

MODIFICATION OF JAJAR LEGOWO IN SOME VARIETIES TO INCREASE PRODUCTION OF RICE PLANTS

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ABSTRACT

This research aimed to increase production result of rice plants (*Oryza sativa* L.) by modifying planting technique of Jajar Legowo in some varieties. This research was conducted in Village Karangrejo field, Sumbersari sub-district, Jember District. This research was held from 15 November 2016 to 19 March 2017. Research method used the first complete design (RCBD) with two factors. Treatment which was tested in factor was Jajar Legowo modification (J) with concentration of 3 levels as follows: modification of Jajar Legowo 2:1 (J1), modification of jajar legowo 3:1 (J2) and modification of jajar legowo 4:1 (J3). Whereas the second was varieties of rice plants (V) with concentration of 3 levels as follow: variety of inpari 13 (V1), variety of inpari 30 (V2), variety inpari 33 (V3). The result of the research showed that the treatments in some varieties had manifest influence toward weight of grain per hill in the treatment of V₃ produce the highest weight is 15,31 grams, meanwhile the lowest weight in the treatment V₂ is 15,24 grams. The weight of 1000 seeds in the highest treatment is in V₁ which is 26,33 grams, while the lowest treatmeant of V₃ is 26,11 grams. The treatment of jajar legowo modification had obvious effect toward plant height of 14 HST in the treatmeant of J₃ that produce the highest plant, 33,94 cm, while the lowest in J₂ treatment is 33,46 cm. The number of tiller 28 HST got the highest result in J₂ treatmeant is 14,00 cm, whereas the lowest in J₁ treatment which is 13,74 cm. The number of tiller 35 HST the highest is 15,89 on the J₁ treatment, while the lowest is 15,54 on the J₂ treatment. And number of highest empty grain is in J₃ treatment, 27,65 cm, meanwhile the lowest is in J₁ treatment, 26,56 cm. The treatments interaction of some varieties and modification of jajar legowo have very obvious effect toward the plant height 28 HTS that are in the treatments interaction of V₃J₃ 52,21 cm, and the lowest are in the treatments interaction of V₂J₁ 48,63 cm. Number of seedlings 14 HST, the highest treatments interaction is V₃J₃ 9,00, while the lowest treatments interaction is V₁J₁ 6,29. And the highest weight of 1000 seeds is in the treatments interaction of V₁J₁ 26,67 gram, wherease the lowest is in the treatments interaction of V₃J₁ 15,67 gram.

KeyWords: *Planting techniques of Jajar Legowo 2:1, 3:1, and 4:1 in some varieties inpari 13, and inpari 33.*