

Village forecasting of armyworm outbreaks saves crops



Farmers suffer huge crop losses when they don't recognise pest outbreaks in their crops at an early stage. But community-based forecasting is an innovative approach that trains villagers in high-risk areas to predict likely pest outbreaks and gives farmers time to act to save their crops.



Community-based forecasting is innovative, simple and low-cost

The African armyworm attacks crops and grasslands in eastern and southern Africa. Outbreaks catch farmers unprepared. District forecasts from the national forecasting service often do not reach them in time, if at all. Now, based on forecasting 'rules' provided in a forecasting 'pack', communities can make forecasts for their village using just a moth trap and rain gauge. Early warning of likely outbreaks means farmers have time to spray their crops and prevent losses.

Farmers trust and act on village forecasts

Community-based forecasting has many benefits. Farmers become more aware of the danger of attacks by armyworm and inspect their crops more often. Warnings of likely outbreaks spread rapidly—often by word-of-mouth—to those who need them. Plus, because the forecasts are based on local conditions farmers trust and act on them.

Community-based forecasting is also in line with current trends to decentralise authority and empower communities. Simple equipment and forecasting rules mean that communities don't need much technical expertise. And the start-up and maintenance costs are low.

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Above: Armyworm can cause huge crop losses and kill livestock. In 1999, major armyworm outbreaks devastated 311,000 hectares of crops and grassland in Tanzania. Farmers who were too late to spray lost up to 100% of their cereal crops. Cattle that grazed on infested grass also died. Photos: D. Grzywacz

Policy action needed to create conditions for successful village forecasting of armyworm attacks

The most important thing is to develop policy which supports and facilitates training on community-based armyworm forecasting, on a large enough scale to get the approach adopted widely.

Decision makers also need to:

- Ensure supplies and distribution of safe and effective pesticides at prices farmers can afford
- Fund, educate and train extension services on how to deal with pest outbreaks
- Create conditions that encourage private enterprise in agro-services, for example marketing armyworm forecasting packs, traps and lures, and providing contract spraying, transport, distribution and micro-credit services.



Photo: S. Mann

What is the purpose of this brief?

This Policy Brief was produced to show that complex subjects can be explained very quickly and simply to busy policy makers. It is part of a series that showcases proven technologies, policies and new approaches in order to demonstrate the importance of high-quality scientific communication.

Through its Policy Brief and Pocket Guide series, Research into Use aims to encourage partners in both the developed and developing worlds to invest more in their communication efforts. Only in this way will useful technologies be widely adopted, helping the people that they were intended to help and contributing to the achievement of the Millennium Development Goals.

What is Research into Use?

The Research into Use Programme aims to do exactly what its name says—to get research findings into use by resource-poor farmers in the developing world. The natural resources research programmes funded by the UK Department for International Development (DFID) produced many significant findings over their 11 year existence. Research into Use is working to put these results into practice—in order to reduce poverty on a very broad scale in sub-Saharan Africa and South Asia.

A key part of this work will involve helping partners to better understand how the promotion and widespread use of such research will help to cut poverty and boost economic growth.

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