## World Academy of Science, Engineering and Technology International Journal of Agricultural and Biosystems Engineering Vol:14, No:05, 2020

## Assessment of Pull Mechanism at Enhancing Maize Farmers' Utilisation of Aflasafe Bio-Control Measures in Oyo State, Nigeria

Authors: Jonathan A. Akinwale, Ibukun J. Agotola

Abstract: There is a need to rethink how technology is being disseminated to end users in order to ensure wide adoption and utilisation. Aflasafe bio-control was developed to combat aflatoxin in maize to ensure food safety for the end users. This study was designed to assess how the pull mechanism is enhancing the utilisation of this proven technology among maize farmers in Oyo State, Nigeria. The study determines the awareness of farmers on Aflasafe, sources of purchase of Aflasafe, incentives towards the usage of Aflasafe, constraints to farmers' utilisation and factors influencing farmers' utilisation of Aflasafe biocontrol measures. Respondents were selected using a multi-stage sampling procedure. Data were collected from respondents through interview schedule and analyzed using descriptive statistics (means, frequencies, and percentages) and inferential statistics (Pearson Product Moment Correlation and regression analysis). The result showed that 89% of the farmers indicated implementers as the outlet for the purchase of Aflasafe. Also, premium payment and provision of technical assistance were the highly ranked incentives to the utilisation of Aflasafe among the farmers. The study also revealed that the major constraints face by respondents were low access to credit facility, inadequate sources of purchase, and lack of storage facilities. A little above half (54%) of the farmers were found to have fully utilized Aflasafe in maize production. Pearson Product Moment Correlation (PPMC) analysis revealed that there was a significant correlation between incentives and utilisation of Aflasafe (rvalue=0.274; p  $\leq$  0.01). The result of the regression analysis indicated maize production experience ( $\beta$ =0.572), output  $(\beta=0.531)$ , years of formal education  $(\beta=0.404)$  and household size  $(\beta=0.391)$  as the leading factors influencing farmers utilisation of Aflasafe bio-control in maize production. The study, therefore, recommends that governments and nongovernmental organisations should be interested in making Aflasafe available to the maize farmers either through loan provision or price subsidy.

**Keywords :** Aflasafe bio-control, maize production, production incentives, pull mechanism, utilisation **Conference Title :** ICSAFS 2020 : International Conference on Sustainable Agricultural and Food Systems

**Conference Location :** Amsterdam, Netherlands

Conference Dates: May 14-15, 2020