

# Improving how farmers receive agricultural information in Kenya

## About 3ie evidence impact summaries

[Read how 3ie verifies and classifies evidence impact](#)

## Highlights

### Evidence impact

- Findings prompted the government research and agricultural extension agency Kenya Agricultural & Livestock Research Organization (KALRO) to review their short informational messages and farmer field day programmes to stimulate farmer interaction and participation.
- KALRO is also conducting follow-up assessments of its mobile extension and farmer field day programmes.
- Evaluation learning informed the creation, in 2016, of a new implementing agency called Precision Agriculture for Development, promoted by the research team and others.

### Factors that contributed to impact

- Although mobile-based agricultural extension appears to be a low-cost alternative to traditional modes of spreading information on agricultural technologies amongst farmers, there is limited evidence on how to make it work to influence knowledge and practices.
- To identify relevant evaluation questions and unpack implications of the findings, researchers engaged with local implementers, KALRO in Kakamega county, and two funders, Alliance for a Green Revolution in Africa and One Acre Fund.
- The researchers included local experts and were affiliated with credible institutions, such as KALRO and Innovations for Poverty Action.

## Impact evaluation details

Title: [Evaluating agricultural information dissemination in western Kenya](#)

Authors: Raissa Fabregas, Michael Kremer, Jon Robinson and Frank Schilbach

Status : Completed March 2017



## Context

**Agricultural productivity in Sub-Saharan Africa remains low. Adoption and use of locally appropriate agricultural technologies, such as the use of agricultural lime to address soil acidity, has the potential to improve yields. However, cost-effective delivery of relevant information to farmers and encouragement to use appropriate technologies remain key stumbling blocks.**

**KALRO (formerly the Kenyan Agriculture Research Institute) recommends that farmers use integrated soil fertility management techniques that are appropriate to local agro-climatic conditions. However, it was not clear which approaches would reach more farmers and change agricultural practices most efficiently.**

**In response to this concern, KALRO in Kakamega county collaborated with researchers at Innovations for Poverty Action to evaluate farmers' willingness to pay for agricultural information and the effectiveness of two alternative extension approaches to spreading information about agricultural technologies. Specifically, the collaboration evaluated whether**

farmers' knowledge, beliefs and choice of agricultural inputs are influenced through participation in demonstrations and discussions on farmer field days or by receiving agricultural messages on their mobile phones.

## Evidence

The 3ie-supported evaluation in Kakamega county, conducted between July 2014 and March 2017, found that farmers valued locally relevant agricultural information. Those assigned to the areas where farmer field days were held had higher levels of awareness and changed reported beliefs about the profitability of using the KALRO-recommended chemical fertiliser. However, there was no increase in the purchase of that fertiliser.

For farmers who received advice from KALRO through short messages on mobile phones, there was no increase in knowledge or in the use of recommended inputs. However, the researchers pointed to limitations in the reliability and content of the short messages and recommended further fine-tuning of the short messaging intervention.

## Evidence impacts

### **KALRO reviewed its agricultural extension programming**

Disappointing findings on the effectiveness of farmer field days prompted KALRO to review their programming and include value-added farm products to stimulate farmer interest and participation. KALRO also collaborated with the researchers to review short messages containing locally appropriate agricultural information and partnered with a local telecommunications company to make mobile-based extension more interactive and reliable.

### **Researchers promoted Precision Agriculture for Development**

Evaluation findings, along with the findings from other evaluations of short message-based agricultural information dissemination, informed Precision Agriculture for Development, a US-based non-profit organisation founded in 2016 by a group of academics, including the 3ie research team members. Since then, Precision Agriculture for Development has worked in partnership with KALRO and other agencies to study short messaging-based agricultural extension in other contexts within and outside Kenya.

### **KALRO continues to test new dissemination methods**

KALRO has continued to collaborate with the researchers, including at Precision Agriculture for Development, to make agricultural extension, including mobile-based information dissemination, more interactive and reliable.

## Suggested citation

International Initiative for Impact Evaluation (3ie), 2020. *Improving how farmers receive agricultural information in Kenya* [online summary], Evidence Impact Summaries. New Delhi: 3ie.

# Related

Case study: [Phone-based technology for agricultural information delivery](#)

**This case study shares the other evaluations which contributed to the founding of Precision Agriculture for Development (now Precision Development).**

**Evidence impact summaries aim to demonstrate and encourage the use of evidence to inform programming and policymaking. These reflect the information available to 3ie at the time of posting. Since several factors influence policymaking, the summaries highlight contributions of evidence rather than endorsing a policy or decision or claiming that it can be attributed solely to evidence. If you have any suggestions or updates to improve this summary, please write to [influence@3ieimpact.org](mailto:influence@3ieimpact.org)**

*Last updated on 11th November 2020*