



Response from the Welsh Agri-food Partnership Organic Strategy Group  
prepared by Organic Centre Wales, *Aberystwyth University, SY23 3AL*  
to the Welsh Assembly Government consultation on:

Proposals for Managing the Coexistence of GM, Conventional and Organic Crops in Wales

**i. Introduction.**

- i.i. We welcome the chance to respond to this consultation. We recognise that the Welsh Assembly Government has looked closely at the risk to Welsh farmers and agriculture; learned from others experiences of GM crops and has come up with proposals focused on the implications of the commercialisation of GM crops in Wales.
- i.ii. There are a number of overarching comments we would like to make before addressing the questions set out in the consultation document. The interpretation and application of the meaning of the word “adventitious” (executive summary footnote 2 and paragraph 1.6) within the context of the consultation is disingenuous. Our understanding of adventitious and the Oxford English Dictionary definition is “accidental” and not technically unavoidable as stated.
- i.iii. On this understand of “adventitious” we believe that non-GM production should aim for zero contamination: i.e. a level of contamination that is non-detectable and procedures and processes should be put in place to assist this. However, a labelling limit of up to and including 0.9% for truly adventitious presence is required to protect producers.

**1. Q1. What problems are stakeholders currently experiencing with herbicide resistance in weeds, and do you think that GM technology impacts on this issue in a positive or negative way. (2.4.6)**

- 1.1. The use of GM technology and in particular the use of Herbicide tolerant (GMHT) crops around the world has not been a success either commercially or environmentally. The experiences in the US, where Roundup Ready crops have been commercialised for a decade or more, as well as the farm scale evaluations in the UK have identified the problems.
- 1.2. The US has the most long-standing and well-developed GM agricultural systems and grows GM crops that could be grown in both the Wales (maize and canola/oilseed rape) and Europe (soybean). A comprehensive report by Benbrook (2003)<sup>1</sup> using the USDA - National Agricultural Statistics Service agricultural chemical usage data investigated pesticide use over the first 8 years of commercialisation of GM crops in the US (1996 – 2003). Benbrook shows that economically the introduction of herbicide tolerant soybean has been of benefit to the farmer with a 50 *per cent* reduction in the costs of herbicide per acre over the time of his report. However, he goes on to show that in the US the introduction of GM crops has seen a modest increase in the volume of pesticides being applied to maize, soybean and cotton (both GM and conventional varieties). Between 1996 and 2003 there was an increased amount of herbicide use (70 million pounds) that

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<sup>1</sup> Benbrook, C. M., 2001. When Does It Pay To Plant Bt Corn? Farm-Level Economic Impacts of Bt Corn, 1996-2001. Benbrook Consulting Services. Idaho. USA. [http://www.biotech-info.net/Bt\\_corn\\_FF\\_final.pdf](http://www.biotech-info.net/Bt_corn_FF_final.pdf)

was offset to a small degree by a reduction in pesticide use (51 million pounds). His analysis goes on and breaks the time frame between 1996 and 2003 into the early years (1996-98) and the later years (2001-2003), which give a different picture. In the early years there was an overall reduction of over 25 million pounds in the amount of pesticide used. However, the quantities did not continue in that direction for long and in the later years there was an increase of over 73 million pounds of pesticides applied. This is not surprising as the use of a single herbicide to control weeds over a period of time is likely change the weed populations and result in the need for further or additional herbicides or applications. There is evidence that weeds are becoming resistant to the herbicide (Plant Managers Network, 2002)<sup>2</sup> and that volunteer plants left behind from the GM crops are becoming a problem (Anon, 2004)<sup>3</sup>. Further studies have been undertaken and soon to be published briefing from GM Freeze, drawing on International Survey of Herbicide Resistant Weeds<sup>4</sup>, has shown that wide range of weeds have become resistant to Roundup (glyphosate) over the past decade in the US.

