

GM-free Ireland Network

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COMMON GM BIOTECHNOLOGY PROPAGANDA MYTHS

GM BIOTECHNOLOGY & SCIENCE

Genetic engineering of crops is a continuation of traditional breeding methods

Most GM crops are modified by the introduction of DNA (genes) taken from other biological kingdoms, genera and species. Such transgenic mixture of DNA does not normally occur by natural evolution or traditional breeding methods. This usually includes a "promoter gene" from a virus, an "anti-biotic-resistant marker gene" from a bacterium, and a gene intended to confer a desired trait (such as resistance to weedkiller or capacity to produce a pesticide toxin) from either a bacterium, plant or animal. Examples include potatoes with spider genes, maize with bacterium genes, tomatoes with fish genes, and cows and rice with human genes.

Genetic modification is a precise science

It's more of a hit-or-miss approach. Most GM crops are modified by the insertion of transgenic DNA "cassettes" into random and unpredictable locations of the recipient organism's genome. The two most common insertion methods include bacterial infection using the soil bacterium *Agrobacterium tumefaciens*, or the use of microscopic particles of gold or tungsten coated with a solution of the transgenic cassette, which are literally blasted into the recipient organism using a microscopic shotgun ("gene gun")! Both insertion methods create undesirable side effects including genetic instability and genome scrambling (where thousands of genes may be mixed up, accidentally duplicated, relocated in different parts of the chromosome, switched permanently on or off, etc.). Apart from this collateral damage caused by the crude nature of the modification process itself, current scientific knowledge does not enable us to predict the long-term effects of inserting transgenic DNA on the modified organisms, the ecosystems into which they are released, or the wildlife, farm animals and humans which consume them. No long-term studies exist to prove the industry's claims that GM crops are safe for the environment, wildlife, livestock or human health.

Opponents of GM food and farming are "anti-science"

Leading opponents include CRIIGEN - Scientific Council for Independent Research on Genetic Engineering, the Union of Concerned Scientists, the Independent Science Panel, the U.S. Center for Food Safety, the Institute of Gene Ecology, the International Society of Doctors for the Environment, the Assembly of European Regions, The Foundation on Future Farming, the International Commission of the Future of Food and Agriculture, Slow Food, and numerous agronomic, environmental and health scientists from leading universities and research institutes around the world.

Opponents of GM crops oppose biotechnology in general

Another lie. Biotechnology includes many useful applications including genome sequencing (to identify genetic traits), Marker Assisted Selection (to take the randomness out of plant breeding), and the contained use of GM bacteria in sealed vats in secure laboratories for the production of medicines such as insulin for diabetics and other useful pharmaceutical products. Opponents of GM biotechnology are against the environmental release of live Genetically Modified Organisms into the environment and food chain.

GM CROPS ARE WIDELY GROWN AROUND THE WORLD

In the EU, only one GM crop - Monsanto's patented GM maize MON810 - is authorised for cultivation. This is only grown on 0.06 per cent of the EU's arable land (74% of which is in Spain, where it has already contaminated conventional and organic farmers). This crop is banned in Austria, France, Germany, Greece, Hungary, Luxembourg, Poland and Switzerland, and by 196 Regional Governments, 93 Provinces, and 4,567 Local Authorities in 22 EU member states. Its cultivation is decreasing in the EU.

Worldwide, GM crops are grown on less than 2.4% of arable land. 50% are grown in the US. 70% are grown in the US and Argentina. 90% of are grown in US, Canada, Argentina, Brazil and Paraguay.

GM CROPS AS A SOLUTION TO HUNGER AND CLIMATE CHANGE

GM crops are needed to feed the world

Opponents of GM crops condemn African babies to starvation

The “anti-GM lobby” is guilty of crimes against humanity

A grotesque abuse of the hunger scandal. Current global food production is enough to feed 1.5 times the world population. Most of this huge surplus ends up as food waste. The persistence of hunger in rich and poor countries results from lack of money, credit, distribution, access to land, war etc.

According to the UN / World Bank’s International Assessment of Agriculture, Science and Technology for Development (IAASTD) report published in 2008, GM crops have little, if any, role to play in meeting the needs of a hungry world.

