect effects of glyphosate on biodiversity. It was argued that because glyphosate kills plants—indeed that’s what all herbicides, organic and conventional, do— it destroys a basic food source for insects, which limits a food resource for birds, and so on.

The main source of evidence for these indirect effects was a [meta-study](#) published by the Umweltbundesamt itself. But the report was not independent and is considered highly suspect by independent scientists; It was executed by a research facility that belongs to the nature conservation organization [NABU](#) (Nature and Biodiversity Conservation Union), and was never peer reviewed.

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To put this in perspective: if an agricultural corporation had produced a controversial research document that was not peer reviewed, it would have been dismissed by the government and ridiculed in the media as suspect, or worse: propaganda. In this case, this special interest document has become the basis of a new policy that ignores overwhelming peer reviewed research and 40 years of field experience documenting the [safety of the herbicide](#).

### **Anti-biotechnology advocacy groups’ stranglehold on Germany’s food and farming policies**

The German government has long been a hotbed of anti-GMO ideology. Since January 2011 there has



been a major protest event held every year in Berlin during International Green Week, the biggest and most important exhibition of Germany's food, agriculture and gardening industries. The "Wir haben es satt" (We are fed up) demonstration is organized by a wide range of environmentalist and left-leaning lobby groups. It is also supported by the Green Party.

The parent organization of the event is a subdivision of [Deutscher Naturschutzring](#). The DNR is an association of about 40 organizations, from ecology, nature conservation and animal protection groups to organic food retailers, including NABU, BUND (German division of Friends of the Earth), World Wildlife Fund, Robin Wood, Demeter (organization and brand for the controversial biodynamic agriculture movement started by Rudolf Steiner), and Bioland. It is even supported by the Environment Ministry of German.

In 2017 the DNR received 1.8 million Euros as institutional funding and the undersecretary at Environment Ministry, Jochen Flasbarth (SPD), is a former president of NABU. Under the Social Democrats and Greens, Flasbarth served as head of the department of Nature Conservation in the Environment Ministry from 2003 to 2009 and then was announced as president of the Umweltbundesamt. Since 2013, [Flasbarth](#) has served as undersecretary in the Environment Ministry. [He is an outspoken opponent of GMOs.](#)

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The new GroKo government ("great coalition" of Conservatives (CDU/CSU) and Social Democrats (SPD)) has fixed in the coalition contract that it is going to ban the cultivation of GMO crops in Germany. Some politicians with the SPD had already [announced in reaction to an Open Letter](#) that they also want to [regulate CRISPR gene editing and other New Breeding Technologies](#) (NBTs) under outdated GMO regulations that would amount to a de facto ban. Most farmers in Germany and Europe are [opposed to these new proposed restrictions](#), too.

In this context, it is worth noting that the Bundesamt for Naturschutz (Federal Office for Nature Conservation, which is a division of the Environment Ministry) funds a so-called [Fachstelle Gentechnik und Umwelt](#) (Expert Office of Genetic Engineering and Environment). This office is completely controlled by well-known anti-GMO-NGOs such as Testbiotech, BUND, Genethisches Netzwerk and Save our Seeds.

This office claims to independently [monitor and evaluate](#) recent developments in the area of NBTs with a stated goal to provide non-ideological, scientifically grounded information to enlighten the public. But in reality, the Fachstelle only recirculates the same scare claims pushed by Testbiotech and the other anti-GMO groups that are part of its "independent" coalition, and this obvious bias is openly acknowledges on its [website](#).

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The result of all this campaign is an inordinate focus by politicians on the alleged benefits of organic food even though it represents only about five percent of sales in Germany. Most organic products are bought at supermarkets and discounters. Only about eight percent of German farmland is cultivated organic. Nevertheless, food retailers and grocery chains try to outdo each other with greenwashing labels.

For example there is increasing pressure by the food retail sector to use certified non-GMO animal feed although there are no ecological or health issues in play. Even though additional costs for non-GMO feed are not fully compensated by these marketers, conventionally-fed pork, poultry and milk products may no longer be marketable soon.

The best we can hope is that the European Supreme Court will announce that crops developed with new

breeding technologies should not be regulated as GMOs.

Personally, I hope that CRISPR and other breeding innovations will be available to European farmers like me so we can address central problems in agriculture such as pest management including using less pesticides (yes, organic farmers widely use pesticides!) For a brief moment there was a glimmer that advocacy groups might put science ahead of ideology. In the spring, two leaders of the German Greens declared that they wanted to start an [open debate on genetic engineering](#), even reconsidering the party's long-held opposition to GMOs. Genetically engineered crops, they noted, could possibly help cope with climate change.

On various social networks, especially Twitter, a contentious discussion developed. Many scientists engaged in arguing for GMO-plants, but they [came up against](#) what may be an impenetrable wall: unreasonable politicians wedded to outdated views about the dangers of crop biotechnology. The 'green renegades' were ultimately shouted down, and in June [major leaders announced the party's official opposition to that plan](#).



**Susanne Günther** completed her MA in Philosophy, Political Science and Linguistics at Duisburg University. She worked on several positions in the public relations sector until she married a farmer and moved to the countryside. Since 2015, Susanne runs a blog ([schillipaeppa](#)) that focuses on agriculture and livestock farming in general and genetically engineering and pesticide use in particular. In 2017, [InnoPlanta](#) awarded schillipaeppa the InnoPlanta Prize for objective reporting about modern plant breeding. Twitter: [@schillipaeppa](#)

**[Global Farmer Network](#)** (GFN) is a non-profit advocacy group led by farmers from around the world who support free trade and farmers' freedom to choose the tools, technologies and strategies they need to maximize productivity and profitability in a sustainable manner. Established in 2000, the Global Farmer Network is committed to inserting the world's farmers' voice in the global dialogue regarding food and nutritional security. The Global Farmer Network identifies, engages and supports strong farmer leaders from around the world who can work with others to innovate, encourage and lead as full stakeholders in the work that is being done to fill the world's food and nutrition security gap in a sustainable manner.

The [Genetic Literacy Project](#) is a 501(c)(3) non profit dedicated to helping the public, journalists, policy makers and scientists better communicate the advances and the technological, ethical and religious challenges ushered in by the biotechnology and genetics revolution, including CRISPR gene editing, in biomedicine and agriculture.

## **GMO Beyond the Science III**

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