**2. Q2. Do stakeholders accept the above analysis of the potential sources of GM presence and that the assumptions the Welsh Assembly Government are proposing should underpin the coexistence regime? (2.5.4)**

- 2.1. We accept that the potential sources of GM presence appear to have been covered but question many of the assumptions.
- 2.2. We do not accept the issue that because beet is biennial that it is easily controlled (para 2.4.5). There is no reference or mention of the real likelihood of beet cross pollinating with native species, hybridising and creating a reservoir of GM in the environment. How will this be addressed in any coexistence regime?
- 2.3. The likely transfer of seed by machinery is down played in the consultation document. It says that it is disproportionate to expect a complete clean down between farms and only have to clean those parts of machinery that are readily accessible. This is not acceptable. It may be acceptable for a farmer to take the risk of these machines moving within their own farms but it is not acceptable for machinery that is moving between farms as this is likely to contaminate road ways and other farms once it has left the GM farm.
- 2.4. Table 11 gives us great concern and demonstrates the precariousness of the proposed regime. These contamination figures can only work if we assume that we will always be dealing with very limited background levels of GM, either through remaining volunteers or native GM hybrids. This is not a safe assumption to make and with projected levels of 0.57% for maize and 0.67% for beet, this puts them close to the labelling threshold even before they leave the farm. This highlights the need to not accept seed contamination levels of 0.3-0.5% that are being proposed by the Commission.
- 2.5. We question the applicability to Welsh conditions of figures in Table 11 particularly for cross pollination. These figures were arrived at from a modelling approach based on classic leptokertic decay curve which will only happen when very light winds and no turbulence exists. This is not realistic for Wales where there topography of the landscape means that very different situation will arise.
- 2.6. Table 11 also fails to make any reference to the likelihood of human error which must be factored in to any calculations.

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<sup>2</sup> Plant Managers Network, 2002. Glyphosate-Resistant Waterhemp Moves into the Corn Belt. 13 December 2002. Plant Health Progress. <http://www.plantmanagementnetwork.org/pub/php/news/waterhemp/>

<sup>3</sup> Anon, 2004. Welcome to the world of unintended consequences.

Farmers Weekly, UK. August 27- September 2 2004

<sup>4</sup> International Survey of herbicide resistant weeds. See [www.weedscience.org/In.asp](http://www.weedscience.org/In.asp)

**3. Q3. Do stakeholders accept this conclusion on honey production? (2.6)**

3.1. The situation for honey producers is unacceptable. Any presence in their product would undermine the authenticity of the product. Recent experiences in Bavaria suggest that GM contamination of honey can be a magnitude higher than the 0.9% labelling threshold and a Bavarian court recently ruled that honey containing GM maize pollen could not be sold<sup>5</sup>. We cannot have a situation where the introduction of a new technology to one part of the agricultural sector destroys the livelihood of another.

**4. Q4. What cross border arrangements with England would be appropriate? (2.7)**

4.1. England has not published its coexistence plans yet but any cross border arrangements must protect Welsh farmers and producers. The consultation for coexistence in England had many weaker requirements and liabilities than this consultation and Welsh farmers must not lose out to a more lax regime in England. The highest coexistence requirements must prevail.

**5. Q5. Do stakeholders have any comments on the proposed scope of the coexistence regime? (3.1)**

5.1. The scope of the proposed regime appears to be suitable for Wales. The proposal of both regional and farm level approaches is a good one.

5.2. We agree that maize, beet and potato are the most likely GM crops to be brought to market. However, what we wish to make clear that this proposed regime (or whatever regime is adopted) must not be seen as a template that other crops would just be dropped into. A full risk assessment must be undertaken on all other GM crops that are brought to the market in Wales and coexistence regimes modified in light of the findings.

5.3. We question why Oil Seed Rape (OSR) has been excluded from the consultation. The reasons given, due to concerns about outcrossing and seed survival, are real and of great concern. We believe that for these reasons OSR should be included within the consultation and WAG should state the GM OSR should be banned in Wales.

5.4. The coexistence regime presented chooses to disregard any part of the food chain after the farm gate. In addition it works to a GM level of near to 0.9% at the farm gate. This allows no margin for any additional presence once the product has left the farm. In the first years of GM production this may be a reasonable assumption to make as dilution with non-GM product could occur. However, if GM production was to increase then the availability of non-GM to dilute contaminated product will be rapidly reduced making it increasingly difficult to maintain 0.9% or less in the end product.

5.5. The proposed EU seed contamination levels are not acceptable. Accepting these levels of between 0.3 and 0.5% would result in an extremely limited margin for error to meet a 0.9% final level in product (see your Table 12). The seed levels must be set as undetectable to allow producers to have confidence in the seed that they are using and to allow the resulting product to leave a farm with as low as feasibly possible GM presence.

