

System Productivity Enhancement by Inclusion of Mungbean in Potato-Jute - T. Aman Rice Cropping Pattern

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Abstract : The inclusion of mungbean in a cropping pattern not only increases the cropping intensity but also enriches soil health as well as ensures nutrition for the fast-growing population of Bangladesh. A study was conducted in the farmers' field during 2013-14 and 2014-15 to observe the performance of four-crop based improved cropping pattern Potato-Mungbean-Jute -t.aman rice against the existing cropping pattern Potato-Jute -t.aman rice at Domar, Nilphamari followed by randomized complete block design with three replications. Two years study revealed that inclusion of mungbean and better management practices in improved cropping pattern provided higher economic benefit over the existing pattern by 73.1%. Moreover, the average yield of potato increased in the improved pattern by 64.3% compared to the existing pattern; however yield of jute and t.aman rice in improved pattern declined by 5.6% and 10.7% than the existing pattern, respectively. Nevertheless, the additional yield of mungbean in the improved pattern helped to increase rice equivalent yield of the whole pattern by 38.7% over the existing pattern. Thus, the addition of mungbean in the existing pattern Potato-Jute -t.aman rice seems to be profitable for the farmers and also might be sustainable if the market channel of mungbean developed.

Keywords : crop diversity, food nutrition, production efficiency, yield improvement

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