

Analysis

DG Agriculture's report "***Economic Impact of unapproved GMOs on EU feed imports and livestock production***"

A commentary by Friends of the Earth Europe
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The European Commission's DG Agriculture issued a short report in June 2007 which concluded that to address this situation, the EU should investigate i) speeding up the GMO approvals process (to authorise more GM feed more quickly) and ii) "*how to deal with*" imported feed that contains low levels of unapproved GM material (the EU currently has a "zero tolerance" policy towards unauthorised GMOs).

Following on from this report, European feed industry lobbyists, some farming groups and the biotechnology industry have made extreme claims; that animal feed will increase in price by up to 600% and farmers may be forced into a "wholesale slaughter" of their animals if the EU fails to approve new GM feeds more quickly and remove the "zero tolerance" policy. These claims have been widely reported on in the media despite major flaws both in the report's conclusions and the way they have been interpreted.

Report conclusions

The European Commission's DG Agriculture produced a report entitled *Economic Impact of unapproved GMOs on EU feed imports and livestock production*ⁱ. The report is based on the proposal that EU authorisations of GM crops and feeds are not synchronous with those of countries from which animal feeds are imported, in particular the United States. It suggests that, because the EU takes longer to approve GMOs, this could lead to imports being barred because of the presence of low levels of contamination of GMOs that are approved in the exporting country, but not in the EU. It then presents the results of economic 'modeling' using three scenarios of minimal disruption through to a 'worst case' scenario. The report concludes that:

- Under the minimal disruption scenario, the impact on the EU market "would be small due to the moderate US import volumes".
- Under the 'worst case' scenario (a "real possibility"), EU feed supply would be cut by 25.7 million tones and costs would increase by more than 600%.
- The EU should investigate how to speed up GMO approvals to be speeded up in line with those of major exporting countries, and for the "zero tolerance" standard to be reviewed and whether any contamination from a GMO not yet authorised in the EU but having passed a safety assessment equivalent to that required in the EU should be allowed in imports to the EUⁱⁱⁱ.

The findings of the report have been reproduced with little scrutiny of their validity. It's "worst case scenario" has been widely used by feed industry lobbyists, the GMO industry and some farming groups to tie together the current feed crisis in the livestock sector with the GM approvals process and the EU's "zero tolerance" policy on adventitious presence of unapproved GM materials. For example, a press release from the European feed industry organisations stated that "The EU's GM policy results in an artificial feed and food price inflation, which could further affect the purchasing power of EU citizens. Until now, the bill has been paid by the EU livestock industry, in particular the EU pig industry whose viability is at stake,"^{iv}. A representative of GM industry body Europabio even went so far as to state that EU farmers would be forced into the wholesale slaughter of their livestock, due to a shortage of animal feed^v. And the National Farmers' Union in Scotland also claimed in a press release that "The European Union's process for

authorising the use of new GM varieties is paralysed and livestock farmers and consumers are set to suffer the consequences”^{vi}

The report has led to industry calls for changes to the EU’s stance on GMOs. The biotech industry lobby group CropGen stated that “the report signals that even Brazil may convert to GM soya in the next two years which would leave the EU with an import deficit of 32 million tonnes”^{vii}. A press release by the European feed industry bodies and the European biotech industry association called for “the need to improve the EU [GM] approval system to function more swiftly or risk threatening Europe’s ability to fundamentally source sufficient feed for our livestock sector.”^{viii} It also called for “the EU to establish a workable tolerance for the low level presence of [GM] products that have obtained a positive EFSA opinion or have been approved by another OECD country to be present in cargoes of traded commodities.”

How robust are the figures provided by the DG Agriculture report?

It is the results of the ‘worst case’ scenario that have been widely reported and used as fuel for the industry’s lobbying efforts on GM. However, nowhere in the report are the parameters of the model or the confidence intervals of the results set out. This means it is impossible to evaluate the accuracy of the results – the conclusions have to be taken at face value and cannot be verified from the data provided. Crucially, the authors emphasise not once, but twice (pg 6 and pg 11):

It should be noted that the worst case scenario yields an impact that goes well beyond the technical limits of the model used for the analysis in the provision of precise and reliable estimations. As a consequence, the estimates generated by the model may give a clear indication of the direction and severity of the impact, but the magnitude of the estimated figures should be treated with caution. (emphasis added)

As the report does not include any methodology or provide error bars for the estimates of economic impact, it is not possible to assess the credibility of the worst case scenario results. But they cannot be robust, simply because the authors put such a strong caveat to them. **According to the authors of the report, the ‘worst case’ findings are not reliable and should be treated with caution.** The widespread publicising of such unreliable estimates can therefore only be interpreted as scaremongering.

DG Agriculture conclusions should be: little impact and minimal scenario most likely

The report sets out three scenarios for disruption and presents modeled results for the impact on feed imports. The first scenario is described as ‘minimal disruption’. This scenario is the status quo – where new GMOs are authorized in the United States, but exports can be obtained from other countries. In the case of a US approval of either maize or soybean (the minimal scenario), the report states that disruption is insignificant because EU imports of animal feed from the US amount to only 2.6 million tones per year, “a figure that is close to the “normal” year-to-year change in total EU imports”^{ix}. So a crucial finding of the report is that asynchronous approvals of new GM crops between the US and the EU will have almost no impact on EU feed imports.

