

# Research Proposal: A Peanut Information Network and Train-the-Trainer Program

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## Submitted

09/28/2007

## Focus

Domain - Other Region - Global

## Background

The University of Georgia (UGA) has internationally recognized agricultural and environmental science programs; the breadth and strength of UGA can be demonstrated by the recent report from the US National Science Foundation that UGA's College of Agricultural and Environmental Sciences is ranked 4th in the US. UGA is also the center of peanut-related expertise in the US university system. Research scientists from the college have been ranked among the

most cited in peer-reviewed agricultural publications. This strength allows this project to have a core base of scientists for conducting the proposed train-the-trainer program. Through our strong research cooperation, we can also access any expertise needed from other universities. Georgia also attracts many scientific visits from peanut scientists, producers, and users on a world-wide basis; and this position has been fostered by the annual Georgia Peanut tour which attracts peanut producers, processors and scientists from around the world to share in peanut science and technology. Currently, the tour is in its 21st year. Over a two-day period, participants will see a cross section of field conditions in parts of Georgia, peanut harvest clinics, production research at University research and education centers, on-farm demonstrations, peanut handling and grading facilities. One day prior to the annual peanut tour, the PI of this proposed training project also hosts the annual Hot Topics on Peanuts conference. This conference brings speakers from all over the US to address current timely topics on peanuts. However, there is no regular training workshop available that provides basic knowledge and principles on peanut production, harvesting, processing, and utilization in a classroom setting with hands on experience. This train-the-trainer program will not only provide needed training on peanuts, but will also train trainers that will return to their home country and use the training materials developed from this program to conduct local training.

### **Technical Review**

The proposed train-the-trainer part of the program will cover almost all of the major topics under each of the three major sectors of the peanut value chain from producer values (land, water, labor, purchased inputs, system opportunities), process value and market expansion (aflatoxin management, processing, post-harvest handling and storage, products and value addition), to consumer and social values (nutrition, health, connection between aflatoxicosis and other major health risks, social factors and technology adoption). Regional representatives (Caribbean, S. America, W. Africa, E. Africa, S. Africa) will be identified to help make sure the content of the training programs will meet the needs of developing countries and to help contact USAID local missions to obtain associate awards to finance regional training programs. Currently, peanut-related information can be found in scientific publications and through internet search. However, peanut-related presentations (e.g. APRES annual meetings and Hot Topics on Peanuts conferences), publications, and news cannot be easily found through one common source. A lot of useful information is also generated by various peanut organizations (e.g., The Peanut Foundation and American Peanut Council). There is a need to establish an information network to bring all peanut-related information together in one place.

### **Problem Statement**

There are many common constraints to production, post-harvest handling and value-adding processes of peanuts; therefore, an information network and training program that address all three major sectors (producer values,

processor values, and consumer values) of the full peanut value chain is needed. Information on peanut related presentations, publications, and news cannot be easily found through one common source. Currently there is also no comprehensive training program available to address the basic principles of these three major sectors in one setting. This proposed training and information network program, therefore, can benefit both the US and developing countries by providing practical and useful information as mandated by Title XII.

## **Vision and Approach**

### Goals

The overall goal of this project is to develop an information network and training program to address the basic principles of peanut production, harvesting, postharvest handling, storage, processing and utilization. This project will serve as the focal point of existing knowledge and new information generated by peanut CRSP projects; it will also provide opportunity for human capacity development and bring knowledge and expertise to partnerships that apply the knowledge to achieve developmental impact.

### Objectives

1. Develop a web-based information distribution system on peanut.
2. Develop an annual train-the-trainer program address peanut production, harvesting and storage related topics.
3. Develop a regional peanut conference in Africa.
4. Develop an annual train-the-trainer program address peanut quality, processing and utilization related topics.

### Research Approach

The train-the-trainer program will be an annual event consisting of two major components. The first part of the training program will start two days before the annual Georgia Peanut Tour and will address peanut production, harvesting and curing. It will address the topics of: 1. Peanut cultivars, seed selection, soil selection and preparation 2. Planting peanuts, irrigation strategies, rotation, and acreage management 3. Disease control and integrated pest management 4. Weed control 5. Harvesting, curing, drying of peanuts 6. Pre- and post-harvest factors on aflatoxin 7. Cost analysis and economic issues.

