



International Federation
of Organic Agriculture Movements
EU Regional Group

Mr José Manuel Barroso
President
European Commission
B-1049 Brussels

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Concerning: College debate on 6 November on genetically modified maize

Dear Commissioner,

On 6 November, you and your fellow Commissioners will give your recommendation to the Council whether or not it should approve for cultivation the genetically modified (GM) maize 1507, owned by Pioneer Hi-Bred International.

In September, after a case filed by Pioneer with respect to this GM maize, the General Court of the European Union (EGC) found the European Commission in breach of EU law on procedural grounds.

It is important to stress that nowhere in its ruling the Court states or suggests that the Commission is required to authorise the GM crop. The Commission is simply required to take a decision whether or not this crop should be authorised for cultivation. We are asking the Commission to do just that.

On the basis of the following scientific, political and legal reasons, we urge you to decide against the authorisation of GM maize 1507 for cultivation.

This GM maize has two traits: a) it produces its own pesticide and b) it is tolerant to a specific herbicide (glufosinate ammonium). Under EU law, both traits must be subject to a risk assessment. However, the European Food Safety Authority (EFSA) has not yet carried out the required assessment linked to the herbicide tolerant trait, in clear breach of EU legal requirements. Moreover, EFSA's risk assessment of the pesticide producing trait highlights a number of impacts of the toxin on non-target organisms such as butterflies and moths. EFSA also acknowledges the lack of conclusive scientific data on other pollinators such as bees which might be negatively affected by the toxin released by the GM crop.

The majority of European consumers, a significant number of consumer co-operatives and other private retailers have consistently rejected GM crops. This is based on evidence of the risks of GM crops, as well as on their lack of real benefits. As demonstrated once again by recent scientific studies, GM crops do not generally increase yields nor withstand stressful climatic conditions such as droughts or floods. Neither do they provide solutions to other agricultural problems like soil degradation, and to soil and water pollution.

Opposition to GM crops and to the agricultural system that they represent is widespread across the globe. The recent decisions by BASF and Monsanto to concentrate their GM operations in the Americas was the outcome of a series of defeats for the industry in China, India, Russia as well as in most South East Asian and African countries over the last two years. The vast majority of GM food crops are still grown in just four countries in the Americas.

Genetic engineering in crops is based on a simplified understanding of biological systems, and is an outdated technology. Aside from the serious health, environmental and socio-economic problems and risks it poses, it cannot provide the sustainable and effective solutions that farming needs. More modern biotechnologies, like Marker Assisted Selection, which can support agro-ecological practices, represent a better way forward.

This Commission started its term with the authorisation of the antibiotic-resistant GM potato. At the time, this authorisation provoked public outrage. The crop ultimately failed: only 25 hectares were planted during the second year of cultivation, and BASF decided to withdraw the product from the market. This authorisation was so legally and scientifically flawed that Hungary, Austria and Luxembourg took the European Commission to Court, with the judgment pending.

We therefore urge you and your fellow Commissioners not to end your term as it started: with the authorisation of an unnecessary and unwanted GM crop whose risks have not been properly assessed. There is no need to pass the decision around GM maize 1507 to Council – the Commission has the scientific, political and legal justification to reject the authorisation.

Yours sincerely,



Jorgo Riss
Director
Greenpeace European Unit



Magda Stoczkiewicz
Director
Friends of the Earth Europe



Marco Schlüter,
Director
IFOAM EU Group



Rodrigo Gouveia
Secretary General
Euro Coop

For any correspondence on this letter, please contact: Jorgo Riss, Director, Greenpeace European Unit, Rue Belliard 199, 1040 Brussels. Email: jorgo.riss@greenpeace.org

Explanatory note

Pioneer maize 1507 has been genetically modified to produce the *Bacillus thuringiensis* (Bt) toxin Cry1F with the goal to oppose the European Corn Borer, as well as to be tolerant to the herbicide glufosinate ammonium.

