BT COTTON IN MAKHATHINI, SOUTH AFRICA: THE SUCCESS STORY THAT NEVER WAS

in

- GE Failures & Contaminations [1]

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"Vunisa Cotton is a private organisation supplying seed fertilizer, pesticide, credit and information to farmers in the region as well as buying their cotton. [...] The key factors affecting early adoption of Bt cotton were thus the availability of credit, or other means of purchasing inputs, such as non-farm income, and pressure from the Vunisa personnel."

Can farmers in the developing countries benefit from modern technology?
Experience from Makhathini Flats, Republic of South Africa

Yousouf Ismael, Richard Bennett, and Stephen Morse
Crop Biotech Brief 1 (5), 2001

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"To be sure, Buthelezi isn't a Third World subsistence farmer. In 1984, he was a minister for an evangelical church in Johannesberg when the nation erupted in violence over government-enforced discrimination against black Africans and people of mixed race. Buthelezi fled the violence, returning to his home in KwaZulu-Natal to build houses. Sometimes he received his pay in cattle rather than cash. By 1994, [...] Buthelezi had become a cotton farmer. [...] Buthelezi began small, with about 4 acres. Now, he farms nearly 30 acres. He's one of the larger landholders in the KwaZulu-Natal province, he said. Sindisiwe, one of his two wives, farms more than 7 acres. [...] 'Our standard of living is very much improved, when we have money to send our children to school. Now, after harvesting, we sit down and budget and say, 'Let's go buy some things.' That didn't used to happen.' "

Genetically altered cotton transforms farming in South Africa

Virginia Baldwin Gilbert and Thomas Lee
St. Louis Post-Dispatch
November 26, 2001

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"It is normally argued that Bt technology would save costs mainly through decreased use of pesticides. The clear cost advantage of applying less pesticide is wiped out when the higher cost of Bt seed and the technology fee are taken into account."

BT COTTON IN SOUTH AFRICA: ADOPTION AND IMPACT ON FARM INCOMES AMONGST SMALL- AND LARGE-SCALE FARMERS

Northwest Resistance Against Genetic Engineering
Resistance is fertile!
Despite claims that Bt cotton will catapult African farmers out of poverty, recent reports revealed that the majority of Bt small-scale cotton farmers on the Makhathini Flats in South Africa have stopped planting Bt cotton because they cannot repay their debts.

A five year study by Biowatch South Africa, has shown that small-scale cotton farmers in Northern KwaZulu Natal have not benefited from Bt cotton and that the hype surrounding this case is just that - a media hype created by American biotechnology companies to try and convince the rest of Africa why they should approve genetically modified crops. A summary of this study has just been published in GRAIN's quarterly magazine, Seedling (available at [http://www.grain.org/seedling/?id=330](http://www.grain.org/seedling/?id=330)).

Bt cotton is genetically modified (GM) to be an insecticide, supposedly eliminating the need to spray against bollworm, saving on insecticides and increasing yields. However this study shows that Bt cotton has failed on a number of fronts: farmers are in debt and credit institutions have withdrawn from the area because farmers cannot repay their loans and the number of farmers planting cotton has dropped by 80% since 2000. One farmer commented: "Four years ago we were told we would make lots of money but we work harder and make nothing".

A recent three year study of Indian small-scale farmers in the Warrangal district, Andra Pradesh, echoes these findings: farmers are in debt as a result of increased cost and lower yields (12% less than non-Bt cotton) and there has been little difference in pesticide reduction (see full report at [http://grain.org/research/?id=302](http://grain.org/research/?id=302)).

In Makhathini, Bt cotton compounded the problems that African cotton farmers typically face. After the introduction of Bt cotton, the Makhathini farmers were hit with droughts and low cotton prices. Since Bt cottonseeds are double the price of non-GM cotton, farmers increased their debt to be able to plant it, thereby increasing their risk.

Only four farmers of the total sample of 36 Bt cotton farmers followed in the study made a profit. The net loss for these 36 farmers was US$ 83,348. Such debt and income problems are rampant for Makhathini farmers. According to a local Land Bank official, farmers in Makhathini owe an average of US$ 1,322 per farmer and around 80% of them have defaulted on their loans.

Mr Lawrence Mkhaliphi, who did fieldwork for the study and is based in the area said that: "The damage is increasing for the local farmers and their livelihoods are negatively impacted on." He added that the responsible government departments are not aware of the situation on the ground. The South African government has instead been very supportive of GM crops, putting in place biosafety legislation to accommodate the biotech industry.

Makhathini was the GM industry's showcase for how transgenic crops can help the poor. Monsanto, the US company that owns the patent on the technology, and USAID have brought African scientists, farmers, journalists and other opinion makers in droves to Makhathini. In 2003 the chairman of the local farmers' association, Mr TJ Buthelezi, was flown to the US to stand next to Robert Zoellick, the US trade representative, when he announced that the US will take the EU to the World Trade
Organisation to challenge its stand on GM crops and food.

"With the Makhathini miracle is now in tatters, the GM industry is bound to dig up another 'success story'", said Elfrieda Pschorn-Strauss, one of the researchers. In South Africa, the GM industry has already shifted its attention to the promotion of GM maize, citing yields of up to 400% for small farmers in areas such as Hlabisa. She added that: "It would be wise to keep in mind the rise and fall of the Makhathini farmers whenever the industry talks about the benefits of GM crops for the poor".

South Africa was the first African country to introduce GM crops but field trials for Bt cotton are taking place in Kenya, Burkina Faso, and Egypt, while countries like Zambia, Tanzania, Uganda, Benin and Mali are heavily pressured to open their doors, despite their reluctance to do so. The study sends a clear warning to other African countries that Makhathini is not the fairy tale it is made out to be and that where African cotton farmers are already struggling to compete with the US on world markets, opening their doors to GM crops will only expose them to more risk and increase dependency on multinational companies.

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GRAIN is an international non-governmental organisation (NGO) which promotes the sustainable management and use of agricultural biodiversity based on people's control over genetic resources and local knowledge. Visit http://grain.org [7] for more information.

BT COTTON: GRAIN follows closely the latest news and documents on Bt cotton. Visit BT Cotton [8]

The Seedling article "Bt cotton in South Africa: the case of the Makhathini farmers" can be found here:
Bt cotton in SA [9]

A table on "Field trials and commercial releases of Bt cotton around the world" can also be found here:
Field trials... [10]

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