

# Bayer's Modified Soil Microbes Could Trigger a Genetically Engineered Doomsday

Analysis by Alexis Baden-Mayer

January 16, 2024

## STORY AT-A-GLANCE

- › Bayer's modified soil microbes could trigger a genetically engineered doomsday for agriculture
- › If you don't like the toxic pollution from industrial agriculture's synthetic nitrogen fertilizers and pesticides, Bayer and its partner Ginkgo Bioworks have a solution
- › They say they're going to swap out some of the old fossil-fuel-based agrochemicals for genetically engineered microbes
- › The uncontrolled spread of genetically engineered microbes could contaminate soil on such a vast scale that it could be the end of farming!

Bayer's modified soil microbes could trigger a **genetically engineered doomsday** for agriculture. Is that what Bayer wants? If you don't like the toxic pollution from industrial agriculture's synthetic nitrogen fertilizers and pesticides, **Bayer and its partner Ginkgo Bioworks** have a solution for you.

They say they're going to swap out some of the old fossil-fuel-based agrochemicals for genetically engineered microbes. We're no fan of pesticides and synthetic fertilizers, but let's not jump from the frying pan into the fire! The uncontrolled spread of genetically engineered microbes could contaminate soil on such a vast scale that it could be the end of farming!

**Donate**

You don't have to take our word for it, just read Ginkgo's own [report to the Securities and Exchange Commission](#). It's like a sci-fi writer's brainstorm of plots for a disaster movie:

*"The release of genetically modified organisms or materials, whether inadvertent or purposeful, into uncontrolled environments could have unintended consequences ...*

*The genetically engineered organisms and materials that we develop may have significantly altered characteristics compared to those found in the wild, and the full effects of deployment or release of our genetically engineered organisms and materials into uncontrolled environments may be unknown.*

*In particular, such deployment or release, including an unauthorized release, could impact the environment or community generally or the health and safety of our employees, our customers' employees, and the consumers of our customers' products.*

*In addition, if a high profile biosecurity breach or unauthorized release of a biological agent occurs within our industry, our customers and potential customers may lose trust in the security of the laboratory environments in which we produce genetically modified organisms and materials, even if we are not directly affected.*

*Any adverse effect resulting from such a release, by us or others, could have a material adverse effect on the public acceptance of products from engineered cells and our business and financial condition ...*

*We could synthesize DNA sequences or engage in other activity that contravenes biosecurity requirements, or regulatory authorities could promulgate more far-reaching biosecurity requirements that our standard*

*business practices cannot accommodate, which could give rise to substantial legal liability, impede our business, and damage our reputation.*

*The Federal Select Agent Program (FSAP), involves rules administered by the Centers for Disease Control and Prevention and the Animal and Plant Health Inspection Service that regulate possession, use, and transfer of biological select agents and toxins [a euphemism for bioweapons] that have the potential to pose a severe threat to public, animal, or plant health or to animal or plant products ...*

*[W]e could err in our observance of compliance program requirements in a manner that leaves us in noncompliance with FSAP or other biosecurity rules ... Third parties may use our engineered cells materials, and organisms and accompanying production processes in ways that could damage our reputation.*

*... [W]hile we have established a biosecurity program ... to ensure that third parties do not obtain our engineered cells or other biomaterials for malevolent purposes, we cannot guarantee that these preventative measures will eliminate or reduce the risk of the domestic and global opportunities for the misuse or negligent use of our engineered cells materials, and organisms and production processes ..."*

Ginkgo's SEC filing makes clear how unleashing Frankenmicrobes into the environment might wreak havoc, but if that doesn't do it for you, this [chilling true story](#) from [Dr. Elaine Ingham](#) will. (You can also watch a short film about it at [Protect Nature Now](#) and read the original 1999 scientific publication [here](#).)

When Dr. Ingham was an associate professor at Oregon State University, she led a study on a genetically engineered soil bacterium that changed the course of her career — and threatened all plant life on Earth.

In the 1990s, a European biotech company (I haven't been able to figure out which one, but reports identify it as [German](#), like Bayer and BASF), was preparing to commercialize

a genetically engineered soil bacterium called [Klebsiella planticola](#). In its natural form, *K. planticola* helps decompose plant matter.

The genetically modified version was intended to convert plant waste to alcohol, which could be used for fertilizer or fuel. But when Dr. Ingham and her team decided to run their own test on the alcohol-producing bacterium, they discovered that it not only killed all of the plants tested, but had the potential to kill all terrestrial plants.

Her findings ultimately prevented the genetically altered bacterium from being commercialized, but also brought about the end of her affiliation with Oregon State University, an institution funded by the biotech industry.

