

## **Louis Bolk Institute - Projects and Publications** **Organic plant breeding and seed material**



**Organic potato breeding** The Louis Bolk Institute and Wageningen University are conducting a joint organic breeding programme (*Bioimpuls*) to develop stock material for *Phytophthora*-resistant potato varieties. Six breeding companies and 12 organic growers are participating in this 'Green Breeding' project. As part of the project we are teaching an annual breeding course for potato growers, and developing a manual.  
More information: [e.lammerts@louisbolk.nl](mailto:e.lammerts@louisbolk.nl)



**Potato breeding manual for farmer-breeders** A public version of this manual for farmer-breeders and course participants within the *Bioimpuls* project is currently being prepared for publication (planned for 2013). More information about the manual and the annual Potato breeding course: [e.lammerts@louisbolk.nl](mailto:e.lammerts@louisbolk.nl)



**Cereal production in the IJssel Valley** In the *IJsseldalgraan* project (2009-2012) farmers in the Dutch province of Gelderland are reintroducing rare old cereal varieties. The objective of this project is to increase diversity, within the agricultural landscape as well as on consumers' plates. The Louis Bolk Institute advises and supports participating farmers, sharing expertise on seed selection, organic cereal production and baking quality.  
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**Wheat breeding based on increased genetic diversity** In 2011 we started a project to develop a new population breeding method based on high genetic diversity. Using on-farm bulk breeding and mild selection methods, this project should lead to more cost-effective organic wheat varieties and improved baking quality. More information: [e.nuijten@louisbolk.nl](mailto:e.nuijten@louisbolk.nl)

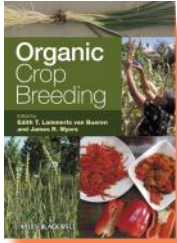


**Lupin breeding** Lupin is considered the ideal sustainable alternative for soy imported from North and South America. It is used in bread, confectionary and vegetarian meat alternatives. We are currently screening and testing 15 lupin varieties for calcium tolerance and suitability for human consumption. In this project we are working together with both primary producers and processing companies. The study takes place on two organic and two conventional farms. More information: [e.nuijten@louisbolk.nl](mailto:e.nuijten@louisbolk.nl)





**GMO-free cotton varieties in Africa** Together with students from Wageningen University and colleagues from Agro Eco-Louis Bolk Institute we are conducting a participatory cotton breeding project with small farmers in Uganda. More information: [e.nuijten@louisbolk.nl](mailto:e.nuijten@louisbolk.nl)



**Organic Crop Breeding** The first book on organic plant breeding covering topics such as nitrogen use efficiency in relation to rooting patterns, and participatory crop breeding; it also provides examples of current breeding programmes for 10 important crops, aimed at organic production. Lammerts van Bueren, E.T. & J.R. Myers (Eds), 2012. See: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0470958588.html> for ordering information. More info: [e.lammerts@louisbolk.nl](mailto:e.lammerts@louisbolk.nl)



**Farm Seed Opportunities – Conservation, Breeding and Production** Farmers all over Europe are reintroducing old, local varieties and conserving agricultural biodiversity. The EU-project Farm Seed Opportunities (2006-2009) has supported these efforts by assessing the suitability and crop performance of old varieties and identifying the necessary legislative measures for using and marketing these varieties. The Louis Bolk Institute was one of the participating research groups from the Netherlands. More information: [e.lammerts@louisbolk.nl](mailto:e.lammerts@louisbolk.nl)



**Green breeding** Funded by the Dutch Ministry of Economic Affairs, the Green Breeding programme (2010-2019) is aimed at the development of new, robust crop varieties. Within the framework of this programme the Louis Bolk Institute, Wageningen University and various breeding companies are working together to develop varieties that are suitable for low-input production systems and adapted to changing climatic conditions. This will increase the sustainability of both conventional and organic crop production. More information: [e.nuijten@louisbolk.nl](mailto:e.nuijten@louisbolk.nl) and [olga.scholten@wur.nl](mailto:olga.scholten@wur.nl). Publication: Green breeding for a sustainable society, Louis Bolk Institute and Wageningen UR; LbP2011-024 (available in Dutch; English publication available in March 2013).

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*Louis Bolk Institute: Research and advice to advance truly sustainable agriculture, nutrition and health*

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