

The Lost Markets of Genetic Engineering

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"Farmers are really starting to question the profit-enhancing ability of products that seem to be shutting them out of markets worldwide"

Cory Ollikka, Canada's National Farmers Union president calling for a moratorium on GM crops, December 2000

Proponents of Genetic Engineering such as the United States Government often attempt to depict GE foods and crops as an economic boon that will leave behind those countries and producers who fail to embrace this radical new technology. In fact the reality in is quite different; GMO's are losing world markets hand over fist.

Trawling through the official reports of the United States Department of Agriculture (USDA) and other trade reports it is abundantly clear that far from boosting economies the cheerleader GE crops – especially soya and corn are running into trouble and losing markets for the handful of nations who have been foolish enough to grow GE crops.¹

In 1998 analysts from the Deutsche Bank published two farsighted report entitled 'GMO's are Dead' and 'Agbiotech – thanks but no thanks' which described the beginnings of a 'two tier market' where GE crops are shunned and GE-free crops command large rewards and premiums.²

Below is a partial digest of markets lost and gained in Asia and Europe due to the decision to plant or avoid GE crops. It illustrates how the Deutsche Bank prediction was entirely correct – that rather than benefit global agricultural producers, embracing GE varieties costs trade and money.

European Markets

Corn – US imports at a standstill

According to the United States Department of Agriculture (USDA) " US corn shipments to the EU have come to a standstill in 1999/2000 . Given that GMO approvals are currently suspended in the EU it is very unlikely that EU corn imports from the US will resume in 2001 other than negligible quantities of speciality corn." ³Indeed EU countries have this year imported just 1,300 tons of

¹ See USDA Attache reports at www.fas.usda.gov/scripts/attacherep/default.asp.

² Reports prepared by Alex Brown, Deutsche Bank. July 12 1999

³ USDA Gain report #E21034 3/16/2001

U.S. corn out of a total 11 million tons of corn imports , mostly from South America where non-GE corn is available.⁴

Even amongst the South American corn the balance is clearly tipping. On Jan 15th Brazil's leading grain co-operative announced it had just won its first contract to supply 150,000 tonnes of corn to Spain. Reuters reported that Argentina was hoping to win the contract "but Brazil won the contract to supply the European nation with animal-food grade corn because it can offer grain that is not genetically altered". According to reports Spain paid well over the market price and is expected to buy more.⁵

Soy – Markets either declined dramatically or lost entirely..

U.S. soybean exports to Europe have declined from \$2.1 billion in 1996 to \$1.1 billion in 1999,⁶ and will likely decline further as promises by livestock producers to avoid GE animal feed become reality. Below are a few national examples of European soya rejection:

France.

Between 1997 and 1999 U.S. shipments of soybeans and soybean meal to France "declined dramatically". The import share of U.S. soybeans and soybean meals in France decreased from 55 percent to 41 percent and from 8 percent to 0.7 percent, respectively. "This was due to both GMO concerns in France and to the growing availability and competitiveness of South American products" said the USDA.⁷

Since 1999 however the largest French supermarkets and poultry producers have pledged to stop feeding GE soya to livestock and US imports are likely to drop even further. In February 2001 a pool of French pork and poultry farmers and animal feed makers led by retailer Carrefour signed a deal to buy non-genetically modified soybeans from Brazil. The group will buy 180,000 tonnes of Brazilian soybeans this year in support of Carrefour's policy of removing GMO's from its products and will pay a premium of 125 francs per tonne over the current market to do so. Carrefour intends to extend this non-GE policy further explaining "Our potential with all our other order books, sheep and cattle, is for a total 300,000 tonnes,"⁸

Italy

According to the USDA, Italian imports of US soy almost halved from 563,000 MT to just 284, 000 MT between 1996 and 1999. Argentina which exported

⁴ Chicago Sun Times, Mar 26 2001 "Ailment not opening market for corn"

⁵ Sao Pablo, Jan 15 2001, Reuters – "Argentina loses trade due to GM"

⁶ see David Barboza, 'In the heartland, genetic promises', NY Times March 17, 2000

⁷ USDA GAIN report #FR0016 2/17/2000

⁸ Carrefour leads purchase of non-GMO Brazil Soy, Paris Feb 22 2001 – Reuters.

