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MEPs poised to ignore voters and science on GM crops

An unusually biased European Parliament resolution in the Agriculture Committee promotes genetically modified crops, ignoring opinion polls and scientific data

Tomorrow (Wednesday 24th January), the European Parliament's Agriculture Committee will debate and vote on the resolution *"Biotechnology: Prospects and Challenges for Agriculture in Europe"* (2006/2059(INI)), proposed by the Finnish ALDE MEP Kyösti Virrankoski.

This notably biased resolution proposes that liability rules for biotechnology should be weakened, that authorisation procedures for new products should be less stringent and that the precautionary principle should not be used in the approval process for new biotechnology products. It also advocates increased funding for biotechnology research.

This course of action is justified by the arguments that agricultural biotechnology can help to increase competitiveness and that genetically modified crops will deliver agricultural benefits. **Friends of the Earth Europe strongly contests both claims** and highlights that this resolution focuses solely on the potentially beneficial implications of biotechnology and ignores its associated costs and risks. The resolution also fails to address the public opposition to genetically modified foods and the market implications of this.

Furthermore, the central assumptions on the uptake of GM crops worldwide are based on data and projections from the biotechnology industry-sponsored ISAAA. Analyses by several authors have found ISAAA data to be significantly inflated in countries such as South Africa, Asia and the US. [1]

Helen Holder, GMO campaigner at Friends of the Earth Europe said:
"It is absurd for the European Parliament to promote the advancement of genetically modified food and crops when European citizens are opposed to them. Scientific evidence shows that genetically modified crops don't have agricultural benefits. And since Europeans don't want to eat them, there is no market to sell them."

1. Can the use of biotechnology in crops and food really increase the EU's competitiveness and create jobs?
Many EU citizens are opposed to the use of biotechnology in food and crops. The most recent Eurobarometer study (Gaskell et al., June 2006) concludes that overall, Europeans think that GM food "*should not be encouraged*", and that "*GM food is seen by them as not being useful, as morally unacceptable and as a risk for society*".

This opposition to genetically modified foods and crops from the general public has significant implications on the market. It is highly questionable whether the use of biotechnology in agriculture can increase Europe's competitiveness when:

- **GM-adopting countries have lost market share to GM-free suppliers:**
  According to an economic study of GM crops by Australia's Rural Industries Research and Development Corporation (RIRDC), *"The US share of the EU's maize imports has fallen to virtually zero (from around 2/3 in the mid-1990s), as has Canada's share of EU canola imports (from 54% in the mid-1990s)."*
- **Countries have a trade interest in remaining GM-free because importers are closing their doors to GM produce**
  An Indian Government task force on biotechnology recently recommended that India should not produce transgenic crops in commodities that the country exports, like soybean, basmati rice and Darjeeling tea because of opposition to GM products. [2]
- **The vast majority of retailers and food and drink companies in the EU have a non-GM food policy**

In addition to this:

- **The introduction of GM crops has increased costs for the non-GM and organic sectors as they carry the burden of ensuring their produce remains non-GM.**

- **Contamination incidents have already proved hugely costly and unavoidable** - the current GM rice contamination scandal is the second time in two years that the European Commission has had to put in place Emergency Measures to prevent unauthorized GMOs from entering the EU market.

And regarding job creation, agricultural biotechnology's contribution has been greatly exaggerated. According to the European Commission, **80% of biotechnology jobs in the EU are actually health-related and not in the agricultural biotech sector**.

2. Can genetically modified crops really bring agricultural benefits?
This resolution claims that genetic modification of crops can bring benefits such as increased yields, decreased pesticide use, solutions for food shortages in developing countries and new nutritionally-enhanced products. But Friends of the Earth Europe can provide evidence to discount these claims and insists that the costs and risks of agricultural biotechnology are too great to justify its advancement when the benefits remain only pipe dreams in most cases.

Yield: Genetically modified crops to increase yield have not been developed. In fact, a 2003 report published in the journal Science states that "in the United States and Argentina, average yield effects [of GM crops] are negligible and in some cases even slightly negative". [3]

Pesticides: The growing of GM crops has actually resulted in increased pesticide use. An exhaustive analysis of US Department of Agriculture pesticide usage data in 2004 concluded that GM soy, maize, and cotton have led to a 122 million pound increase in pesticide use in the US since 1996. [4]

Food shortages in developing countries: A salt-tolerant or drought-tolerant crop is far from making it out of the lab into commercial availability. Professor Tim Flowers of the School of Biological Sciences at the University of Sussex has stated: *"Evaluation of claims that biotechnology can produce salt-tolerant crops reveals that, after ten years of research using transgenic plants to alter salt tolerance, the value of this approach has yet to be established in the field."* [5]

Besides this, Friends of the Earth Europe argues that hunger results from the inability of the poor to access food, and from policies that further marginalise the poverty-stricken. For example, in India in 2002, there were 65 million tons of surplus food but 350 million people went undernourished. It is clear that genetically modified crops will not provide the solution to these problems and both the editor of The Lancet medical journal [6] and even a senior employee at biotech firm Syngenta [7] have acknowledged this.

Nutritionally-enhanced and pharmaceutical products:
The expectations for a second generation of GM crops with altered nutritional profiles have not been met as the traits that researchers want to enhance involve several genes and complex interactions between the plant and the environment. There is also little epidemiological evidence to support the role of functional foods, whether genetically modified or not, in reducing diet related disease. A far greater body of evidence supports the health benefits of consuming more fruit and vegetables and other foods naturally rich in vitamins, minerals and other micronutrients.

The example of "Golden rice" demonstrates this: Hailed as the solution to blindness and disease in the developing world, the rice is engineered to produce beta carotene, which the human body can then convert to Vitamin A. But it will not solve the problem of Vitamin A deficiency. Malnourished people are unable to even absorb beta-carotene because it requires a diverse diet involving leafy vegetables that they lack; and this section of society is so poor that they often live in a non-monetary/subsistence economy in which they can not afford to buy conventional rice, not-to-mention an enhanced variety.

Any contamination occurring from a pharmaceutical GM crop would have particularly severe implications. Contamination of the food chain with a pharmaceutical crop has already occurred in the US. In November 2002, the US Department of Agriculture announced it had quarantined, and later destroyed, over 4 million euros worth of soya beans destined for human food after finding ProdiGene's GM pharmaceutical maize mixed with the soya beans. [8]

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[4] Benbrook, C,. October 2004. Genetically Engineered Crops and Pesticide Use in the United States: The First Nine Years. BioTech Infonet Technical Paper No7 http://www.biotech-info.net/Full_version_first_nine.pdf
[5] Excerpt from the discussion forum: Examining the Politics of Policy in the Developing World
Institute of Development Studies, University of Sussex, Brighton, UK, 1-2 October 2003.
[6] Dr Richard Horton was quoted by the BBC in 2003 saying "Seeking a technological food fix for world hunger may be... the most commercially malevolent wild goose chase of the new century."
[7] Dr Steve Smith from Syngenta was quoted by the BBC in 2003 saying "If anyone tells you that GM is going to feed the world, tell them that it is not... To feed the world takes political and financial will - it's not about production and distribution."
[8] http://www.aphis.usda.gov/lpa/news/2002/11/prodigene.html