

Varietal selection of black glutinous rice as preceding crop of sugarcane

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Abstract

Suitable black glutinous rice varieties as a preceding crop are important in rice-sugarcane cropping system in the Northeast of Thailand. The objective of this study was to evaluate agronomic performance and grain yield of black glutinous rice and the feasibility to grow black glutinous rice in Ban Had district, Khon Kaen province. Twenty-five black glutinous rice varieties and four white glutinous rice varieties (checks) were evaluated in a randomized complete block (RCB) design with three replications at two farmers' fields in Ban Had district, Khon Kaen during the main growing season 2011. The entries were planted in the plots with 15 m² in size and spacing of 30 x 25 cm. Methodological data and soil data were taken at the test sites, and agronomic data were recorded for days to flowering after transplanting (75% blooming), plant height, number of panicles per hill, panicle length, number of filled grains per panicles, 1,000-grain weight and grain yield. The results indicated that the varieties were significantly different for days to flowering, plant height, number of panicles per hill, panicle length, number of filled grains per panicle, 1,000-grain weight and grain yield. Grain yields of 27 varieties ranging from 287-480 kg/rai were recorded and RD6 variety (white grain) gave the highest grain yield. Comparing among black glutinous rice varieties, however, the black glutinous rice varieties with the highest grain yield were KKU-GL-BL-06-023 (434 kg/rai), KKU-GL-BL-05-001 (425 kg/rai) and Gs. No. 21629 (413 kg/rai), respectively.