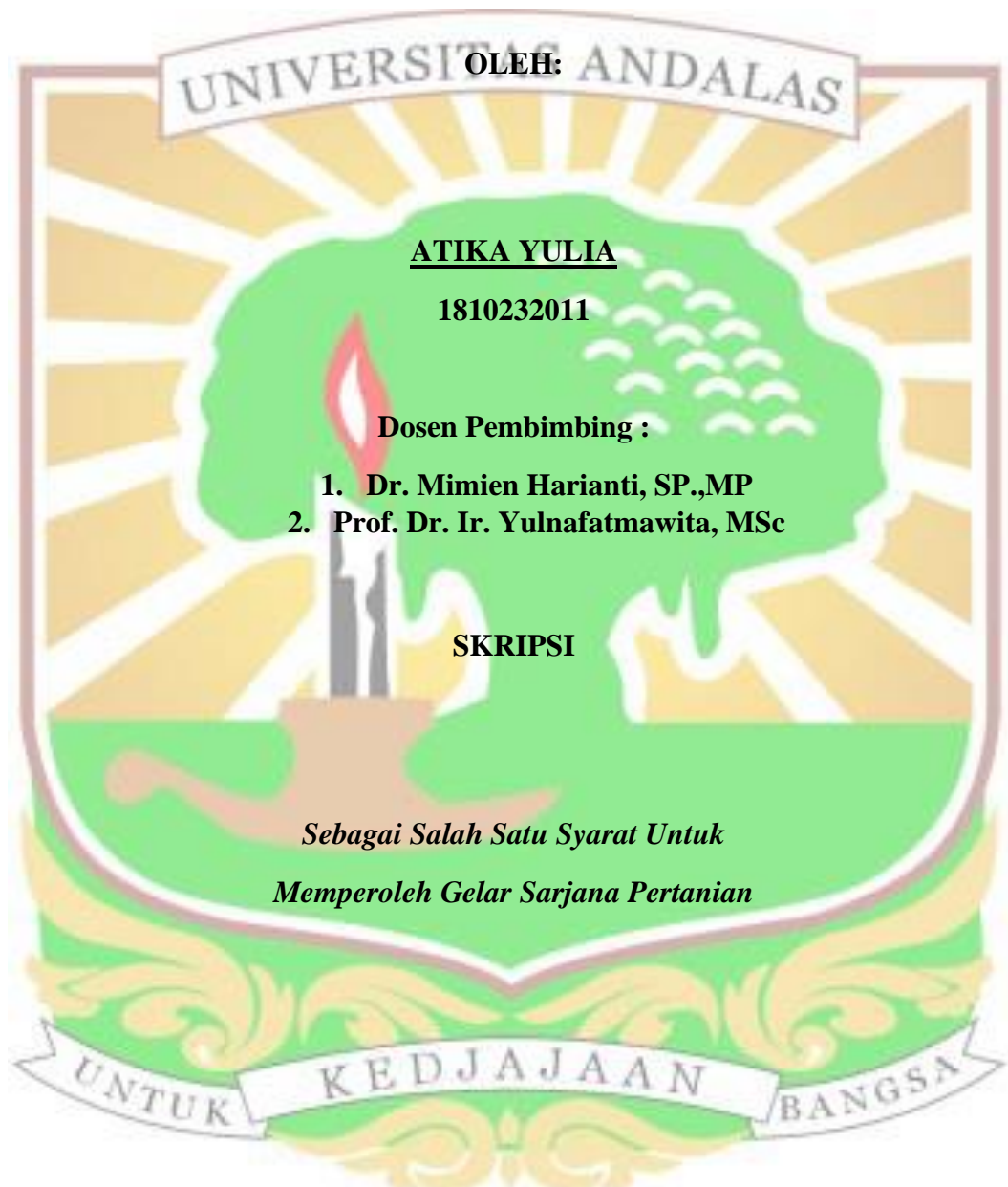


**IDENTIFIKASI KADAR FOSFAT PADA TIGA POSISI
LERENG DI LAHAN PERTANIAN INTENSIF DAN AIR
DANAU DIBAWAH KECAMATAN DANAU KEMBAR
KABUPATEN SOLOK**