5.6. The proposed regime is targeted at commercial producers/farmers and then only for tradable produce. It excludes contamination of crops grown for own use i.e. fodder and farm saved seed. Farm saved seed can be an important part of many farming systems. A low level contamination of this seed would lead to long term problems and a zero threshold in seeds is needed to protect the environment and consumer choice. Farm saved seed must be given equal protection from GM contamination as certified seed crops.

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<sup>5</sup> <http://www.spiegel.de/international/germany/0,1518,611582,00.html>

There is also concern about how patent law will be applied in the EU. As in North America patent law has been used extensively to prevent farmer's saving seed<sup>6</sup>.

- 5.7. It also explicitly excludes domestic producers i.e. gardens and allotments. This is not acceptable. Both on-farm use and garden crops should enjoy the same protection as all others. Many allotment and back garden growers produce their own food for the reason that they know what has been done to it and what is in it. This proposed coexistence regime removes this opportunity from them.
- 6. Q6. Do Stakeholders agree with the proposed split of between Statutory Measures and a Voluntary Code of Practice? (3.2.3)**
- 6.1. The proposed approach suggested for a Statutory Instrument that would cover registration, training, and duty to inform etc is appropriate and proportionate. However it should go further as all areas of the coexistence regime are essential and must be statutory.
- 6.2. The control of volunteers and bolters is an essential part of any coexistence regime. This could and must be covered in a code of best practice and it should be a statutory requirement.
- 6.3. The monitoring of adherence to the code of practice is important and must be carried out rigorously and the consequences for non-adherence must be such that it is in the best interest of the farmer to adhere to them.
- 7. Q7. How do you think the voluntary measures could be monitored as voluntary measures are NOT enforced? (3.2.3)**
- 7.1. This question highlights the limitations of voluntary codes and their 'toothlessness'. We believe that the code of best practice is an important part of the coexistence regime and that it should be part of the Statutory Instrument and monitored along the same lines as the other elements of this instrument.
- 8. Q8. How should any register relate to a notification requirement? (3.3.4)**
- 8.1. The notification requirement and register should be independent of each other. It would not be acceptable to place a notification on the register and not be required to have notified neighbours.
- 8.2. It is also not clear how the mandatory requirement to inform would be undertaken or shown to undertaken. How would you prove that the notification was sent, received, returned? There are a whole host of both accidental (lost in mail) and underhand (do not send the notification) ways that notification could cause problems. It is clearly open to abuse. How is a non-response to be handled? A non-response to a notification being accepted as a positive response is not acceptable. There must be a statutory requirement to respond to any notification and a clear and transparent paper chain to demonstrate that the process has been undertaken and adhered to.
- 8.3. The mandatory requirement to inform all neighbours is essential and should as a minimum be of those bordering a proposed GM crop field or within the separation distances. There should also be a wider consultation as it is known that pollen that can travel great distances due to whether conditions, topography, insects etc. Therefore a method of notification distances must be established at much greater distances to allow those producers who wish to grow GM-free produce to adjust their cropping plans. This could

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<sup>6</sup> Federal Court of Canada (2001). Reasons For Judgment. Docket: T-1593-98. Neutral Citation: 2001 FCT 256. Between: Monsanto Canada Inc. and Monsanto Company. Plaintiffs and Percy Schmeiser and Schmeiser Enterprises Ltd Defendants. <http://decisions.fct-cf.gc.ca/en/2001/2001fct256/2001fct256.html>

be done at through the wider use of the register and would not need to be included in the mandatory requirement to inform neighbours. We also believe GM farmers should be obliged to take the wishes of these their neighbouring farmers and others in the area into account when setting their cropping plans.

8.4. The total disregard for allotment growers and gardens in this section is unacceptable. These people have the right to know what is likely to be contaminating their crops. GM farmers with fields bordering or within designated separation distances of gardens/allotments must be required to notify these people. We do not understand the logic that if you grow it and consume it yourself, you do not need to know what is in it?

**9. Q9. Is a 3-month registration period reasonable and practical? (3.3.4)**

9.1. The 3-month registration period (assuming notification is an active process on behalf of the farmer wishing to grown GM crops) is proportionate, reasonable and practical.