Participants will then attend the annual Hot Topics on Peanuts conference and the Georgia Peanut Tour. After the tour, participants will spend 1.5 days at the UGA Center for Food Product Innovation and Commercialization (FoodPIC) for the second part of the training program on topics related to peanut quality, processing and utilization. Participants will also get hands-on experience in the FoodPIC pilot plant. The second part of the training will address the topics of:

1. Composition and nutritional quality of peanuts

2. Storing and shelling of peanuts
3. Blanching and roasting
4. Removing and detoxification of aflatoxin contaminated peanuts
5. Peanut butter, roasted peanuts, peanut confections
6. Peanut oil and other food and nonfood uses for peanuts
7. Objective peanut quality evaluations
8. Hands-on practice on quality evaluations and peanut processing

The proposed information network part of the program will include publishing a newsletter; developing a web-based information distribution system to distribute training information and latest research findings from various peanut-related professional meetings; and developing a DVD and print on-demand information system.

### Training & Capacity Development Approach

This project will address two major classes of capacity impact: institutional capacity and technology application capacity. Institutional capacity building will be achieved through the regional coordinators and their institutions. These institutions will participate in the development and planning of the annual training program in the US. This experience enables these institutions and their employees to gain experience in developing regional training workshops and to become more able to participate independently in activities of their respective peanut CRSP projects.

The technology application capacity building will be based on the transfer of technology through people who participate in the proposed training program, become a trained trainer who can then conduct field days and other information dissemination activities in the host countries, as well as through the information network. Other training activities such as sandwich courses, distance learning, mentoring, field schools, and summer schools will also be developed based on the survey and assessment conducted by this project.

### **Intended Benefits & Impact Responsiveness**

#### Development Benefits

Universities and/or institutions working with us as our regional centers will benefit through the experience of planning the annual training program with us. This experience enables these institutions to develop regional training programs and become a center of peanut knowledge and information for their region.

Personnel from other Peanut CRSP projects attending the workshops will receive the most updated appropriate technology for their project and they will be trained to enable them to conduct training programs, field days and other information dissemination activities in their home countries.

The entire database on peanut developed by this project will be available to all personnel associated with the Peanut CRSP projects. Peanut farmers from the

host countries of Peanut CRSP projects will also benefit by being able to access the information from this information database and attending local training programs conducted by the people trained by this project.

#### US Benefits

People involved in the peanut value chain in the US will also be able to attend the workshops and be trained by experts on each subject. People from allied industries such as the confectionery and bakery industries can also attend and learn about the benefits of using peanuts. This will in turn increase the demands of US peanut consumption. The Georgia Peanut Commission and Golden Peanut Company recognize the potential benefits of this program for the US peanut industry and will be partners of this project. We are currently in discussion with ConAgra Foods to encourage their involvement with this program.

#### Potential Impacts

1. Through the training workshops, increase the understanding of the peanut value chain for personnel associated with the Peanut CRSP projects.
2. Increase public awareness of the benefits of peanut consumption.
3. Increase peanut production through an increase in peanut consumption.
4. Impacts will also be measured through evaluation at the end of each workshop and a follow-up survey 2 years after participants have completed the training program.

#### Equipment

None

#### Project Timeline

1. The first annual training workshop will be conducted in September 2008 and will continue annually for 5 years.
2. The first quarterly newsletter will be published in the spring of 2009.
3. An internet-based information distribution system including a training manual, presentations from Peanut-CRSP sponsored programs, Hot Topics on Peanuts, and other peanut-related information will be on line starting in spring 2010.

### **USAID Mandate Responsiveness**

#### MDGs

Poverty/Hunger: Improved Health: Raised Rural Incomes: Sustainable Development

#### Foreign Assistance Framework

Governance: Human Capacity: Economic Structure: Persistent Dire Poverty: Global Issues (HIV and Infectious Diseases, climate change, biodiversity)

## IEHA

Science and Tech Applications: Increased demand for peanuts: Market Access: Increased Trade

## USAID Focal Areas

Greater incomes: Greater value and market demand: Public Health: Food Security: Sustainable Value Chain: Improved Human Capacity