

# Feed the Future Innovation Labs for Collaborative Research Country Profile Kenya

# Long-term Degree Training



The Feed the Future Innovation Labs for Collaborative Research and the former Collaborative Research Support Programs (CRSPs) since 1978 have trained a total of **209 long-term degree students** from Kenya earning **216 degrees** in disciplines including Agricultural and Applied Economics, Agronomy, Anthropology, Biology, Ecology, Food Science and Nutrition, Horticulture, Human Ecology, Plant Breeding and Pathology, Soil and Crop Science. Bachelors (35.2%), Masters (44.4%) and Ph.D. (18.5%) degrees were granted with 2% unknown. Women received just over **41%** of those degrees. **Moi University** and **Egerton University** granted 23 and 16 degrees respectively. Students studied at local institutions as well as U.S. Universities including Cornell U, Kansas State U, Mississippi State U, North Carolina State U, Ohio State U, Purdue U, Texas A&M U, Texas Tech U, UC Davis, UCLA, U Connecticut, U Kentucky, U

Missouri-Columbia, U Wyoming, Washington State U, and Virginia Tech and trained under AquaFish, BASIS, Pond Dynamics/Aquaculture, Pulse, Global Livestock, Horticulture, IPM, INTSORMIL, Livestock-Climate Change, Peanut, Small Ruminant, SANREM, and Trop Soils.

# U.S. University Partners, Kenya (2007 - 2014)

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AquaFish	Global Livestock	Peanut					
Oregon State U*	UC Davis*	U Georgia*					
Alabama A&M U	Cornell University	Auburn U					
The state of the s	Indiana U	New Mexico State U					
Auburn U	Texas A&M U						
Purdue U	U Wyoming						
U Arizona	Utah State U	Versity  Versity  Auburn U  New Mexico State U  U Connecticut  Peanut and Mycotoxin U Georgia*  SMOG/INTSORMIL U Nebraska, Lincoln* Kansas State U Ohio State U Purdue U  SANREM Virginia Tech* U Wyoming  Climate  *Management Entity					
Virginia Tech	Starr State 5						
- Company	IPM	Georgia					
BASIS AMA	Virginia Tech*	SMOG/INTSOPMII					
UC Davis*	Ohio State U						
Cornell U	( ( A	S. 10					
Oregon State U	Virginia State U	and the second s					
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Stanford U	Legume	Purdue U					
Syracuse U	Michigan State U*						
	Cornell U	All and the second seco					
Horticulture	Texas A&M U						
UC Davis*		U Wyoming					
Michigan State U	Libraria de Oliverta						
Ohio State U	Livestock-Climate	*Management Entity					
Purdue U	Change	Wanagement Entity					
Rutgers U	UC Davis*						
Tennessee State U	Colorado State U						
	Princeton U						
U Georgia	Timostorio						

Partners in Kenya (2007 - 2014)	AquaFish	BASIS AMA	Global Livestock	Horticulture	IPM	Legume	Livestock- Climate Change	Peanut	SANREM	SMOG/ INTSORMIL
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Kenya Agricultural Research Institute (KARI)	1			•	•	•		•		•
Moi University	•		•	•		•			•	
Egerton University		•	•	•		•				
International Livestock Research Institute		•	•				•			
University of Nairobi			•	•		•				
Africa Re		•								
Arid Lands Information Network (ALIN)			•							
CABI Africa				•						
Chepkoilel University				•						
CIAT						•				
Dept. of Relief and Rehabilitation			•							
East African Herbarium					•					
Eco Finder				•						
Eldoret Region Company - Christian Community Services				•						
Kangai Tisa Horticultural Farmers, Agro Farm Services				•						
Kenya Forestry Research Institute									•	
Kenya Plant Health Inspectorate Services				•						
Kenyatta University	•									
Kenya Wildlife Services			•							
Manor House Agricultural Center (MHAC)									•	
Maseno University School of Business and Economics		•								
Ministry of Agriculture	•		•	•						
Ministry of Fisheries Development	•									
Mwea AquaFish Farm	•									
Pwani University College							•			
Rift Valley Water Resources Mgmt Authority			•							
SACRED Africa									•	
South Eastern University College				•						
Tegemeo Institute of Agricultural Policy and Development (Egerton)		•								
UAP Insurance Group		•								
University of Eldoret	•									
USAID/AMPATH Project				•						
Women in Fisheries Programme	•									
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# Innovation Labs for Collaborative Research and CRSP Activities in Kenya (2007 - 2014)\*

## **Adapting Livestock Systems to Climate Change**

- A cost-effectiveness framework for landscape rehabilitation and carbon sequestration in North Kenya
- Climate variability, pastoralism, and commodity chains in Ethiopia and Kenya
- Pastoral transformations to resilient futures: understanding climate change from the ground up

