Efektivitas Peletakan Akar dan Umur Bibit Terhadap Produksi dan Mutu Benih Padi (*Oryza sativa* L.) The effectivity of root plantation and seed age towards production and paddy's seed quality (*Oryza sativa* L.)

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ABSTRACT

The majority of Indonesian depending on rice as a staple food. Increased population number cause rice demand increase as well. There is an option that is possible to apply the root plantation and seed age, for stimulate vegetative and generative plant growth. This research was conducted from August to December in State Polytechnic of Jember land by implementing random group design using two factors. The first factor is (A1) the vertical root and (A2) the horizontal roots. The second factor is (U1) seed at the age of five days, (U2) seed at the age of ten days, (U3) seed at the age of fifteen days and (U4) seed at the age of twenty days. The results shown in the first factor of root plantation show no significantly different results at all parameters. The second factor, seed at the age of five days (U1) showed significant differences result on plant height parameters at plantation and 8-12 weeks after plantation, the number of paddy's at 4-8 weeks after plantation, number of productive paddy's, the number of Meaty grain, the number of less fill grain, production for each hectare and potential yield per hectare.

Key words: rice demand, root plantation, seedling age