

GMOs: Respected Analyst Says They Could Destroy Life on the Planet

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Invoking the risk of famine as a justification for GMOs is “a deceitful strategy, no different from... Russian roulette,” according to the report. Action Alert!

Nassim Nicholas Taleb is a scholar, statistician, Wall Street analyst and advisor, professor at New York University, and the bestselling author of *Foiled by Randomness* and *The Black Swan: The Impact of the Highly Improbable*. He predicted the 2008 financial crisis by pointing out that commonly used risk models were wrong. (He was correct, and he became quite wealthy from the strategic financial decisions he made at that time.)

Now his analysis of our use of genetically modified organisms shows that GMOs could cause “an irreversible termination of life at some scale, which could be the planet.” Taleb and his two co-authors argue that calling the GMO approach “scientific” betrays “a very poor—indeed warped—understanding of probabilistic payoffs and risk management.”

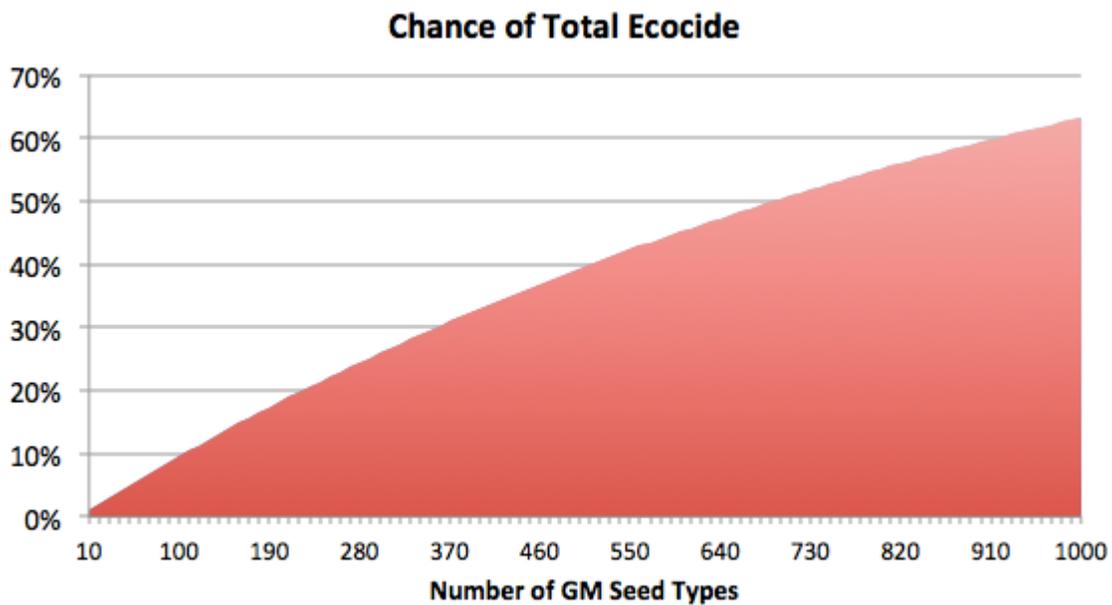
Taleb believes GMOs fall squarely under the rule that we should always err on the side of caution if something is really dangerous. This is not just because of potential harm to the consumer, but because of systemic risk to the system, which in this case is the ecosystem that supports all life on the planet:

Top-down modifications to the system (through GMOs) are categorically and statistically different from bottom-up ones (regular farming, progressive tinkering with crops, etc.). There is no comparison between the tinkering of selective breeding and the top-down engineering of arbitrarily taking a gene from an organism and putting it into another.

The interdependence of all things in nature, Taleb points out, dramatically amplifies risks that may initially seem small when studied in isolation. Tiny genetic errors on the local scale could cause considerable—and even irreversible—environmental damage when the local is exported to the global. The lack of understanding of basic statistical principles, he says, is what leads GMO supporters astray:

The interdependence of components [in nature] lead[s] to aggregate variations becoming much more severe than individual ones....Whether components are independent or interdependent matters a lot to systemic disasters such as pandemics or generalized crises. The interdependence increases the probability of ruin, to the point of certainty.

The problem is that the general public, and indeed most policy analysts, are ill-equipped to understand the statistical mathematics of risk. But as Brian Stoffel explains in his helpful article on Taleb’s research, we can assume that each genetically engineered seed carries a risk—albeit a very tiny risk—that in the intricately interdependent web of nature, the GMO seed might somehow eventually lead to a catastrophic breakdown of the ecosystem we rely on for life. Let’s call it a 0.1% chance, just for the sake of illustration. All by itself, that risk seems totally acceptable. But with each new seed that’s developed, the risk gets greater and greater, and over time, we could hit “the ecocide barrier”:



Critics say, “But risk is inherent in everything. We can’t just be paralyzed by fear and not progress!” Taleb responds that the risk of “generalized human extinction” is absolutely not “inherent in everything.” That’s because most consequences are localized, not systemic. And progress can be made using bottom-up techniques that have worked for eons.

While quite a few countries have banned GMOs because of their risk to human health and the environment, the US lags behind. Politicians complain that we don’t have the full picture on GMOs and therefore shouldn’t ban them—but that’s because of the lack of human safety studies being performed on GMOs in the US, and because GM companies keep a lot of their data proprietary, that is, concealed from the public. Consider the implications of keeping it secret: if the research finds GMOs to be harmless, wouldn’t that be something you’d want to shout from the rooftops, if you were Monsanto?

There is, however, clear evidence that GMOs pose risks (such as increased herbicide use) that could easily destabilize ecosystems, pose grave dangers to human health, and all without much benefit to the farmer or indeed anyone but the manufacturer:

A study found that pigs fed GM feed had higher rates of severe stomach inflammation and developed heavier uteruses.

Glyphosate (Monsanto’s Roundup herbicide) caused increased fungal infections and lower crop yields on GM plants—the very plants that had been genetically engineered to resist it, according to a study by Brazilian researchers.

Higher residues of glyphosate have been found in GM soy. Some independent researchers found that glyphosate induced morphological changes in frogs, and had a negative effect on human gut bacteria. Our fact sheet on GMO risks offers much more evidence of ecological harm.

Source: <http://www.anh-usa.org/gmoscould-destroy-life-on-the-planet/>