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Abstract

Bangladesh Jute Research Institute (BJRI) released an improved high yielding tossa jute variety namely “BJRI Tossa Pat-7 (MG-1) in 2017 for commercial production of golden fiber contributing to national economy. It was evaluated for high yielding capacity during 2013 to 2018 with two pre-released varieties i.e. OM-1 for phonological and BJRI Tossa Pat-5 or O-795 for yield comparisons through field evaluation and lab study. The newly developed tossa jute variety i.e. BJRI Tossa Pat-7 (MG-1) was expected to perform better than existing varieties or controls in respect of fiber yield and quality. MG-1 was developed from OM-1 through pure line selection, where both plants were full green but OM-1 has glossy ovate leaves, greyish brown seeds; and MG-1 has ovate lanceolate leaves, bluish green seeds. MG-1 showed lower leaf angle (67.50°), higher leaf length breadth ratio (2.33), lower green leaf biomass (0.97g), higher inter-nodal length (5.0cm) than OM-1 & O-795 indicating the possibility of maximum photosynthesis and fiber production in MG-1 than controls. MG-1 gave higher and increased plant height (5.52%, 4.94%), base diameter (8.68%, 9.40) %, fiber yield (7.51%, 6.21%) than O-

