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By email to: [GMcoexistence@defra.gsi.gov.uk](mailto:GMcoexistence@defra.gsi.gov.uk)

20 October 2006

Dear Sir or Madam

Please find enclosed Wildlife and Countryside Link's response to the Defra consultation on proposals for managing the coexistence of GM, conventional and organic crops.

This response has been prepared by the members of Wildlife and Countryside Link's Farming and Rural Development Working Group, and is supported by the following organisations:

- Buglife – The Invertebrate Conservation Trust
- Campaign to Protect Rural England
- Friends of the Earth
- Plantlife International
- Royal Society for the Protection of Birds
- The Wildlife Trusts
- The Woodland Trust

Yours sincerely



Ian Woodhurst  
Chair, Link Farming and Rural Development Working Group



## **Wildlife and Countryside Link response to the Defra Consultation on proposals for managing the coexistence of GM, conventional and organic crops October 2006**

### **Introduction**

Wildlife and Countryside Link (Link) brings together voluntary organisations concerned with the conservation, enjoyment and protection of wildlife, countryside and the marine environment. Our members practise and advocate environmentally sensitive land management and food production and encourage respect for and enjoyment of natural landscapes and features, the historic environment and biodiversity. Taken together, our members have the support of over eight million people in the UK and manage over 476,000 hectares of land. This response is supported by:

- Buglife – The Invertebrate Conservation Trust
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- Friends of the Earth
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- The Wildlife Trusts
- The Woodland Trust

Link recently published a position statement on Genetically Modified Organisms (GMOs)<sup>1</sup>. Link believes that there are still many important and unanswered questions with regard to the effects of GMOs on the environment, biodiversity, animal welfare and consumer choice. Although it is possible that certain GMOs may have no environmental impact at all, or even produce environmental, biodiversity and consumer benefits, (such as helping to address the effects of climate change and contributing to less intensive farming and forestry practices), we have yet to see any evidence of these possibilities.

Link believes that the weight of current evidence is such that Genetically Modified (GM) crops should not be approved for commercial growing in England and that further scientific analysis is needed before GM crops are cultivated. The Farm Scale Evaluations of GM crops found that the management practices required to grow herbicide tolerant oil seed rape and beet cause negative impacts on farmland wildlife. Link therefore urges the Government to act in accordance with the precautionary principle and refuse commercial approval of GMOs until regulatory measures can be improved, and GMOs can be shown, through rigorous scientific testing on a case-by-case basis, not to have any wider environmental, animal welfare or wildlife impacts before they are approved for release.

Future GM crops that are submitted for approval by the Government should undergo extensive environmental field trials the results of which should be included in a full public consultation that should be undertaken for each new GM crop that is considered for authorisation to be commercially grown.

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<sup>1</sup> Link's position statement on Genetically Modified Organisms can be downloaded from [http://www.wcl.org.uk/downloads/2006/Link\\_PS\\_on\\_GM\\_June06.pdf](http://www.wcl.org.uk/downloads/2006/Link_PS_on_GM_June06.pdf)

We believe that there are a number of flaws in the approaches set out in the consultation document which raise a number of wider concerns and go beyond the cross contamination issues for the four crop types that the consultation considers. Link's primary concerns are in relation to the cross contamination issues related to GM oil seed rape, which has wild *Brassicaceae* relatives in England. However, these would similarly apply to cross contamination issues for any further GM crops that may receive approval that are also related to native wild species.

### **Proposed separation distances between GM and non-GM crops**

Defra states that "*separation distances will be the key coexistence measure to limit cross-pollination between GM and non-GM maize or oilseed rape crops*" (paragraph 45). We believe that the proposed separation distance for oil seed rape will result in the routine GM contamination of native wild relatives as well as conventional and organic crops. Pollen conveyed by either wind or insect vectors can move over considerable distances and if the area of GM crops increases the likelihood of cross contamination is likely to extend beyond the separation distances proposed.

