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### Francis Crick Dies

David Grimm, AgBioView 30 Jul 04 <http://sciencenow.sciencemag.org/cgi/content/full/2004/729/1>

Francis Crick, who helped discover the double-helix structure of DNA, died 28 July after a long battle with colon cancer. He was 88. The discovery earned Crick and colleagues James Watson and Maurice Wilkins the 1962 Nobel Prize for medicine and revolutionized the fields of genetics and molecular biology.

Born in Northampton, England, in 1916 to a shoe manufacturer and his wife, Crick took to science early, conducting his first experiments before he was a teenager. He received a bachelor of science degree in physics from University College London in 1937, helped develop magnetic and acoustic mines for the British Navy during World War II, and earned his Ph.D. in 1954 at the University of Cambridge for using x-ray crystallography to decipher protein structures.

Crick met Watson at Cambridge in 1951, where they soon began working on one of the great mysteries of science: What was the structure of the molecule that stored each person's genetic information? Watson and Crick used their respective knowledge of genetics and x-ray diffraction, along with x-ray images from Rosalind Franklin and Maurice Wilkins, to determine the now iconic twisted ladder structure of DNA. The structure, published in 1953, immediately suggested a mechanism for DNA replication and has been the basis for everything from cloning to genetic engineering.

After the discovery, Crick continued to work on UK in 1976 to become a professor at the Salk Institute in La Jolla, California, where he began investigating the nature of human consciousness. In 1994, he published *The Astonishing Hypothesis*, a book that suggested that all aspects of human emotion and behaviour could be understood by studying neural networks in the brain.

"He will go down as one of the most influential biologists of the 20th century," says Richard Murphy, president of the Salk Institute and a colleague of Crick's. Christof Koch, who collaborated with Crick on his consciousness studies, describes Crick as "the living incarnation of what it is to be a scholar," noting that the scientist continued to edit a manuscript on his death bed. According to Murphy, a new Crick-Jacobs Centre for Computational and Theoretical Biology will be established at the Salk Institute to continue Crick's quest to understand the brain. Says Murphy, "His name will be listed among Darwin and Mendel as one of the true greats of science."

## **African biotech organizations opposed to loss of life as GM food aid debate rages**

A-Harvest Press Release. 16 Jul 04 (shortened)

Four of the leading African biotech organizations yesterday issued a statement in which they expressed strong support for GM food because "as agricultural and science-based organizations, we are against any position that leads to loss of life". In a statement that was signed by the respective heads of the 4 organizations: Prof. Norah Olembo, Executive Director Africa Biotech Stakeholders Forum (ABSF), Mr. Joseph Wekundah, Executive Director, the Biotechnology Trust Africa (BTA), Prof. Jocelyn Webster, AfricaBio and Dr. Florence Wambugu, Chief Executive Officer, Africa Harvest. The four said they were compelled to issue the statement "to clarify some of the contentious issues related to the African food crisis and the urgent need for GM food aid".

They quoted the Food and Agricultural Organization (FAO) as stating that 25 African countries were facing food emergencies. Kenya's President Mwai Kibaki, had declared the famine in the country a national disaster. In Angola, 1.9 million people were in dire need of food assistance and in the Sudan, over 1 million people are at an imminent risk of life and livelihood. The 4 organizations said they agreed to the principle that African countries have a right to choose between GM and non-GM food, "however, as Africans, we know that this right to choose is often an academic discourse in the face of hunger. We also believe in the sovereignty of our nations but believe that human life is more precious than any nation".

The statement said that although Africa's agricultural revival requires technology, "technology alone will not do, hence our support for good governance, better funding for agriculture, micro-finance for small scale farmers, human and infrastructural capacity building". The biotech organizations said the argument that donors should give money whenever there is a food crisis is flawed. They said the US - the world's largest food donor - gave food while "Japan, Norway and the EU opt to provide most of their aid in cash, because unlike the US, they do not produce in excess, the food required by the recipient countries".

