

## Evaluation of Farmer Perception on Biofertilizer for Rice in Anuradhapura District

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### Abstract

Farmers' acceptance of a biofertilizer is mainly determined by the crop response to it and the socio-economic aspects such as the economic feasibility, awareness of the farmers and government policies. Although biofertilizer is an alternative to inorganic fertilizer, it is still underutilized in Sri Lanka. Lack of knowledge on biofertilizer would be a constraint to popularize biofertilizer application to overcome the alleged hazardous effects of inorganic fertilizers. Therefore, the objective of this study was to assess the perception of farmers on utilizing biofertilizer for rice cultivation and, farmer friendliness and economic viability of introduced novel inoculation method, developed through our previous research work and was introduced to the farmers through a handout. One hundred farmers were randomly selected from Medawachchiya Divisional Secretariat (DS) division in Anuradhapura district. Data was collected through pre-structured questionnaires and, focus group discussions and analyzed through one sample Wilcoxon sign rank test and Pearson's correlation coefficient. None of the farmers had been using biofertilizer in the test group up to the time of study in Medawachchiya DS division. Forty four percent (44%) of farmers were unaware of the importance and constraints related to the biofertilizer application in rice cultivation while, 46% farmers were not aware about commercially available biofertilizer. According to the results of one sample Wilcoxon sign rank test, 82% of the farmers were not ready to adopt biofertilizer application for rice cultivation directly without an assurance on unreduced yield with the biofertilizer in comparison with inorganic fertilizer ( $p= 0.447$ ). Sixty three percent (63%) of farmers were willing to apply biofertilizer after observing results of pre-users and 45% farmers were willing to apply biofertilizer in a small land area before applying it in large scale. A strong correlation was detected between agreement levels for user friendliness and economic profitability of the suggested method ( $r=0.828$  at 0.01 probability level). Moreover, income level of the farmers and the cumulative impact of production factors elicited a significantly positive correlation with the agreement level on economic profitability of the suggested method ( $r=0.230$ ,  $r= 0.240$  respectively at 0.05 significance level). In conclusion, introduced novel inoculation method was highly perceived by all farmers of the test group due to its potential user-friendliness and economic viability. However, pre-trials and government intervention were preferred by farmers indicating their expectation for assurance on yield to accept the novel method.

**Keywords:** Biofertilizer, Farmer perception, Novel inoculation method

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