Aflatoxin causes liver cancer, growth stunting, and suppression of immune response. Regulatory limits for aflatoxin (4µg/kg) in peanut products are often exceeded which has public health and trade implications (especially export, resulting in detention of products at the port-of-entry). An appropriate technology, developed by the authors to facilitate elimination of aflatoxin from peanut products in Asia, uses simple processing and manual sorting procedures. This technology was verified for use by African processors. Four kg of raw shelled peanuts were purchased from the Nima market in Ghana. Peanuts were just sufficiently roasted (140°C for 30 minutes) to facilitate removal of skin for easy sorting of sound and clean kernels from contaminated or discolored kernels. Peanuts were cooled and dry blanched (de-skinned), and discolored kernels separated into four streams of kernels: pre-sorted (immature and shriveled) (15%), >50% discoloration; <50% discoloration, and clean or sound kernels (74.5%). HPLC analyses of these four streams of samples found aflatoxin levels of 25.33µg/kg, 60.42µg/kg, 0.24µg/kg, and "none detected", respectively. Analysis of the testa (1.28%) resulted in 5.34µg/kg of total aflatoxins. In two follow-up trials (initial aflatoxin contents of 23.25µg/kg), the pre-sorted shriveled and immature kernels contained 152.29µg/kg and 148.03µg/kg. After sorting, aflatoxin was not detected in the three remaining streams. Two technology transfer conference and workshops, IUFoST co-sponsored, were held in Ghana and Uganda. Employees of fourteen peanut processing companies, five research institutions, and six IUFoST sponsored "trainers" from Africa, representing six countries, were trained in this aflatoxin elimination technology.