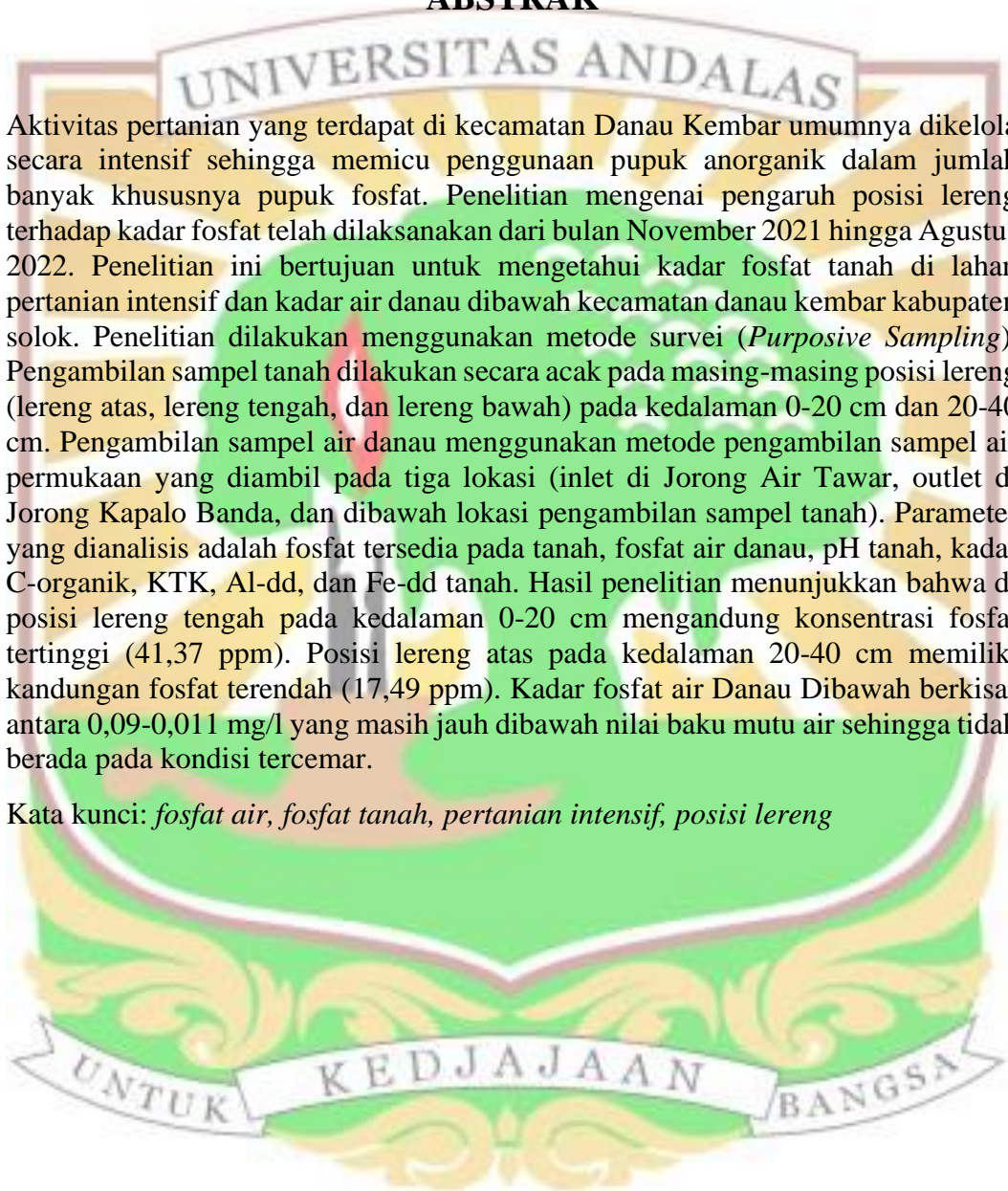
**PROGRAM STUDI ILMU TANAH
DEPARTEMEN ILMU TANAH DAN SUMBERDAYA LAHAN
FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2022**