The statement also said that the assumption that non-GM food could be sourced locally or regionally was wrong. "If this food was available in the needy countries, even in small quantities, it would be very, very expensive. The reality is that the countries facing famine have no food at all". They gave the example where Angola's imported 217 000 tons of food last year, but after the countries refusal of GM food, the WFP was only able to source 17 250 tons of non-GM food, "a drop in the ocean with an environment of great need". The 4 organizations called on African and political leaders "to provide strong leadership and direction" with regard to GM food aid. They said the need for food assistance should be viewed as temporary "and through pan-Africa organizations such as the New Partnership for Africa's Development (NEPAD) and the Forum for Agricultural Research in Africa (FARA), long-term strategies for food security are put in place".

### **Important Information:**

- In a continent where 28.5 million people are living with HIV, food aid is a matter of life and death.
- Unfortunately, hunger captures global headlines at the height of political and natural disasters, while 92% of hunger-related deaths occur away from the dramatic food emergencies.
- Of the Top 10 threats to public health, under-nutrition is #1.
- Over 7 million African farmers have died from AIDS, putting tremendous pressure on agricultural production.
- Top food aid donors (2003): USA (60%), the EU (11%) and other (29%).

- Top food recipients (2003): Iraq (1.3 million tons), Ethiopia (1.2 million tons), the Korea (975 000 tons), Bangladesh (353 000 tons), Afghanistan (388 000 tons) and Angola (217 000 tons).

### **Biotech training for high school teachers in Kenya**

CropBiotechNet, 30 Jul 04 (shortened)

Tuskegee University, USA and African Biotechnology Stakeholders Forum held a pioneering training workshop for 30 high school science teachers in Kenya on biotechnology. The practical workshops, held at Lukenya Academy on the outskirts of Nairobi, introduced the teachers to simple experiments using locally available materials and equipment to introduce traditional and modern biotechnology. The teachers who came from 16 schools from Nairobi and Eastern provinces of Kenya also visited various biotechnology facilities in Nairobi, including the newly built biosafety greenhouse at the Kenya Agricultural Research Institute and Genetic Technologies Limited, a local private laboratory. The workshops got the support of the country's Ministry of Education, Science and Technology, through the permanent secretary, Prof Karega Mutahi. Another round of workshops for tutors of teachers as a means of making the project sustainable is being planned. For more updates, visit Kenya Biotechnology Center at <http://www.isaaa-africenter.org>.

### **Kenya embraces 'Biotech Trees' from South Africa**

Africa Harvest 1<sup>st</sup> Quart. 2004. (shortened)

Under severe pressure to increase its forest cover from less than 2% of total land area to the internationally accepted canopy minimum of 10%, Kenya has embraced "clonal trees" first introduced in the country from South Africa. Africa Harvest CEO, Dr. Florence Wambugu, who brokered the technology when she was director of ISAAA AfriCenter, says "the current forest cover officially confirms the country to be a desert". She says the country "must develop a clear strategy of how to reclaim its forests, which are important in attracting rain".

The Minister for Environmental, Natural Resources and Wildlife, Dr Newton Kulundu, recently told over 60 biotechnology stakeholders that the government supports the adoption of new forest technologies to enhance regeneration of forests to meet the demand for trees and tree products. The Minister said the government was already dealing with the issues of illegal forest encroachment, excision, charcoal burning, illegal cultivation, overgrazing, unsustainable exploitation, poaching and frequent fires. The Minister thanked ISAAA AfriCenter, the Gatsby Charitable Foundation of the UK, and Mondi Forest of South Africa, for their commitment and determination to ensure that the Tree Biotechnology Project succeeds in the region.

The conference, sponsored by Gatsby Charitable Foundation, shared experiences from the participating countries including discussions on eucalyptus and clonal forestry. It also discussed ways of encouraging private sector involvement and identifying new opportunities for partnerships. Among those who attended the conference was the Chairman of Tree Biotechnology Project, Joe Kibe, Bruce Hulett of Mondi Forest, Lawrence Cockcroft of Gatsby Charitable Foundation and the Director of ISAAA AfriCenter, Dr Sam Wakhusama.

### **Bt potato trails in South Africa**

Muffy Koch, Golden Genomics, 3 Aug 2004 (Shortened)

Signs of a changing tide for biotechnology in the EU include the British Medical Association's recent turn around heralded by Sir David Carter, chairman of the BMA's Board of Science, saying it was time to "move away from the hysteria that has so often been associated with GM foods." In addition, Kofi Annan and Ethiopian Ministers have urged African governments to consider biotechnology solutions for agricultural constraints and food security. Ethiopia, long the cornerstone of anti-biotechnology activism on the continent, is preparing strategy documents on biotechnology applications for national food security and development.

