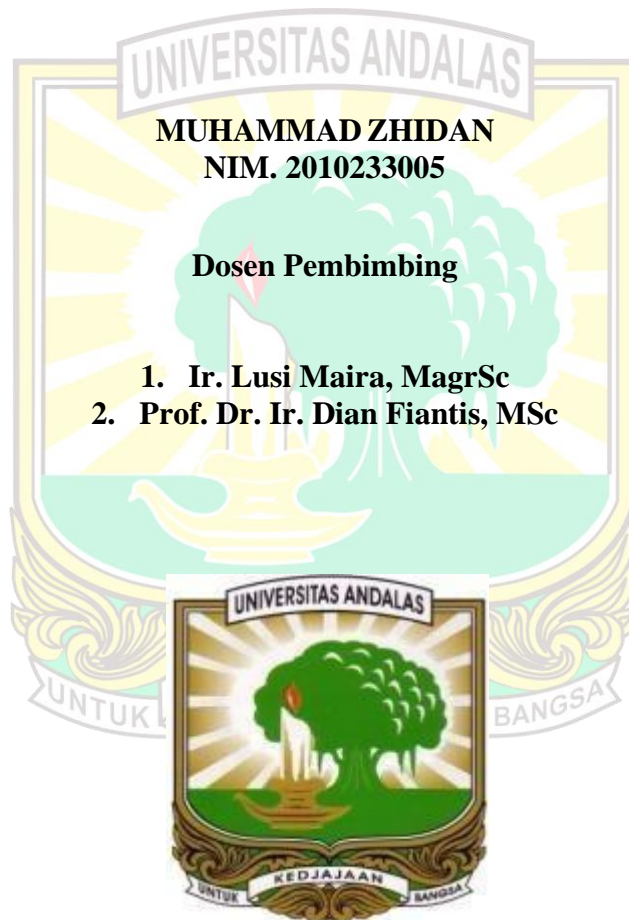


**PEMETAAN BEBERAPA SIFAT KIMIA TANAH LAPISAN
BAWAH PADA LAHAN SAWAH FISIOGRAFI PERBUKITAN
DI KABUPATEN SOLOK**

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ABSTRAK

Sawah fisiografi perbukitan di Kabupaten Solok dengan luas 7.515 ha tersebar di beberapa kecamatan, diantaranya X Koto Diatas dan Hiliran Gumanti. Penelitian bertujuan untuk mengetahui informasi, mengkaji dan memetakan beberapa sifat kimia tanah pada lahan sawah perbukitan di Kabupaten Solok pada lapisan lapisan bawah dan kualitas air. Metode ordinary kriging diterapkan untuk memprediksi sifat kimia tanah sawah dan distribusinya pada wilayah di luar titik sampel. Sebanyak 17 sampel tanah diambil dengan sistem stratified sampling pada kedalaman 20 - 40 cm dan 17 sampel air sawah dan irigasi yang diambil pada pintu pertama lahan sawah tersebar di Utara dan Selatan wilayah penelitian. Parameter yang dianalisis di Laboratorium meliputi; pH (H₂O, KCl, air sawah dan irigasi), EC dan TDS (Elektrometrik), C- Organik (Walkley and Black), N-Total (Kjeldahl), P-Tersedia (Bray I), K-dd (Pencucian NH₄OAc pH 7 1N), dan Rasio C/N. Hasil penelitian menunjukkan nilai pH tanah (H₂O dan KCl) berkisar antara (5,47 – 7,08) dan (3,02 – 4,35), pH air sawah dan irigasi (5,88 – 7,02 dan 5,98 – 8,36), EC tanah (80 - 309 μ S/cm), EC air sawah dan irigasi (52 - 570 dan 52 – 566 μ S/cm), TDS tanah (40 - 154 ppm), TDS air sawah dan irigasi (26 - 665 dan 26 – 282 ppm), C-Organik (0,78 - 3,80 %), N-Total (0,07 - 1,11 %), P-Tersedia (1,55 – 108,17 ppm), K-dd (0,10 – 1,11 me/100g), dan Rasio C/N (5,21 – 8,50 %). Analisis diskriminan linier menunjukkan bahwa terdapat perbedaan nilai dan pengelompokan wilayah unggulan pada sifat kimia tanah sawah fisiografi perbukitan pada wilayah Utara dan Selatan.

Kata kunci : Fisiografi perbukitan, Lahan Sawah, Pemetaan Tanah Digital, Sifat Kimia Tanah.

MAPPING SOME CHEMICAL PROPERTIES OF BOTTOM SOIL ON RICE LAND PHYSIOGRAPHY OF THE HILLS IN SOLOK DISTRICT

ABSTRACT

Hilly physiographic rice fields in Solok Regency with an area of 7,515 ha are spread across and are found in several sub-districts, including X Koto Diatas and Hiliran Gumanti. The research aims to find out information, study and map several chemical properties of soil in hilly rice fields in Solok Regency in the lower layers and water quality. The ordinary kriging method is applied to predict the chemical properties of paddy soil and their distribution in areas outside the sample point. A total of 17 soil samples were taken using a stratified sampling system at a depth of 20 - 40 cm and 17 rice and irrigation water samples were taken at the first gate of rice fields spread across the North and South of the research area. Parameters analyzed in the Laboratory include; pH (H₂O, KCl, paddy and irrigation water), EC and TDS (Electrometric), C- Organic (Walkley and Black), N-Total (Kjeldahl), P- Available (Bray I), K-dd (NH₄OAc Leaching pH 7 1N), and C/N Ratio. The research results showed that the soil pH values (H₂O and KCl) ranged between (5.47 – 7.08) and 3.02 – 4.35), the pH of rice field and irrigation water (5.88 – 7.02 and 5.98 – 8.36), soil EC (80 - 309 μ S/cm), EC of paddy and irrigation water (52 - 570 and 52 - 566 μ S/cm), soil TDS (40 - 154 ppm), TDS of paddy and irrigation water (26 - 665 and 26 - 282 ppm), C-Organic (0.78 - 3.80 %), N-Total (0.07 - 1.11 %), P- Available (1.55 – 108.17 ppm), K-dd (0.10 – 1.11 me/100g), and C/N Ratio (5.21 – 8.50 %). Linear discriminant analysis shows that there are differences in the values and groupings of superior areas in the chemical properties of paddy soil physiography of hills in the North and South regions.

Keywords: Physiography of hills, Rice Fields, Digital Soil Mapping, Soil Chemical Propertie

