

EFFECT OF SOURCE OF SEED ON PADDY PRODUCTIVITY: A CASE STUDY IN SHRAWASTHIPURA AGRARIAN SERVICE CENTER AREA IN ANURADHAPURA DISTRICT, SRI LANKA

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The quality of the seeds has been identified as a major determinant in paddy productivity but no studies have been carried out yet to determine the relationship between supply sources of seed and paddy productivity. Hence, this study was initiated to investigate this issue. A total of randomly selected 60 farmers growing BW367 paddy variety representing 15 from each 4 *Grama Niladhari* divisions were interviewed using a pretested questionnaire. Tabular analysis, multiple regression, and multinomial logistic regression were used to analyse the data. Socio-economic profile depicted that 92% of farmers owned land, 86% of farmers have access to extension service and 58% of farmers attain education up to GCE O/L. The tabular analysis showed that the majority of farmers (57%) depend on formal sources: government seed (32%) and traders (25%). Share of the informal source was 43% comprising 24% from the neighbour farmer and 19% from the farmer saved seed lots. Regression analysis revealed that seed from the private sector, neighbour farmer and owned farmer saved seed declined productivity per acre by 5.43 kg ($p < 0.05$), 16.63 kg ($p < 0.001$) and 13.14 kg ($p < 0.001$), respectively when compared to the government seed. Multinomial regression model validity was examined using maximum likelihood estimation and it was significant ($p < 0.001$). Results revealed that monthly income ($p < 0.05$), farming experience ($p < 0.05$), and seed cost ($p < 0.001$) significantly affected by the selection of the source of seed. The study concludes that seeds collected from formal sources are superior to seeds taken from informal sources but a little less than half of the farmers use informal seeds mainly due to unaware of its impact on productivity. The study recommended making awareness of the importance of the source of seed supply on paddy productivity and promote to produce quality seed at the farm level through closer supervision of the Agricultural Instructors.

Keywords: Paddy, Paddy productivity, Seed, Seed quality, Seed source