**10. Q10. If a register is established should the information be available to everyone? How should a register be funded? (3.3.4)**

10.1. The information on the register must be available to everyone. We understand the concerns about the destruction of GM crops. However, a public register can be made available in many different ways so that some form of protection can be established as it is for other sensitive but public information.

10.2. Any costs of the register must be borne by the GM industry, it is an issue created by them and public money must not be spent on it. The organic sector requires registration and the farms and businesses that wish to be organic fund this process themselves. We see no reason why the GM sector should be treated any differently.

**11. Q11. Is the training requirement reasonable and what should it comprise of? (3.3.4)**

11.1. The proposed statutory training requirement is reasonable. The suggested content of the Danish courses appear comprehensive, acceptable and proportionate.

**12. Q12. Do Stakeholders agree with the need to keep records and the level of detail proposed? (3.3.4)**

12.1. The records and the level of detail proposed seem appropriate and proportionate as it will not only meet within year needs but also provide information that may be needed as a safeguard for any unforeseen problems in the future.

**13. Q13. Do Stakeholders agree with the range of field measures proposed? (3.4.8) p.48**

13.1. The field measures proposed are very general and vague so it is not possible to make many comments although a few are raised from the information given.

13.2. As potato plants can be pollinated by bees or other flying insects we question the relevance of using pollen barrier or traps in this instance. Bees can and do travel much great distances than 4m. This may not be an appropriate control method for such crops.

13.3. It is not clear what the consultation is saying about field margins. It refers to section 2.4.6 but this paragraph does not say what the cultivation methods might be.

13.4. Field practices must be covered in the code of practice and adhering to the code of practice must be a statutory requirement.

13.5. The statutory cultivation intervals appear to be conservative and but might be acceptable if accompanied by a statutory requirement to control volunteers. The statutory requirement does not appear in the suggested protocols.

- 13.6. There are also a number of outstanding Defra projects that must be taken into account when the final proposal is drawn up<sup>7 8 9</sup>.
14. **Q14. Do stakeholders agree with this precautionary approach to GM oilseed rape cultivation in Wales? (3.5.1)**
- 14.1. We question why Oil Seed Rape (OSR) has been excluded from the consultation. The reasons given, due to concerns about outcrossing and seed survival, are real and of great concern. We believe that for these reasons OSR should be included within the consultation and WAG should state that GM OSR should be banned in Wales.
15. **Q15. Do stakeholders agree with these proposed separation distances? If not, which aspect(s) are thought to need further consideration? (3.5.4)**
- 15.1. We believe the separation distance for maize is too low and believe that it should be set at 500m this would greatly increase the chances of there being a substantial pollen barrier between the GM and the non GM crops i.e. shelter belt of high hedge. The figure of 200m was based on Ingram's report that assumes linear air movement. This rarely occurs and if it does it is usually in winter and not summer when thermals play a more significant role. Ingram's report assumes that maize has heavy pollen and assumes it falls to the floor very quickly. Jean Emberlin referred to maize pollen as "sticky" and therefore the aggregated grains were heavy. However, the individual grains were very capable of being blown long distances.
- 15.2. We do not understand why "*Separation distances are not proposed for insect resistant crops or hybrids of these crops*" (3.5.2). This adds a level of complication and complexity that is unacceptable. The insect resistance maize MON810 hybrids (which Jonathon Harrington claims to have planted in 2008<sup>10</sup>) could be grown in Wales. Farmers may choose to do this not because they are resistant to the corn borer, but because better yielding varieties have been chosen to carry the BT trait. This may result in farmers wanting to use BT crops. This scenario needs to be covered by any coexistence regime.
- 15.3. It is not clear how the separation figure for beet is arrived at. The NIAB study references possible high levels of cross pollination between beets at 400m (0.42%). From other studies referenced it is shown that a 4m strip can take out a large proportion of the GM pollen (73%) but it is still difficult to see how the proposed 50m separation distance is calculated. It is understood that any pollination of the crop in the field will not impact on the GM status of the crop in the field but could result in GM beet volunteers in subsequent years. The cultivation harvest interval combined with rigorous control of bolters and volunteers must therefore be enforced.
- 15.4. No information is presented as to how the potato separation distance or the buffer zone is arrived at. Potatoes were also not included in the NIAB study so it is not possible to make a comment on the specific separation distance/control measures.
16. **Q16. Do stakeholders accept how the proposed separation distance requirement would apply? (3.5.4)**

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<sup>7</sup> Adventitious GM presence arising through use of shared farming machinery, transport and storage equipment CB02049.

