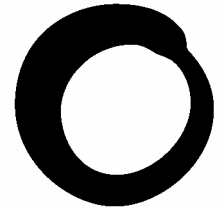


Briefing Note



**Friends of
the Earth**

The Farm Scale Trials

In 2000, in response to concerns raised by English Nature, the UK Government introduced a three-year programme of farm scale trials of genetically modified (GM) herbicide tolerant crops. A voluntary agreement was made between the Government and the biotechnology industry to refrain from commercial growing until the results of the trials were evaluated and published in 2004. These results will contribute to decisions about the commercial growing of GM crops in the UK. From the beginning, the trials have been criticised by environment organisations, local residents, and even the Government's GM watchdog, the Agriculture Environmental Biotechnology Commission (AEBEC).

Background

The trials were intended to establish whether there is any significant impact on farmland biodiversity from growing GM herbicide tolerant crops, compared to the equivalent non-GM crops. Four GM crops are involved in the trials:

- Forage (fodder) maize tolerant to the herbicide glufosinate
- Spring oil seed rape tolerant to glufosinate
- Winter oil seed rape tolerant to glufosinate
- Sugar and fodder beet tolerant to glyphosate

Each trial site is divided into two. One half is planted with the non-GM crop grown with conventional weed control, and the other half with the GM crop and its associated herbicide. Scientists have monitored the effect of the different herbicides used on the diversity and abundance of plants and insects. The trials do not test any other safety issues of GM crops, or their agricultural performance.

For each crop there were between 60 and 75 field trials over the course of the three year programme. These were meant to be in locations which reflect the range of farming practice and geographical distribution of each crop in the UK. The final plantings of winter oilseed rape will be harvested in spring 2003. The first results from the spring sown crops will be publicly available from summer 2003 onwards, with the final results from all the crops published in 2004.

Limitations of the trials

From the outset the trials have come under heavy criticism for a variety of reasons, not least for the limited data they will provide. For example, no baseline data was taken before the trials began, there is no monitoring of long term impacts and no investigation of effects on soil microbesⁱ. The trials make comparisons with intensive farming, which is itself very environmentally damaging, instead of more wildlife friendly farming, such as organic.

In their report 'Crops on Trial', the AEBEC concluded that the Government had misled the public by implying that the trials would provide adequate information to assess the safety of the crops. It recommended that account must be taken of additional issues such as ethical concerns and socio-economic considerations, and that a broad public debate should take place before commercialisationⁱⁱ.

Safer herbicide use?

One of the key benefits claimed for the use of GM maize by Aventis/Bayer is that farmers will use less atrazine (an EU 'Red List' herbicide suspected of hormone disrupting effects) because they will switch to using glufosinate with the GM crop. However, recent reports from the US reveal that between 75% and 90% of US maize farmers are returning to atrazine due to poor performance of the GM crop with glufosinateⁱⁱⁱ. This further undermines the results of the trials as they fail to reflect what farmers will do in reality.

Geographical representation

To meet scientific requirements, the farm scale trials must be adequately distributed over the areas in which the crops are normally grown and there must be sufficient numbers to provide adequate statistical data for analysis. It is doubtful that this has been achieved. For the final round of maize plantings, there should have been over 20 trials in the South West, the main area in which fodder maize is grown. However, only 11 trials actually took place there and ten of them were in Dorset – four of these trials were in one village^{iv}.

Contaminated seed

It was recently revealed that the GM oilseed rape used in the farm scale trials was contaminated with seeds of a different GM oilseed rape, which contain an antibiotic resistant gene. The contaminated seeds had been used in the trials since 1999 without consent^v. It is not known how the contamination occurred, or why inspectors failed to detect the mix up earlier. The incident calls into question the adequacy of the regulatory system and the competence of the biotechnology industry to produce food in our environment.

Local consultation

Trial sites have been chosen by industry, and the process was criticised by the AEBC as being 'conceived and designed in a secretive way'^{vi}. There is no obligation to consult with neighbouring farmers or beekeepers and the period used for public notices is too short for real consultation. Despite strong opposition in many areas, no community or local authority has successfully prevented a trial from taking place using legal means.

Current separation distances between the trials and neighbouring crops have been shown to be inadequate to prevent cross-pollination occurring^{vii}, or to protect the economic interests of organic and conventional farmers. Despite recognition by Government that they should be increased^{viii}, this has not happened.

ⁱ GeneWatch UK, 2000. *Overview of the Farm Scale Trials*: available at www.genewatch.org

ⁱⁱ Agriculture and Environment Biotechnology Commission (AEBC), Sept 2001. *Crops on Trial*: available at www.aebc.gov.uk

ⁱⁱⁱ Newsnight, June 25th 2002.

^{iv} Friends of the Earth, 14th March 2002. *Govt Announces More GM Maize Sites*.

^v DEFRA 15th August 2002, *Impurities Found In Aventis GM Rape Seed Farm Scale Evaluations*.

^{vi} AEBC, Sept 2001, op cit.

^{vii} Eastham, K & Sweet, J, 2002. *The Significance of Gene Flow through Pollen Transfer*, European Environment Agency.

^{viii} Rt. Hon Margaret Beckett, Jan 2002. *Government response to 'Crops on Trial'*.

Friends of the Earth inspires solutions to environmental problems which make life better for people

Friends of the Earth is:

- the UK's most influential , national, environmental campaigning organisation
- a unique network of campaigning local groups, working in over 200 communities throughout England, Wales and Northern Ireland
- the most effective environmental network in the world, with almost one million supporters across five continents and over 60 national organisations worldwide
- Dependent upon individuals for over 90 per cent of its income

To join or make a donation call us on 0800 581 051