Link is concerned that the proposed separation distances appear to create a routinely acceptable contamination level of 0.3%, effectively creating a safety buffer of 0.6% with 0.9% becoming a ceiling. Over time if the density of GM cropping increases this ceiling could be broken. As the density of GM crops increases in area so the density of GM pollen would increase along with a greater probability of pollination by insect and wind vectors so that over time more of a GM free crop would become contaminated. The eventual outcome of ever increasing chances of cross contamination would be that the threshold for defining a crop as GM free would need to be raised. Ultimately contamination could reach levels that would mean the threshold effectively became meaningless and any consumer choice of as to whether to eat food containing genetically modified crops or non GM crops containing GM DNA in areas of high density GM cropping would cease.

Link is concerned that the consultation suggests an assumption of inevitability of GM contamination of related native plant and the effects of the contamination on insects and other species which will occur regardless of the separation distances that would be used to decide if a non GM or organic crop has become contaminated. Link suggests further research is undertaken on cross pollination distances where native plants and insect species could be affected by from contamination by genetic modifications from related GM crop species or that only GM crops with no native relatives or that have no transferable genetic effects on the environment are approved for cultivation.

Link believes that it is important to consider how the proposed crop separation distances of between 35 and 110 metres might affect landscape character in some areas of the country if these were adopted and there was extensive cultivation of GM crops. It is unclear to Link what role existing boundary features, such as hedgerows, in the landscape will play in buffering GM and non GM crops. Link believes further analysis is needed on how these will be managed if they were to be incorporated into the separation distances as proposed and what effects they may have on preventing cross contamination. Management of hedgerows for wildlife and landscape reasons could be severely affected by the management practices required for preventing contamination between GM and non GM crops.

Link also believes that the use of buffer zones could result in the creation of linear patterns between fields of GM and conventional or organic crops the extent of which

will be dependent on the area of GM crops being grown. The use of barrier crops may help to reduce this linear effect but we do not think an assumption should be made that these will be of the same crop type as the GM crop they are buffering as farmers may choose to plant other varieties of crop to avoid complications with ensuring buffer zone crops and not harvested with the GM crop.

Link is aware of the following evidence on separation distances for oil seed rape:

- Cross pollination rates of up to 1.8 per cent have been recorded over just 56m<sup>2</sup>.
- Bees can travel up to 5km when foraging, and favour oilseed rape plants<sup>3</sup>.
- The pollen beetle, a major pest of oilseed rape, is thought to be responsible for cross pollination of oilseed rape plants over 26km apart<sup>4</sup>.
- In spring 2000, it was discovered that more than 6000 hectares of farmland across the EU had been planted with GM-contaminated oilseed rape. The seeds came from Canada, and it is believed that contamination occurred due to cross pollination with GM oilseed rape, despite the four kilometre separation distances used<sup>5</sup>.

For these reasons Link does not support the limited approach to defining separation distances in the consultation.

### **Additional voluntary measures**

It is unacceptable that the majority of measures proposed in the consultation to control GM contamination will be left to a voluntary industry code of practice. Link believes that only statutory regulation, covering all the proposed coexistence measures, will deliver the protection necessary to protect native species and habitats as well as non-GM and organic farmers. Many of the measures described as 'desirable' in this consultation Link would regard as essential to providing sufficient protection, and should be regulated accordingly. Defra also suggest that "*non-GM farmers will have a role to play in ensuring successful coexistence*". Link believes in the polluter pays principle so it is GM farmers who should be responsible for taking these measures; and that the burden should not fall on the non-GM or organic farmer.

### **Liability and compensation**

If the commercial cultivation of GM crops in the UK is to be permitted, the developers of these crops must be held liable for any damage their products cause including compensation for any damage to the natural environment. However, the consultation does not make it clear who should be liable for damage, and we are disappointed that issues relating to compensation for damage to the natural environment are not considered at all. Link believes that if public funding is spent on schemes restoring and/or enhancing particular habitats and species and as a result of a GM cross contamination incident these habitats and species were to be damaged then it will be the responsibility of Defra to undertake legal proceedings to ensure full compensation and remedial measures are delivered in the public interest.

