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## NEWS FROM THE EXTERNAL AFFAIRS TEAM

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# Policy Update: Debating GMOs at the Annual Meeting

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As part of the very diverse programme of offerings during the Annual Meeting, the BES policy team organised a free public debate to consider the science, politics and environmental implications of GM technologies. Amy Fensome reports on a stimulating and successful event:

On 16th December, the BES External Affairs Team held our much-anticipated GM Debate as part of the new Annual Meeting Fringe. The meeting was inspired by the recent decision of Scotland (amongst a number of other EU countries) to ban Genetically Modified Organisms (GMOs) and the recognition that much of the discussion around GMOs is deeply polarised to the point that, as one of the panellists suggested, progress has been stalled.

The aim of the evening was to bring together people (both panellists and audience members) with different perspectives and to have a more open and thoughtful discussion beyond the usual entrenched 'for' or 'against' debate.

The panel included four scientists: Professor Helen Sang of the Roslin Institute and Royal (Dick) School of Veterinary Studies; Professor Joyce Tait, Director of the Innogen Institute; Dr Heather Ferguson, University of Glasgow; and the Chair for the debate, Professor Alan Gray. Pete Ritchie from Nourish Scotland represented consumer interests and the panel was completed by Rob Livesey (Vice-President of the National Farmers Union Scotland) as a representative of food producers.

The evening took place in three acts: first each panellist gave a five minute talk about their role and/or thoughts on GMOs, then the panel took questions from the audience, before finally the audience and panellists mingled to discuss the issues in more depth.

The discussion encompassed GM insects and animals, as well as crops. Professor Helen Sang gave an overview of her work in developing birdflu-resistant chickens whilst Dr Heather Ferguson spoke of her research into the use of GM mosquitoes to control the spread of malaria. The general consensus from the scientists on the panel was that there is little evidence to suggest that GM technology is inherently 'unsafe', but GM products need to be addressed on a case by case basis.

During the course of the evening, a strong theme emerged: much of the mistrust and criticism of GM technologies and products stem from its development by private enterprise. This underpins many other aspects of the debate around GM such as regulation, how risk is managed and communicated, and transparency around how GM business is conducted.

As Professor Joyce Tait commented, many people are less concerned with the technology than they are with the practices (or abuses some might say) of 'big business', the massive global corporations that seem to dominate the development and supply of GM products by "translating genius into a commercial product", as Pete Ritchie put it.

There is concern that the benefits of this technology are being over-sold and that the stated goals (such as increasing production capacity in order to feed the world's growing population, or to produce disease resistant crops and animals, or crops with more nutrients than their non-GM counterparts) though admirable are unrealistic, hi-tech solutions to problems which could to a great extent be solved by addressing socioeconomic inequalities or reducing food wastage through the food supply chain.

Pete Ritchie pointed to the numerous examples where industries have misled consumers or dragged their feet when it came to addressing serious health, environmental or ethical concerns related to their product (for example the toxicity of leaded diesel, cigarettes and cancer, the production of cocoa with indentured labour and most recently, the Volkswagen scandal) fearing that the demand and profitability of their product would decline if this knowledge were made public, or that any regulations

(apart from self-regulation) could limit profitability. In short, financial profit, amongst short-sighted industries at least, is often prioritised over all other concerns. Consequently, members of the public worry that because GM technology is in part developed in the private sector (funded by stakeholder investment in expectation of a financial return) that the potential threats GM technologies and products might pose are swept under the rug along with the concerns of consumers.

The safety of GM products and the suspicion that this might not be the highest priority within the private sector is possibly one of the oldest aspects of the GM debate. So how do we move on from this stalemate?

As an audience member commented, perhaps the general public might have more confidence in GM products if we heard more from scientists about the potential threats and problems posed by GM and how these are addressed. At the same time, greater awareness of the extensive existing legislation could assuage some fears, as could more information about the technologies themselves. Pete Ritchie suggested that perhaps the raw data on which claims are based should be open source.

To the same end, more, well publicised and independent research into the wider environmental impacts of releasing GM products into the wild should be conducted, moving the debate away from well-rehearsed arguments about food safety, towards greater consideration of the ecological risks. For example, what are the downstream impacts of such feats as releasing infertile mosquitoes into the wild to reduce the population of malaria carrying *Anopheles*?

As part of weighing up the pros and cons of a particular GM product, Dr Heather Ferguson suggested that we consider the cost of not using that product. For example, pest-resistant crops could reduce the use of expensive and ecologically damaging insecticides.

Professor Joyce Tait suggested reducing “onerous, expensive and time consuming” legislation to help small businesses to compete with the “big dogs”, allowing companies to do “much more interesting things” and presumably tempering some of the problems brought about by a monopoly. More specifically she spoke of shifting the emphasis of regulation away from the earlier, experimental stages of GM technology and product development and focusing on the safety of the end-product.

Rob Livesey from the NFU Scotland had a pragmatic take on the issue: farmers are open to the idea of GM crops but they are not going to adopt GM crops if they are unsafe, damage the land and most importantly, if there is no market for the produce.

And this last point brings us full circle; Scotland banned GMOs not “based on scientific consideration but, rather one which took into account the wider economic ramifications that growing GM crops might have for Scotland” and to protect its “clean and green brand”.

This brings home the fact that there are numerous factors that influence policy decisions, and although we hope that science and evidence is included in that decision making process, it is rarely, if ever the sole consideration. Rather policy making is a combination of all the factors discussed at the debate; values, risk, economics, perception, experience and more.

For more on our work on GMOs, including our response to the recent House of Lords Science and Technology Committee Inquiry on GM Insects, see <http://www.britishecologicalsociety.org/public-policy/policy-priorities/genetically-modified-organisms/>