

## **Results of GM Farm Trials Have Been Misrepresented, Says Lord May**

Both industry and campaigners have misrepresented the results of the farm scale evaluations (FSEs) of GM crops, which were published last month, Lord May of Oxford, President of the Royal Society, said today (25 November 2003), ahead of a meeting of the Advisory Committee on Releases to the Environment (ACRE) about the research.

Announcing the publication of the submission from the Royal Society, the UK national academy of sciences, to a consultation by ACRE on the implications of the FSEs, Lord May said the results have been represented in a biased and selective way by some members of the GM industry and anti-GM campaigners. In fact, the experiments demonstrated that GM crop technology may be applied in ways that are better for biodiversity than conventional practices, or alternatively may be used to further intensify agriculture with a corresponding negative effect on farmland wildlife.

Lord May said: "To generalise and declare 'all GM is bad' or 'all GM is good' for the environment as a result of these experiments is a gross over-simplification, but statements from both sides in the GM propaganda war have claimed 'victory' based on these findings. Rather than closing the case for or against GM crops, these results should drive society to ask more questions, not just about GM crops, but about agriculture more generally. They should be used as a catalyst for a debate about the future of modern agriculture."

ACRE is holding two open meetings to take evidence from experts and stakeholders about the implications of the FSEs, in London on 25 November and in Edinburgh on 4 December 2003.

The FSEs tested the impact on farmland biodiversity of cultivating three different GM herbicide-resistant crops - sugar beet, maize and autumn-sown oilseed rape - and compared them with their conventional counterparts. They found that cultivation of GM oilseed rape and sugar beet led to weed-killer use that was more damaging for farmland biodiversity than the growth of conventional equivalents. However, the cultivation of a third crop of GM maize involved a weed management system that was better for farmland biodiversity than was used for its non-GM equivalent.

According to the Society's evidence to ACRE, the results of the FSEs clearly demonstrate that it is not the technology of genetic modification but the weed management system associated with it, such as volumes of herbicides used and their persistence, which determines the affect on biodiversity of a particular agricultural system. The different impacts of the GM crops on farmland wildlife are not a result of the way in which the crops have been genetically modified. Instead different impacts arose because the GM crops gave farmers new options for weed control - they used different herbicides and applied them differently.

Therefore, the results show that the specific herbicide regime used in the FSEs to manage the GM sugar beet and oilseed rape was more damaging than the regime used to manage conventional sugar beet and oil seed rape, but this does not preclude the possibility that there may be a different way of managing these GM crops that reduce their harmful effects on farmland biodiversity. Similarly, the results for GM maize cannot be applied to other GM crops. This underlines the importance of evaluating GM crops on a case by case basis.

Lord May added: "The most pressing question arising from the FSEs is not whether GM plants are better or worse for the environment than conventional crops, but instead what type of modern agriculture we want. Do we want an agricultural system that depends on the development of ever more powerful weed killers to increase yields, but which also has a negative impact on biodiversity?"

“The UK has already experienced a pronounced loss of biodiversity. If this trend is to be halted, we need to decide now best to achieve that. It could be through working with the grain of nature, such as targeting land for non-agricultural purposes, or by growing our food more efficiently, such as using techniques like genetic modification to develop crops that require fewer chemicals.

Lord May said: “If appropriately developed, GM crops could be used deliberately to improve the environment. But first, much larger questions need to be answered about the kind of world we want to live in. Social and environmental choices about agricultural practices and their impact need to be made before we look to science and technology to help provide the solution. But if it chooses, society could use the results of the FSEs to persuade companies to produce crops that are better for the environment”.

The Society's evidence also draws attention to the issue of the potential co-existence of more than one type of farming practice, which was not addressed within the FSEs, but which is of relevance when considering the future of GM crops and UK agriculture. It also stresses the need for a clearer picture to be obtained of the effect of current farming practices on the environment before any long term decisions about the future of UK agriculture can be made.

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