

Genetically modified foods are safe

THE National Academies of Sciences, Engineering, and Medicine just issued a book-length report, strongly reaffirming what American and European scientists have long said: food from genetically modified crops is no more dangerous to eat than food produced by conventional agriculture.

In the words of the report, there is “no substantiated evidence” that genetic modification of crops produces less safe foods. In the US, Canada, the UK and western Europe, “no differences have been found that implicate a higher risk to human health safety” from genetically engineered foods.

The report also finds no clear evidence that genetically modified crops cause environmental harm. It acknowledges the importance of continuing monitoring, but pointedly declines to embrace the widespread view that those crops have been responsible for declines in monarch butterfly populations. Other studies are less equivocal, finding no special risks to the environment from genetically modified agriculture.

And yet the public is deeply concerned. One survey finds that only 37 per cent of Americans believed that genetically modified food is safe to eat. According to my own recent survey, 86 per cent of Americans favour labeling of genetically modified food, apparently because of perceived health risks.

What explains that? New research, by Sydney Scott and Paul Rozin of the University of Pennsylvania and Yoel Inbar of the University of Toronto, offers some important clues.

Scott and his colleagues asked a representative sample of Americans whether they supported or opposed genetically engineering plants and animals. They also asked them to register agreement or disagreement with this statement: “This should be

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MISLEADING TRUTH: Even if risks of genetic modification are zero and the benefits are high, people still want to ban it

prohibited no matter how great the benefits and minor the risks from allowing it.”

Consistent with previous studies, 64 per cent of participants opposed genetic engineering. Astonishingly, 71 per cent of the opponents and 46 per cent of the whole sample, were absolutists: they want to ban genetic engineering regardless of the benefits and risks.

On its face, that’s ridiculous. Suppose that the risks of genetic modification are zero and that the benefits are high, because genetically modified food is both cheaper and healthier. If so, how could rational people want to ban it?

To answer that question, Scott and his coauthors presented their participants with a scenario in which a random person ends up eating genetically modified tomatoes (either knowingly or unknowingly). They asked people how angry or disgusted

they were when imagining the scenario.

Opponents of genetic modification were angrier and more disgusted than its supporters. But the absolutists were especially disgusted. Controlling for demographic and other differences, Scott and his coauthors found that disgust was the best predictor of whether people would proclaim absolute opposition to genetic modification.

The conclusion is simple: people, who most strongly oppose genetic modification are not weighing risks and benefits. Their opposition is a product of the fact that they find the whole idea disgusting.

What’s disgusting about genetic modification of food? I speculate that many people have an immediate, intuitive sense that what’s healthy is what’s “natural” and that efforts to tamper with nature will inevitably unleash serious risks — so-

called Frankenfoods. The problem with that speculation is that it’s flat-out wrong.

It’s true that you could support labelling of genetically modified foods even if you agree with the National Academies report. You might point to the continuing uncertainties with respect to environmental harm; you might insist that the absence of evidence is not the same as evidence of absence (of harm). You might think that people have a right to know what they’re eating.

That’s not a senseless argument, but whenever the government imposes a labelling requirement and whenever the private sector chooses to disclose information, a lot of people will infer: the experts think that there’s a health risk here. If genetically modified foods come with labels, consumers might actually be misled. In my view, that’s a convincing argument ag-

ainst mandatory labelling.

A distinctive argument, ventured in an important paper by Nassim Nicholas Taleb and his coauthors, is that genetically modified crops pose a “ruin” problem, involving a low probability of catastrophically high costs. Taleb and his coauthors make a powerful and intriguing argument that for such problems, it’s best to take serious precautions — in this case, placing “severe limits” on genetically modified food.

If so, the question is whether genetically modified crops really do fall in that category. It’s possible to read the most recent science to suggest that they do not; if the probability of catastrophic harm is vanishingly low and essentially zero, rather than merely very low, we can fairly ask whether Taleb’s argument applies.

But the main point is not that labelling is a bad idea (though I think it is) or that reasonable people cannot endorse precautionary measures. It is that most opponents of genetic engineering are not motivated by Taleb’s argument or an analysis of the evidence or of relevant risks and benefits. They’re motivated by the primitive emotion of disgust — which isn’t exactly a sensible foundation for regulatory policy.

For consumers, the lesson is simple: genetically modified foods are safe to eat. For public officials, the lesson is clear, even if less simple: in a democracy, public opinion always deserves serious consideration — but in a democratic system that prizes evidence-based decisions, sound analysis is a trump card.

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