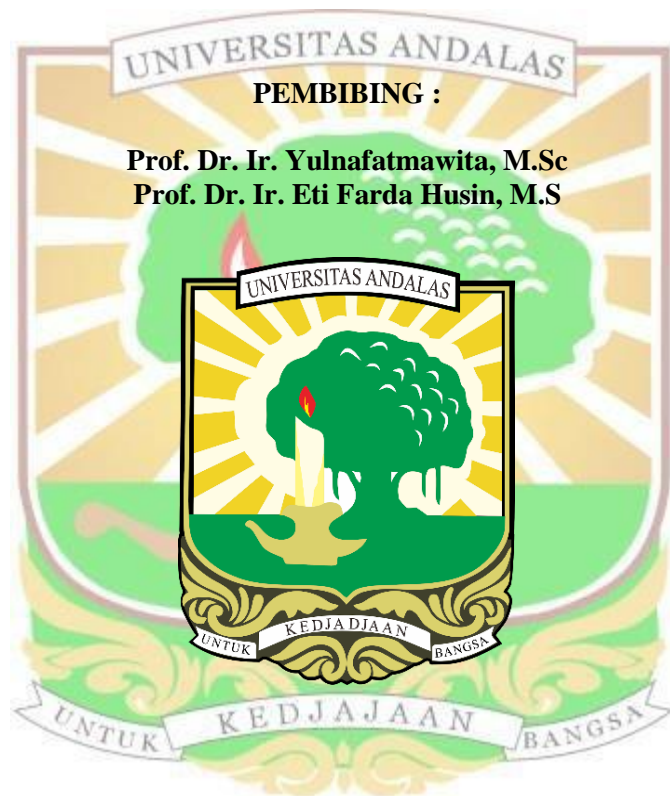


**RETENSI AIR TANAH BERDASARKAN TOPOSEKUEN
PADA PERKEBUNAN TEH (*Camellia sinensis*) PTPN VI DI
KECAMATAN GUNUNG TALANG KABUPATEN SOLOK**

SKRIPSI

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Abstrak

Perkebunan teh PTPN VI di Kecamatan Gunung Talang memiliki lereng yang bervariasi dan curah hujan yang tinggi, yang akan memberikan dampak terhadap karakteristik tanahnya, termasuk sifat fisika tanah. Salah satu sifat fisika tanah adalah retensi air tanah. Jika suatu tanah memiliki retensi air yang rendah akan menyebabkan air tidak cukup tersedia bagi tanaman. Penelitian ini bertujuan untuk mengukur retensi air berdasarkan toposekuen pada perkebunan teh PTPN VI di Kecamatan Gunung Talang Kabupaten Solok. Penelitian ini dilakukan dengan metode survei, pengambilan sampel tanah dilakukan secara purposive sampling berdasarkan kelas lereng (0-8%, 8-15%, 15-25%, 25-45% dan >45%). Sampel tanah juga diambil di hutan sekunder sebagai kontrol dengan kedalaman 0-30 cm dan 30-60 cm. Sampel tanah dibedakan menjadi 3 bagian yaitu sampel tanah utuh, terganggu, dan beragregat utuh. Parameter yang dianalisis yaitu Tekstur, BV, TRP, permeabilitas, bahan organik, dan pF. Hasil penelitian menunjukkan bahwa kelima kelas lereng di perkebunan teh PTPN VI memiliki sifat fisik tanah berbeda, tetapi retensi airnya termasuk kriteria tinggi semuanya. Pori air tersedia (PAT) tertinggi yaitu 42,80% dan 29,30% berada pada lereng 0-8% untuk kedalaman 0-30 cm dan 30-60 cm, secara berturut-turut. Pada lereng 8-15%, 15-25%, 25-45%, dan >45% memiliki nilai PAT secara berturut-turut yaitu 38,20%, 31,40%, 31,20%, dan 29,50% untuk kedalaman 0-30 cm dan 22,30%, 27,40%, 29,10%, dan 23,60% untuk kedalaman 30-60 cm. Berdasarkan nilai PAT, maka dapat disimpulkan bahwa retensi air tanah pada perkebunan teh PTPN VI menurun dengan peningkatan kelas lereng.

Kata kunci: Kebun teh, lereng, pori air tersedia (PAT), PTPN VI, retensi air tanah

SOIL WATER RETENTION BASED ON TOPOSEQUENCE AT PTPN VI TEA (*Camellia sinensis*) PLANTATION IN GUNUNG TALANG DISTRICT, SOLOK REGENCY

Abstract

PTPN VI tea plantation in Gunung Talang District had various levels of slope and received high annual rainfall, which would impact the soil characteristics, one of which is the soil physical characteristics, such as soil water retention. If a soil has low water retention, the water will deplete soon, therefore it is not available for plant growth. This research was aimed to analyze water retention based on toposequence at PTPN IV tea plantation in Gunung Talang District, Solok Regency. This research employed survey method, the soil samples were taken based on purposive sampling at different slope levels (0-8%, 8-15%, 15-25%, 25-45% dan >45%) at 0-30 and 30-60 cm depth. The soil was also sampled under secondary forest near by the tea plantation for comparison. There were three types of soil samples (disturbed, undisturbed, and undisturbed aggregated soil samples). Parameters analyzed were soil texture, BD, TSP, permeability, organic matter, and pF. The data resulted showed that there were different soil characteristics among the five slope levels, however the soil water retention was categorized into the same criteria, which was very high. The highest plant available water (PAW) values were 42.80% and 29.30%, on 0-8% slope for a depth of 0-30 cm and 30-60 cm, respectively. The plant available water (PAW) values on slopes 8-15%, 15-25%, 25-45%, and >45% were 38.20%, 31.40%, 31.20%, and 29.50% for 0-30 cm soil depth and 22.30%, 27.40%, 29.10%, and 23.60% for 30-60 cm soil depth, respectively. Based on the PAW, it could be concluded that soil water retention at PTPN VI tea plantation in Gunung Talang decreased by increasing slope level.

Keywords : Plant available water (PAW), PTPN VI, slope, soil water retention, tea plantation