That Dr. Ingham lost her university job when she saved the world from a GMO microbe that could have killed every plant on the planet tells us everything about the intentions of biotech behemoths like Bayer. According to [Friends of the Earth](#):

*"Bayer has amassed a collection of at least 125,000 wild microbial strains and in 2019 created an umbrella branch for related products called [Biologicals by Bayer](#). The company has rapidly expanded their activities in this area via acquisitions.*

*Between 2012 and 2014, Bayer acquired three biologicals companies and in 2022 established a strategic partnership with Ginkgo Bioworks, a startup company which has received \$15 billion in investment to develop a platform to automate the genetic engineering of thousands of microbes at once. Bayer also acquires and markets individual microbial products from other companies.*

*The most prominent microbial products released by the company to date are bacteria-based fungicides as well as some plant growth promoting products."*

[Bayer](#) has made a pledge to "reduce the environmental impact of crop protection by 30 percent without sacrificing yield and the health of the harvest" by 2030. The truth is, Bayer has no plans to reduce its pesticide sales. What it's looking to do is create additional products to stack on top of the ones it already sells.

Bayer is working with the Bill Gates-backed [Pivot Bio](#) on genetically engineered nitrogen-fixing bacteria. The promise is that it could cut synthetic fertilizer use, but there's [no evidence](#) of that. Pivot isn't letting independent scientists evaluate their claims.

It's the same story with [Poncho/VOTiVO](#), a hybrid chemical/biological insecticide product originally created by Bayer and now sold by BASF. Instead of marketing the genetically engineered Bt bacteria VOTiVO as an alternative to the neonicotinoid insecticide Poncho (which kills bees), they're sold together – and only together – as a single product. This way, the companies can up-sell farmers, and if the product doesn't work as advertised no one knows what's to blame.

The soil microbe scam is just another in the long line of empty promises about the potential benefits of genetic engineering for food and farming: We've been fed so many [lies about GMOs](#).

GMOs were going to "feed the world," but Monsanto (which merged with Bayer and retired its infamous name in 2018) never came up with any genetically engineered traits that increased yields. They just bought up control of all the high-yielding varieties – that had all been conventionally bred.

GMOs were going to "reduce pesticide use," but there's no other reason to genetically engineer crops to be impervious to pesticides other than to sell more pesticides – and that's exactly what Monsanto did.

GMOs were "safe," but they were never safety-tested. Monsanto avoided Food & Drug Administration regulation by getting GMOs declared Generally Recognized as Safe (GRAS).

GMOs were going to "coexist" with organic, but Monsanto made sure the burden was on non-GMO farmers to protect themselves from genetic pollution and pesticide drift. When farmers' seeds got contaminated, Monsanto successfully claimed the farmers were stealing its GMO traits.

GMOs were going to make farming more resilient to climate change, but Monsanto's "drought tolerant" corn was a **failure**. Bayer claims to care about pollinators, but it invented the pollinator-poisoning neonicotinoid insecticides that are killing the birds and the bees – and it refuses to stop selling them!

Bayer claims to care about farmers, but 11,000 rice farmers had to sue it when **Bayer contaminated rice seeds with unapproved GMO traits**, causing **\$1.2 billion** in losses. Bayer eventually paid **\$750 million**. Farmers still can't grow that rice.

According to a **Greenpeace** investigation, the contamination – which involved three different GMO varieties – impacted rice seeds and 30 percent of rice supplies, including rice exported to 30 countries.

The contamination was discovered in 2006, but the rice hadn't been grown since 2001. The unapproved GMO rice was still being found in Mexican supermarkets in **2010**! It's hard to believe that any of this is an accident, especially considering Bayer's history.

**Bayer used prisoners in experiments at Buchenwald and Auschwitz**. Auschwitz was the industrial production headquarters of Bayer and its parent company I.G. Farben during World War II, built with slave labor purchased from the Nazis. Bayer was the I.G. Farben division that marketed Zyklon B. During the war, almost all sales were to the Nazis for their "gas chamber" genocide.

**Monsanto conducted human radiation experiments** on unwitting, uninformed U.S. citizens – from its own employees to the residents of whole housing projects – while working as a Pentagon contractor. It ran the chemistry side of the Manhattan Project and then maintained the U.S. nuclear weapons production facility known as Mound Laboratories.

When the war was over, the two companies jumped straight from the Holocaust, and building atomic bombs to kill Japanese civilians, right into a merger they called MoBay. That collaboration resulted in the Agent Orange toxin the U.S. used in the Vietnam War.

**Bayer is evil. From Zyklon B to Agent Orange to glyphosate-based herbicides like Roundup to pollinator-poisoning neonics, the company has done nothing but try to kill us and destroy our capacity to feed ourselves!**

**Why? They plan to make money off the transition from agriculture as we know it to a world where lab-grown and synthetic "proteins" are the new processed foods. We must stop its latest plot to destroy our food system.**