337,000 Mt in 1996 had by 1999 lost its place in the Italian soy market altogether.⁹

Norway

The US which previous to 1996 provided sixty percent of soy to Norway has entirely lost all soya sales to Norway due to public opposition to GMO's. The USDA notes that "the import market annually denied U.S. suppliers currently stands at approximately US\$ 60 million".¹⁰

Spain

While overall soybean imports remained unchanged in 1999 at about 3 million tons. The U.S. share of the market slipped to 42 percent, 16 percentage points less than in the preceding year. More dramatically while imports of Soybean meal increased to nearly 2.5 million tons from 1.9 million. 1999 U.S. soybean meal imports declined from 430,000 tons to only 6,000 tons.¹¹

Sweden

The United States Department of Agriculture notes that although the Swedish feed industry is dependent on imported protein and oilseeds "The U.S. share of import is nonexistent since 1996 due to sensitivities to GMO products. Among the feed industry and the dairies there is a certain determination to maintain the policy "to do as much as possible to ascertain GMO-free-feed" and it is not likely that U.S. products will gain access any time soon."¹²

UK

In 1996 the UK baking industry (worth £2 billion) stopped using GE soya flour in favour of identity preserved Canadian flour because of GE concerns.¹³ Subsequent surveys have shown an almost total rejection of other GE soy ingredients (including oils and lecithins) by every major supermarket and food producer. 2000/2001 also saw commitments by the largest poultry and pig companies on behalf of leading supermarkets to avoid feeding GE soy to livestock.¹⁴

Even before the latest moves on animal feed U.S. exports of soybeans to the UK had declined from 459,500 MT in 1998 to 232,300 MT in 1999, a decline of almost 50 percent. The USDA noted that " U.S. soybean exports to the UK have suffered because of the hysteria surrounding genetically engineered (GE) food.

⁹ USDA GAIN report#IT0019 6/23/2000

¹⁰ USDA GAIN Report #NO0004 4/28/2000

¹¹ USDA GAIN Report #SP0022 5/31/2000

¹² USDA GAIN Report #SW0002

¹³ Press release April 1999 "1999 Annual report reaffirms the federation of bakers commitment to GM-free bread"

¹⁴ see "The shoppers guide to GM" www.greenpeace.org.uk

The United Kingdom has been at the forefront of hostility to agricultural biotechnology in Europe.”¹⁵

Canola (Rapeseed) – Canada loses a market. Australia gains a market.

By 1998 Canada had entirely lost its \$300-400 million sales in canola sales to Europe. By contrast Australian trade authorities announced Jan. 8, 1999 the largest shipment of canola (rapeseed) ever exported from Australia. The \$16.5 million dollar shipment was bound for oilseed crushing plants in Europe. According to Graham Lawrence, managing director of the New South Wales Grains Board, "Europe has moved to become a major buyer this year because Australia is the only country to guarantee non-GM canola."¹⁶ By August 2000 Australia was boasting 150,000 tonne exports of canola and receiving a premium of \$5 per tonne over the price of Canadian canola – enjoying a market that was non-existent before GE crops destroyed the opposition.¹⁷

Planting Seeds – seed market reduced through contamination.

In the wake of a series of GE seed contamination scandals throughout 2000, sales of all US seeds to Europe are down from 81.7 million MT in 1999 to just over 55 million MT amounting to a loss of 44.2 million dollars.¹⁸

In 1999 Imports of US planting seeds to France, the most important European seed market fell by 25 percent, losing over 12 million dollars of US trade. Meanwhile imports of corn seeds plummeted by 34% partially as a result of “the controversy on GMO’s”. In November 2000 the USDA noted that “adventitious contamination of conventional seeds by genetically modified seeds may further hamper US seed exports to France, especially for corn and soybeans”¹⁹

Following the discovery of 847 tons of contaminated cotton seed, the Greek agricultural minister decided that 560 hectares of Greek cotton had to be harvested separately and excluded from any food use. The contaminated seed lots had been imported from the United States and the government subsequently required importers to provide GE-free certificates. The US currently supplies 75% of Greek cotton seed. Given the widespread GE contamination of US seed major seed houses are moving to 100% national production and cutting out import.²⁰

¹⁵ USDA GAIN Report #UK0019 5 June 2000

¹⁶ Food bytes #17 March 2nd 1999 www.purefood.org

¹⁷ Reuters, Aug 18 2000 “Non GM Canola scores first premiums”

¹⁸ USDA FAS seed circular: Country exports –N US planting Seed trade 27/3/2001

¹⁹ USDA GAIN Report #FR0097 11/22/2000

²⁰ Personal communication with Nikos Charambides of Greenpeace Greece 1st April 2001

Zeneca Tomato – squashed.