<sup>8</sup> Investigation of the establishment and persistence of potato volunteers and the potential consequences for current EU labelling thresholds for GM CB0301.

<sup>9</sup> Factors Affecting Rates of Cross-pollination in Maize Growing under Typical UK Conditions CB02019

<sup>10</sup> <http://www.nature.com/news/2009/090126/full/news.2009.59.html>

- 16.1. We accept that separation distances must apply to commercial holdings as well as to Environmental Designation and Voluntary GM-Free areas. However, it must also apply to non-commercial crops including gardens and allotments.
- 17. Q17. Do stakeholders agree that due to the high dependency on contract harvesting in Wales, sharing of equipment on the basis proposed is acceptable? (3.5.4)**
- 17.1. Requirements for clean down between farms must meet standards set by other designated production systems i.e. organic. It is not acceptable for a cursory clean down to be undertaken between farms on the pretext it takes too long or is too difficult to access certain parts of machinery or transport. This equipment is moving around the countryside and can leave a trail of viable GM seed to pollute verges and fields adjacent to roads. All equipment must be thoroughly cleaned before leaving a GM farm.
- 18. Q18. Do stakeholders accept this analysis? Are there points that need to be clarified or points not covered that should be considered? (4.0)**
- 18.1. Government have clearly reneged on promises by previous (UK) ministers. Jeff Rooker, Minister of State, Ministry of Agriculture, Fisheries and Food in July 1998 said "...our desire is to ensure that the introduction of GMOs on a trial basis, an experimental basis, or even a full-crop basis, in no way damages organic farming" and "...it would be stupid for the Government to push more money into converting to organic farming while allowing the farmers who take that brave step to be damaged by other actions...". Ian Pearson MP, Defra Minister of State for Climate Change and Environment, speaking in June 2006 said "We are supporting the expansion of organic farming and want to ensure that the possible introduction of GM crops does not unreasonably prejudice the organic sector." The spirit if not the word of what has been previously said has been ignored and turned on its face.
- 18.2. That said the analysis in the document is correct. Notions of setting differential target values for organic verses non-organic conventional production are at first glance attractive and appear to represent scope for the development of enhanced differentiation and added value to organic crops. But probe a little further and the huge extra costs and regulatory burden that organic growers would have to shoulder themselves mean a single, industry-wide figure of 0.9% contamination is the least bad option. It is also unlikely that consumers will distinguish between differing thresholds as much of the organic publicity on the issue has so far focussed on a level of zero.
- 18.3. The guiding principle must be for organic farmers to work towards an undetectable level of presence within their systems and end product. This is particularly important in sourcing seed and feed for example where the current organic regulations prohibit the knowing introduction of GM product into an organic system.
- 18.4. Organic farmers should work towards an undetectable level of presence within their systems and end product but an adventitious level of 0.9% must be allowed as a precautionary level for truly adventitious presence. The impact of seed thresholds is critical here for organic farmers to aim at a non-detectable level.
- 18.5. The co-existence issues raised in the document for proposed GM crops (maize, beet and potatoes) are academic. We agree that currently these crops are either of limited importance to organic producers (although fodder beet may be a different issue) or there are minimal co-existence/contamination issues (maize, potatoes). This may not be the case for future GM crops brought to the market and it must be ensured that organic farmers can continue to grow and produce their products with a minimum level of contamination at no additional costs to them.
- 18.6. The issues of GM contamination of inputs are real and happening already in such inputs as animal feed. The EU, national competent authorities and organic certification bodies need

to put their houses in order to ensure that imports meet labelling requirements so that the threat to organic systems and markets from this contamination route is eliminated.

**19. Q19. Do stakeholders consider that the voluntary GM-free zone is a concept worthy of further development? If yes, what could be done to facilitate further development of the model? (5.4)**

19.1. GM-free zones is a concept that is worthy of further development in Wales but we have concerns that without any legal status it is a pretty toothless approach. Welsh produce has a clear brand that is associated with the country, landscape and farming methods that could be severely damaged by the introduction of GM to Wales. The WAG should work with Welsh farmers to begin to build support for such a zone and facilitate its development throughout the country as the success or failure of such a scheme will be dependent on how “joined up” you can get non-GM farms or tracts of land. Ideally it would be the whole of Wales or regions but the actions of very few pro-GM farmers are likely to be able to scupper such an enterprise.

