

A Quality Agriculture Newsletter

A Call to Farms



Comments to judson.berkey@ubs.com

To GM or Not To GM – Is that the Right Question?

In short, the answer is no. Debates over **Genetically Modified** (GM or GE or GMO as you prefer) food remind me all too much of debates over religion or other moral questions. Too often the discussion is driven from an assumed right answer and arguments crafted accordingly. There is no real debate but instead two sides talking past each other.

The fact is that GM is already here in a large way. One only needs to see some statistics from the 2008 review by the International Service for the Acquisition of Agribiotech Applications (Isaaa – admittedly a group with a view) to get a snapshot of current use (isaaa.org/resources/publications/briefs/39/)

- More than half (55%) of the world's population live in the 25 countries which planted GM crops in 2008
- GM crops were planted on 125 million hectares of land equivalent to 8% of the 1.5 billion hectares of all world cropland.
- The global value of the GM crop market in 2008 was US\$7.5 billion with an accumulated historical value of US\$50 billion for the period 1996 to 2008.

- 30 additional countries have given approval for import of biotech products for food and feed resulting in 55 in total.

So the debate is not about if but about how far to go GM. This is also where the value choices come in as we face resource constraints and a large part of the argument for GM is based on the belief that it provides the best method for increasing yields in an environmentally friendly way.

This is not an argument being made only by large corporates which are the favorite villain of those on the bio/organic end of the debate (see here for a recent overview of the debate about the role of Monsanto in the food system www.economist.com/displaystory.cfm?story_id=14904184). It is an argument at the very center of the discussions about food security.

For example, the Gates Foundation plans for a new Green Revolution in Africa are based in part on the use of technology and have concerned some. Gates addressed this in his speech at the 2009 World Food Prize (www.worldfoodprize.org/symposium/2009/transcripts.htm) when he said

The global effort to help small farmers is endangered by an ideological wedge that threatens to split the movement in two. On one side is a technological approach that increases productivity. On the other side is an environmental approach that promotes sustainability. Productivity or sustainability – they say you have to choose. I believe it's a false choice, and it's dangerous for the field. It will block important advances. It can breed hostility among people who need to work together. And it makes it hard to launch a comprehensive program to help poor farmers. We certainly need both productivity and sustainability, and I believe we can have both.

Other advocates of a "both-and" instead of an "either-or" approach include UC Davis plant pathology professor Pamela Ronald who hosts

a blog based on the book she wrote with her organic farming husband. This blog often will (<http://scienceblogs.com/tomorrowstable/2009/11/appropriate-technology-for-sus.php>) highlight how GM can be pro-sustainability (<http://scienceblogs.com/tomorrowstable/2009/11/biotechnology-for-sustainability.php>) The NY Times featured their work in a recent series (www.nytimes.com/gwire/2010/01/04/04greenwire-can-we-feed-the-world-without-damaging-it-99381.html)

On the other side are those who passionately and cogently argue that GM can never be sustainable and a new Green Revolution will do more harm than good in the end. For example, <http://civileats.com/2009/11/19/is-biotechnology-really-the-only-way-to-solve-hunger/> ; <http://civileats.com/2009/11/17/a-new-report-reveals-that-gm-seeds-encourage-pesticides-use/> ; and the following <http://civileats.com/2009/11/13/kitchen-table-talks-no-6-what-you-need-to-know-about-genetically-engineered-food/>)

The UN sponsored World Summit on Food Security in Rome in November 2009, which many labelled a disappointment for merely reconfirming commitment to the Millennium Development Goals on food security instead of calling for a new effort to eliminate hunger by 2025, did take a stand with the following text in paragraph 26 of the final declaration

We will seek to mobilize the resources needed to increase productivity, including the review, approval and adoption of biotechnology and other new technologies and innovations that are safe, effective and environmentally sustainable.

The full text of the declaration is available at www.fao.org/fileadmin/templates/wsfs/Summit/Docs/Final_Declaration/WSFS09_Declaration.pdf A corresponding NGO forum denounced this position in its own declaration http://peoplesforum2009.foodsovereignty.org/final_declarations noting that

We will defend and develop our agricultural, fisheries and animal biodiversity in the face of the aggressive commodification of nature, food and knowledge that is being facilitated by the 'new Green Revolutions'. We call for

a global moratorium on GMO. Governments must protect and properly regulate domestic food markets.

