

**KAJIAN SIFAT FISIKA TANAH PADA BEBERAPA UMUR
TANAMAN KOPI ARABIKA (*Coffea arabica*) DI
KENAGARIAN AIE DINGIN DAN SIMPANG TANJUNG NAN
IV KABUPATEN SOLOK**

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Abstrak

Penelitian mengenai sifat fisika tanah pada beberapa umur tanaman kopi arabika (*Coffea arabica*) telah dilaksanakan di Kenagarian Aie Dingin dan Simpang Tanjung Nan IV Kabupaten Solok dari bulan Juni hingga Desember 2020. Penelitian ini bertujuan untuk mengkaji beberapa sifat fisika tanah pada lahan kopi arabika pada beberapa tingkatan umur di Kenagarian Aie Dingin dan Simpang Tanjung Nan IV Kabupaten Solok. Pengambilan sampel dilakukan pada kedalaman 0-20 cm dan 20-40 cm pada kemiringan 8-15% pada lahan kopi arabika berumur 1 tahun, 4 tahun, 8 tahun, dan 13 tahun, serta hutan yang digunakan sebagai kontrol. Sifat fisika tanah dianalisis di Laboratorium Fisika Tanah Fakultas Pertanian Universitas Andalas. Hasil penelitian menunjukkan lahan kopi arabika memiliki tekstur lempung hingga liat. Berat volume tanah berkisar antara 0,41-1,03 g/cm³, TRP tanah berkisar antara 60,05 - 82,96 %, kandungan bahan organik berkisar antara 4,14 - 13,52 %, permeabilitas tanah antara 11,87 - 34,69 cm/jam, sedangkan stabilitas agregat antara 67,13 - 96,38 % pada kedua lapisan tanah. Pada kedalaman 20-40 cm, bahan organik meningkat sejalan dengan meningkatnya umur tanaman. Sifat fisika tanah pada lahan kopi arabika lebih baik dibandingkan hutan sekunder.

Kata kunci: kopi arabika, umur tanaman, sifat fisika tanah



STUDY OF SOIL PHYSICAL PROPERTIES ON SEVERAL AGES OF ARABICA COFFEE (*Coffea arabica*) CROPS IN AIE DINGIN AND SIMPANG TANJUNG NAN IV, SOLOK REGENCY

Abstract

A research on soil physical properties at several ages of Arabica coffee (*Coffea arabica*) was carried out in Aie Dingin and Simpang Tanjung Nan IV, Solok Regency from June to December 2020. This research was aimed to study some soil physical properties on land planted with Arabica coffee at several age levels in Aie Dingin and Simpang Tanjung Nan IV, Solok Regency. Soil was sampled at two different dept (0-20 cm and 20-40 cm) at the same slope level (8–15%). Soil sample was taken based at 4 different crop ages (1 year, 4 years, 8 years and 13 years) as well as at forest as a control. Soil physical properties were analyzed at the Laboratory of Soil Physics, Faculty of Agriculture, Andalas University. The study showed that the Arabica coffee lands had a clay to clay in texture. The soil bulk density from 0.41–1.03 g/cm³, the TSP from 60.05–82.96%, the organic matter content from 4.14–13.52 %, the soil permeability from 11,87 – 34,69 cm , while the stability of soil aggregate from 67.13 – 96.38 % in both soil layers. At soil depth 20-40 cm, the increasing crop age would increase the soil organic matter. Soil physical properties in the Arabica coffee lands were better than those at secondary forests.

Keywords: *arabica coffee, plant age, soil physical properties*

