



Production Potential and Quality of Coarse Rice (*Oryza sativa* L.) as Influenced by Hybrids and Dates of Direct Seeding and Transplanting

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Abstract: A field experiment was conducted during *kharif* 2011 at Punjab Agricultural University, Ludhiana to study the effect of different dates of direct seeding and transplanting on yield and quality of hybrid rice. It was laid out in a split-plot design with two hybrids (SVH 5 and SVH 26) along with a cultivar (PR115) in main plots and four dates of direct seeding (1 June, 15 June, 30 June and 15 July) and four dates of transplanting (21 June, 6 July, 21 July and 5 August) in sub-plots. Maximum mean grain yield (50.0 q/ha) was recorded in hybrid SVH 26 which was followed by SVH 5 (49.0 q/ha) and PR 115 (46.9 q/ha), however, the differences in grain yield were non-significant. Crop transplanted on 21 June and 6 July recorded significantly higher grain yields of 62.5 and 61.2 q ha⁻¹, respectively, whereas, among direct seeding dates highest grain yield of 49.0 q ha⁻¹ was recorded in 1 June sown crop that was at par with 15 June direct seeded crop. Highest 1000-grain weight (22.6 g) and grains per panicle (179.9) were recorded in 21 June transplanted crop followed by 6 July transplanted crop while in direct seeded crop, 1 June sown crop had highest 1000-grain weight of 21.9 g. Transplanted crop recorded significantly higher head rice recovery (59.1 to 62.1 %) as compared to direct seeded crop (55.7 to 56.6 %). Lowest minimum cooking time of 11.2 minutes was taken by the grains from 1 June direct seeded crop that was statistically at par with 15 June direct seeded crop. A significantly higher water absorption ratio of 3.4 was recorded in grains obtained from crop direct seeded on 1 and 15 June as well as crop transplanted on 21 June and 6 July. Crop transplanted on 21 June recorded a maximum B: C ratio of 2.3 that was statistically at par with crop transplanted on 6 July as well as 1 and 15 June direct seeded crop. It can be concluded that hybrid rice crop should be raised through transplanting from 21 June to 6 July and through direct seeding from 1 June to 15 June for getting higher productivity, good grain quality and better returns.

Key words: Direct seeded rice, transplanted rice, hybrid rice, grain yield, quality.