

# Organic in Action

Louis Bolk Institute, Uganda:  
Participatory cotton breeding appeals to both  
breeders and farmers alike



Uganda's cotton sector is controlled by the Cotton Development Organisation (CDO). This body is responsible for seed distribution to farmers, and there is only one variety allowed in the country. However, while working with farmers on organic fertilisation strategies, the Louis Bolk Institute saw considerable variation in the field suggesting that improvement is possible even within the variety - which is made of three different lines. Seed breeding and selection takes place in a research station under modern management, while most Ugandan smallholders continue to be 'low input'.

## Linking up two worlds

A student from Wageningen University in the Netherlands is working with the Louis Bolk Institute on a thesis research project and has started an exchange between breeders and farmers. The breeders

were quite surprised at the knowledge that some farmers exhibited about the characteristics of a good plant with good production qualities. Interestingly, the farmers were sometimes looking for different attributes than the breeders. Both breeders and farmers are enthusiastic about continuing the exchange, possibly evaluating potential lines grown on smallholder farms.

The farmers' input is considered very important especially to breed varieties that do well under low input situations. Whereas it is often said that high input, high yielding cotton should also do well in low-input conditions this needs to be proven in practice. In the coming season, more Wageningen students will do their MSc thesis in Uganda and the mutual visits and exchange of experiences between breeders and farmers is an important element of their work. This participatory breeding work is part of a 15 year heritage of participatory research work by the Bolk Institute in fertilisation and pest management.



**PHOTO:** Farmers sowing the field.



**PHOTO:** Farmers counting organic cotton bolls.

## About the Louis Bolk Institute

Louis Bolk (1866-1930) was a Professor of Human Anatomy at the University of Amsterdam. "How much broader would be our view of life, if we could study it through reducing glasses?"

The Louis Bolk Institute (LBI) is a mid-sized organisation for research and advice, based in Driebergen, the Netherlands (main office), Accra, Ghana and Kampala, Uganda. A systems approach, respect for the integrity of life, and participatory methodology are central pillars of our work.

## The Louis Bolk Institute vision of development

What is the point of investing in development projects when they are abandoned after completion? The Louis Bolk Institute has a different vision of development: we take a long-term, grassroots approach, and focus our projects on poverty alleviation through empowerment, capacity building, and ecologically and socially sustainable agricultural production. We believe that sustainable agriculture is a precondition for sustainable development, because it enables people to improve their livelihoods without depleting natural resources, both in the short and long term.

For more information, please visit [Louis Bolk Institute](#)

## Good seed for a successful future

As participatory breeding develops in Uganda, some fear that the country is preparing for Bt cotton. Studies of Bt cotton conducted by the government research station have shown little economic or agronomic benefits of these varieties (LBI, 2011), partly because cotton bollworms are not the main pests. The threat comes from the Lygus bug which is a known pest in Bt cotton in the US. However there appears to be a political interest in introducing Bt seed. This is alarming not only for organic cotton farmers but also for conventional farmers not wanting to grow or unable to afford Bt cotton seed.

To some extent the GMO threat is putting more urgency in the seed issue. However, one can also say that GMO cotton breeders also need good varieties to work from. So all parties share a motivation to find and develop good seed to secure a successful future.

For details on the project and reports on participatory plant breeding contact: [Bo van Elzakker](#) Managing Director Tropical Agriculture or [Edwin Nuijten](#) Senior Researcher Plant Breeding & Sustainable Production Chains, Louis Bolk Institute

For more information on the [Farm Seed Opportunities](#) program please visit LBI website

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Designed by Evonne Tan

Textile Exchange inspires and equips people to accelerate sustainable practices in the textile value chain. We focus on minimizing the harmful impacts and maximizing the positive effects of the global textile industry. Our signature program focuses on organic cotton value chains; improving lives for farmers, stimulating markets, and supporting best practice.

Website: [farmhub.textileexchange.org/](http://farmhub.textileexchange.org/)

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