Grain Legumes: From Productivity to Nutrition

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Five aspects

- Improved varieties
- Seed systems
- Soils/management
- Markets/trade
- Nutritio

Capacity Building underlying all collaborative research
Productivity: Varieties and Seed Systems (MSU)

• Varietal work:
  – Heat/drought tolerance
  – Pest/disease resistance
  – Higher yields in stressful environments
  – Varietal Releases

• Training a new generation of breeders

Zambia and Uganda
Soils and Farmer Decision-making (ISU)

Farmers and scientists: Soil analysis, needs, solutions

► Simple tools can enhance farmer diagnosis of soil health and structure to increase fertility
► Gender Differences

Mozambican researchers working with farmer to take soil samples and discuss native soil classifications

Mozambique and Uganda
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Consumer Demand (KSU)

Determining consumer demand attributes to guide breeders and private sector

► Knowledge of demand leading to coordination btw. producers and markets

Zambia, Malawi, Tanzania
Nutrition (WU-SL)

Hypothesis that more legumes means healthier guts in infants

► Weaning foods with beans/cowpeas in Malawi

Study evaluates if legumes can help address issues of Environmental Enteric Dysfunction (environmental enteropathy)
MasFrijol  Guatemala
Bringing Agriculture & Nutrition together

Increasing Bean Productivity

- Promote locally adapted and preferred varieties
- Establish community seed banks (“Almacenes”)
- Access to PICS sacks for household storage

Improving Nutrition through Increased Bean Consumption

- Increase appreciation of beans as an “ancestral” staple crop and food
- Nutrition education focused on women’s groups
- Recipe competition, videos, mobile education units

Collaboration and Coordination between Min Agric and Min Health

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Other programs

• Legume Scholars Program with CGIAR and Peanut and Mycotoxin Innovation Lab
• International Year of Pulses www.IYOP.net
• Pan African Grain Legumes Conference
  • Early March 2016  Livingstone Zambia
    legumelab.msu.edu
• Integrated Pest Management and SAWBO Scientific Animations without Borders
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