

**PENGARUH POSISI LERENG TERHADAP KADAR NITRAT
TANAH DI LAHAN PERTANIAN INTENSIF DAN
KADAR NITRAT AIR DANAU DIBAWAH
KECAMATAN DANAU KEMBAR KABUPATEN SOLOK**

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PENGARUH POSISI LERENG TERHADAP KADAR NITRAT TANAH DI LAHAN PERTANIAN INTENSIF DAN KADAR NITRAT AIR DANAU DIBAWAH KECAMATAN DANAU KEMBAR KABUPATEN SOLOK

ABSTRAK

Penelitian ini bertujuan untuk mengetahui kandungan nitrat tanah pada lahan hortikultura dengan pola tanam monokultur pada tiga posisi lereng yang berbeda dan air Danau Dibawah. Data kandungan nitrat dalam tanah akan menentukan berapa banyak pupuk yang dibutuhkan untuk pertumbuhan tanaman. Penelitian ini dilaksanakan di Kenegarian Kampung Batu Dalam, Jorong Air Tawar Utara, Kecamatan Danau Kembar, Kabupaten Solok dan di Laboratorium Tanah Fakultas Pertanian Universitas Andalas dari bulan November 2021 sampai dengan Maret 2022. Penelitian dilakukan dengan menggunakan metode survei. Pengambilan sampel tanah dilakukan secara purposive sampling berdasarkan posisi lereng (lereng atas, tengah, dan bawah). Sampel tanah diambil secara acak dari 2 kedalaman tanah (0-20 cm dan 20-40 cm) dengan 3 kali ulangan. Sampel air danau diambil dari tiga lokasi (inlet di Jorong Air Tawar, outlet di Jorong Kapalo Banda, dan tengah di bawah lokasi pengambilan sampel tanah). Parameter yang di analisis adalah kandungan nitrat tanah dan air danau, pH tanah, C-organik, dan KTK. Hasil penelitian menunjukkan bahwa posisi lereng atas pada kedalaman tanah 0-20 cm mengandung konsentrasi nitrat tertinggi (34,44 ppm), kadar air terendah, dan memiliki pH netral. Posisi lereng tengah pada kedalaman tanah 20-40 cm terdapat kandungan nitrat terendah (10,31 ppm), kadar air dan pH tanah tertinggi. Kandungan nitrat air danau berkisar antara 1,66-1,89 mg/L, jauh lebih rendah dibandingkan tanah pertanian.

Kata kunci: Nitrat tanah, nitrat air, monokultur, posisi lereng, pH, C-Organik.



**THE EFFECT OF SLOPE POSITIONS TO NITRATE CONTENT IN
SOIL UNDER INTENSIVE AGRICULTURAL LAND AND
NITRATE CONTENT IN WATER OF DIBAWAH LAKE
DANAU KEMBAR DISTRICT SOLOK REGERENCY**

ABSTRACT

This study was aimed to determine soil nitrate content in horticultural land under monoculture cropping patterns at three different slope positions and in water of Dibawah Lake. Data on nitrate content in the soil will determine how much fertilizer needed for crop growth. This research was carried out in Kenegarian Kampung Batu Dalam, Jorong Air Tawar Utara, Danau Kembar District, Solok Regency and at the Soil Laboratory of the Faculty of Agriculture, Andalas University From November 2021 to March 2022. The research was conducted using a survey method. Soil samples were taken using purposive sampling based on slope position (upper, middle, and lower slope). Soil samples were taken randomly from 2 soil depths (0-20 cm and 20-40 cm) with 3 replicates. Lake water samples were taken from three locations (inlet in Jorong Air Tawar, outlet in Jorong Kapalo Banda, and middle or near the agricultural land wich was below the location of the soil sampling). The parameters analyzed were nitrate content of soil and lake water, soil pH, Organic-C, and CEC. The results showed that the upper slope position at the 0-20 cm soil depth contained the highest nitrate concentration (34.44 ppm), the lowest water content by volume, and had neutral pH. The middle slope position at the 20-40 cm soil depth contained the lowest nitrate content (10.31 ppm), the highest water content by volume and soil pH. The nitrate content of the lake water ranged from 1.66- 1.89 mg/L, which was much lower than that of agricultural soil.

Keywords: Soil nitrate, water nitrate, monoculture, slope position, pH, Organic- C.

