



Speech by

**Andrew Cripps**

**MEMBER FOR HINCHINBROOK**

Hansard Wednesday, 13 February 2008

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## **GENE TECHNOLOGY AMENDMENT BILL**

**Mr CRIPPS** (Hinchinbrook—NPA) (4.55 pm): The objective of Queensland's gene technology legislation is to protect the health and safety of people and to protect the environment by identifying the risks posed by or as a result of gene technology and by managing those risks through regulating certain dealings with genetically modified organisms. The Queensland Gene Technology Amendment Bill 2007 has been drafted to reflect the changes to the Commonwealth gene technology legislation as a result of recent statutory reviews of the operation of the Commonwealth's legislation and the review of the operation of Queensland's legislation. These amendments are necessary to maintain national consistency in legislation governing gene technology throughout the Commonwealth.

This bill proposes a number of legislative changes, including among other things introducing emergency powers which give the minister the ability to expedite the approval of a dealing with a GMO in an emergency, providing clarification on the circumstances in which licence variations can be made, clarifying the circumstances under which the regulator can direct a person to comply with the act and providing the regulator with the power to issue a licence to persons who find themselves inadvertently dealing with an unlicensed GMO for the purposes of disposing of that organism.

Today I would like to discuss the implications of the legislation with respect to two major industries in my electorate that have an interest in the possibilities that gene technology offers to increase profitability, viability and sustainability. I would like to raise those matters in the context of how research and extension efforts are the key to the success of gene technology research and, as a result, the ongoing competitiveness of those industries and the communities that depend on them.

As I have said before in this place, one of the major industries in my electorate of Hinchinbrook is the banana industry. At least 65 per cent of Australia's bananas are grown in my electorate. It is a major employer in my electorate and a very valuable industry in the Queensland economy providing, as it does, a high-quality, clean and green product for Queensland consumers. It is a very popular fruit and is recognised as a staple food in the majority of Queensland's shopping trolleys.

In Australia, scientists are using gene technology research to enhance resistance in bananas to a range of exotic diseases, including the bunchy top virus, a devastating disease that causes serious production losses; black sigatoka, an exotic fungal disease that now occurs in most banana growing areas globally and remains a major threat to Australia's banana industry; and Panama disease, a serious fungal disease that is generally spread by soil, water or banana plants and which eventually kills the banana plant.

Indeed, as was mentioned by the shadow minister, the member for Burnett, the leading research institution pursuing gene technology projects concerning bananas is none other than the building next door to the Queensland parliament, the Queensland University of Technology. The Queensland University of Technology has applied to the Office of the Gene Technology Regulator for a licence to undertake research with genetically modified bananas containing a gene that expresses a protein that provides a visual indication of where the successful transformation of plant tissue has occurred. Other lines under this application contain a gene that is expected to provide protection from certain pathogenic micro-organisms. The Queensland University of Technology has also applied for a licence to undertake research with

genetically modified bananas containing genes from a number of sources that are expected to increase the concentration of provitamin A, vitamin E and iron in the flesh of the fruit.

Recently the banana industry carried out a ballot of growers to establish a compulsory levy to fund banana promotion, research and development and, importantly as far as today's debate is concerned, plant health related activities. The vote was a strong result in favour of the levy with 60 per cent of individual growers, representing 88 per cent of production, being in favour of the national levy. The levy is vitally important to the banana industry's future and the result enables the industry to put forward this recommendation to establish the levy to the federal Minister for Agriculture, Fisheries and Forestry, from whom the industry is currently awaiting a decision.

Amongst other things the national levy is expected to enable a strong focus on research and development, including a resumption of industry funded banana research, a rebuilding of banana scientific expertise, exotic banana pest and disease surveillance, enhanced banana disease diagnostic capability and the continuation of the QBAN tissue culture nursery accreditation scheme. In recent times investment in banana specific research has been very limited. When the national levy is in place, the banana industry will be able to move forward with plans to properly fund industry research activities.