“We call upon agro-chemical multinationals Syngenta, Monsanto, Bayer, BASF, DuPont and others to no longer abuse the scandal of increasing hunger in a world of overproduction to defend the introduction of GMOs. We consider such misleading propaganda, which is belied by all practical experience, as unethical and intolerable.”

— Final Declaration, Fifth European Conference on GMO-free Regions, April 2009.

The first so-called “Green Revolution” (industrial farming with fertilizers, pesticides and hybrid seeds) destroyed many countries’ capacity to feed themselves in the name of “free trade”. Precious local resources including topsoil fertility and water are hijacked to produce cheap cash crops for export to rich countries, instead of feeding their own populations. Rich countries like Ireland use massive EU subsidies and unsustainable fossil fuel inputs to over-produce food which is dumped on developing countries, forcing peasants off the land and causing hunger there.

GM crops have higher yields

GM crops currently on the market are not designed to — and do NOT — increase yields. Numerous studies, including by the USDA, confirm that GM crops generally have lower yields, and that those that have higher yields do so because of their hybrid traits, not because they are GM.

GM drought- and salt-tolerant crops are needed to mitigate the effects of climate change

Complex traits like these are only at the theoretical stage and may never come to pass. So called “climate ready” crops can best be bred through traditional breeding and Marker Assisted Selection, which have already produced many drought tolerant varieties.

GM nutritionally enhanced crops (e.g. “Golden Rice”) are needed for malnutrition

“Golden Rice” was created 10 years ago as a public relations stunt for the biotech industry to convince people to accept GMOs with the claim that “This Rice could save a million kids a year from blindness due to vitamin A deficiency”. But one would have to eat very large amounts of this GM rice to get the extra vitamins, which occur naturally in many other food crops. The main cause of hunger and malnutrition in the Third World is the industrial monoculture of the Green Revolution, which obliterated agricultural biodiversity and soil fertility, resulting in ever-worsening mineral and micronutrient deficiencies in our food.

GM potatoes are needed for blight resistance

There are already 4 natural varieties of blight-resistant spuds, not produced in Ireland. There is no market for GM food in Europe. If Irish spuds are contaminated by GM varieties, nobody in Europe will buy them.

Opposition to GM caused the food price increases in 2008

It is widely acknowledged that rising costs of food and feed are due to a combination of factors including market speculation, market deregulation, bad harvests related to climate change, an increased demand for soy, and the diversion of food crops and agricultural land for the production of agrofuels.

GM ANIMAL FEED AND FOOD ARE SAFE

Americans have been eating GM food for 15 years without any health problems

Total lie. Because GM food is not labeled in the USA and Canada in order to avoid liability, the lack of traceability makes epidemiological studies impossible.

GM food is as safe as its conventional counterpart

There is no scientific proof to justify this claim, and growing scientific evidence to suggest that GM food may cause allergies, new diseases, liver and kidney problems, loss of fertility etc.

GM feed and food are safe because the Food Safety Authority of Ireland (FSAI) says so

FSAI would say that because its CEO Dr. John O'Brien is a former director of the International Life Sciences Institute, a GM industry-funded lobby group which lost its full NGO accreditation to the World Health Organisation and to UN Food and Agriculture Organisation after being outed as an industry-funded lobby group which attempted to influence global food policy by downplaying the link between high levels of sugar in junk food and childhood obesity and diabetes.

Moreover, FSAI has admitted it does not have the scientific capacity to perform health risk assessments on GM food, but relies instead of the opinion of the European Food Safety Authority,

GM food is safe because the European Food Safety Authority (EFSA) says so

EFSA' risk assessment for GM food and crops relies on dubious claims by the applicant companies, based on data that are kept secret to prevent independent scientific peer review.

NO THREAT TO THE ENVIRONMENT

GM crops require less pesticides

60% of GM crops are resistant to weedkillers. Their use has led to a dramatic increase in the sale of weedkillers, especially Monsanto's Roundup which is extremely toxic.

30% of GM crops produce their own pesticides (Bt crops). These create more than 100 new varieties of toxins which remain in the food and topsoil, poisoning insects and soil microorganisms.

GM crops provide disease resistance, drought resistance, salt tolerance etc.

NO GM crops currently on the market have such yields. GM crops with such new traits are only theoretical and years away from commercialisation, if at all.

