

## **QuickGro Potatoes: Climate and disease resilient potatoes to bolster food security in Malawi**

A research collaboration between potato scientists in Scotland and Malawi has been successful in identifying new types of potato to widen the area under production and provide an alternative food to maize especially in the season when maize is unavailable.

In Malawi, there is a high demand for potato, yet it can be grown only in cooler districts such as Ntcheu and Dedza and parts of Nyika and Viphya highlands. The aim of this project was identify clones that can yield well in other, warmer areas.

Basic research in Scotland at The James Hutton Institute (JHI) identified potato clones that have properties such as heat and disease resistance and early maturity. Scientists in Malawi, from the Department of Agricultural Research Services and the International Potato Centre, conducted field trials to evaluate 60 candidate genotypes, trialling the clones in challenging environments. From these trials, the team selected twelve candidate clones for further evaluation, and farmers and commercial end users were consulted to ensure the clones selected met grower and consumer needs.

We were successful in selecting five clones that have been approved for commercial release. The new varieties can be grown in non-traditional potato-growing districts such as Lilongwe, Mchinji, Mulanje, Mzimba and Zomba. They are not only high yielding, but are also heat tolerant, early maturing (so that farmers can harvest mature tubers two months after planting), resistant to late blight and viral diseases, and have a low dormancy period. They also have a short cooking time saving fuel and importantly they taste good!

One major advantage with the early maturing varieties is that farmers can harvest and eat them even before maize starts tassling, a lean period in most parts of the country, and in which most households are in dire need of food.

These varieties open the way for potato production in non-traditional potato producing areas and we are working to scale up production by farmers and commercial producers. We have also trialled these lines in Kenya where they have also proved successful and we are working on scale up. We believe these varieties can make a major contribution to food security in SSA and are working with partners to achieve production at scale.

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Further info:

The project, “Food security and Health for East Africa; Producing new climate-resilient and disease-resistant potato varieties tailored to potato production systems” was funded by UKRI, project partners were the University of St Andrews, the James Hutton Institute, the International Potato Centre (Nairobi and Lilongwe), The Department of Agriculture Research Services, Bvumbwe, Malawi and The Masinde Muliro University of Science and Technology, Kakamega Kenya

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Names of vars for commercial release are Tinyadile-278; Chikoka 95; Khutula-229; Chitute-304; Phindu-269

Images of field work in Malawi



