Site-specific Fertilizer Application in Paddy: Implementation Guidance for Policy Makers of Sri Lanka

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Application of correct dose of fertilizer is vital to replenish the soil nutrients, which are lost due to continuous cultivation. The Department of Agriculture has identified site-specific fertilizer recommendation as a strategy to supplement the nutrients based on the properties of specific soils and it is more suitable than the existing blanket fertilizer recommendation. However, a controversial issue still exists on the ‘’optimal use’’ of fertilizers. Among different views, soil practitioners believe that the soil test-based fertilizer recommendation is the best in terms of maximum utilization of fertilizers and cost cut-off. Therefore, this study was conducted to analyze the farmers' perspectives on site-specific fertilizer application and to estimate the farmers' willingness to pay for soil testing. A survey was conducted in 2017 and data were collect from 110 farmers in Polonnarwua and Anuradhapura districts following a multi-stage random sampling. Eleven different statements on farmer's perspectives with five point Likert scale were assessed by factor analysis, which was followed by a multiple regression. Farmer's willingness to pay for a soil testing was elicited using Single-Bounded Dichotomous Choice questions (3 bid values; based on value of soil test kit) of Contingent Valuation Method and estimated using probit regression. The results of the study revealed that, the farmer's perspectives were significantly associated with age, education, training received and type of district. The estimated marginal willingness to pay for a soil test were Rs. 347 and Rs. 302 for Polonnaruwa and Anuradhapura, respectively, while age, farming status, farming experience and per hectare fertilizer cost, type of district and the bid value significantly influenced the decision. Further, with the incremental bid value, farmer preference for paying a soil test decreases and also the trainings received has a significant influence on the positive perception on the technology. The policy implications highlight that training can enhance the diffusion and adoption of the proposed technology in the targeted community.

Keywords: Contingent valuation method, Paddy, Site-specific fertilizer application Willingness to pay