In line with this, the Agricultural Research Council (ARC) of South Africa has obtained a permit from the Registrar of the GMO Act following approval by the Executive Council of the GMO Act to carry out field trials with GM Bt potatoes. The permit carries a number of risk management conditions to help minimise risk to the release environment. These conditions were recommended by the Scientific Advisory Committee of the GMO Act, which advises the Executive Council on safety aspects of all work with GMOs in the country. Safety covers impact on human health and the environment.

Why would South Africa forge ahead with GM potatoes when Europe is still debating the need and usefulness of genetic modification technology? The answer is simple: South Africa has shrinking farm land and an expanding population. To maintain food security, the country has to develop smarter farming methods that provide high quality, safe food at affordable prices and cause less damage to the environment.

Experience with approved GM crops, like insect resistant cotton and maize, has shown that some GM crops will be better for local commercial production in some areas. Interestingly, some of the GM crops are also better for small-scale farmers in specific growing areas. Knowing what will work where and for which types of farming, can only be tested in the hands of the farmers and in their particular soils and environments. Thus, once a technology has been shown to work in the country, the next step is to see if it offers benefits to farmers.

Three years of field trials with tuber moth resistant potatoes has shown that the new technology provides good protection against this pest in South Africa. These new trials will test whether the technology works in different parts of the country and will be used to collect data on how the GM potatoes will impact on the growing environment. Material from the trial sites will be used to initiate food and feed safety studies. All of these experiments are necessary, should the ARC decide to apply for general release status for the new potatoes in the future. However, this decision will only be taken if the next 2 to 3 years of data indicate that the potatoes are better than existing planting material, safe for consumption and the environment and desired by farmers and consumers.

Interestingly, the ARC is developing these potatoes for small-scale farmers, but trials last year on commercial farms have led to commercial farmers saying, 'We need this technology too'. The ARC has agreed to open consultation with the technology owners to see if use of the new technology can be extended to commercial users. Trials this year are essential for developing the biosafety package that will guide decisions on the GM potatoes. The GM potato developers have requested that the actual trial sites be kept confidential because of the growing threat of disruption by activists.

This month, Finland's only field study on GM trees was attacked and destroyed. The 400 GM birch trees were chopped down by activists obliterating the nation's only research into the environmental impact of genetic modification on forests. Officials deplored the loss in scientific endeavour and scientists lamented the loss of several hundred thousand euros spent in developing and maintaining the study. The research had been seeking methods to maintain new genes and to begin the production of cloned and sterile 'GM-trees'. Sterile trees could have a major positive benefit by controlling the invasive behaviour of exotic plantation trees.

"South Africa cannot afford the same destruction Finland has just suffered" says Muffy Koch of Golden Genomics, a biosafety consultancy assisting with the safety aspects of the GM potato trials. "The applicant is responsible for the safety conditions of the trails and they cannot ensure safety if GM potatoes are uprooted and removed from the site," she explained. "In addition, we hope to protect the farmers from the intimidation tactics being used by the activists. This is the only way we can ensure that the trails will be carried out correctly and safely."

Mrs Muffy Koch, Golden Genomics cc Tel/Fax: 011 702 1682. Email: [muffykoch@telkomsa.net](mailto:muffykoch@telkomsa.net)

## **Measures for importing GM maize in South Africa**

Crop BiotechNet, 23 Jul 04

Five measures were highlighted by Dr. Julian Jaftha, registrar of the GMO Act in South Africa, regarding the importation of GM maize that has only commodity clearance in South Africa. According to the June 04 issue of the Animal Feed Manufacturers' Association (AFMA) publication, the measures include the following:

- To address spillage or unintentional release during the importation of GM grain with only commodity clearance in South Africa, the transportation of imported whole GM grain is limited. Immediate milling of all consignments imported for use as commodity in SA is necessary.
- Not all GM maize that has commodity clearance status (food and feed), has general release status as well. Thus, if only one event in the consignment does not have general release status, it means that the whole consignment is subject to immediate milling.
- Milling is to be done as close as possible to the port of entry to minimize the transportation of whole grain. The grain must be transported from the port of entry directly to the miller on a single trip without offloading and reloading until delivered at the miller.
- When applying for clearance, the importer must indicate where the grain is going to be milled and the mode of transport to be used. This information will help the Department of Agriculture to trace any spillage into the environment and to identify the responsible company.
- To prevent the purchase of GM material without informed consent, the seller of GM grains or grain products, e.g. for animal feeds must clearly indicate the GM status of the consignment to buyers, as this may influence further trade negotiations and the use of these products.