**20. Q20. Would stakeholders support efforts to establish an all Wales voluntary GM-free zone? (5.4)**

20.1. The best situation for Wales would be that the whole of Wales would be a GM-free zone but again without any legal status it does seem to be precarious and toothless system as only a few GM farmers could wreck the situation for the rest of Welsh farmers.

**21. Q21. Do Stakeholders agree that GM crops should be excluded from Environmentally Designated Areas? (5.5)**

21.1. GM crops should be excluded from Environmentally Designated areas. There is a raft of evidence (see Defra funded Farm Scale Evaluations<sup>11</sup>) that farming methods associated with GM crops are detrimental to the environment.

**22. Q22. Should Agri-Environment Schemes such as Tir Cynnal, Tir Gofal and Organic Farming Schemes/Organic Maintenance Schemes include the requirement to an agreement holder not to grow GM crops on the land entered into such a scheme? (5.5)**

22.1. As a general rule we believe that where the growing of GM crops allows the intensification of agricultural practice, i.e. herbicide tolerance (HT), pest resistance (BT), environmental resistance etc then they should be explicitly excluded from agri-environment schemes. Current generations of GM crops i.e. and BT have resulted in practices that have driven intensification of the farming system with reduction in environmental benefits. The proposed 2<sup>nd</sup> generation crops such as drought, salt or other environmental tolerance could produce volunteers, or hybrids with native plants that are ecologically fitter than conventional volunteers or native species with resulting detrimental environmental impacts.

22.2. The EU Council Regulation (EC) No 834/2007<sup>12</sup> that covers organic farming in the EU states “*Genetically modified organisms (GMOs) and products produced from or by GMOs are incompatible with the concept of organic production and consumers' perception of organic products. They should therefore not be used in organic farming or in the processing of organic products.*” This makes it explicit that GMOs have no place in organic farming and so those farmers who are certified organic and part of organic schemes should not and must not grow GM crops.

**23. Q23. What are your views on the types of losses identified above? (6.3)**

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<sup>11</sup> <http://webarchive.nationalarchives.gov.uk/20080306073937/http://www.defra.gov.uk/environment/gm/fse/>

<sup>12</sup> Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF>

- 23.1. We believe that the consultation document has identified a range of losses that would be expected.
- 24. Q24. Should coexistence measures try to ensure that such losses should be covered? (6.3)**
- 24.1. Any losses by the non-GM farmer must be covered i.e. additional storage, transport etc. This must also include the cost of sampling and testing.
- 24.2. As it can take 3-10 days to tests for GM presence how do farmers deal with crops from each field? Are farmers supposed to store each field separately? What if the product leaves the farm ahead of these test results? Payment for the loss of a whole crop from a farm may be needed.
- 24.3. The time that it takes to test and the mixing of product post-farm is an important issue. In many situations product from a range of farms may be mixed and only then a positive result identified and product rejected. In this case all farmers must be compensated.
- 24.4. It is highly likely that contracts will be lost due GM contamination and these losses must also be covered.
- 25. Q25. Are there any other types of losses that should be taken into consideration? Environmental? Cost of volunteer control? Cost of clean up? Administration cost associated with adventitious presence? (6.3)**
- 25.1. All costs associated with GM contamination must be compensated for; this would include costs covered in Q.24 but also testing and any administration associated with contamination; control of volunteers, clean up and any ongoing crop losses i.e.being unable to grow specific crops in a field due to adventitious GM presence.
- 25.2. Where environmental damage can be attributed to GM to contamination then this too must be compensated for.
- 26. Q26. Are there any alternative ways of distributing the burden of a redress system on the GM sector? (6.4.3)**
- 26.1. The GM seed industry should pay for this scheme. It can be collected through a levy on GM seed sales.
- 26.2. It is undesirable for individual GM farmers to be economically liable to other non-GM farmers as this may be detrimental to community cohesion. Also if a number of farmers were to grow GM crops with the same trait in any given area it would also be difficult to establish which farmer was liable for the damage incurred. Due to topography and weather conditions it may not be the closest farmer who contaminated the non-GM crop but this would be impossible to prove.
- 26.3. We accept and understand that the approach of having GM farmers having strict liability may incentivise them to adhere to coexistence measures. However, it is the role of Government to ensure that coexistence measures are adhered to and not the threat that a neighbour could take you to court.
- 26.4. The GM seed industry should pay for this scheme. It can be collected through a levy on GM seed sales which would put a greater financial burden on those companies that sell the most GM seed. This would provide a fair burden across companies as those that make most from GM sales pay the most to cover any risk.
- 27. Q27. Are there any strong arguments or pros/cons to each approach that have not been covered? (6.4.3)**

