

## Scaling up/out of Enset research technologies through integrated disease management approaches

### The issue

Enset (*Enset ventricosum* also known as ‘false banana’) is a source of food, cash, animal feed, medicine and fuel, among other products and services, for smallholder farmers in Ethiopia. Enset Xanthomonas wilt (EXW)—caused by bacterium *Xanthomonas campestris* pv. *Musacearum*—is a major constraint to enset production in Ethiopia, endangering the livelihoods of millions of farmers and threatening the food security of more than 15 million people for whom enset is a staple foodstuff (Brandt et al. 1997).

In recent years, the disease has pushed farmers to reduce significantly their enset cultivation, causing changes in cropping systems and dietary practices in enset growing areas. Of the diseases and pests facing farmers in Lemo woreda—EXW, enset root mealybug, leaf hopper, mole rat, porcupine, wild pigs, corm rot, and drought—EXW has had the greatest impact on enset production (Yemataw 2014).

Photo 1: Promising enset varieties selected



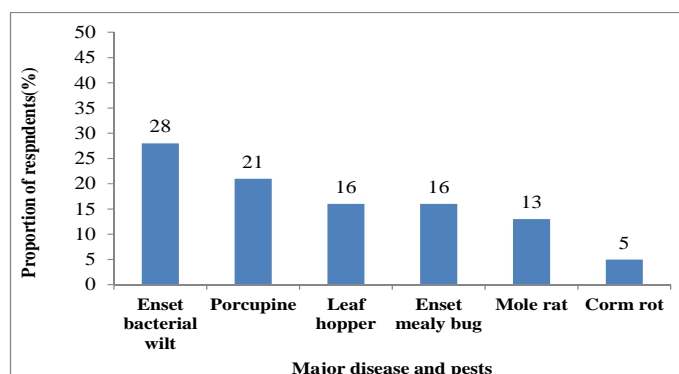
### Research methodologies

- Stakeholders planning meetings
- Base line surveys
- Awareness raising training workshop
- The multiplication and distribution of released and recommended disease-tolerant enset varieties
- The formulation and implementation of by-laws

### Technologies tested

- Participatory variety selection (disease-tolerant and high-yielding varieties) (Yanbule, Gewada, Kelisa and Mazia).
- Awareness raising and community mobilization for the management of enset bacterial wilt.

Figure 1: Important diseases and pests affecting enset in Lemo woreda



### Potential and targeted beneficiary households for enset technologies

Zone	No. of woredas	No. of kebeles	Potential beneficiaries	Direct beneficiaries
Hadiya	6	200	100,000	30,000

### Technologies to scale

- Improved enset varieties
  - Mazia
  - Gewada
  - Kelisa
- Integrated disease management through community mobilization and awareness raising involving changes in (Figure 3):
  - Cultural practices; and
  - Sanitary control practices.

Photo 2: Awareness creation and by-law formulation



## Acknowledgments

Africa RISING Ethiopia would like to thank the United States Agency for International Development (USAID) for the financial support provided to the project and to the local partners and farmers in the Amhara, Tigray, Oromia and Southern Nations, Nationalities, and People's regions for their active participation in the tree Lucerne action research activities.

The contents are the responsibility of the producing organization and do not necessarily reflect the opinion of USAID or the US government.



ILRI thanks all donors that globally support its work through their contributions to the [CGIAR system](#)

The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads an associated project on monitoring, evaluation and impact assessment.

**Contact:** Areka Agricultural Research Center

[africa-rising.net](http://africa-rising.net)