For more information on the import of GM maize in South Africa, email Hensie Bekker of AFMA at [hansie@afma.co.za](mailto:hansie@afma.co.za) or Michelle Vosges of the Directorate Genetic Resources, Department of Agriculture at [michellev@nda.agric.za](mailto:michellev@nda.agric.za). A text version is available at <http://www.isaaa.org/kc>.

## **Biotechnology benefits all farmers**

Dean Kleckner. Letter to Des Moines Register, 15 Jul 04. From AgBioView 16 Jul 04 (shortened)

As an Iowa farmer and one who has spoken with farmers from developing countries regarding their interest in having biotech-enhanced crops available for their use, I find Francis Thicke's July 6 Iowa View, "Biotech Won't Help Farmers in the Third World," quite amazing. Reading the same internationally respected UN Food and Agriculture Organization report Thicke referenced, including his inference that "the Register fed into (its) fallacies," I am disturbed with his assumption that the Green Revolution primarily benefited large and moderate-sized farms, commenting also that it further displaced subsistence crops and poor farmers.

On June 9 at the International BIO Conference, I moderated a panel of 4 foreign farmers who shared their stories regarding the scale-neutral benefits of biotechnology, i.e., size doesn't matter. They have learned biotechnology can help feed their families and improve their quality of life. Farmers know that while biotechnology alone will not be the single, silver bullet that feeds the world, it is an important tool and clearly part of the answer. A stalk of Bt maize doesn't care whether it's being grown on a plot of two acres or 2 000 acres. It also doesn't care whether it's being grown in the rich soil of Iowa or in the developing world. That's the essence of scale neutrality. And that's the most important message we need to hear.

## **Organic baby food 'worst for toxins'**

Murdo Macleod, The Scotsman, 18 Jul 04. From AgbioView 19 Jul 04 (shortened)  
<http://news.scotsman.com/index.cfm?id=820492004>

Organic baby foods carry higher toxin levels than conventional products, according to a damning new report by the Food Standards Agency. While many parents are prepared to pay a premium of up to an extra 20p, or 30%, for a jar of organic food, the survey found that 3 of the top 4 products with the highest levels of toxins were organic, while none of the 10 baby foods with the lowest toxin levels had the organic label. Consumers' groups demanded clearer information on food to allow shoppers to make the best choices, while organic producers called for more research to allow them to avoid contaminated ingredients.

The food watchdog bought 124 samples of different brands of baby food. They were then tested for PCBs (polychlorinated biphenyls) and dioxins, which are man-made pollutants present in the environment as a result of industrial processes. PCBs and dioxins have been linked with cancer in humans and their production has been banned since the 1970s, although large amounts of

chemicals still linger in water, soil, and the atmosphere. While the study showed that toxins in the food were well within the levels recommended by scientists even for babies, they discovered that the amounts varied dramatically, even between products containing ostensibly similar ingredients. And despite its clean and healthy reputation, organic food is no freer of toxins than conventionally produced baby food.

In all, 4 of the top 10 foods with the highest levels of toxins carried the organic label. Meanwhile, none of the 10 most toxin-free products was organic. In one example, an organic shepherd's pie had 90 times the level of the chemicals of its non-organic equivalent. In addition, while fish products have recently been the focus of considerable criticism over their levels of PCBs and dioxins, the only non-organic fish product tested had the lowest level of toxins, while the organic fish products were among the most affected by the chemicals. Even within the same brands, organic products fared no better than ordinary foods. Although 2 organic products from Cow & Gate had high concentrations of toxins, 2 of their conventional baby foods were among the top 10 cleanest. The Consumers' Association called for more information to be on food packets to allow buyers to make their selections.

