



Working in partnership to improve fertilizer use within an integrated soil fertility management framework



Optimising Fertilizer Recommendations in Africa (OFRA) is a project led by CABI. The project is a partnership between CABI, the University of Nebraska Lincoln and National Agricultural Research and Extension Systems in 13 countries in sub-Saharan Africa. OFRA is supported by the Alliance for a Green Revolution in Africa (AGRA) Soil Health Program. The aim of the project is to contribute to improved efficiency and profitability of fertilizer use within the context of integrated soil fertility management (ISFM) practices. The project will run for three years and started in July 2013.



We work through partnerships

OFRA works in Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mali, Niger, Nigeria, Mozambique, Rwanda, Tanzania, Uganda and Zambia. National agricultural research and extension systems are conducting field research on the main food crops which include maize, sorghum, pearl and finger millet, teff, rice, cassava, beans, groundnuts, soybean, pigeonpea, and cowpea across a range of agro-ecological zones. Data from relevant past research is also being collated.

Data from both past and on-going research trials will be captured, shared and managed in a common database. The data will be used to develop fertilizer recommendations, that maximise profitability of fertilizer use, within an ISFM framework.

OFRA is also working in partnership with the African Soil Information Service (AfSIS) to use available soil spatial information, such as digital soil maps, to select appropriate sites for field trials and extend the field information to agro-ecological zones with similar soil characteristics.

We develop practical tools

Data collected will be used to develop practical decision support tools including fertiliser optimisation tools. The fertilizer optimisation tools will provide advice on how much fertiliser a farmer should use to maximise their profits, tailored to their individual situation. A computer based fertilizer Optimisation tool that advises farmers on how much fertilizer to use to maximise profits has been developed for Uganda by the National Agriculture Organisation in Uganda and University of Nebraska Lincoln. The tool is being piloted in Uganda and will most likely be adapted for use in the other partner countries. The tool is also being developed into a mobile phone application in partnership with Grameen Foundation.

We share knowledge

OFRA works closely with the Africa Soil Health Consortium (ASHC), another CABI-lead project that provides communications support in the development of training and extension materials.

ASHC works with partners in the OFRA project to package information and knowledge emerging from project experience for diverse audiences including, small holder farmers, and extension and policy makers.

A technical handbook on guidelines for developing fertilizer recommendations will be published and research findings will be published in journals. In addition, appropriate communication materials for field practitioners and farmers will be developed. Communication materials for training and extension will be developed in participatory way to build capacity of partners and local stakeholders in the process.

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