Legal aspects

EU GMO law requires EU institutions to assess the changes in agricultural practices caused by a GM herbicide tolerant plant. In 2008, the Commission expressly requested the European Food Safety Authority (EFSA) to conduct such an assessment stating that under EU GMO law “it is necessary to cover under the GMO environmental risk assessment the possible effects on biodiversity and non-target organisms which any individual GM herbicide tolerant crop may cause due to the change in agricultural practices (including those due to different herbicides uses)”¹ (emphasis already present in the original text). In 2008, the Environment Council unanimously underlined “the need to study the potential consequences for the environment of changes in the use of herbicides caused by herbicide-tolerant GM crops”². Despite that, EFSA’s opinion for GM maize 1507 lacks such an essential assessment.

Pioneer Hi-Bred argues that they would not need to fulfil this legal obligation because the herbicide tolerant trait inserted into GM maize 1507 would just be a marker gene – used by GM companies during the genetic modification process. This does not alter the fact that GM maize 1507 is a herbicide tolerant plant and will be used as such in the field. In its original notification, Pioneer Hi-Bred clearly stated that the GM maize tolerance to glufosinate is intended for weed management and describes the herbicide concentrations that can be used in the field as well as residues of the herbicides in the plants. In addition, the applicant itself promotes GM maize 1507 as a glufosinate-tolerant crop in other countries, such as the United States of America³. Whilst the current use of glufosinate in Europe is subject to precise conditions, the approval of GM maize 1507 for cultivation will increase applications of such a toxic herbicide in European fields.

Scientific considerations

Only one of the two traits of GM maize 1507 has therefore been assessed. Authorising the cultivation of such a GM crop would be an evident breach of EU legislation.

When it comes to the pesticide producing trait of 1507, clear problems have also been identified. The EFSA GMO Panel (2011) states that the Cry1F toxin exuded by maize 1507 presents risks for at least some butterfly and moth species, and it admits that there is a lack of knowledge as to which of these species are at risk and where they are in agricultural landscapes. EFSA also states that the insecticide produced by 1507 is about 350 times more powerful than the insecticide produced by Monsanto’s MON810 maize, the only genetically modified crop grown commercially in the EU. In addition, there are no studies in the field assessing the impacts of the

¹ European Commission document on the environmental risk assessment of herbicide-tolerant plants.

www.greenpeace.org/eu-unit/en/Publications/2013/Environmental-risk-assessment-of-herbicide-tolerant-plants/

² Council Conclusions on Genetically Modified Organisms (GMOs), December 2008.

http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressdata/en/envir/104509.pdf

³ Dow AgroSciences (2007): TC1507, Insect-Protected Maize (Corn), Technical Bulletin.

http://msdssearch.dow.com/PublishedLiteratureDAS/dh_00a4/0901b803800a4d0c.pdf?filepath=herculex/pdfs/noreg/010-16438.pdf&fromPage=GetDoc

continuous presence of this insecticide on other pollinators, such as wild or honey bees, as well as on soil or aquatic organisms.

Other essential factors that should also be considered by a risk manager when judging the impacts of releasing a GM crop into the environment include whether such a product could bring any benefits and evaluating its socio-economic implications.

More broadly, scientific studies found no yield benefits when comparing GM and non-GM farming systems. A recent peer-reviewed study⁴, based on official data from EU and American authorities as well as FAO statistics, found that, over the last fifty years and specifically since US and Canada adopted GM crops, the annual yield increases of maize, rapeseed and wheat are significantly greater in Western Europe than in the US and Canada. Before 1985, maize yields were lower in Western Europe than in the US, but since then yields in Western Europe have constantly equalled or exceeded US yields. This demonstrates that “yield increases are not dependent on GM, and that the package of biotechnologies chosen by Western Europe to grow maize is out-producing the GM-led package chosen by the US”.

Moreover, in Western Europe such an increase in yields has been achieved in parallel with a reduction in both herbicide and pesticide use. In the US, on the contrary, since the adoption of herbicide-tolerant GM crops, herbicide use has massively increased while there has only been a negligible decrease in insecticide use. For example, the same study reports that since the adoption of insecticidal crops in the US, in 2009 the use of additional chemical insecticides has fallen only by 15% since 1995 compared to pre-GM levels, while by 2009 in France total insecticide use had fallen to 12% since 1995.

⁴ Jack A. Heinemann , Melanie Massaro , Dorien S. Coray , Sarah Zanon Agapito-Tenfen & Jiajun Dale Wen (2013): Sustainability and innovation in staple crop production in the US Midwest, International Journal of Agricultural Sustainability, DOI:10.1080/14735903.2013.806408