GM CROPS CAN "CO-EXIST" WITH CONVENTIONAL & ORGANIC CROPS

So-called "Co-existence" is a myth. The GM Contamination Register has recorded 216 contamination incidents in 57 countries proving that GM crops rapidly contaminate natural crop varieties, agricultural seeds, and the food chain. This contamination includes both legal and illegal GM products. In the regions of Aragon and Catalonia in Spain (where 75% of the EU's GM maize is grown), thousands of farmers can no longer grow natural maize and conventional farmers have been forced out of business.

More research – including open air field trials – is needed to find out if GM crops are safe and to produce improved varieties.

We already know that GM crops are dangerous and unwanted. Field trials risk further contamination and are a colossal waste of money that could be used for proven safe, sustainable methods like organic farming.

ANIMAL FEED

Irish farmers need GM animal feed to be competitive.

Ireland can never win a "race to the bottom" against subsidized mass-produced low quality agriculture products including GM-fed meat, poultry and dairy produce from the USA and Brazil. We need to compete on quality agriculture, our famous green image, and *Ireland – the food island*.

Ireland is one of the EU's biggest importers of GM animal feed (GM soya meal and maize gluten). 95% of our imported soya meal, maize gluten and distillers grains are GM.

But Irish cattle and sheep consume less GM feed per capita than many of their EU counterparts, thanks to our largely grass-based diet. Therefore, Irish farmers can phase out the use of GM feed with less hassle and expense than most of the competition.

High potential for transition to non-GM animal feed

Irish farmers and food processors who phase out the use of GM ingredients can secure an instant competitive advantage over their foreign competitors, for the following reasons:

- Very low GM content in feed rations for cattle, sheep and poultry

Cattle diet:

86 - 90% grass-based diet • 10-14% compound feed
of which only 30-50% is GM maize and soy products
GM feed = approx. 3 - 7% of total

Sheep diet:

40% eat only grass-based diet • 60% get compound feeds
of which 15-17% soy & maize
GM feed = approx. 9 - 10% of total

- Easier transition to GM-free feed than many other EU competitors
- Untapped potential: Unique selling point & competitive advantage

GM-free crop zone + Non-GM feed + clean green food island image
= most credible safe GM-free food brand in Europe.

GM-free animal feed is unavailable and/or unaffordable

This is a big lie promoted by Monsanto, Cargill and other agri-biotech and commodity trading giants, and widely disseminated in Ireland by the IFA, the Irish Farmers Journal (which receives advertising revenue from Monsanto et al.), and the Irish Grain and Feed Association (some of whose members have financial ties with Monsanto and don't want the hassle of segregating GM and Non-GM feed-stuffs). Thus, Irish farmers who want to avoid GM feed must play the extra costs of certification and segregation.

Ireland's biggest feed importer R&H Hall actually requested its Brazilian suppliers to stop shipping GM free soya meal to Ireland in 2004. In Northern Ireland, the importer W&R Barnett regularly shipped GM-free soya meal from Brazil until 2005. This year (2009), at least 45% of Brazilian soy crop is GM-free.

In reality, 99% of European maize is GM free, and affordable certified Non-GM soya meal is widely available from Brazil, India and China. The key to negotiating cheap prices is to establish segregated port facilities, and to bulk-order supplies a season ahead of time with frame contracts to guarantee a set price. All the Irish Farming Associations have been briefed on this.

50 EU Regions + Switzerland have already adopted Quality Agriculture strategies which avoid the use of GM animal feed. In France's biggest pork-producing region, Brittany, 40% of pigs are fed on GM-free rations. If they can get it, so can we!

GM food sold in Ireland and the EU is clearly labeled as such

A giant loophole in EU law allows meat, poultry and dairy produce from livestock fed on GM ingredients to be sold without a GM label.

Irish restaurants continue to use cheap GM cooking oil without informing customers, as in the UK.,

There is no market for meat, poultry & dairy produce from livestock fed on Non-GM feedstuffs

Over a million citizens of EU member states signed a petition demanding mandatory labeling of meat, poultry and dairy produce from livestock fed on GM ingredients in 2005, based on the consumer's right to information needed to enable consumer choice. The EU Commission still refuses to do so.

