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## NEWS

### Drought-hardy maize ready for field trials

Helen Grange

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[JOHANNESBURG] Drought-resistant maize varieties will be making their way from the greenhouse to the field as soon as South African scientists get the regulatory green light.

The researchers at the University of Cape Town in South Africa have genetically engineered maize to contain four genes from the indigenous, desiccation-resistant *Xerophyta viscosa* plant — commonly known as the 'resurrection plant'.

It has taken the research team five years to identify the genes that give *X. viscosa* its ability to withstand 95 per cent dehydration, and transfer this genetic material into maize.

The *X. viscosa* genes act as a signal to the maize plant to go into survival mode when it becomes dehydrated, explains Jennifer Thomson, microbiologist at the University of Cape Town and leader of the five million South African rand (US\$670,000) research project funded by The Maize Trust.

The modified plant is expected to withstand environmental conditions that currently result in a greatly reduced harvest — such as late rains.

"We are ready to see how the maize performs in one of South Africa's driest areas," Thomson told SciDev.Net, adding that she hopes to start field trials early in 2010 after negotiating biosafety regulations controlling the cultivation of genetically modified organisms in South Africa.

"Field tests would be conducted under strictly controlled conditions and with the assistance of the Department of Agriculture," she says.

Leon du Plessis, head of The Maize Trust, says Thomson's project may prove important in averting famine in Africa but it will be a few years before its success can be assessed.

"Most Africans are dependent on maize as a staple so such an initiative, if successful, will go a long way to providing food security for this region," he says. "It will also help stabilise the price of maize, which fluctuates dramatically at the moment."

Maize containing an insect-resistance gene is grown in developing countries including the Philippines and South Africa. Drought resistant maize is being trialled in Asia (see [A-maizing: Asia's drought-resistant maize](#)



A maize farmer  
Flickr/Bread for the World

varieties) while maize resistant to maize streak virus (see GM maize gives virus nowhere to hide) is in development.

Efforts are also underway to engineer maize with nutritional benefits (see GM corn comes a step closer to a complete meal).

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<http://www.scidev.net/en/news/drought-hardy-maize-ready-for-field-trials-1.html>

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