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Effects of Farmers’ Perceptions on the Adoption of Modern Rice Varieties in Nepal

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Abstract

Several modern varieties of rice have been released in Nepal to raise the productivity, a major staple crop. Farmers have adopted these varieties to varying degrees, especially in rainfed areas. This paper attempts to identify factors that affect the adoption of modern varieties of rice. Farmers considered suitability of rice varieties based on several characteristics. They were more concerned with biotic and abiotic stresses, which probably reflects the high incidence of these stresses in the rainfed condition. Modern varieties were superior over traditional varieties for many characteristics except in terms of taste. It is hypothesized that farmers’ perceptions regarding varietal characteristics play a key role in explaining adoption behaviour. This hypothesis was tested using farm-level data from rainfed areas of Nepal. An econometric model that includes farmers’ perception variables was found to be superior in explaining adoption behaviour than the ones that include only the usual farm and farmer related variables. Farmers’ perceptions of the varietal characteristics such as pest resistance, drought tolerance and suitability for making special products were important in determining technology choices in the areas where current adoption rates are quite high. It was also found that the farms and farmers’ specific variables such as education of the decision maker and his/her experience in rice farming, and availability of extension services have significant effect on adoption of modern varieties. Research approaches that incorporate farmers’ preferences for various characteristics of rice in breeding programs and extension strategies that are geared towards providing accurate information for efficient revision of farmer perceptions are needed to raise the adoption rate.

Keywords: Adoption, factors, farmer, modern varieties, perceptions