IDENTIFIKASI KADAR FOSFAT PADA TIGA POSISI LERENG DI LAHAN PERTANIAN INTENSIF DAN AIR DANAU DIBAWAH KECAMATAN DANAU KEMBAR KABUPATEN SOLOK

ABSTRAK

Aktivitas pertanian yang terdapat di kecamatan Danau Kembar umumnya dikelola secara intensif sehingga memicu penggunaan pupuk anorganik dalam jumlah banyak khususnya pupuk fosfat. Penelitian mengenai pengaruh posisi lereng terhadap kadar fosfat telah dilaksanakan dari bulan November 2021 hingga Agustus 2022. Penelitian ini bertujuan untuk mengetahui kadar fosfat tanah di lahan pertanian intensif dan kadar air danau dibawah kecamatan danau kembar kabupaten solok. Penelitian dilakukan menggunakan metode survei (*Purposive Sampling*). Pengambilan sampel tanah dilakukan secara acak pada masing-masing posisi lereng (lereng atas, lereng tengah, dan lereng bawah) pada kedalaman 0-20 cm dan 20-40 cm. Pengambilan sampel air danau menggunakan metode pengambilan sampel air permukaan yang diambil pada tiga lokasi (inlet di Jorong Air Tawar, outlet di Jorong Kapalo Banda, dan dibawah lokasi pengambilan sampel tanah). Parameter yang dianalisis adalah fosfat tersedia pada tanah, fosfat air danau, pH tanah, kadar C-organik, KTK, Al-dd, dan Fe-dd tanah. Hasil penelitian menunjukkan bahwa di posisi lereng tengah pada kedalaman 0-20 cm mengandung konsentrasi fosfat tertinggi (41,37 ppm). Posisi lereng atas pada kedalaman 20-40 cm memiliki kandungan fosfat terendah (17,49 ppm). Kadar fosfat air Danau Dibawah berkisar antara 0,09-0,011 mg/l yang masih jauh dibawah nilai baku mutu air sehingga tidak berada pada kondisi tercemar.

Kata kunci: *fosfat air, fosfat tanah, pertanian intensif, posisi lereng*



IDENTIFICATION OF PHOSPHATE LEVELS AT THREE SLOPE POSITIONS IN INTENSIVE AGRICULTURAL LAND AND IN WATER OF DIBAWAH LAKE DANAU KEMBAR DISTRICT SOLOK REGENCY

ABSTRACT

Agricultural activities in the Danau Kembar district are generally managed intensively, thus triggering the use of large amounts of inorganic fertilizers, especially phosphate fertilizers. A research on the effect of slope position on phosphate levels was carried out from November 2021 to August 2022. This study was aimed to determine the phosphate levels in intensive agricultural land and in the water of the lake in the district of Danau Kembar, Solok Regency. The study was conducted using a survey method (Purposive Sampling). Soil samples were taken randomly at each slope position (upper slope, middle slope, and lower slope) at 0-20 cm and 20-40 cm soil depths. Lake water was sampled on the surface at three different locations (inlet in Jorong Air Tawar, outlet in Jorong Kapalo Banda, and below the agricultural land). The parameters analyzed were available phosphate in the soil, phosphate in the lake water, soil pH, Organic-C, CEC, Al-exch, and Fe-exch. The results showed that the middle slope position at the 0-20 cm soil depth contained the highest phosphate concentration (41.37 ppm). The upper slope position at the 20-40 cm soil depth contained the lowest phosphate content (17.49 ppm). The phosphate level in the water of Dibawah Lake ranged from 0.09-0.11 mg/l, which was still far below the critical value of the water quality, so it was not considered polluted condition.

Keywords: *Intensive farming system, slope position, soil phosphate, water phosphate*

