

IRRIGATION WATER MANAGEMENT SYSTEM FOR PLANTING RICE VARIETIES SULUTTAN UNSRAT I AND SULUTTAN UNSRAT 2

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ABSTRACT

Land area for rice cultivation in North Sulawesi, which rely on rain water is approximately 25.792 ha. Therefore, regulation in water-saving procedure is necessary. There are two varieties of rice: suluttan insert 1 and solution, insert 2 which were produced by the researchers of BATAN and Unsrat, that were good in result and growth performance. The aim of this research was to study the effect of irrigation system in water-saving settings for the growth and production of rice varieties salutation UNSRAT 1 and solution UNSRAT 2. This Research was conducted in a randomized block design with factorial experiment. The variable factor G1: suluttan UNSRAT 1 and G2: suluttan UNSRAT 2 and input patterns of water factor: muddy condition from transplanting until harvest (P1); Flooding condition with 5-7 cm high water from the transplanting until harvest (P2) and intermittent condition: muddy condition after transplanting up to 30 days; 10 days flooding 5-7 cm and after that muddy condition until harvest (P3). There is no interaction between varieties and patterns of irrigation water in continuous and intermittent muddy condition does not suppress the growth and yield of rice varieties Sultan Unsrat 1 and 2. The water savings can occur in rice cultivation with continuous muddy irrigation pattern or intermittent muddy condition. Flooding irrigation pattern of excessive use of water.

KEYWORDS: Water Usage System, Suluttan Unsrat 1 and 2 Suluttan Unsrat 2 Rice, Flooding, Muddy