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## Will Farmers Buy and Apply Aflatoxin Control Biological Agent? A Willingness-to-Pay Approach in Northern Nigeria

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### Abstract

A biological product for controlling aflatoxin infestation of crops in the field was developed and registered under the name “Aflasafe<sup>TM</sup>” in Nigeria. Aflasafe only ensures quality products and has no effect on yield. The product was introduced to farmers for adoption at a minimum cost of N1500 per hectare. A study was carried out to determine the role of information on farmers’ willingness to pay (WTP) for the product to eliminate aflatoxin on their maize and groundnut farms in Kano and Kaduna states in Nigeria. A multi-stage sampling technique was used to collect primary data from 492 farmers comprising of contact and non-contact farmers. Data were analysed using descriptive statistics and Logit model. The results indicate that the most critical element is information to ensure farmers adoption and purchase of the product. A significant number of the contact farmers in Kano (80.7%) and Kaduna (89.9%) states had a willingness to pay bid value of  $\geq$ N1,500. In case of non-contact farmers only 17.6% from Kano state and 44.9% from Kaduna states were willing to pay this minimum cost. Most of the non-contact farmers (>60%) pointed out that lack of information on awareness, usage and effectiveness of Aflasafe was the major constraint to adoption. In modelling factor affecting the WTP using Logit model, seven of the independent variables were positively significant, among these were ‘contact with extension agent’ ( $p < 0.05$ ); and ‘contact with the producer of Aflasafe’ ( $p < 0.01$ ); both increased likelihood of willingness to pay for Aflasafe. The study then suggests proper dissemination of information on aflatoxin and the relevance of Aflasafe to farmers both in training and on fields. Also there is a need for the development of market with a premium price for aflatoxin free quality maize to reduce the relative price of Aflasafe application.

**Keywords:** Aflasafe, aflatoxin, bio-control, Logit model, multi-stage, WTP