

**KEBUTUHAN AIR TANAMAN PADI SAWAH (*Oryza sativa L.*)
PADA LERENG YANG BERBEDA DI KELURAHAN
KURANJI KOTA PADANG**

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Abstrak

Kebutuhan air tanaman padi sawah merupakan komponen penting dalam pengelolaan penggunaan air sawah, sehingga diperlukan irigasi dan pengelolaan air yang efektif. Penelitian ini bertujuan untuk menghitung kebutuhan air tanaman padi sawah di Kelurahan Kurangi Kota Padang. Penelitian dilaksanakan mulai dari bulan Agustus sampai November 2022. Dalam penelitian ini sampel tanah diambil secara purposive random sampling berdasarkan kelerengan perlokasinya yaitu pada kelas lereng 0-8% (datar), 8-15% (landu), dan 15-25% (agak curam), jenis sampel tanah yang diambil yaitu sampel tanah utuh dan sampel tanah terganggu. Analisis sampel tanah dilakukan di Laboratorium Fisika Tanah, Fakultas Pertanian, Universitas Andalas dan Balai Penelitian Pertanian Tanah, Bogor. Parameter yang di analisis terdiri dari tekstur tanah, bahan organik, berat volume, total ruang pori, permeabilitas, perkolasi, dan pF. Pada penelitian didapatkan tekstur tanah dengan kriteria lempung hingga lempung berliat, nilai bahan organik lokasi penelitian sebesar 2,40-6,82% dengan kriteria rendah hingga sedang, nilai berat volume tanah sebesar 0,71-0,96 g/cm³ dengan kriteria sedang, nilai total ruang pori tanah sebesar 62,68-70,78% dengan kriteria sedang, nilai perkolasi sebesar 4,57-6,65 mm/hari, nilai permeabilitas tanah sebesar 0,84-4,63 cm/jam dengan kriteria agak rendah hingga sedang. Nilai pF 4,2 tanah sawah lereng 0-8%, 8-15%, 15-25% secara berturut-turut yaitu 17,63%, 21,36%, 17,70%, untuk pF 2,54 yaitu 51,83%, 40,26%, 40,43% dan nilai kebutuhan air tanaman padi sawah lereng berturut-turut sebesar 1.267,46mm, 1.241,83mm, 1.150,36mm. Dari hasil tersebut dapat disimpulkan bahwa kebutuhan air tanaman padi sawah tertinggi pada lereng 0-8% (datar) dan tercukupi dengan adanya curah hujan yang tinggi.

Kata Kunci : Lereng, Kebutuhan Air Sawah, Oryza sativa, Padi Sawah

WATER REQUIREMENT OF RICE CROPS (*Oryza sativa* L.) AT DIFFERENT SLOPE LEVELS IN KURANJI SUB- DISTRICT OF PADANG CITY

Abstract

The water need of rice crops is an important component in managing water at rice field. Therefore, effective irrigation and water management are needed. This study was aimed to calculate the water need of rice crops at different slope levels in Kuranji Village, Padang City. The study was conducted from August to November 2022. In this study, soil samples were taken by purposive sampling based on the slope levels (0-8%, 8-15%, 15-25%). The type of soil sample taken was intact and disturbed soil. The analysis of soil samples was carried out at the Soil Physics Laboratory, Faculty of Agriculture, Andalas University and Soil Agriculture Research Institute, Bogor. The analyzed parameters consisted of soil texture, organic matter, bulk density, total soil pore, permeability, percolation, and pF. The results showed that the rice field had clay to clay loam soil texture, 2.40-6.82% (low to medium criteria) of the organic matter content, 0.74-0.96 g/cm³ (medium criteria) of the bulk density, 62.68-70.78% (medium criteria) of the total soil pore, 4.57-6.65 mm/day of the percolation rate, 0.84-4.63 cm/h (rather low to medium criteria) of the permeability. The soil water content at pF 4.2 on slope 0-8%, 8-15%, 15-25% was 17.63%, 21.36%, 17.70%; for pF 2.54 was 51.83%, 40.26%, 40.43%, respectively. The rice fields needed water as much as 1267.46 mm, 1241.83 mm, 1150.36 mm for slope 0-8%, 8-15%, 15-25%, respectively. From these results, it could be concluded that the water needs for rice crops was the highest on 0-8% (flat) slope, but it was fulfilled by the rainfall received there.

Keywords : *Oryza sativa*, Rice Fields, Rice Field Water Needs, Slope