I honestly do not see how to square these circles. Nor do I see the need to, at least in their extreme forms. Technology is a tool. It can be used for many purposes and needs to be used in a safe manner. For example, GM crops may have a role to play in dealing with water constraints. I do appreciate the fact that there are no-GM zones in the world and find this sensible risk management.

The genie is already out of the bottle so while I think we should be vigilant and look for side effects we also should be realistic and find areas where the technology does give us value (e.g. drought resistance). I would like more research on both GM and other process improvements that can improve yield and the environmental profile of food production – e.g. <http://blogs.worldwatch.org/nourishingtheplanet/survey-says-more-innovations-for-sustainable-ways-to-alleviate-hunger/?5d4a9d60>)

Whatever side you favor, the main issue of feeding more people with changing diets in the face of environmental constraints and climate change is not going away soon (www.economist.com/world/international/displaystory.cfm?story_id=14926114) So most of all I would like to see the emotion go out of the debate and issues settled on facts.

Two examples of this are the McKinsey paper on costs to mitigate regional water scarcity (www.mckinsey.com/client-service/water/charting_our_water_future.aspx) and the Union of Concerned Scientists paper on GM crop operational yields vis-à-vis other methods (www.ucsusa.org/food_and_agriculture/science_and_impacts/science/failure-to-yield.html) Both provide facts that can inform debate.

News

Speaking of facts, the facts do say that the bio/organic market is growing with sales up more than 10% across Europe in 2008 ([http://en.greenplanet.net/index.php?option="](http://en.greenplanet.net/index.php?option=)

[com_content&view=article&id=1078](http://en.greenplanet.net/food/organic/1160-us-organic-a-sustainable-sales-still-rising.html)) and 18% in the US when including all products (<http://en.greenplanet.net/food/organic/1160-us-organic-a-sustainable-sales-still-rising.html>)

On the other hand organic food is generally costlier, not surprisingly, but sometimes the differences can seem extreme as highlighted in this study about organic food in France <http://en.greenplanet.net/food/organic/1146-france-organics-at-retailers-is-tremendously-costly.html>

This does highlight something that needs to happen for any large scale change to a food system based on bio/organic, small scale, and traditional production. Food needs to be viewed more like other consumer products with differences in quality leading to differences in price. This was illustrated nicely by a quote from a New York Times story where the owner of Soul Food Farm longs for the day when those who pay 8 USD for 6 bottles of microbrewed beer are willing to pay the same 8 USD for 6 fresh organic eggs (www.nytimes.com/2009/11/29/magazine/29food-t-000.html?_r=1&ref=style)

Resources

Perhaps timed with the UN Summit, the US-based Milken Institute released a paper with some ideas for using financial instruments (e.g. food assistance bonds, forward purchases, call options) to help improve food security. [milkeninstitute.org/publications/publications.taf?function=detail&ID=38801215&cat=finlab](http://milkeninstitute.org/publications/publications taf?function=detail&ID=38801215&cat=finlab)

Weather insurance is often cited as a useful support for small scale farmers in Africa. See <http://blogs.worldwatch.org/nourishingtheplanet/innovation-of-the-week-index-insurance/>

IATP sponsored a conference on the role of food reserves in facilitating food security in

October 2009. Speeches and documents here tradeobservatory.org/issue_foodSecurity.cfm

Waste is an often forgotten part of the food security equation. A recent report concluded that 40% of the entire US food supply is wasted which is up from 28% in 1974. See dx.plos.org/10.1371/journal.pone.0007940

The poor state of world fisheries continues to get attention. Some alarming reading here www.slowfood.com/sloweb/eng/dettaglio.lasso?cod=3E6E345B18bbd28426MUXN43250A To help the aquaculture industry produce in a more environmentally responsible manner, the Global Aquaculture Alliance has created a set of Best Aquaculture Practices certification standards www.gaalliance.org/bap.html This may compliment existing Food Alliance certification standards which have never (www.foodalliance.org/) covered aquaculture.

"Land grabs" continue to cause alarm. The complexity of the issue, rivalling that of the arguments around the use of GM crops, was investigated by the New York Times in 2009 <http://www.nytimes.com/2009/11/22/magazine/22land-t.html>

Finally, to lighten things up a bit, you may be pleased to know that Brazilian cupuaçu is the next superfruit (www.foodnavigator-usa.com/content/view/print/268406) and Italy has the largest number of the worlds best extra virgin olive oils (<http://www.marcooreggia.com/default.htm>)

Upcoming Events

Two calendars covering events in detail:

www.conferencealerts.com/agri.htm

www.foodreference.com/html/february-food-festivals.html



Brazilian cupuaçu

