

Drivers of Adoption Intensity of Certified Maize Varieties in Northern Guinea Savannah of Nigeria: A Triple Hurdle Model Approach

Authors : Kalat P. Duniya

Abstract : A number of technologies expected to increase maize productivity have been introduced by several research programs at national and international level. To this end, the study sought to identify the factors influencing adoption intensity of certified maize varieties. The data used were obtained from a sample household survey of 406 maize farmers, conducted in the northern guinea savannah of Nigeria through multistage stratified sampling, structured questionnaire. A triple hurdle model was adopted to estimate the determinants of adoption intensity; considering awareness, adoption, and intensity as three separate stages. The result showed that the drivers of farmers' awareness, adoption, and intensity of usage may not necessarily be the same, and where they are, not of the same magnitude and direction. However, factors which were found to be statistically significant were age, education, membership of association and frequency of extension advice. In addition, awareness and adoption of the technologies were likely to be increased with male respondents. Farmers that were members of either community organizations or cooperative organizations had a higher tendency of being aware and adopting certified maize seed varieties. It was also discovered that though some of the farmers were fully aware of the existence of some certified maize varieties, majority lacked detailed knowledge and technical know-how. There is a need for creation of awareness through an excellent trained extension and restructuring of the educational sector to improve on the adoption process as well as improve maize productivity in the country.

Keywords : adoption, awareness, maize farmers, Nigeria, regression

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