

Features

Rift grows in GM debate

The gap between researchers working on genetically modified crops and environmental groups opposed to them is widening. **Nigel Williams** reports.

Although first generation genetically modified crops are now the norm in many parts of the world, researchers have failed to convince the public of their benefits and lack of environmental damage in other regions, including Europe. In spite of increasing hopes for the potential in GM crops, particularly in the wake of this year's hike in foodstuff prices, Britain's Prince Charles mounted a strong attack last month.

The mass development of GM crops risks causing the world's worst environmental disaster, he warned. In his most outspoken intervention on the issue of GM food, the prince says that multinational companies are conducting an experiment with nature which has gone "seriously wrong". His attack comes as the European Union is re-assessing its negative position on GM crops as major producers such as Canada, the US and Brazil now routinely grow GM varieties and pose increasing problems for food imports to the EU.

Prince Charles accuses firms of conducting a "gigantic experiment with nature and the whole of humanity which has gone seriously wrong. Why else are we facing all these challenges, climate change and everything?" Relying on "gigantic corporations" for food, he says, will result in "absolute disaster".

"What we should be talking about is food security not food production – that is what matters and that is what people will not understand. And if they think it's somehow going to work because they have one form of clever genetic engineering after another then again count me out, because that will be guaranteed to cause the biggest disaster environmentally of all time."

Small farmers, in particular, would be the victims of "gigantic corporations" taking over the mass production of food. "I think it's heading for a real disaster," he says.

If they think this is the way to go we will end up with millions of small

farmers all over the world "driven off their land into unsustainable, unmanageable, degraded and dysfunctional conurbations of unmentionable awfulness."

His comments come at a critical time. There is intense pressure for more GM production perceived as a means of tackling rising food costs and widespread shortages. Many scientists believe GM research is the only way to guarantee food for the world's growing population as the planet is affected by climate change.

But Prince Charles is wary of crops that intensify pressure on local resources. "I have been to the Punjab where you have seen the disasters that have taken place as a result of the over-demand on irrigation because of the hybrid seeds and grains that have been produced which demand huge amounts of water."

The water table has disappeared, he says. "They have huge problems with water level, with pesticide problems and complications which are now coming home to roost."

"If you are not working with natural assistance you cause untold



Opposed: Britain's Prince Charles led a high-profile attack on GM crops last month. (Picture: PA Photos.)



Concerned: Some Indian farmers of GM cotton have been worried about increased exposure to pesticides. (Picture: Simon Rawles/Alamy.)

problems which become very expensive and very difficult to undo. It places impossible burdens on nature and leads to accumulating problems which become more difficult to sort out.”

Critics were quick to point out Prince Charles’ elevated standing as the effective landlord of hundreds of hectares of land in south-west England along with many other lucrative estates.

Authorities are under increasing pressure to consider GM crops. The Australian state of Victoria has been wringing its hands over GM oilseed rape, which the Chinese authorities are more than keen to buy. In Southern Australia, the government is maintaining resistance to commercial planting of GM crops for human food.

Nonetheless, researchers are still keen to highlight the potential benefit of GM crops, especially given this year’s food price rises.

A common argument has been that GM crops offer the potential to help the developing world out of the food price hikes.

Britain’s environment minister, Phil Woolas, said this summer that there was a growing question of whether

GM crops can help the developing world out of the current food price crisis. “It is a question that we as a nation need to ask ourselves. The debate is already under way. Many people concerned about poverty in the developing world and the environment are wrestling with this issue.”

And, in countries such as Britain, ministers have been keen to untangle themselves from previous decisions. In 2004, after a heated public debate, the UK government decided there was no scientific case for a blanket ban on GM crops. But amid fears of so-called ‘Frankenstein food’ it decided that commercial production would be allowed on a case-by-case basis, only if the evidence showed it would pose no risk to human health or the environment. But there are no GM crops being grown in Britain and only one trial has taken place this year.

Environmental groups have been highly critical of the government’s links between GM crops and the food crisis. “After a decade of commercialisation most GM crops are used for animal feed, not food: they do not yield more than conventional crops; and GM

drought- and salt-tolerant crops remain a PR promise rather than reality. We now need a radical shift towards sustainable farming systems that genuinely benefit local farmers, communities and the environment worldwide,” said Clare Oxborrow, GM campaigner for Friends of the Earth.