How likely is the worst case scenario?

Turning to the worst case scenario, the report states that this is a ‘real possibility’. Because this conclusion is so contrary to the report’s own analysis, the whole section which precedes it is included below. The paragraphs are numbered for ease of analysis.

“Section 3.4 Likelihood of the different scenarios”

[1] “The likelihood of the three scenarios depends on the extent to which the major supplier countries are willing and able to take account of the EU market in their GMO authorisation and production strategies. In the case of the USA – for which the EU is a minor market for the products considered (9% of US soybean and soybean meal exports go to EU-27)⁵ – the situation is fairly

clear. It has already been shown in the past that the lack of EU approval does not hinder the US approval process and cultivation of GM crops.”

[2] “Argentina, on the contrary, has so far been cautious not to release new GMOs prior to EU approval. The protection of its soybean processing industry is a stated Argentine policy objective. An assessment of the impact of new GMOs on the export possibilities is a formal part of the GMO authorisation procedure. About 42 % of Argentinean soybean and soybean meal exports go to EU-27. It is therefore unlikely that Argentina will approve a GMO that could hurt its industry.”

[3] “Brazil's dependency on the EU market is even more pronounced than that of Argentina (51% of the soybean and soybean meal exports go to EU-27). Brazil should, therefore, be also extremely cautious about approving new GMOs.”

[4] “Another concern is that soybean seeds used legally in Argentina and Brazil may contain traces of EU-non approved GMOs.”

[5] “Finally, with the emergence of China as a major soybean importer, Argentina and Brazil will become less reliant on the European market for their soybean production in the future.”

To summarise paragraphs 1-3: US approvals will be unaffected by EU policy but Brazil and Argentina will be much more cautious about approving new GM crops that could hurt their exports to the EU. This is not the worst-case scenario, but the minimal scenario! The report's conclusion that the worst case scenario is 'a real possibility' is not supported by evidence from real cases, nor is it a logical conclusion of the report's assumptions. In fact, it is the *minimal* scenario that is most likely, which the authors suggest would lead to a minimal disruption upon EU feed supplies.

The worst case scenario rests upon the assumption that Brazil will rapidly commercialise a GM soybean variety that has not been approved in the EU. And it is this possibility that has led to the scaremongering about the potential collapse of the EU livestock industry. But no evidence presented that Brazil is even considering new GM soybeans. Paragraph 4 appears to relate to the contamination of soybean seed stocks with unapproved GM varieties. However, prevention of the contamination of seed stocks with unapproved GMOs is clearly the responsibility of the biotech companies, not the EU. The biotech companies, in whatever country they are operating, should ensure that unapproved GMOs are not made available illegally to farmers and ensure rigorous biosafety around seed-breeding stations. If the EU was to change its policy on adventitious contamination in this regard, it would be providing a *carte blanche* to the biotech companies to contaminate the world's stocks of maize and soybean with unapproved or experimental GM varieties. This would pose an unacceptable threat to biodiversity, health and farmers' right to GM free farming.

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ⁱ DG Agriculture Report. *Economic Impact of unapproved GMOs on EU Feed Imports and Livestock, June 2007:*
http://ec.europa.eu/agriculture/envir/gmo/economic_impactGMOs_en.pdf

ⁱⁱ DG Agriculture Report. *Economic Impact of unapproved GMOs on EU Feed Imports and Livestock, June 2007:*
http://ec.europa.eu/agriculture/envir/gmo/economic_impactGMOs_en.pdf

iii “Economic Impact of Unapproved GMOs on EU feed imports and livestock production”, DG Agriculture, June 2007; “It’s already one minute past midnight: The EU Farm Council must act on conclusions of the DG AGRI Report “Economic Impact of Unapproved GMOs on EU feed imports and livestock production” Press release by COCERAL and FEFAC, 22/11/2007; Reference and Key Message Document Commission Report “Economic Impact of Unapproved GMOs on EU feed imports and livestock production”, EuropaBio, COCERAL, FEFAC, FEDIOL
<http://www.europabio.org/articles/Final%20Low%20Level%20Presence%20Reference%20and%20Key%20messages.pdf>

iv Fefac/Coceral Press Release 22/11/2007

v Mitchell P (2007) Europe’s anti-GM stance to presage animal feed shortage? *Nature Biotechnology* Vol 25 pp 1065-66

vi http://www.nfus.org.uk/news_detail.asp?newsID=1348

vii http://www.cropgen.org/article_135.html

viii Coceral/Fefac/Europabio/Fediol (2007) *Reference and key message document: Commission Report “Economic Impact of Unapproved GMOs on EU feed imports and livestock production”*

<http://www.europabio.org/articles/Final%20Low%20Level%20Presence%20Reference%20and%20Key%20messages.pdf>

ix DG Agriculture Report. *Economic Impact of unapproved GMOs on EU Feed Imports and Livestock Production*. p. 6