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Genotypic Variation in Ability to Recover from Weed Competition at Early Vegetative Stage in Upland Rice

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Abstract: In northern Laos, weeds are a major constraint to upland rice production in slash-and-burn systems. Two experiments were conducted to assess genotypic variation in ability to recover from weed competition at the early vegetative stage. Three traditional and two improved (IR 55423-01 and B6144F-MR-6-0-0) cultivars were grown with or without maize as an artificial weed. Maize was seeded at the same time as rice and removed at 37 d after rice sowing. The two improved cultivars out-yielded the traditional cultivars without weed competition. Larger yield loss due to the competition was associated with longer delay in days to flowering and smaller plant height at 37 d after sowing. The use of B6144F-MR-6-0-0 with high yield potential as well as strong ability to recover from weed competition appears to improve and stabilize rice productivity in this region.

Keywords: Improved cultivar, Laos, Recover from weed competition, Slash-and-burn, Traditional cultivar, Upland rice

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