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“Global food security and food safety:
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Behaviour in Information Sharing and Perceived Food Security Status in Guatemala

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Abstract

This study examines the behavioural differences in agricultural practices of the households who worry about their food security situation and those who do not. The analysis is based on the household survey data from 2016 of more than 2,000 bean farmers in Guatemala. The survey questions about household behaviour in agricultural practices include risk and ambiguity aversion on adopting a new technology, and frequency in sharing agricultural information and inputs with friends or neighbours. On food security, households were asked whether they were ever worried in the three months before the survey that the food in the household would run out. They were then asked whether the food actually ran out during that three-month period. Based on their responses to these two questions, the households are grouped into three categories: (1) not worried and food ran out (no to the first question and yes to the second); (2) not worried and food did not run out or worried and food ran out (no to both questions or yes to both questions); (3) worried but food did not run out (yes to the first question and no to the second). We use ANOVA to analyse whether responses to the behavioural questions are different among the three groups of households. Results show that both the “not worried” and “worried” groups share agricultural information less frequently than the reference group (group 2). On the other hand, there is no significant difference in seed and inputs sharing among the three groups of households. These results also hold after using a multinomial logit regression analysis to control for household characteristics, such as age, education, household size, wealth, land size, and household location. Even though direction of causality cannot be established through this study, conceptually it is likely that sharing information more frequently with the other households leads to more accurate predictions about own food security situation because the analysis outcome is true for both the “worried” and “not worried” groups and also for households with high and low food security. Therefore, information sharing could be emphasised more in future extension messages to the households.

Keywords: Behaviour, food security, Guatemala, information sharing