In May last year during debate on the Primary Industries Acts Amendment and Repeal Bill, I argued that while policy and legislation in respect to biosecurity as it relates to the banana industry is now handled largely by the Commonwealth, recognition that the banana industry is important to Queensland means that the Queensland government ought to continue to make a strong contribution to the ongoing efforts to develop and strengthen the banana industry.

Compared to other banana production areas around the world, at present Queensland is relatively pest and disease free. Australian quarantine restrictions on imported bananas are currently in place to reduce the risk of exotic pest and disease incursions. The banana industry faces comparatively high biosecurity risks compared to other Queensland plant industries because the commercial production of bananas in Queensland is dominated by a single variety, the Cavendish variety, which has a limited resistance to many of the major pests and diseases that affect banana production.

On top of this, some serious pests and diseases affecting the banana industry would be difficult to eradicate if an incursion occurred. There are a limited number of chemical controls available to implement large-scale control programs for a particular pest or disease and this makes plant health based research, including gene technology research efforts to enhance pest and disease resistance in banana plants, of significant importance to the banana industry.

Members will recall that an outbreak of black sigatoka occurred several years ago in the heart of Queensland's banana growing region, the Tully Valley. An enormous surveillance and control effort was undertaken and, for the first time ever, the black sigatoka outbreak was eradicated while production continued. The significant risks and potentially high costs of an emergency pest or disease incursion warrant ongoing research and development on pest and disease resistance.

Today I would like to repeat my appeal to the Minister for Primary Industries that, in the absence of the grant of aid funding previously paid by the Queensland government on a dollar-for-dollar basis with industry to the Banana Industry Protection Board which was disbanded last year, the Queensland government should identify some other mechanism to support the banana industry. I suggest that, following the success of the national ballot to establish a banana industry levy, the Queensland government should consider an annual contribution to the banana industry fund to be held by Horticulture Australia Limited.

Sugar is one of Australia's largest export industries. It is a billion dollar industry employing tens of thousands of Queenslanders. Queensland is a leading producer and exporter of sugar. Annual production is more than five million tonnes. While that represents a relatively small percentage of the world's production, 85 per cent of Australia's total production is exported and that represents a much larger percentage of total global trade in sugar.

The Queensland sugar industry has developed a reputation as a technologically advanced, efficient and low-cost sugar producer. It is a world leader in sugar technology in areas ranging from plant breeding and farming practices to milling operations. The Queensland sugar industry places great value on research and innovation, including genetically engineered plants. Genetic engineering research will likely play a vital role in maintaining international competitiveness by improving disease resistance, productivity and crop yield, and this issue was also touched on by the member for Burnett.

As honourable members would be aware, the world sugar market is heavily corrupted by the United States and the European Union. As such, the Queensland sugar industry needs to be able to pursue all opportunities for improved profitability that research may allow. One of the reasons the Queensland sugar industry has been able to survive is that, historically, it has had a very strong investment and success in its research and extension institutions. Biotechnology research is included in these research efforts. Australian researchers were the first in the world to genetically transform sugar cane and regrow viable

plants. The Australian sugar industry has undertaken research on cane plants that have a number of genetic modifications, although no commercial plantings have been made. As I understand it, there is no genetically modified cane being produced commercially.

The modern science of molecular biology has extended our capacity to breed and select varieties and cultivars with desirable traits. Sugar cane is a genetically complex plant. Modern commercial varieties of sugar cane are complex hybrids. Whilst significant progress has been made in sugar cane breeding, this genetic complexity has meant that the gains made from research have been hard fought.

Specific projects have been pursued by the BSES using gene technology in an attempt to enhance pest and disease resistance in sugar cane varieties against leaf scald which is a bacterial problem, Fiji leaf gall which is a virus and sugar cane mosaic virus. Projects have incorporated genes for resistance to cane grubs, although as I mentioned earlier these genetically modified varieties have not yet been grown commercially.

