Breeding Pipeline: Finger Millet 2007-2016

Finger millet trial site in Kumi. The Regional Team listens to Charles Andiku from NaSARRI on fertilizer use (trial) plot.
Photo credit Fred Lali

Eastern Africa Community of Practice

Project Partners

- Kenya Agricultural and Livestock Research Organization (KALRO)
  - Cooperatin Agricultural Research Centers
  - Kote Mtaani Health and Environment Concerns
  - NaSARRI
  - Kenya Agricultural Commodity Exchange
  - Amhara Regional Agriculture Research Institute
  - Kenya Industrial Research and Development Institute

Governmental Organization
Non-Governmental Organization
National Ag Research Center

Farmer Outcomes

Yield increases from 550 to 750 kg per hectare to 1500 to 2500 kg per hectare were reported (n=204).

Gender

Farmer Impacts

According surveys (n=204) respondents **consumed** 33.3% of their harvest and sold 66.7%, with **woman controlling proceeds** to purchase food (60.4%) and pay fees (30.2%).

Multi-dimensional outcomes

Farmer Utilization of Research outputs (Kenya)

Utilization-focused

N=204	2007	2013/2015
Farmer area dedicated to FM (ha)	<0.4	5.5
Total FM production (acres)	65,000	80,000
Improved row planting	0	68% (of sample)
New varieties	0	32%
Fertilizer use	11%	47%
Manure use	5%	32%
Intercropping with legumes	n/a	15%
Rotated FM with other crops	n/a	70%

Integrated long-term perspective

Importance of native crops to resilient systems

Opportunistic Scaling

In 2015 the **One Acre Fund began supporting FM** by facilitating 37,000 one-acre plots of FM with farmers, using the only formally released FM variety in Kenya.

Connect to other development institutions & initiatives

Breeding pipeline: understanding agrobiodiversity

In Kenya, the following genotypes for for Finger Millet were idenitified:

- 12 genotypes showing **resistance to blast,**
- 12 genotypes with no or minimal support for **Striga,**
- 4 showing **drought tolerance**
- 22 showing **no lodging**

Breeding pipeline: farmer selection, multiplication and distribution

2012 f**armer seed trials** involved:

45 female farmers, 26 male farmers and 2 farmer group plots.

Seed of selected varieties was multiplied and distributed to more farmers.

Participatory research

LEGEND:
Results
CCRP Principles

START HERE

Context

Maize has long been favored by farmers in most parts of Kenya, followed by sorghum and then finger millet (FM). However, new and **emerging maize pests and diseases** like maize lethal necrosis and army worm, have **increased the popularity of FM.** Also, media attention on the **health properties of native grains** like FM has increased awareness and demand among consumers and farmers.

COLLABORATIVE CROP RESEARCH PROGRAM

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