# Is there a place for GM crops in a sustainable future? (Part 3)

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Author and journalist Mark Lynas and researcher and writer Claire Robinson go head-to-head.

# Mark

**I do wonder if**, as with climate change deniers, **there is any weight of scientific evidence which could change your mind on** GM. I suspect not. Are there any circumstances you can imagine it being useful for crop breeding? **Perhaps you don’t realize how** ‘conventional’ breeders have messed with plant genomes using far more clumsy and uncertain techniques, like mutagenesis, to create the modern cultivars you eat every day.

**It is true that** most applications of GM so far have been for the big staple crops grown on a large scale. **But it doesn’t have to be that way**. Rothamsted and others are working on an oilseed that might replace wild-caught fish as feedstock for fish farming – that could help marine biodiversity**. You ignored this**, but **there is overwhelming evidence that** Bt crops have drastically reduced pesticide applications. Drought-tolerant crops are also **in the offing**.

**No doubt** these should all be banned, and farmers only permitted to grow politically correct crops you approve of. Anti-GM activists want to freeze technology at a level that they feel comfortable with, in some imagined past ideal when everything was simple, organic and quaint. **It is a wholly reactionary vision**, with a huge opportunity cost on the environment and people’s livelihoods, especially in poor countries. **I hope you will reconsider**.

# Claire

The movement against genetic engineering in food crops began with scientists, not environmentalists, who took up the topic later. **Scientific debate** about the safety and efficacy of genetically modified organisms (GMOs**) continues to rage**.

That’s why **I got together with** genetic engineers to write the report, ‘GMO Myths and Truths’, which summarizes scientific and other evidence on the hazards and limitations of GMOs. **It presents evidence of** escalating pesticide use associated with GM crops and pest resistance problems with Bt crops – which are pesticides in themselves, so people and animals who eat them are eating a pesticide.

**It explains that** GM is an imprecise and outdated technique that differs from conventional breeding and carries special risks, as the US Food and Drug Administration’s own scientists warned when the US government first allowed GM companies to release inadequately tested GMOs into our food supply.

High yield, disease resistance and drought tolerance are complex traits that are much easier to achieve with conventional breeding than GM. Safe, modern biotechnologies include marker-assisted selection and GM used as a research tool, though the final crop is not GM (as with the well-publicized flood-tolerant rice). **If it weren’t for the fact that** GM crops are more easily patented, obsession with this failed technology **would** die.

*Mark Lynas is an environmental writer and journalist, and author of several books, including Six Degrees (2007) and The God Species (2011). He is former climate change advisor to the president of the Maldives and a visiting researcher at Oxford University’s School of Geography and the Environment.*

*Claire Robinson is research director at Earth Open Source and an editor at GM Watch. She is a co-author of the report ‘GMO Myths and Truths: An evidence-based examination of the claims made for the safety and efficacy of GM crops.’*

# *Now answer the questions for Part 3.*