In 1995 the Zeneca company (now Syngenta) introduced a GE tomato to the UK market sold as a tinned tomato paste. It was the first GE product to be sold in Europe and was clearly labelled. In 1999 enquiries by Greenpeace confirmed that both supermarkets had discontinued sales of the GE paste because consumers were refusing to buy it. The tomato paste was last sighted in June 1999 when Monsanto was trying to give away out-of-date tins to children at a German Youth festival.²¹

Thai processed products rejected in Europe.

Tuna: Thai Tuna was stopped from entering both the Netherlands and Greece because it was canned in soy oil that may have been genetically engineered. These countries need GMO free certificate.²²

Flour: “Doi Kham, a food processing company under the royal project, conceded yesterday its shipment of flour was rejected by a German importer who charged that the soybean was genetically-modified, but the company denied the charge.”²³

Asian Markets

Japan.

Japan is the single most important market for US corn, soybeans and also consumer products. Like Europe there is also growing Japanese consumer resistance to genetically engineered food with major companies such as Nissin foods, Kirin brewery and Mitsubishi declaring GE free policies.

Soy:

On April 1st 2001 mandatory labelling of GE foods came into effect and according to the USDA “many food manufactures started seeking non-GMO soybeans from North America and South America with a notable shift already being evidenced in the trade figures. Both Canada and Brazil are reportedly

²¹ personal Communication with Greenpeace Germany June 1999. the Youth fair was You 99 in Dortmund.

²² (report from export facilitate committee 6/1999)

²³ (See: Bangkok Post, 29 Sep 1999, "Shipment of local soybean sent back; Firm denies charge of GMOs in flour", by Ploenpote Atthakor)

promoting non-GMO soybeans to Japan with Canada's share in volume terms increasing from 2 percent in 1998 to 3 percent in 1999. Brazil's share grew from 11 percent to 12 percent in 1999."²⁴

In fact since March 2000 the day to day rejection of GE soya has been very evident on the Tokyo grain exchange which now operates a separate futures market for non-GMO soybeans. For March 2001 just under 300,000 non-GMO soybean contracts were traded as against only 201,000 GMO soybean contracts.²⁵The future of the Japanese soya market is clear; non-GMO.

Corn:

The future of the Japanese corn market is also clear. Following the discovery in October 2000 of unapproved Starlink corn in the Japanese food system, Japan turned back shiploads of US corn refusing to import any more corn until the US could guarantee there was no Starlink contamination. The USDA recently noted that "Due to Japan's detection of StarLink food corn last fall, imports of U.S. corn between November 2000 and January 2001 declined 10.7 percent".²⁶

While the US is now implementing checks for Starlink on all corn exports to Japan, many market players are nonetheless looking to avoid GMO's altogether. In February 2001 Japan announced plans to buy corn from China instead of the United States and also to buy some from Europe.²⁷ On Feb 14th French grain co-operatives announced that for the first time ever Japan was starting to buy corn from France beginning with an 8000 tonnes shipment to the Mitsubishi corporation. As Reuters reported "In effect Japan, the world leading corn importer, is being unfaithful to the United States, the world leading exporter, in favour of GE-free guarantee of French products even though the price of the French grains was 30% higher than that of the Americans."²⁸

Papaya

In 1998 Hawaii papaya growers first planted 'Sunup' a genetically engineered papaya. Unfortunately for them the Japanese accounts for 40% of their market and are unwilling to buy GE papayas. According to reports non-GE papaya growers are getting 300%-700% premium for avoiding the GE variety. Meanwhile non-GE farmers in Mindanao Philippines are benefiting from Hawaii's reduced ability to offer conventional papaya.²⁹ A similar variety of GE papaya is ready for commercial growing here in Thailand.

²⁴ USDA GAIN report #JA0050 4/25/2000

²⁵ (see <http://www.tge.or.jp/english/em300.html>).

