

Brian Wynne: GMOs acceptance hinges on proven benefits

January 17 2013, by Anthony King

Acceptance of genetically modified organisms is a complex issue linked to public perception of their potential benefits. Brian Wynne, professor of science studies at Lancaster University, tells youris.com about his long time interest in public risk perceptions and how this relates to public attitudes to genetically modified organisms (GMOs). He also has a particular interest in public understanding of science, with a focus on the relations between expert and lay knowledge and policy decision making.

Why did GMOs meet with such a negative reaction from the public in its early days?

It was promoted in ways that had obvious contradictions in it. The big storyline was that this would help feed the starving of the world. But from the start a lot of the research and development was mainly about increasing market share of [chemical pesticides](#) for big pesticide producers. If there is no meaningful benefit for ordinary consumers, nor any public good like helping with [food security](#), why would anyone buy or support it? The negative public reactions still prevail since the promises of meeting societal needs have still not materialised.

Do people fear genetic engineering per se or are concerns focused on its application in food?

Food has particular sensitivities for people for obvious reasons: we are putting it inside our bodies. But the public did not like being patronised

and told that they were against [genetically modified](#) (GM) foods due to their ignorance. The concern of ordinary people has been misinterpreted by policy makers and many scientists as based on ignorance. But what they are typically saying is maybe science is too ignorant of the facts to go ahead at this point in time. And, worse, is denying that inadequate scientific knowledge.

Have you seen good examples of public outreach by scientists or policy makers?

These are not easy to find, quite frankly. When you do it tends to be on a small scale. It might happen at meetings where there is a naturally good science communicator. Someone who is not frightened to talk about the limits of standardised scientific models and knowledge and able to recognise legitimate issues and take others' views and questions seriously. Some of the worst offenders in poor communication to the public have been government and science advisory experts.

Will the public similarly react against genetically modified microorganisms (GMMOs)?

I happen to be an insulin-dependent diabetic and was interested in the production of insulin using genetically engineered bacteria. That was controversial at first but only for a brief period of time. People could see that there are clear identifiable benefits in producing human insulin; something which they do not necessarily see in GM crops and foods. If benefits are genuine or proven, then people will take them seriously, even if there are other issues too.

Do you see advantages in raising awareness of useful GMMOs in biosensors for example?

The general problem with genetically modifying organisms is that you

can't predict the consequences precisely. But with microorganisms they may be contained in lab conditions and used to develop products like GM insulin on a mass scale. Or for other uses as in biosensors, they may be containable in ways that agricultural crop plants cannot. The process is constrained and you are not releasing GM organisms into the environment. Though, people may rightly ask whether we can trust the containment processes.

Are the priorities right in developing future applications of GM technology?

GM has also been closely connected with the development of patents and the privatisation of [scientific knowledge](#) in that form, thus its unavailability for others. It may even be that some of the innovation, which would be socially beneficial and could come from GM, is not currently being developed. This is because of excessive private control over the innovation trajectories which are funded, and lack of funding for potentially better ones.

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