Julia Clark, of the Consumers' Association Scotland, said: "What is very clear is that many people are confused about what exactly the meaning of the organic label is. People should have the option of buying organic foods, but it should be clear what that involves. Buyers need clearer information about what is in their food so that they can make the most informed choices for themselves." Dr John Webster, an expert in food science who advises the food industry, said: "I think that many people in the organic sector have created a problem for themselves by allowing people to think that organic always means that you are receiving a healthier, premium product." "The reality is that organic is more about a form of production which is seen as being more sustainable by using natural fertilisers and methods, rather than actually being necessarily much healthier." But producers claimed that levels of these toxins were out of their control.

A spokesman for the Soil Association, which regulates organic food producers, said: "Although we avoid the use of chemical pesticides and fertilisers, factors such as PCBs and dioxins are not something we can do very much about because they are in the environment and all around us. It shows the need to use cleaner methods of production in future so that we can reduce the levels of pollution for future generations." A spokeswoman for Cow & Gate, whose organic products had high levels of toxins while their conventional foods were some of the least affected, said: "The key thing to remember is that all the products are well within the set safety limits and they are absolutely safe. We strive to make sure levels of pesticides and chemicals are kept to an absolute minimum. The levels of PCBs and dioxins are as a result of pollution in the rest of the environment, which is out of our control."

One leading organic food producer called for more research into toxins. A spokeswoman for the company Organix said: "We welcome these tests and we would like to see more guidance from the government so that we could make sure that toxin levels in food are reduced. Testing for PCBs and dioxins is very expensive and we would ideally like to be able to do it ourselves if possible. Intelligent testing of all the ingredients rather than finished products would allow us to source ingredients from the cleanest sources and make products even safer." She claimed that the comparison between the organic shepherd's pie and the conventional product was misleading because the non-organic pie was a powdered product which contained fewer whole ingredients. A spokeswoman for Boots, whose fish pie was the second highest for concentration of toxins, said: "We'd like to reassure customers that Boots baby foods are completely safe to use and that they should not be worried by this report. "

The FSA report simply confirms that any levels of contaminants found in baby foods are low and well within the recommended safety levels." The FSA estimated that a child eating baby food which had a higher level of toxins would receive 0.7 picograms of toxins per kg of bodyweight per day. That compares to the recommended safe level of 2 picograms per day. A spokeswoman for the FSA said: "The most significant finding from this study is that all the products surveyed had levels of PCBs and dioxins which were well within the guidelines." Earlier this year the Scottish salmon industry was rocked by a report claiming that its product had high levels of toxins. Although scientists said that the levels were well within safety limits, exports were still hit by the scare.

## **Crying wolf on GM crops**

David Walker, open i, 15 Jul 04. <http://www.openi.co.uk/oi040715.htm>

No one can deny the outstanding job UK and other European anti-GM advocates have done in creating doubts about this biotechnology. The greater challenge for those that have lead the vanguard, however, is that of credibility, once the realities of this biotechnology come to be generally appreciated. GM crops have now been available to, and widely used by, farmers in North America for almost 10 years. And no serious or unanticipated concerns have arisen as a consequence. Under normal circumstances it might be reasonable to expect a year or two's delay in the adoption of such technology in Europe.

While it is tempting to blame the delay on the failure of the EU to get necessary regulation in place, a general distrust of science since the BSE, mad cow, epidemic in the 1990's and the failure of those who develop the technology to anticipate opposition, these are factors that anti-GM advocates have been able to ferment rather than the root cause. Having raised the issue anti-GM advocates have been very skilful in providing the media with the kind of copy they seek and exploiting the weaknesses of retailers and others in the food industry. Every new concern they have raised has been credible enough to be believed and by the time refuting evidence is available, a new issue seems to have been raised.

While some opposition to GM crops undoubtedly stems from vested interest, the majority is surely based on faith, an unquestioning belief that for some reason or other GM crops are a threat to society. And as is often the case the more the faith is challenged the stronger it becomes. This kind of unquestioning support is invaluable to any minority interest cause as it creates momentum which would otherwise not be available. The challenge is managing it, particularly when the cause has been either acknowledged or generally recognized as without validity. If the organizations are not able to control the throng of support, they are likely to lose their credibility in short order. This is a challenge that organizations that have lead the opposition to the genetic engineering of crops are likely to be faced with sooner rather than later. They undoubtedly serve a useful purpose in a more general context in questioning society's attitudes towards its environment. It would, therefore, be unfortunate, if through over playing their anti-GM card, they destroy their credibility on other issues. Having cried wolf so effectively on GM crops, how effective are they likely to be if a real wolf appears at the door.

