

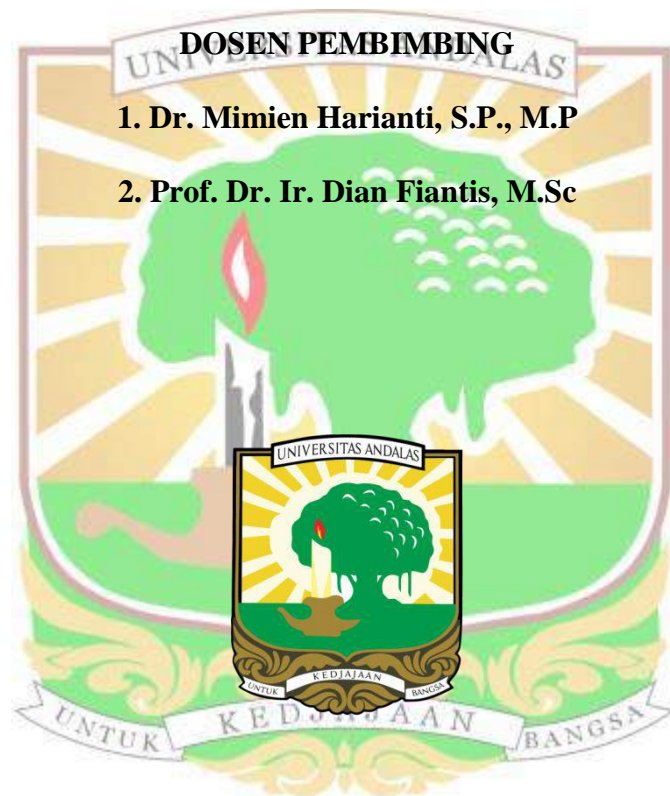
**STATUS SULFUR PADA LAHAN SAWAH DI KECAMATAN
GUNUNG TALANG KABUPATEN SOLOK**

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SULPHUR STATUS OF PADDY FIELDS IN GUNUNG TALANG SUB-DISTRICT, SOLOK DISTRICT

Abstract

Sulfur is one of the nine essential macro-nutrients as a protein component in paddy rice. This study aims to assess the status of sulfur nutrient in paddy field soil in Gunung Talang sub-district. Soil samples were taken by purposive sampling method on three slope positions namely upper slope, middle slope and lower slope. Soil samples in each slope position were taken at a depth of 0-20 cm, 20-40 cm and 40-60 cm as many as 3 replicates with a total of 27 disturbed soil samples. Parameters analyzed were texture, pH, Organic-C, Ca, Mg, Total nitrogen and S analysis including sulfate (SO_4^{2-}) using BaCl_2 extraction method and Total Sulfur with XRF. The results of the analysis of SO_4^{2-} levels ranged from (0.13-0.82%) and Total-S (1.25-7.41%). The highest S content in paddy soil is found on the upper slope with the highest sulfate content of 0.82%; Total-S 7.41% and the lowest sulfate 0.13%; S-total 1.25% is found on the lower slope. The results of research on the physical and chemical properties of other rice field soils include, texture classified as fine textured on upper slopes and rather fine on lower slopes, pH H_2O 1: 2.5 between 4.83 to 6.74 units, Organic-C from 1.37% to 5.83%, Total nitrogen from 0.04% to 0.25%, Ca from 2.64 cmol/kg to 3.94 cmol/kg, Mg from 2.09 cmol/kg to 2.28 cmol/kg. The high content of S nutrient in paddy field soil of Gunung Talang Sub-district is sufficient to optimize the productivity of paddy field rice.

Keywords: Sulfate, Total-S, Slope Position, Gunung Talang Sub-district

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Abstrak

Sulfur adalah salah satu dari sembilan hara makro esensial sebagai komponen protein pada padi sawah. Penelitian ini bertujuan untuk mengkaji status hara Sulfur di tanah sawah Kecamatan Gunung Talang. Sampel tanah diambil dengan metode *Purposive Sampling* pada tiga posisi lereng yaitu lereng atas, lereng tengah dan lereng bawah. Sampel tanah di masing-masing posisi lereng diambil pada kedalaman 0-20 cm, 20-40 cm dan 40-60 cm sebanyak 3 ulangan dengan total 27 sampel tanah terganggu. Parameter yang di analisis yaitu tekstur, pH, C-organik, Ca, Mg, N-total dan analisis S meliputi sulfat (SO_4^{2-}) menggunakan metode ekstraksi BaCl_2 dan Sulfur Total dengan XRF. Hasil analisis kadar SO_4^{2-} berkisar antara (0,13-0,82 %) dan S-Total (1,25-7,41 %). Kadar S tertinggi pada tanah sawah terdapat di lereng atas dengan kadar sulfat tertinggi 0,82%; S-total 7,41% dan sulfat terendah 0,13%; S-total 1,25% terdapat di lereng bawah. Hasil penelitian sifat fisika dan kimia tanah sawah lainnya meliputi, tekstur tergolong bertekstur halus di lereng atas dan agak halus di lereng bawah, pH H_2O 1:2,5 (4,83-6,74 unit), C-organik (1,37-5,83 %), N-total (0,04-0,25 %), Ca (2,64-3,94 cmol/kg), Mg (2,09-2,28 cmol/kg. Tingginya kandungan hara S di tanah sawah Kecamatan Gunung Talang cukup untuk mengoptimalkan produktifitas padi sawah.

Kata Kunci: Sulfat, S-Total, Tanah Sawah, Posisi Lereng, Kecamatan Gunung Talang