

# Feed the Future Innovation Labs for Collaborative Research Country Profile

Senegal



# 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 17 long-term degree students from Senegal earning 18 degrees in disciplines focusing on Agricultural Economics, Breeding, Dryland Resource Management, Entomology, and Toxicology. Students received Bachelors (5.6%), Masters (27.8%), and Ph.D (66.7%) degrees. Women received nearly 23% of those degrees. Purdue University and Texas A&M University granted the highest number of degrees with 3 and 3 respectively. Students studied at local universities as well as U.S. Universities including Kansas State U, Purdue U, Texas A&M U, U California, Riverside, U Hawaii, and U Nebraska, Lincoln under Bean/Cowpea, IPM, INTSORMIL, Livestock-Climate Change, Peanut, Pulse, Soil Management, and Trop Soils.

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

### **Horticulture**

U California, Davis\*

### **IPM**

Virginia Tech\* Fort Valley State U Ohio State U Purdue U U California, Davis

Sorghum and Millet Kansas State U\* Purdue U U Florida Texas A&M L Virginia Tech West Texas A

## SMOG/INTSORMIL U Nebraska, Lincoln\*

Kansas State U Purdue U Texas A&M

#### Legume

Michigan State U\* U California, Riverside U Puerto Rico

## Livestock-Climate

Change Colorado State U\* South Dakota State U Syracuse U Texas A&M U Wisconsin, Madison

### **Peanut and Mycotoxin** U Georgia\*

\*Management Entity

U Arizona A&MU U Georgia Partners in Senegal (2007-2014)	Horticulture	MqI	Legume	Livestock- Climate Change	Sorghum and Millet	SMOG/ INTSORMIL
Institut Sénégalais de Recherches		•	•	•	•	•
Institut de Technologie Alimentair						•
Université Cheikh Anta Diop						•
ADC Super Crown	•					
Center of Research and Ecotoxicology of the Sahel (CERES/Locustox		•				
Direction de la Protection des Vegetaux		•				
Groupement Ande Liguey	•					
National Agricultural Research Institute		•				
Réseau Africain de Développement de l'Horticulture		•				
Yaajeende project				•		

# Innovation Labs for Collaborative Research and CRSP Activities in Senegal (2007 - 2014)\*

## Adapting Livestock Systems to Climate Change

- Management of river systems for the future/La gestion des systemes fluviaux pour l'avenir
- Transhumance, natural resources, and conflict in the Sahel: a pilot project

### Horticulture

• Trellis III: Engaging US Students in International Development

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

- International Plant Virus Disease Network
- West African Regional Consortium for IPM Excellence

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

- Genetic improvement of cowpea to overcome drought and biotic constraints to grain productivity
- Impact assessment of Bean/Cowpea and Dry Grain Pulses CRSP investments in research, institutional capacity building, and technology dissemination in Africa, Latin America and the U.S.
- Modern Cowpea Breeding to Overcome Critical Production Constraints in Africa and the U.S.

### **Peanut and Mycotoxin**

- Peanut Genomics: Translational Genomics to Reduce Pre-Harvest Aflatoxin Contamination of Peanut
- RNAi Silencing of Aflatoxin Synthesis: Silencing of Aflatoxin Synthesis Through RNA Interference (RNAi) in Peanut Plants

### Sorghum and Millet

- Accelerating the genetic enhancement of sorghum in West Africa with genomics-enabled breeding
- Biological control of the millet stem borer and the millet head miner in Niger and Senegal
- Development of biotic stress-resistant sorghum cultivars for Niger and Senegal
- Expanding markets for sorghum and millet farmers in West Africa through strengthening of entrepreneur processors and nutrition-based promotion of products
- Optimization of the seed ball technology for pearl millet, and agronomic and socio-economic evaluation in the context of smallholder farmers in Senegal and Niger
- Trait Development Pipeline for Food and Feed Value in Sorghum

### Sorghum, Millet, and Other Grains (INTSORMIL)

- Enhancing the Utilization and Marketability of Sorghum and Pearl Millet through Improvement in Grain Quality, Processing Procedures and Technology Transfer to the Poultry Industry
- Breeding Pearl Millet with Improved Stability, performance, and Resistance to Pests
- Development of the Input and Product Markets in West Africa for Sorghum and Millet
- Product and Market Development for Sorghum and Pearl Millet in West Africa

\*Activities occurred at varying points from 2007-2014



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