## **EU deadlocked over Monsanto GM maize**

Paul Gietner, Associated Press. 19 Jul 04. From AgBioView 19 Jul 04

European Union governments failed to overcome continental divisions on GM foods, leaving it to the head office to approve biotech maize made by St. Louis-based Monsanto Co. EU agriculture ministers deadlocked on Monsanto's NK603 maize, known as Roundup Ready, with no majority either for or against allowing it to be imported for food or food ingredients, officials said. The application did not cover cultivation. Nine EU countries - Latvia, Denmark, Cyprus, Malta, Italy, Greece, Austria, Portugal and Luxembourg - voted against the license. Nine others - Czech Republic, Slovakia, Belgium, France, Ireland, Netherlands, France, Sweden and Britain - voted in favour. Hungary, Slovenia, Greece and Spain abstained, while Estonia and Poland expressed no view.

Under EU rules, the application now goes back to the executive European Commission, which has backed the application after it received a clean bill of health from EU food safety authorities last year. A commission decision is expected after 29 Sept 04. The stalemate reflects continuing unease in Europe over biotech foods despite the restarting last May of new approvals, which had been on hold for 6 years due to public fears over health and environmental risks. After a similar deadlock, the commission approved a biotech variety of maize made by Switzerland's Syngenta AG for import and sale, but not cultivation.

The resumption of approvals followed the entry into force in the EU of the world's toughest rules on tracing and labelling bioengineered foods and ingredients. The US administration has accused the EU of violating international trade rules and exacerbating global hunger by hindering the marketing of GM food for political, rather than scientific reasons. US officials have said it will pursue its complaint

against the EU at the World Trade Organization until it believes applications are being handled in an "objective, predictable manner." An initial ruling is expected in September.

### **GM food fears and labelling**

Robert Wager, Malaspina University College, Nanaimo, B.C. The Gazette (Montreal), 21 Jul 04 (Via AGNET; via AgBioView 23 Jul 04)

The article by Henry Aubin on labelling GM foods (Opinion, July 15, "Quebec should move on GMO labelling") missed several key points. First of all, to suggest that the scientific community is spilt on the evidence of safety of GMO-containing food is blatantly false. Pretty well everyone, including the UN Food and Agriculture Organization, the WHO, the American Medical Association, the British Medical Association and the International Council for Science, has stated there are no unique risks from GM food.

As for the "know what you are eating argument," Wager suggests if we are going to label food made with GM ingredients, then we should also label products that are themselves products of random mutations resulting from ionizing radiation mutagenesis. In this radiation-induced form of breeding, we truly have no idea what we have done to the genetic material of a plant. Finally, to suggest that rules on labelling in other countries are working fine is not borne out in fact. There are all kinds of cases of false advertising before food authorities all over the world.

### **FDA approves GM wheat**

CropBiotechNet, 30 Jul 04. <http://www.reuters.com/newsArticle.jhtml?type=scienceNews&storyID=5760900>

The US Food and Drug Administration (FDA) said that GM wheat made by Monsanto Co. was safe for human and livestock consumption. Reuters reported FDA spokesman Mike Herndon as saying that the agency had completed its food safety assessment and that all safety and regulatory issues had been adequately addressed. Monsanto had earlier announced that it would shelve plans to introduce the world's first GM wheat. It withdrew submissions for its biotech wheat from all regulatory agencies except the FDA.

### **Plant DNA detection in animals**

From AgbioView, 28 Jul 04

Jennings, J., Whetsell, A., Nicholas, N., Sweeney, B., Klaften, M., Kays, S., Hartnell, G., Lirette, R., Glenn, K. 2003. Bulletin of the International Dairy Federation No 383 . 144(2): 41-46. Determining Whether Transgenic or Endogenous Plant DNA is Detectable in Dairy Milk or Beef Organs.

The fate of transgenic DNA in products derived from farm animals fed GM feed was assessed. Sensitive methods were developed to analyze milk for the presence of transgenic and plant DNA from cows fed a diet containing conventional or transgenic cottonseed or maize. Genomic DNA was extracted from milk and analyzed by PCR followed by Southern blot for fragments of the *cry1Ac* transgene and an endogenous cotton gene, *acp1*, from cows fed a diet containing whole cottonseed. Additionally, milk, liver, kidney, and spleen were assessed for fragments of the *cry1Ab* transgene and an endogenous maize gene, *sh2*, from animals fed a diet containing maize grain.

