

**KEBUTUHAN AIR TANAH SAWAH  
DI NAGARI BUKIK BATABUAH KECAMATAN CANDUANG  
KABUPATEN AGAM**

**SKRIPSI**



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UNIVERSITAS ANDALAS  
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# THE WATER REQUIREMENTS OF PADDY FIELDS IN BUKIK BATABUAH VILLAGE, CANDUANG DISTRICT, AGAM REGENCY

## Abstract

Water is an important part in the management of paddy fields. Measurements and research on the water needs of rice plants need to be carried out to plan irrigation management optimally so as to increase the productivity of rice plants. The purpose of this study was to determine the irrigation discharge and to calculate the groundwater needs of paddy fields in Nagari Bukik Batabuah, Canduang District, Agam Regency. Sampling used a purposive sampling survey method on a slope of 0-8% with 3 heights (1,020, 994, 968 masl) and 3 replicates with a depth of 0-20 cm. Parameters observed were water content, unit weight, total pore space, percolation and pF. Measurement of water needs is carried out for one planting period, calculated by subtracting crop water needs from rainfall data, so that the addition of irrigation water can be known. The results showed that the value of groundwater requirements for rice fields in rice fields with an altitude of 1,020 masl was 1,177.2 mm with the addition of irrigation water by 104 mm to 298 mm, rice fields with an altitude of 994 masl was 1,161.2 mm with the addition of irrigation water by 88 mm to 282 mm, and rice fields with an altitude of 968 masl was 1,092.79 mm with the addition of irrigation water by 20 mm to 214 mm .

**Keywords :** *Water, Water Requirements, Paddy Land, Irrigation*

