Environmental Pillar
WORKING FOR A SUSTAINABLE FUTURE

Environmental Pillar Policy Statement on Genetically Modified (GM) Crops in Ireland

March 2013

We are confronted with the most powerful technology the world has ever known, and it is being rapidly deployed with almost no thought whatsoever to its consequences." [a]

Dr Suzanne Wuerthele, US Environmental Protection Agency (EPA) toxicologist

The Environmental Pillar calls upon the Government to place a 5-year moratorium on the growing of any genetically modified (GM) crops in Ireland based on the following observations and information:

The Precautionary Principle

Analysis of industrial society along with health and environmental costs of technological progress reveals case after case of situations where systemic and systematic support for progress and business interests suppressed emerging evidence of harmful effects for years or even decades.[b]

The Precautionary Principle is the only rational way to deal with limited knowledge and limited understanding of the potential impacts of an activity on the interconnected constituents of the biosphere. Its use as a guiding tool for decision-making is also a legal requirement within the EU.[c]

The Precautionary Principle suggests that an intervention take place where preliminary scientific evaluation indicates that there are reasonable grounds for concern about potentially dangerous effects, without having to wait until evidence of the risk is available. The Precautionary Principle is particularly significant when the effect is likely to be irreversible.

The Precautionary Principle is a moral and political principle which states that if an action or policy might cause severe or irreversible harm to the public or to the environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.

Genetic Modification and Genetic Engineering

Genetic modification is experimentation with the basic structures of life. Widespread consumption of genetically engineered crops began less than fifteen years after their development. This is a very rapid introduction of a new technology based food, whose impacts on both biodiversity and human health have yet to be sufficiently tested. As a result, the consequences of these actions are largely unknown. There is simply not enough information to allow for informed decision-making.

The introduction of GM crops and their man-made genetic material into the wild leaves the door open for these genes to spread into the natural environment. This can happen by pollen and seed dispersal, and/or by interactions with other organisms sharing that environment. [d]

Uncontrolled gene dispersal means that it will not be possible to recall these rogue genes if at some later stage harmful impacts of the GM plants become obvious. In other words, planting GM crops out of doors is an irreversible action that could have unknown and disastrous consequences.

Considering that it is already known that genetic modification of plants gives rise to unpredictable effects[e] it is clearly very risky to introduce these plants into the wild.

There are also serious concerns in relation to possible adverse health effects arising from the consumption of genetically engineered food. Current 'risk assessments' undertaken by the companies are both short term and inadequate. Although testing of genetically engineered food on animals has given rise to concern, no long term studies for possible adverse health effects from genetically engineered foods on humans have been undertaken. In addition, current health surveillance systems are inadequate to detect any adverse impacts, should they arise. We need independent long term studies on the impact of genetically engineered food before their introduction into the diet.[f]

Food Security

The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) 2009 report[g] , a three-year collaborative study initiated by the World Bank, FAO, UNDP, WHO and signed by almost 60 countries (including Ireland) rejected the role of GM technologies in resolving hunger in the world.

Multiple studies have shown that small-scale farming with improved varieties of traditional seeds using agro-ecological methods offers a more sustainable long-term solution to feeding the world's population[h]. A similar view is shared by the UN special rapporteur on the right to food, Olivier De Schutter[i]. Low-input or organic methods of controlling pests and boosting yields have proven highly effective, particularly in the developing world. Other plant breeding technologies, such as Marker Assisted Selection, are widely expected to boost global agricultural productivity more effectively and safely than GM.

GM crops & food as framed by the biotech industry

The biotech industry has vast resources, a substantial part of which supports a generously-funded public relations machine that is targeted with strategic precision.. The most widespread biotech frame is that GM crops are needed to feed the world's growing population. An analysis of nearly two decades worth of peer-reviewed research reveals that genetic engineering has failed to significantly increase US crop yields. The author, former US EPA and US FDA biotech specialist Dr Douglas Gurian-Sherman, concludes that when it comes to yield, "Traditional breeding out-performs genetic engineering hands down."[j]

Approximately 1,500,000,000 people are starving because of unjust economic policies and unfair trading, not because they lack genetically engineered food.

Dependency on GM suppliers and development of "super-weeds"

Farmers who use GM crops will find themselves dependent on the corporations supplying the seed and weed control. Many GM seeds are modified in a 'transgenic' process so that they produce non-viable seeds thereby forcing farmers to buy new seed each year from the supply corporation. This leads to indebtedness for small farmers and has been partly blamed for higher rates of suicide among farmers in GM crop regions.