Since then, many leading EU retailers have extended their bans on GM food to also exclude meat, poultry and dairy produce fed on GM feedstuffs from part or all of their food product range. These include Tesco, M&S, Auchamps, Coop Italia, Migros, Coop (Switzerland), etc etc.

Consumer demand is now so high that Germany and Austria have adopted voluntary GM-free or "not produced from GMOs" labels for top quality meat, poultry and dairy produce, with a similar regulations expected soon in France. Users include the EU's biggest dairy producer, Campina, in Germany.

The Irish Cattle and Sheepfarmers Association and GM-free Ireland are currently working to establish a voluntary GM-free labeling and traceability scheme for quality Irish meat, poultry and dairy produce.

Five steps are required for Ireland to kick the GM habit:

- Animal feed importers must stop withholding non-GM feed available to other EU farmers;
- Security of supply requires regional coordination and forward planning;
- A Non-GM certification scheme is needed for meat, poultry & dairy produce;
- Food security requires more local self-reliance for food and feed production;
- The Government should require mandatory labelling for meat, poultry and dairy produce from livestock fed on GM animal feed.
- Food brands, food retailers, restaurants, hotels and consumers can take the lead by supporting GM-free farmers and food producers.

GM CROP PATENTS

GM crop patents are needed for Monsanto et al to recoup their investments in GM technology.

GM crop patents enable Monsanto et al to control the worlds agricultural crops, to extort money from contaminated farmers, and to seize ownership of their seeds and crops. Under the WTO's Trade Related Intellectual Property Rights Agreement (TRIPS), contaminated farmers can be sued for patent infringement and lose ownership of their seeds and crops, as happened to Canadian farmer Percy Schmeiser.

IRISH GOVERNMENT POLICY

No need to worry: the Irish Government will keep Ireland GM-free

The current Fianna Fáil / Green Party Programme for Government includes a non-binding agreement “to seek to negotiate to declare the island of Ireland as a GMO-free zone”. But John Gormley and Trevor Sargent spectacularly failed to communicate a clear definition of what this means to farmers and other stakeholders, and made no serious attempt to counter the resulting agri-biotech industry propaganda backlash. Widely disseminated by the IFA, Teagasc, the Irish Farmers Journal and other media — the propaganda included utterly false claims that the Government intended to (or had already put in place) a ban on all foreign animal feed imports, which would cause Irish livestock to starve, and put Irish farmers out of business!

As of May 2009 —almost two years after declaring its GMO-free zone policy in June 2007— the Government has not even begun to draft any legislation to implement the policy:

- No GM-free policy agreement with Northern Ireland Assembly.
- Failure to ratify Aarhus Convention (only EU member state) which guarantees citizens’ right to participate in environmental policy making, to have access to relevant information and the right of redress.
- Failure to transpose EU Liability Directive that holds GM polluters liable for contamination.
- Continued public funding for GM research and industry propaganda events.
- National seed bank for living cereals intentionally destroyed in 2008!
- No national ban on GM crops.
- No national ban on MON810 maize.
- No draft legislation on “co-existence”.
- No Government recognition of local GM-free zones.
- No mandatory label for GM food sold in restaurants (as in UK).
- Ireland remains big importer of GM animal feed.
- No mandatory label for GM-fed meat, poultry and dairy produce.
- No voluntary label for GM-free meat, poultry and dairy - as in Austria, Germany and (soon) France.
- Feed importers continue to withhold supplies of certified Non-GM animal feed.
- Failed to attend Fifth European Conference of GMO-free Regions in April.

Ireland’s opposition to GM crops is isolationist.

Seven European countries, 196 Regional Governments, 93 Provinces, and 4,567 Local Authorities in 22 EU member states have already taken legal steps to prevent the contamination of their seeds, crops, animal feed and food with GMO products.

In Europe, these legal measures include:

- blanket bans on the commercial release of all GM crops
- prohibitions on specific GM crops approved by the European Commission
- temporary moratoria on GM crops and animals

The Commission and the World Trade Organisation consider such bans illegal.

To circumvent this undemocratic outrage, some EU member states and regions have adopted (or plan to adopt) the stratagem of implementing a non-binding Commission recommendation for them to set up national and/or regional regulations “to ensure the co-existence of GM crops with conventional and organic farming”, which — although allowing the cultivation of GM crops in theory — can be restrictive enough to discourage their release. However, such laws can and have been broken.