# Aquaculture & Fisheries (AquaFish)

- Assessment of growth performance of monosex Nile tilapia (*Oreochromis niloticus*) in cages using low-cost, locally produced supplemental feeds in cages and training fish farmers on BMPs in Kenya
- Assessment of integrated pond-cage system for the production of Nile tilapia to improve the livelihood of small-scale fish farmers in Kenya
- Developing supply chain and group marketing systems for fish farmers in Ghana and Kenya
- Development of low-cost aquaponics systems for Kenya
- Development of small-scale Clarias fingerlings as bait for Lake Victoria commercial fisheries in western Kenya
- Effects of ACRSP and AquaFish CRSP initiatives and activities on aquaculture development in Kenya
- Enhancing the profitability of small aquaculture operations in Kenya and Tanzania (Associate Award)
- Experimental pond unit assessment in Kenya
- Formulation and manufacture of practical feeds for western Kenya
- Prospects and potential of the African lungfish (*Protopterus* spp): An alternative source of fishing and fish farming livelihoods in Uganda and Kenya
- Value chain development for tilapia and catfish products: Opportunities for women participation

# **BASIS Assets and Market Access (AMA)**

- A Productive Safety Net for Northern Kenya's Arid and Semi-Arid Lands: HSNP+ Program
- Developing a Satellite based Index to Predict Crop Yields in Smallholder Agriculture
- Evaluating the Socio-Economic Impacts of Western Seed's Hybrid Maize Program
- Tailoring Contract Farming to Smallholders: Experimental Evidence on Enrollment Impact, Insurance Provision, and Communication Technologies

# **Global Livestock**

- HNP: Increasing Animal Source Foods in the Diets of HIV-infected Kenyan Women and Their Children
- LINKS: Livestock Information Network & Knowledge System for Enhanced Pastoral Livelihoods in East Africa
- LITEK: Livestock Trade in Ethiopia and Kenya
- PARIMA: Improving Pastoral Risk Management on East African Rangelands
- SUMAWA: Multidisciplinary Research for Sustainable Management of Rural Watersheds: the River Njoro, Kenya

#### Grain Legumes (Legume) Formerly Dry Grain Pulses

- Increasing Utilization of Cowpeas to Promote Health and Food Security in Africa
- Using Improved Pulse Crop Productivity to Reinvigorate Smallholder Mixed Farming Systems in Western Kenya

#### Horticulture

- Developing Low-Cost Pest Exclusion and Microclimate Modification Technologies for Small-Scale Vegetable Growers
- Educating Smallholder Vegetable Farmers in Grafting and Microclimate Management Techniques
- Employing a Novel Gender-Based Extension Model to More Effectively Train and Engage Horticultural Farmers
- Extension of Appropriate Postharvest Technology in Sub-Saharan Africa: A Postharvest Training and Services Center

- Indigenous African Leafy Vegetables (ALV) for Enhancing Livelihood Security of Smallholder Farmers in Kenya
- Regional Center of Innovation
- Seed Systems: Improving seed quality for smallholders
- Sustainable African indigenous vegetable production and market-chain development
- Trellis I, II, and III: Engaging US Students in International Development

### **Integrated Pest Management (IPM)**

- Abating Parthenium (Parthenium hysterophorus L.) Damage in Eastern Africa Using Integrated Cultural and Biological Control Measures
- International Plant Diagnostic Network
- International Plant Virus Disease Network
- Regional IPM Program in East Africa: Kenya, Tanzania and Uganda

#### **Peanut**

- Global Valencia Peanut Niche Market Development Program
- Improving livelihoods of farm households in peanut based farming systems in East Africa
- Improving the health and livelihood of people of East Africa by addressing aflatoxin and gender-related constraints in peanut production, processing and marketing
- Strategies for Controlling Groundnut Rosette Disease in Sub-Saharan Africa: Breeding for Disease Resistance, Seed Dissemination, Disease Management Education, and Generation of Transgenic Groundnut with Resistance to Groundnut Rosette Disease

# **Peanut and Mycotoxin**

- Peanut Varietal Development: An Integrated Global Breeding and Genomics Approach to Intensifying Peanut Production and Quality
- RNAi Silencing of Aflatoxin Synthesis: Silencing of Aflatoxin Synthesis Through RNA Interference (RNAi) in Peanut Plants

## Sorghum, Millet and Other Grains (INTSORMIL)

- Breeding Sorghum for Improved Resistance to Striga and Drought in Africa
- Grain Molds, Mycotoxins and Stalk Rots of Sorghum and Millet

## Sustainable Agriculture & Natural Resource Management (SANREM)

- LTRA-1: Decentralization Reforms and Property Rights
- LTRA-10: CAPS for smallholder farms in eastern Uganda and western Kenya
- CCRA-5: Linking Knowledge and Action Meeting Natural Resource Management Challenges

\*Activities occurred at varying points from 2007-2014.



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