Molecular biology has the potential to increase sugar content in a range of cane varieties. Sugar cane is largely replanted from materials sourced from existing crops. New varieties are developed by BSES on behalf of the industry and are made available free of charge to those paying the voluntary levy, which supports BSES research and extension efforts, and on a commercial basis to those who choose not to pay the voluntary levy. Most of the cost of developing new sugar cane varieties by BSES is paid for by industry through voluntary levies. New varieties, whether conventionally bred or the result of genetic modification, will not be used unless the cost involved is less than the benefit gained. It is in the interests of the Queensland sugar industry as a whole and the communities where the local economy is underpinned by the sugar industry that the provision of technology as a result of focused research efforts to improve the sugar cane varieties available is made.

Historically, the Queensland sugar industry has been able to avoid a situation where research efforts became uncompetitive due to the cooperation between its research organisations, including the BSES, the Sugar Research Institute and local cane and pest productivity boards. More recently, a large amount of funding has been channelled through the Sugar Research and Development Corporation which considers overall research industry priorities.

The BSES is the Queensland sugar industry's principal research body in the area of developing new cane varieties using gene technology. I do not think it can be denied that the BSES has experienced some difficulties and great challenges since legislation passed through the Queensland parliament in August 2003 transferring the assets of the Bureau of Sugar Experiment Stations over to BSES Limited, a limited liability company.

In March last year during debate in this place on the Plant Protection Amendment Bill I encouraged the Minister for Primary Industries to recognise the significant need for a much better funded BSES, especially for plant breeding programs in light of the serious predicament now facing the Queensland sugar industry in the form of sugarcane smut. I argued that it was in the best interests of Queensland and the Queensland government to increase its funding to the BSES to that end. I repeat that request today as the issue remains an important one for my electorate and the Queensland sugar industry at large.

Sugarcane smut was first found in Australia in 1998 in the Ord River in Western Australia. Sugarcane smut was first found in Queensland on a farm near Childers in early June 2006 by a cane productivity officer from the local productivity services group. The Queensland sugar industry is now necessarily pursuing an industry management and economic recovery strategy as opposed to a quarantine or eradication strategy.

Sugarcane smut is a serious disease affecting sugar cane which can significantly reduce crop yields. It is highly infectious and could be spread by wind or carried on clothing and machinery. Across Queensland sugar industry organisations are working to develop and implement local recovery plans to respond to the existing outbreak of smut or planning for a potential future outbreak in their region. Surveillance efforts to identify the spread of disease in areas where an infestation is yet to manifest itself are ongoing and being coordinated by the BSES—

**Mr DEPUTY SPEAKER:** Order! I have given the member a lot of latitude. This bill does deal specifically with genetically modified organisms and the legislative regime around that. Please come back to the bill.

**Mr CRIPPS:** Yes, Mr Deputy Speaker. As sugarcane smut is now deemed to be an established disease, developing resistant cane varieties is now considered to be the principal tool to be used to combat the effects of the disease on industry returns. A number of smut-resistant sugar cane varieties are now being developed. The industry was largely unprepared to react to sugarcane smut insofar as there were no smut-resistant varieties in the field in Queensland, despite, as I mentioned earlier, the disease being identified in the Ord River district in Western Australia in 1998.

State government funding for these types of research organisations, in particular the BSES, has been hovering between \$3 million and \$4 million annually for some time. In 2007-08, the BSES will receive

\$4 million—\$1 million of which is specifically related to addressing the sugarcane smut incursion. The remaining \$3 million, down from \$3.8 million in 2006-07, will be used for agreed research priorities. In effect, this means that the real increase in support for the BSES in the year when the demand for its capacity to pursue research priorities is at its most serious will be all of \$200,000.

One wonders how committed the government is to trying to ensure that the Queensland sugar industry—as I mentioned earlier, it is a \$1 billion industry as far as exports are concerned, employing tens of thousands of Queenslanders in regional and rural areas of the state—is as prepared as possible for such pest and plant disease outbreaks. So I sincerely hope that there will be a change in the attitude of the government to properly funding plant breeding programs in recognition of the enormous contribution the industry makes to the economy and to our communities in regional and rural areas. With those comments on the record, I am pleased to support the bill.