The Fourth International Conference on Co-existence between GM and non-GM based agricultural supply chains. (1)http://www.gmcc-09.com/

Melbourne

9\textsuperscript{th} -12\textsuperscript{th} November 2009

Background

This conference was first held in Europe in 2005. The aim was to address the issues of separating GM from non-GM grains as demanded by the European public and regulators.

Content

The conference in Melbourne was addressed by representatives from the biotech industry, the supply chain, scientists and government.

There were a large number of talks given during the conference and rather than report on each one this report will give the general picture of what is happening in the global grain trade with regard to GM. Relevant comments on events outside the conference have been included.

GM – it’s safe! The view of consumer rejection

The entire conference was underpinned by the assumption that GM is safe. The fact that there are no studies showing GM is safe and several studies showing that GM could be hazardous to eat was ignored. (2) http://www.aemonline.org/gmopost.html The reality that regulators rely on studies conducted by the GM companies and not independent, rigorous trials was not stated.

A representative from Austria mentioned that country’s rejection of various GM crops on health and scientific grounds.

Various speakers portrayed opponents of GM food as tiny minorities. They were often characterised as being anti-science or part of the “protest industry”. At no time was consumer rejection examined. Instead it was suggested that the acceptance of GM by regulatory authorities be stressed.

During the conference the media revealed that Monsanto had removed its LY038 high lysine GM corn from the European approvals process. It had been asked for additional safety tests
due to concern that it produced compounds linked to illnesses like cancer and Alzheimer’s. (3) http://www.smh.com.au/environment/europe-rejects-ge-corn-but-australia-has-no-concerns-20091111-ia08.html

This news was not mentioned in the conference.

Benefits galore! Should GM be adopted?

The reasons for using GM were listed by several speakers and included:

- Higher yields
- Less pesticides
- Better weed management
- The need to produce more for the growing global population

No hard evidence was given for these claims. Recent reports that show the exact opposite were not cited.

This year the Union of Concerned Scientists released a report that looked at academic studies on the yield of GM corn and soy over thirteen years. It is titled “Failure to Yield” and notes that any improvement in yield was largely due to traditional breeding or improvements in agricultural practice.(4) http://www.ucsusa.org/food_and_agriculture/science_impacts/science/failure-to-yield.html

A report released just after the conference shows that GM crops have increased pesticide use in the US by 318 million pounds over the past 13 years. The data was drawn from USDA statistics. The reason is primarily the development of herbicide resistant weeds. (5) http://www.organic-center.org/science.pest.php?action=view&report_id=159

There are increasing problems from these weeds in the US. A TV news report shows herbicide resistant hogweed in cotton crops in Arkansas that are large enough to break combine harvesters and hand tools. The crop may have to be hand harvested. (6) http://abcnews.go.com/Video/layerIndex?id=8767877

The largest investigation into how to feed the world was released by the UN in 2008. It saw a tiny and uncertain role for biotechnology but recommended the complete alteration in the way the global food system works. In the light of this conference it seems such a reorientation is well overdue. (7) http://www.agassessment.org/index.cfm?Page=Press_Materials&ItemID=11 (see 6th Item “Global – Agriculture – the need for change”)

Overview of the global grain trade: feeding cars, cows and, maybe, people?

Human food is a smaller share of the global grain trade than animal feed. The inability to keep animal feed separate from human food in the grain supply chain means that any GM animal feed has to be also authorised as a human food.
Biofuels have recently become an additional factor in this trade. It was stated that markets that are easy to supply get the most attention. That means biofuels, which do not mind if a grain is GM or GM contaminated, is the easiest market to supply. Domestic markets are easier than international and generic markets are easier than speciality. Non-GM grain is considered a speciality.

So non-GM grain, which was the only grain before 1996, is now considered a niche product. It was clear that speakers considered that consumers who wanted non-GM crops should pay a premium for them. Therefore choice came only with the ability to pay. The justice of this was not debated.

It also appears that fears are well founded that the introduction of GM will contaminate food and feed so that it may only be fit for biofuel. This contamination may be unacceptable because it is from unapproved GM "events" ie from GM constructs that have never been approved for example the Triffid flax contamination (8) http://www.gmcontaminationregister.org/index.php?content=nw_detail1. Triffid was never commercially released and so it appears that the contamination happened during its development process. This suggests a lack of adequate controls in GM laboratories, universities and field trials.

The financial loss caused by the leakage of the allergenic GM animal feed “Starlink” into the human food chain was mentioned. (9) http://www.organicconsumers.org/ge/starlinkforever.cfm

To deliberately develop and use GM grains that may render food fit only for fuel in a time of rising population and climate disruption appears perverse. To use GM which can permanently contaminate seed, and therefore genetic integrity, is also highly questionable.

Complications, expense and losses already caused by the introduction of GM crops:

Alexander Doring from the European Feed Manufacturers Federation called co-existence a “poison pill.” He mentioned how between 2000 and 2005 the EU approved no new GM "events". Since then he listed ten instances of GM contamination.

GM crops have the ability to disrupt trade as shown in this report mentioned at the conference. It details GM contamination incidents and lost markets. (10)http://ec.europa.eu/dgs/jrc/index.cfm?id=1410&obj_id=8540&dt_code=NWS

GM crops have vastly complicated the transport of grain and increased costs due to the amount of testing required and rejection of GM crops by the public.