In the US 200 million acres of land are sprayed with Round Up every year. Giant Ragweed has developed which can survive 24 times the recommended dose of Round Up[k]. A very real threat is that nature responds and resistance will develop in weeds.

Further questions for consideration

Any decisions to lead Ireland down the road of introducing GM crops should be preceded by an open public debate with wide participation. At the least this participatory process should seek to answer the following questions:

Why would Ireland need GM crops?

What are the risks regarding the introduction of GM material into the wild?

Who would benefit from the introduction of GM crops?

Do consumers want food produced from GM crops?

What will the implications be for Ireland's "green" image if GM crops are introduced into Ireland, given that 70% of EU consumers do not want to consume GM foods?[l]

Conclusion

The Environmental Pillar asserts that Ireland with its highly successful agricultural sector, renowned for its clean, green image, should follow the precautionary principle and place a 5-year moratorium on the use of GM technology since the risks are currently too high and the proven benefits very low.

Contact information:

Michael Ewing, Social Partnership Coordinator.
Postal Address: Environmental Pillar of Social Partnership. Tullyval, Knockvicar, Boyle, Co Roscommon
Telephone: 071 9667373 Mobile: 00353 (0)86 8672153
Email: michael@environmentalpillar.ie

Whilst this document was developed through the processes of the Environmental Pillar it does not necessarily represent the policies of all its members.

Environmental Pillar members: An Taisce. Bat Conservation Ireland, BirdWatch Ireland. CELT - Centre for Ecological Living and Training. Coast Watch. Coomhola Salmon Trust. Crann. ECO UNESCO. Feasta. Forest Friends. Friends of the Earth. Global Action Plan Ireland, Gluaiseacht. Hedge Laying Association of Ireland. Irish Doctors Environment Association. Irish Natural Forestry Foundation. Irish Peatland Conservation Council. Irish Seal Sanctuary. Irish Seed Saver Association. Irish Whale and Dolphin Group. Irish Wildlife Trust. The Organic Centre. Sonairte. Sustainable Ireland Cooperative. VOICE. Zero Waste Alliance Ireland

References:

[a] http://www.bangmfood.org/quotes/24-quotes/15-why-gm-is-not-safe

[b] European Environment Agency (2001) Late lessons from early warnings: The precautionary principle 1986-2000, Environmental Issue report 22. https://docs.google.com/viewer?a=v&pid=gmail&attid=0.1&thid=13c685c669b32468&mt=application/pdf&url=https://mail.google.com/mail/u/0/?ui%3D2%26ik%3Debb0794759%26view%3Datt%26th%3D13c685c669b32468%26attid%3D0.1%26disp%3Dsafe%26zw&sig=AHIEtbTj9UiGxkiV-UykvN5EKf85jIOBZg [Accessed 20/02/2013]

[c] Recuerda, Miguel A. (2006) Risk and Reason in the European Union Law, 5 European Food and Feed Law Review

[d] Horizontal Gene Transfer: A Universal Phenomenon (2004) Panoff and Chuiton. Human & Ecological Risk Assessment, 10: 939-943.

[e] Latham et al , "The Mutational Consequences of Plant Transformation, Journal of Biomedicine and Biotechnology 2006:1-7

[f] http://ideaireland.org/library/genetically-modified-food-and-health-a-cause-for-concern/ {accessed 28/01/2013]

[g] International Assessment of Agricultural Knowledge, Science and Technology for Development Report (IAASTD) (2009) *Agriculture at a Crossroads* http://www.weltagrarbericht.de/reports/Global_Report/Global_content.html {accessed 28/01/2013]

[h] http://sri.ciifad.cornell.edu/ [Accessed 20/02/2013]

[i] http://www.srfood.org/index.php/en/right-to-food [Accessed 20/02/2013]

[j] http://www.ucsusa.org/food_and_agriculture/our-failing-food-system/genetic-engineering/ [Accessed 20/02/2013]

[k] http://www.organic-center.org/reportfiles/13Years20091126_FullReport.pdf [Accessed 20/02/2013]

[l] A 2010 Eurobarometer survey found that 70% of Europeans think that GM food is "fundamentally unnatural", and 59% say that such food is unsafe for their health. http://www.europeanvoice.com/article/imported/what-future-for-gm-crops-in-europe-/73337.aspx [Accessed 20/02/2013]