

ABSTRACT

This research aimed to determine the superior varieties of rice, planting distance, and their interaction in the SRI system on the growth and production of rice. This study used a divided plots design (Split plot) in Randomized Block Design (RBD) with two factors tested. The first factor as the main plot was variety consisting of 3 levels V1 (Ciherang), V2 (Inpari 49) and V3 (Mustajab). The second factor as the subplot was the planting distance consisting of 4 levels, namely J1 (25 cm x 25 cm), J2 (25 cm x 30 cm), J3 (30 cm x 30 cm), and J4 (35 cm x 35 cm). There were 12 treatment combinations with 3 replications so there were 36 experimental units. The results showed that the Mustajab variety treatment gave the best effect on the variables of plant height, number of tillers, leaf area, number of leaves, 50% flowering age, root length, plant dry weight, relative growth rate, panicle length, grain weight per plant, and dry grain production. The treatment of plant spacing 35 cm x 35 cm gave the best effect on the variables of age plant height, number of tillers, and number of leaves, root fresh weight, root dry weight, plant dry weight, and shoot root ratio, net assimilation rate, percent of filled grain per plant, percent of hollow grain per plant and grain weight per plant. There is an interaction between the treatment of varieties and plant spacing on the variable number of leaves, root length, root fresh weight and root dry weight at harvest time, percent of filled grain per plant and percent of hollow grain per plant. The best treatment was obtained in the treatment of inpari 49 varieties and a spacing of 30 cm x 30 cm.

Keywords: ciherang, inpari 49, mustajab, production, SRI