

Peanut CRSP Progress

2003/04 Highlights



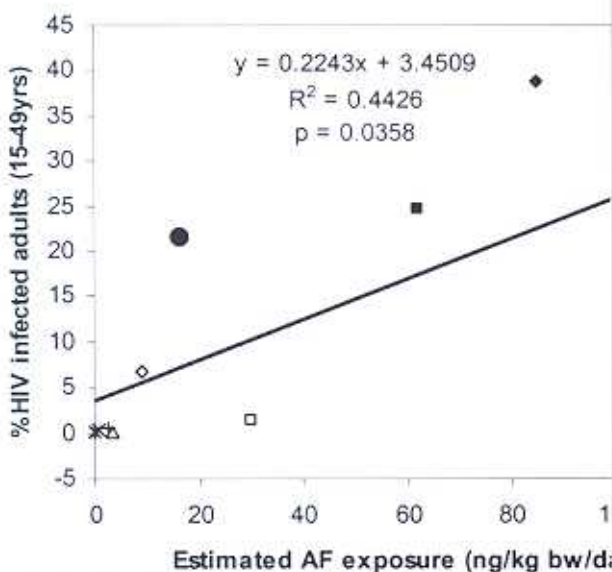
The CRSP is funded by USAID Grant LAG-G-00-96-90013-00 to achieve development by supporting research on peanuts both in developing countries and the USA.



World prosperity depends on agriculture
US security depends on global prosperity

Aflatoxin, Immunity and HIV/AIDS

The USA has committed to spend billions of dollars improving world health by addressing infectious diseases and nutrition. Peanut CRSP research has shown the aflatoxin exposure in Ghana is enough to suppress immunity – so fears that this is toxin is a factor in infectious diseases is confirmed. A study using published data for aflatoxin exposure and HIV incidence shows that exposure is correlated with HIV.



The correlation between estimated dietary exposure and % adults in countries for which both data is published.

☺ **World health is an agricultural opportunity.**

Preventing Human Aflatoxicosis

Peanut CRSP research is focused on preventing exposure to this natural toxin that comes mostly from corn and peanut.

Earlier PCRSP research discovered award winning techniques to prevent exposure using safe and cheap food additives. These are now used to protect farm animals in the USA and in many countries. Research in 2004 confirmed the safety of these food additives in lifetime trials with rats, and confirmed that they have no impacts on humans. The next studies will test naturally exposed people in Ghana.

Aflatoxin exposure can be solved with practical, cheap, simple existing technologies so Peanut CRSP may have an affordable intervention in the HIV epidemic.

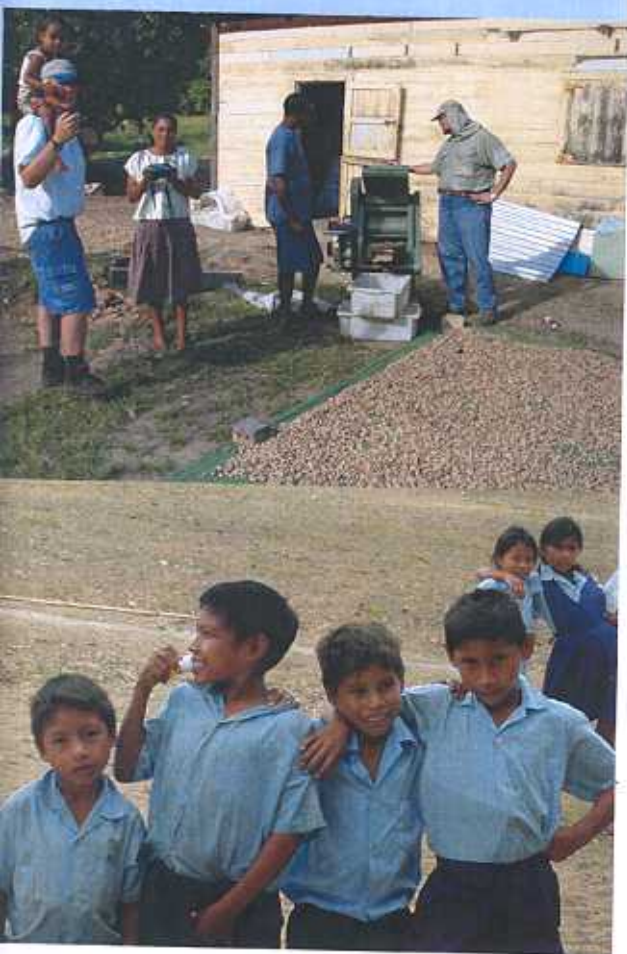
- ✕ Australia
- ▲ Mozambique
- + USA
- Thailand
- ◇ Kenya
- Zimbabwe
- ◆ Swaziland
- Transkei
- △ S Korea
- ✕ EU

120



School Feeding Peanuts in Guyana.

In Guyana, due to price incentives and technology changes, production by small farmers doubled in a single year, leading to a glut and lower prices.



Peanut CRSP and Beacon Foundation worked to establish peanut butter factories based on cooperatives of women to supply schools with locally grown value added peanuts and cassava bread at $\frac{1}{3}$ the cost of the previous meals.

The Global Benefits of Disease Management and Resistant Peanuts

In Uganda virus disease resistant varieties released and multiplied with CRSP support provide farmers with 2-3 times the yield of traditional varieties. Impact assessments indicate that this is worth \$47 million annually to the farmers there. In Ghana farmers are realizing similar gains through IPM technologies that use local soaps to control diseases.



USA lines which were developed using Bolivian multiple-disease resistant parents can save farmers 80% of their fungicide costs when combined with IPM techniques.

US scientists with their collaborators in Bolivia



CRSP Facts

- ▶ CRSPs are required to provide benefits to both developing countries and the USA. The Peanut CRSP delivers major benefits to the USA through development of resistant varieties and increased consumption.
- ▶ Our 2003-04 budget was about 10% of all US peanut research funds.
- ▶ We focus on:
 - » Food safety and nutrition to ensure markets.
 - » Production constraints to increase profits.
 - » Social/economic aspects to ensure useable technology.
 - » Post-harvest & Utilization to preserve value.
- ▶ We match production improvement with market development.
- ▶ How we work- The Peanut CRSP connects US scientists with partners in developing countries. The research supported is selected on merit and relevance to both locations; it must result in benefits in the USA. The program content is approved by representatives of the US peanut industry.
- ▶ This is a national program involving twelve universities.

Peanut Collaborative Research Program
1109 Experiment St., Griffin GA 30223

Email : crspqrif@griffin.uga.edu

Webpage: <http://168.29.148.65/pnutcrsp.html>

Phone: 770 228 7312 Fax: 770 229 3337