- 27.1. We believe there is an overriding con against the proposals in 6.4.1 (Specific GM farmer). This could result in an adversarial situation within a community as two farmers head into court. There is also the issue of proving that any one farmer contaminated a specific crop, see 26.2 above).
- 27.2. The option of all GM crop farmers being responsible for compensation has its pros in that it depersonalises the issues but it lays the financial burdens on the part of the production chain that is likely to be making the least out of this crop and be unable to pass on additional costs up the production chain to its customers.
- 27.3. By putting the burden of redress onto the seed companies it will ensure that they enforce contractually coexistence requirements (both statutory and voluntary). It is also targets those companies that are most likely to make the most financial gain from GM crops and able to pass additional costs up the production chain.
- 28. Q28. Should redress be available for all proven economic losses as a result of GM adventitious presence or should it be limited to the 0.9% threshold and regulatory constraints? (6.5.4)**
- 28.1. Redress should be available for all proven economic losses regardless of level.
- 29. Q29. Have we correctly identified the range of losses that might occur in crop values? (6.5.4)**
- 29.1. See paragraphs 24 and 25.
- 30. Q30. Should consequential or additional losses be covered by any redress mechanism? If so, which should be covered and why? How likely are these to occur? Are there any other types of losses that should be considered? (6.5.4)**
- 30.1. Any losses associated with GM contamination must be covered by the redress mechanism.
- 31. Q31. Who should be entitled to claim redress and what eligibility criteria should they satisfy? (6.5.4)**
- 31.1. Any person who can show that GM contamination of their produce has resulted in a financial loss must be entitled to claim redress.
- 32. Q32. What should the eligibility requirements be for non-GM farmers to seek redress? Have any particular criteria been highlighted? (6.5.4)**
- 32.1. It is not up to the non-GM farmer to implement and show they have implemented processes to exclude GM contamination from their farm other than good agricultural practice. Therefore as long as non-GM farmers can show economic loss from GM contamination and are not responsible for this contamination through their own actions then they must be able to seek redress.
- 33. Q33. Are there any alternative ways of distributing the burden of a redress system on the GM sector? Are there any strong arguments or pros/cons to each approach that have not been covered? (6.5.4)**
- 33.1. The scenarios for economic redress presented appear to cover all options.
- 34. Q34. Which redress mechanism do you favour and why? If a compulsory redress mechanism is your preferred option, which of the options described should it employ? (6.5.4)**
- 34.1. We favour a compulsory redress system. Non-GM farmers who find their farms and produce contaminated with GM product should not have to fund court proceedings against other farmers (who may be backed by very large and wealthy multinational corporations) to recover economic loss. These concerns would cover both the Tort as well as seeking redress through the civil court.

- 34.2. The industry scheme is interesting and does cover many areas of concern but the independence of such a scheme has to be questioned which would undermine its authority. The lack of success of industry schemes in other sectors also does not promote this sort of approach to us.
- 34.3. The fourth option of a statutory redress mechanism funded by a levy on the GM industry (collected through the new Levy Board UK) is our preferred option. It would demonstrate a clear independence from both the GM industry and the non-GM farmer; it does not pitch one farmer against another and would also mean that proven losses by non-GM farmers can be paid immediately from the Government.
- 34.4. We understand the implications of pursuing such a route in that it would require primary legislation and the co-operation of the Secretary of State and the approval of Parliament. However, experiences of other nations and the heavy handedness of the GM industry i.e. the Schmeiser case<sup>6</sup>, suggest that the small businesses that make up the overwhelming majority of Welsh farms need to feel confident in any redress system and only a statutory system will provide this.

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