EUROPEAN COMMISSION POLICY

The EU's "Zero tolerance" policy for unapproved GM products is driving up animal feed prices

Some sources have claimed that "asynchronous approvals" of the EU and U.S. authorisation systems, and the EU's "zero tolerance" policy for unapproved GM seeds, animal feed and food products may lead to an increase in animal feed prices and related supply problems for farmers in Ireland and the EU.

Regarding "asynchronous approvals", it is in fact the United States that is isolated in terms of the time taken to approve new GMOs. Other key GMO-producing countries take longer than both the EU and the US to approve new products, contrary to the criticisms voiced by the U.S.:

- in the US it takes 15 months for a GMO to be commercialised. *Health and safety risk assessments are not required* unless the producing companies present evidence that this is needed, and no company has ever done so.
- in the EU it takes nearly 2.5 years for a GMO to be commercialised. The authorisation procedure requires safety assessments to be carried out in every case.
- in China it takes nearly 2.5 years for a GMO to be commercialised. China follows a strict precautionary approach on GMOs, much closer to the EU system than to the US one.
- in Argentina it takes an average of 3 years for a GMO to be commercialised. Consideration of the possible impacts of a GMO authorisation on exports are part of the approval process.
- in Brazil it takes 3 to 5 years for a GMO to be commercialised. The legal framework on GMOs is based, contrary to the US, on the UN Cartagena Protocol on Biosafety.

It is widely acknowledged that rising costs of food and feed are due to a combination of factors including market speculation, market deregulation, bad harvests related to climate change, an increased demand for soy, and the diversion of food crops and agricultural land for the production of agrofuels.

Moreover, as far as the EU policy on "zero tolerance" is concerned, officials from Argentina and Brazil (Europe's main suppliers of soy) confirm that they can supply Europe while respecting zero tolerance requirements.

There is therefore no need whatsoever to change the "zero tolerance" rule, or to set up a more rapid approvals process for imported GMOs.

The European Food Safety Authority (EFSA) claims GM food are safe

The authorisation of GMOs keeps being one of the most debated and controversial issues in Europe, both at political and scientific level. This is particularly true when authorisations concern the deliberate release of GM crops into the environment, thus, their cultivation in the European territory.

The main problems originate from the structure of the GMO decision-making process or, to be more precise, from the practical implementation the European Commission gives to the existing legislative provisions. The entire authorisation system is based on the opinions provided by a single EU body, the European Food Safety Authority (EFSA), which are directly translated by the Commission into decisions, with no consideration of diverging scientific opinions or societal and economic impacts of GMO cultivation. This violates EU law, according to which a broader consideration of GMOs risks and impacts must precede any authorisation.

Criticism of EFSA includes:

- Lack of environmental and ecological expertise (3 out of 21 scientists).
- No long-term risk assessments.
- Recommendations for approval based on secret data supplied by the applicant companies.
- Secret data not available for peer review by independent scientists.

- No acknowledgement of scientific uncertainties.
- No minority opinions expressed.
- No consideration of independent criticisms.
- No co-operation with other panels (eg. Pesticides, and Biohazards).
- No account of geographical/environmental areas.
- Risk manager considerations

The problems that this over-centralised system can create become evident when the risk assessment carried out by the only scientific body in charge of it (EFSA) is not satisfactory and the European Commission refuses to exercise its role of risk manager.

For years, EU member states, independent scientists, environmental and consumers' organisations and farmers groups have criticised the EFSA for failing to adequately assess the risks of GMOs and the EU Commission for failing to manage scientific uncertainties and implement the precautionary principle.

The current EU risk assessment procedure is totally inappropriate because it cannot consider the unpredictable effects of GMOs. More and more scientific studies demonstrate the inability of the current GMO risk assessment procedure to evaluate and predict the negative impacts of GMOs and their potential for harm.

On 4 December 2008, after months of debates in the EU Council, the 27 EU Environment Ministers unanimously concluded that EU legal provisions on GMOs are not implemented properly and the current GMO risk assessment must be substantially improved.

The time has come for the European Commission to act on the conclusions reached by member states and seriously reform the current flawed authorisation system. Until existing EU legal provisions on GMOs are properly implemented, all proposed GMO authorisations should be immediately withdrawn.