

SUCCESS STORY

Fighting Aflatoxin on the Home Front

Training Farmers to Limit Aflatoxin contamination to improve health and exports



The Bottom Line on Aflatoxin Contamination

Groundnuts are sold on the local market for US\$400/ton, but aflatoxin-compliant nuts sold to premium outlets fetch up to US\$750/ton, a major increase that can raise a farmer's net additional household income every year by up to 87%. The restrictions on aflatoxin for export is 4 ppb, but raw groundnut from the region can have up to 15 ppb, more than triple the allowable amount.

For this reason, the techniques for reducing aflatoxin contamination taught in the course are vital to profitable groundnut production. In the photo above course participants practice the hands-on work themselves, which includes calibrating the roasting equipment, setting parameters for roasting to specific visual color and quality end points, and conducting mechanical de-skipping techniques.

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Groundnuts (peanuts) are an important agricultural commodity in Zambia, Malawi, and Mozambique. However, high levels of aflatoxin—a carcinogenic mold that can develop during production—limit their market, trade, and nutritional value. Relatively simple changes in post-harvest handling can help reduce aflatoxin, especially those related to prompt storage and moisture control.

USAID's Southern Africa Trade Hub, in partnership with local NGOs, training organizations, and agribusiness organizations, has implemented a wide variety of measures to mitigate the aflatoxin problem. These efforts are driven by USAID's Feed the Future strategy, a global initiative to accelerate growth in the agricultural sector as a means of combatting worldwide rural poverty and hunger.

Since shelling groundnuts before storage is a major contributing factor to the spread of aflatoxin, farmers and processors are receiving training on leaving the nuts in the shell before storage, as well as appropriate drying techniques. They are also receiving ongoing management courses and strategic partnership grants to provide new cleaning, sorting and grading equipment. Measures to reduce aflatoxin have been profitable—reduced aflatoxin levels not only contribute to higher yields but also help smallholder farmers access new markets and diversify revenue streams.

The Trade Hub's training model utilizes farmer trainers to sensitize the population on the consequences of aflatoxin in peanut production and trade. Monitoring and evaluation specialists from the Trade Hub recently met with farmer trainers near Nampula Province in Mozambique to determine the success of the program. During the assessment, specialists obtained valuable feedback that confirmed the positive impact of USAID's training and management courses when applied by local farmers during peanut cultivation. It was evident that smallholder farmers following the aflatoxin mitigation procedures can nearly double their income with reduced aflatoxin in groundnuts.

As one farmer trainer in Muecate said, "We are not paid [to train other farmers]. But we know that this mold is dangerous to people's health. We do it for the passion and to help other farmers. It's good to teach others these methods."

The training was also important in another way. Although groundnuts are a high-value cash crop in Nampula, they are also a basic food staple present in almost every locally cooked dish, making aflatoxin consumption a significant health and nutrition concern. With positive intervention from USAID, farmers have been able to use effective techniques to protect the population from the harmful health effects of contaminated harvests and bring higher-value product to market.