No sample was positive for transgenic or plant DNA fragments at the limits of detection for the assays following detailed data evaluation criteria. Results for *sh2* analyses of milk were, however, indeterminate. A fragment of a bovine gene, *prl*, was amplified from each DNA extract to show that all preparations were amenable to PCR. These results indicate that DNA, whether derived from conventional or transgenic feed, is not present at detectable levels in bovine milk or organs.

**"...to suggest that the scientific community is spilt on the evidence of safety of GMO-containing food is blatantly false. Pretty well everyone, including the UN Food and Agriculture Organization, the WHO, the American Medical Association, the British Medical Association and the International Council for Science, has stated there are no unique risks from GM food."**

**Robert Wager, Malaspina University College,  
The Gazette, 21 July 2004**

## GM Planet: Book review

C. Neal Stewart (author), Oxford University Press 24 Jul 04 (Via Agnet). From AgBioView 28 Jul 04  
<http://www.us.oup.com/us/catalog/general/subject/Agriculture/BiotechnologyPlantBreeding/?view=usa&ci=0195157451>

*Genetically Modified Planet*, a new book written for lay audiences about the environmental impacts of genetically engineered plants. The prevailing notion among many people and in the press is that environmental impacts of biotechnology are negative. After examining the science, Neal Stewart argues that there are indeed real and potential risks of growing engineered crops, but that there are also real and overwhelmingly positive environmental benefits. The potential problems with growing today's crop of GM plants include the possibilities of insects evolving resistance to plant produced insecticides, increased weed tolerance to herbicides, and gene flow from crops to weeds or wild relatives.

However, as of late 2003, over thirty-eight trillion engineered plants have been grown in the US with no measurable negative effects, and no environmental disasters. In fact, these plants have provided laudable environmental benefits: millions of gallons of insecticide have not been sprayed and tons of soil have not eroded, largely because of biotechnology. The future holds the promise of new plants designed to actually clean up environmental problems and restore endangered species. Stewart concludes that due to these benefits, GM plants are not the monsters they are made out to be.

## Meetings

**26 – 30 Sep 04: 8th International Symposium on the Biosafety of GMOs.** International Society for Biosafety Research Montpellier, France.

An International Symposium on The Biosafety of GMOs has been held biennially, to address the scientific basis for biosafety associated with GMOs. The Symposium series is designed for senior scientists, policy makers, regulators, environmentalists and industry representatives involved in GMO field releases. More details at <http://www.isbr.info/announcement/>

## Workshops

**16 – 18 Sep 04: Agricultural R&D as a Development Tool in Africa.** Miami, USA.  
<http://www.democracy-africa.org/africando2004.aspx> (From AgbioView 29 Jul 04). For more information and booth reservations, please contact The Foundation for Democracy in Africa at: Tel 202-331-1333; E-mail: [info@democracy-africa.org](mailto:info@democracy-africa.org); Website: [www.democracy-africa.org](http://www.democracy-africa.org)

IFPRI- ISNAR Programme is pleased to announce the coming training workshops for 2004:

- **1 - 12 Nov 04: "Monitoring, Evaluation and Impact Assessment of R&D Investments in Agriculture"** in Addis Ababa, Ethiopia
- **Dec 04: "Writing and Presentation of Scientific Research"** in Addis Ababa, Ethiopia

For info contact Cristina Sette, Training Advisor, IFPRI-ISNAR Programme, ILRI, P.O. Box 5689, Addis Ababa, Ethiopia. Tel: +251-1-463 215 ext 277. Fax: +251-1-461 252 / 464 645  
Mobile: +251-9-682608. Email: [c.sette@cgiar.org](mailto:c.sette@cgiar.org)

**12 - 15 Sep 04: ABIC2004, Cologne. Aims to bring 'AgBiotech back to Europe'.** With high-ranking speakers, exhibits and addressing science, politics and economics. For further information: [www.abic2004.org](http://www.abic2004.org) or email: [contact@abic2004.org](mailto:contact@abic2004.org); phone: + 49 221-49299-55; fax: + 49-221-49299-560