Britain’s renewed interest in GM crops has also been echoed in Europe. The European Union launched this summer a study into whether a large-scale expansion of genetically modified crops would curb soaring global food prices.

Jose Manuel Barroso, the EU Commission president, warned that the EU’s current obstacles to GM products could result in higher food prices in Europe than in the rest of the world. EU leaders endorsed the plans to review the complex system of approving GM licences, which is split between the EU and member state governments. It could be streamlined to make the approval process easier.

The British prime minister, Gordon Brown, said: “In the end, the attitude to GM crops and GM food taken by consumers in our country and in any country is going to depend on the

scientific and medical advice. That is what we are looking for from the work of this review group.”

Barroso told EU leaders that food price rises had added “a new dimension” to the public debate about GM crops. He admitted people were worried about GM organisms in food and farming, but he said the EU was probably one of the biggest importers of GM feed as its livestock industry was highly dependent on imported plant proteins.

The current aim of GM crops is to produce a better yield and profit for farmers and the crops’ developers. But a report earlier this year, carried out by researchers at the University of Kansas, noted that farmers had reported yields lower than optimum from GM soya compared with conventional soya. Barney Gordon, of the university’s department of agronomy, began the study because of anecdotal reports of farmers achieving lower yields with the GM variety. Reporting in the journal *Better Crops*, he found a 10 per cent lower yield with the GM variety compared with a conventional variety. He was able to improve the yield of the GM crop with the addition of manganese, but the yield still did not exceed the conventional crop.

While some American growers may be concerned about yields from their GM soya, a survey of Spanish farmers growing the only commercial GM crop in Europe, GM maize, were largely very happy with the variety. They found that the variety produced higher yields and earned \$100 per hectare more than conventional maize varieties.

And, while US cotton growers have largely been impressed with the performance of GM cotton, which contains an insecticide that kills the larvae of one of the main pests of the plants, reports from India suggest that there some growers of the variety find that it needs pesticide treatment against secondary pests and delivers lower yields, raising questions about its value in this environment.

A major new study, launched last month by Britain’s Royal Society, looking at how science can help secure the world’s food supply may provide welcome new evidence to the increasingly divisive debate over GM crops.

Common interest

One of the West’s frontline bases during the Cold War has been turned into an innovative conservation project. **Nigel Williams** reports.

The Cold War is something now forgotten in most people’s memories. An inkling of the past may have emerged in the recent conflict in Georgia and growing concerns about the relationship between Russia and the West, but one Cold War site has moved on to different days.

Greenham Common in Berkshire, England was used by both the Americans and the British during World War II and during the Cold War. It was also home to nuclear missiles and became the focus of major demonstration. Marches and the women’s peace camps held in the 1980s to stop nuclear weapons being kept at this site provided headline news. Tens of thousands of protestors formed a 14-mile human chain to make the point.

Eventually, at the end of the Cold War, the missiles left the camp in 1991. In one of the most populous regions of southern England, an area of former heathland began to regenerate as people began to consider what to do with the redundant airbase.

Without any intervention, the grass-sided airstrip began to turn

gradually back into the heathland that existed at the site before the base was built. Animals and plants that once occupied the site began to return.

In 1997 a newly formed Greenham Common Trust bought the airbase, immediately selling the open common land to the local authority for £1. Over the next few years the fences came down, 1.25 million tonnes of concrete and gravel were removed, new pools and slopes were landscaped, and grazing animals were once again allowed to feed freely on the wide open expanse of heathland. Local people found the former airbase a place of escape from neighbouring towns.

“Landscape-scale conservation is bigger and broader than the traditional conservation management of small, fragmented pockets”

Greenham Common now is the largest area of heathland in the region and supports several nationally scarce species, such as the Dartford warbler, adder, common lizard, small red damselfly, hobby, tree pipit and stonechat.

But this local conservation and restoration success, is now becoming part of a larger, ambitious



Protest: Women opposed to the location of nuclear weapons at the Greenham Common airbase in southern England created a high-profile protest. (Picture: Homer Sykes/Alamy)