Future chaos with new GM “events”:

The current amount of GM “events” is 30. That is expected to rise to 120 over the next few years. This will cause disruption as it will take more time and money to work out exactly what GM “events” are being traded. Stacked “events”, where there is more than one GM gene, will also complicate testing.
The GM industry appears keen to suggest TINA (there is no alternative):

Various difficulties due to the introduction of GM crops were raised:

- Testing differs between labs and results vary. This may mean shipments are rejected at destination for contamination undetected when the cargo left port.
- Some GM crops are banned in countries which makes trade difficult as rejection can occur if unapproved GM crops are mistakenly delivered to those countries.
- “Stacked” GM crops, those with more than one GM trait, show up as having an inflated level of GM content in current tests that can cause their rejection.
- As more GM “events” are approved testing will become more time consuming and expensive.
- Separating GM from non-GM crops is expensive and time consuming and the non-GM customer must pay these costs.

Their response is that worldwide testing and approval regimes be “harmonised” to facilitate GM adoption and trade.

The alternative of removing the problem by banning GM from the supply chain since it is so disruptive and unwanted was not discussed.

Who pays? Let the loss fall where it may:

The attitude was that others should pay for the disruption and disorder that GM has produced. That means that anyone wanting normal food has to pay a premium for it and that, as GM contamination increases the cost of providing GM free also increases.

It was stated that to deliver 200 tonnes of identity preserved non-GM soy lecithin to Europe requires over 11,500 pieces of paper.

Segregation can become prohibitively expensive. A case was stated where a customer wanted GM free corn. A system was set up in the US that worked for 2-3 years. Then due to costs and increased difficulty the corn was sourced from South America. This again lasted for a couple of years before prices and circumstances forced it to be grown in Hungary. Again after a couple of years the cost and difficulty meant that the cost of the corn was too expensive and the customer withdrew their order.

The fact that none of this was necessary before the introduction of GM crops is ignored. Furthermore instead of the costs of GM introduction being placed onto GM crops it is placed on the non-GM crops.

Australian’s were promised “choice” over the introduction of GM canola. It appears that only the technology producers want this “choice” and consumers are expected to pay extra to avoid eating food they never wanted approved. It is strange this has been forced on consumers in a market based, democratic system. It also appears that this “choice” will only last a few years before it become both prohibitively expensive and unobtainable.

The importance of property rights:
It was noted that property rights did affect the take up of GM crops. In North America the GM farmer is advantaged and that partially accounts for the high level of GM crops grown. Whereas in Europe, where there are more liabilities for the GM farmer, uptake has been slower. The fact that many European countries have either banned the growing of GM crops or will not plant them because of consumer rejection was glossed over.

It was seen as very important to have the regulatory regime that favours GM crops.

**Bubble vision:**


Current events that directly affected the conference were either ignored or glossed over for example:

- GM potato project was discussed while ignoring the initiative to make Ireland a GM free biosafety reserve (16) [http://www.gmfreeireland.org/reserve/index.php](http://www.gmfreeireland.org/reserve/index.php)
- The plenary panel on the coexistence between GM and non-GM canola in Australia could not answer the question about who bears liability if a non-GM canola farmer’s crop is contaminated between delivery at a silo and arrival at the end customer.

Seven speakers at the conference referred to studies from Brookes and Barfoot (PG Economics) or Clive James (ISAAA). The studies showed the uptake of GM crops worldwide and the benefits from GM crops. They were very favourable to the GM cause.

Brookes and Barfoot run PG Economics a UK based consultancy which mainly produces reports for the biotechnology industry (17) [http://www.spinprofiles.org/index.php/PG_Economics](http://www.spinprofiles.org/index.php/PG_Economics)

The ISAAA is funded by biotechnology companies. It commissioned a report from PG Economics (18) [http://www.spinprofiles.org/index.php/International_Service_for_the_Acquisition_of_Agr-Biotech_Applications](http://www.spinprofiles.org/index.php/International_Service_for_the_Acquisition_of_Agr-Biotech_Applications)


**Conclusion:**
This conference promoted GM crops as the default option despite worldwide opposition and indications that it is unsafe. GM was shown to be a pollutant that will affect the ability to both grow and buy non-GM crops. This contamination means that in some cases the only destination for GM polluted crops is biofuel.

Conference speakers frequently used data funded by the biotech industry to support the adoption and expansion of GM crops and ignored independent sources of information. The increasing evidence on the detrimental effects of GM was not mentioned.

The global nature and concentrated power of the grain trade means that they have established a system where GM grain is seen as the default option. This means that the preference for non-GM is seen as a niche market even though there is no market that prefers GM grain and it is banned in many countries.

Many regulators and governments underpin this position with their granting of the market for GM crops and by not mandating independent testing and full labelling of GM crops and food. Other governments, notably European ones, and regulators, notably Austrians, do protect their citizens by a more cautious approach.

There appears to be no mechanism currently available to make the developers of the technology responsible for any negative effects whether that is crop contamination or public health problems. This is a very dangerous position for global trade and for everyone worldwide.

References:

(1) [http://www.gmcc-09.com/](http://www.gmcc-09.com/)
(2) [http://www.aaemonline.org/gmopost.html](http://www.aaemonline.org/gmopost.html)
(6) [http://abcnews.go.com/Video/playerIndex?id=8767877](http://abcnews.go.com/Video/playerIndex?id=8767877)
(9) [http://www.organicconsumers.org/ge/starlinkforever.cfm](http://www.organicconsumers.org/ge/starlinkforever.cfm)
(12) http://www.organicconsumers.org/monsanto/arpad121604.cfm
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