²⁶ USDA GAIN Report #JA1026

²⁷ Reuters Feb 27th 2001 "Japanese Grain-Corn buyers turn back on US, eye china"

²⁸ Reuters, 14th Feb 2001 "Japan buys maize for the first time from France"

²⁹ 27th April 2000 "Uphill struggle for Hawaii's Biotech Papaya" Cropchoice News
www.cropchoice.com

Republic of Korea

Soy - Tofu firm loses billions.

Pulmuone, South Korea's largest maker of tofu and soybean products, announced in July 2000 that it would stop using GE beans. Pulmuone suffered a significant drop in sales after the Korea Consumer Protection Board disclosed last November that the company used GM beans in the majority of its tofu products produced and sold in Korea.³⁰

Korean state importer buys only non-GE Soy

The Korean state trading company, Agricultural and Fisheries Marketing Corporation (AFMC) that is authorized by law to import food-grade soybeans notes that it intends to continue buying non GE soybeans for food processing in 2001. At present the US is the lead supplier with exports of 260,000 mt and unusually American countries have said that they will be able to provide segregated non-GE soybean. However according to the USDA "soybeans from Canada and China have been gaining market share in the food soybean market since biotechnology became an issue"³¹

Corn – Korea gets Starlinked.

Like Japan, South Korea also detected Starlink corn in US imports and last year detained over 55,000 tons of Starlink contaminated imports – so much that the Korea

Corn Processing Industry Association (KCPIA) has said it will file a damage claim against Aventis,.³² The Government of Korea now requires that all US corn imports are accompanied by certification that they are 'Starlink-free' – a criteria that is going to be difficult to meet given the widespread contamination of US corn seed. In reality corn buying is likely to shift to other non-GE markets. American corn growers are also suing Aventis claiming that they have lost all Korean sales.³³

Saudi Arabia

According to a 1994 study Saudi Arabia is the 12th most important market for US processed foods³⁴ and is also important for Thai exports. It also has some of the strictest GMO labelling in the world as well as a ban on GE animal products. As

³⁰ Pulmuone to stop using GM beans – the Korea Herald, 28th July 2000

³¹ USDA Gain report #KS1007 2/28/2001

³² Asia Pulse March 26th 2001 "US GM corn makes up 99% of imports refused entry to Korea"

³³ The Kansas City Star, March 27 2001 "Missourians jump into Starlink dispute"

³⁴ "Globalisation of the processed food market" USDA ERS 1994

labelling policies have come into effect a number of exporters have had products refused entry. Below are 2 examples.

Thai Tuna:

Almost 70% of Tuna sold in Saudi Arabia comes from Thailand in a market worth about one billion bath a year. In march 2000 the Saudi government seized imports of Thai tuna that it believed were packed in GE soya oil and embargoed further imports. In one case the Saudis rejected a US \$2.6 million dollar shipment from a major Thai tuna packer because of GMO soy oil contamination. On April 2nd 2000 it was reported that the Saudi government had “launched a nationwide campaign to confiscate 15 kinds of Thai Tuna believed to contain GE soy”, expecting to confiscate millions of packages of tuna. Currently Thai tuna exporters to Saudi Arabia are expected to provide certification that their products are GE-free and many are switching to sunflower oil to provide this assurance. Thai Tuna has also been turned back from Egypt, Greece and the Netherlands because of concerns over GE oil. Many EU supermarkets have also pledged to avoid GE oil.³⁵

Greek olives:

In December 2000 Greek exports of olives to Saudi Arabia came under scrutiny for also using soy oil. The Chamber of Commerce and Industry asked the exporting companies to either stop the import of any food product containing GE ingredients such as soybean oil, corn oil, rapeseed oil or else provide GE free certificates.

³⁵ XINHUA NEWS AGENCY. April 2, 2000, : Saudi Arabia Launches Campaign To Confiscate Thai Tuna Products.

BANGKOK POST November 21, 2000 Sunflowers are a blossoming industry.

BANGKOK POST March 14, 2001 Clarification sought over GM presence in our food

BANGKOK POST April 14, 2000 Tuna firms say certification could help end ban by Saudi Arabia

BANGKOK POST October 2, 2000 Thais seek talks with Egypt on tuna ban