<sup>2</sup> See [www.hgca.com/document.aspx?fn=load&media\\_id=1460&publicationId=1805](http://www.hgca.com/document.aspx?fn=load&media_id=1460&publicationId=1805)

<sup>3</sup> See [www.foe.co.uk/resource/briefing\\_notes/bees\\_honey\\_and\\_gm\\_crops.pdf](http://www.foe.co.uk/resource/briefing_notes/bees_honey_and_gm_crops.pdf)

<sup>4</sup> See [www.defra.gov.uk/environment/gm/research/epg-rg0216.htm](http://www.defra.gov.uk/environment/gm/research/epg-rg0216.htm)

<sup>5</sup> See

[www.gmcontaminationregister.org/index.php?content=re\\_detail&gw\\_id=2&reg=0&inc=1&con=3&cof=2&year=0&handle2\\_page=1](http://www.gmcontaminationregister.org/index.php?content=re_detail&gw_id=2&reg=0&inc=1&con=3&cof=2&year=0&handle2_page=1)

Link is also concerned that the ability to ensure locally sourced wild flower seed could be affected by contamination by GM crops with wild native relatives.

### **Public register of GM cropping sites**

The consultation questions whether there is a need for a public register of GM crops claiming “*it would be difficult for the Government to justify imposing a detailed GM crop register, bearing in mind the costs and burden on farmers*”. They conclude that there would need to be a “*particularly compelling reason*” to introduce such a system (para 181).

Link believes it is vital that there is an open and transparent system for registering sites for growing GM crops. Land managers and the public have a right to know where GM crops are being grown. Public registers must be open and accessible to everyone, and include detailed relevant information in advance of any planting of GM crops. This is not just important for issues related to the contamination of non GM crops grown for human consumption and animal feed purposes. It is also important to ensure that land managers, whose holdings contain sites that are being managed because they contain special habitats and plant and insect species, can be made aware of any proposals to grow GM crops. This is because some of the species on these sites may be vulnerable to becoming genetically disadvantaged by contamination by the genetic modifications of the GM crop, even if it is not directly adjacent to the site. This might be because of a GM crop transferring genetic traits to native relatives that results in them becoming toxic as a food source for certain insect species or disease resistance that results in some competitor species becoming more abundant and disturbing the ecological balance of a site.

The consultation argues that a detailed GM register is not needed because Defra has already planned a notification system where farmers intending to grow GM crops must notify ‘*neighbouring*’ land managers. However, this would only be applicable if the crop was within the specified separation distances. Strong evidence exists that cross pollination will take place well beyond these distances.

Link believes that farmers, and others including food producers beyond the separation distance, must be able to find out quickly and easily if GM crops are to be grown nearby.

This information must be easily accessible to all land managers whether or not their holding is adjacent to a farm growing a GM crop and regardless of whether they are growing a non-GM or organic crop.

### **Voluntary GM-free zones and ecological impacts**

The consultation states that Defra will offer guidance to farmers on setting up voluntary GM-free zones, although Defra are “*not advocating these*” and do “*not see them as necessary*” (paragraph 182). Link believes that this approach will not address future concerns that may arise as other GM crops come forward for approval should these prove to have transmissible genetic traits, such as insect resistance, that have the potential to have negative effects on native plant and insect species. In such cases it may be necessary to establish mandatory GM free zones in areas containing habitats or populations of plants or insects that would be affected by these genetic traits. Link believes that Defra should set out proposals for a regulatory framework for creating mandatory GM free zones.

Link has serious concerns that this approach does not take into account how any need that might arise to establish mandatory GM free zones for ecological reasons would be established and managed. Should a GM crop begin to have a negative impact on native wild species we are concerned that a voluntary approach would be inadequate and the contamination incident would be difficult to contain.

Link is disappointed that the consultation neglects to consider any environmental impacts such as those resulting from cross pollination with wild relatives or the associated impacts on farmland wildlife from the use of herbicides associated with particular GM crops.

Wildlife and Countryside Link  
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