

STATUS KESUBURAN TANAH PADA LAHAN BUDIDAYA KAKAO DI KALURAHAN NGLANGGERAN, KAPANEWON PATUK, GUNUNGKIDUL

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ABSTRAK

Kalurahan Nglanggeran merupakan salah satu kalurahan penghasil kakao tertinggi di Kapanewon Patuk, Gunungkidul. Namun demikian, produktivitas kakao di Kalurahan Nglanggeran masih rendah di bawah rata-rata standar nasional. Perbedaan pengelolaan lahan diduga menyebabkan perbedaan status kesuburan tanah yang berdampak pada produktivitas kakao. Penelitian ini bertujuan untuk menganalisis sifat kimia dan biologi tanah, mengevaluasi status kesuburan tanah, dan mengetahui faktor pembatas kesuburan tanah pada lahan budidaya kakao. Penelitian dilakukan dengan metode deskriptif eksploratif melalui survai dan analisis laboratorium. Pengambilan sampel tanah dilakukan secara komposit menggunakan metode *purposive sampling* pada 5 lahan budidaya kakao dengan perbedaan pengelolaan dan pola penanaman. Parameter yang diamati yaitu KPK, kejenuhan basa, C-organik, P_2O_5 , K_2O , pH, kation tersedia, N-total, dan cacing tanah. Penilaian status kesuburan tanah mengacu pada kriteria Pusat Penelitian Tanah tahun 1995. Hasil analisis sifat kimia tanah menunjukkan nilai kapasitas pertukaran kation 15,34-29,63 cmol(+)/kg berharkat rendah hingga tinggi, kejenuhan basa 28,73-56,72% berharkat rendah hingga tinggi, C-organik 0,33-2,23% berharkat sangat rendah hingga sedang, P_2O_5 3,34-5,45 mg/100g berharkat sangat rendah, K_2O 4,18-7,9 mg/100g berharkat sangat rendah, pH 6,48-6,78 berharkat agak masam hingga netral, K-tersedia 0,16-0,49 cmol(+)/kg berharkat rendah hingga sedang, Na-tersedia 0,05-0,11 cmol(+)/kg berharkat sangat rendah hingga rendah, Ca-tersedia 5,01-8,78 me% berharkat rendah hingga sedang, Mg-tersedia 0,95-3,34 cmol(+)/kg berharkat rendah hingga tinggi, dan N-total 0,39-0,96% berharkat sedang hingga sangat tinggi. Hasil analisis sifat biologi berupa cacing tanah sebesar 5-15 individu/m². Hasil penilaian status kesuburan tanah pada lahan budidaya kakao yang diteliti di Kalurahan Nglanggeran termasuk rendah, dengan faktor pembatas yaitu P_2O_5 dan K_2O yang berharkat sangat rendah.

Kata kunci: kakao, Nglanggeran, produktivitas kakao, status kesuburan tanah

SOIL FERTILITY STATUS ON COCOA CULTIVATION LAND IN NGLANGGERAN VILLAGE, PATUK DISTRICT, GUNUNGKIDUL

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ABSTRACT

Nglanggeran Village is one of the highest cocoa producing villages in Kapanewon Patuk, Gunungkidul. However, cocoa productivity in Nglanggeran Village is still low below the national average standard. Differences in land management are thought to cause differences in soil fertility status, which impacts cocoa productivity. This study aims to analyze the chemical and biological properties of the soil, evaluate soil fertility status, and identify limiting factors for soil fertility in cocoa cultivation areas. The study was conducted using a descriptive exploratory method through surveys and laboratory analysis. Soil sampling was carried out using a composite purposive sampling method on five cocoa cultivation areas with different management and planting patterns. The parameters observed were CEC, base saturation, organic carbon, P_2O_5 , K_2O , pH, available cations, total nitrogen, and earthworms. The assessment of soil fertility status refers to the criteria of the Soil Research Center in 1995. The results of the analysis of soil chemical properties show a cation exchange capacity value of 15.34-29.63 me% with a low to high value, base saturation of 28.73-56.72% with a low to high value, organic C 0.33-2.23% with a very low to moderate value, P_2O_5 3.34-5.45 mg/100g with a very low value, K_2O 4.18-7.9 mg/100g with a very low value, pH 6.48-6.78 with a slightly acidic to neutral value, available K 0.16-0.49 me% with a low to moderate value, available Na 0.05-0.11 me% with a very low to low value, available Ca 5.01-8.78 me% with a low to moderate value, Mg-available 0.95-3.34 me% is low to high, and N-total 0.39-0.96% is moderate to very high. The results of the biological analysis are earthworms of 5-15 individuals/m². The results of the assessment of the soil fertility status of the cocoa cultivation land studied in Nglanggeran Village are low, with limiting factors being P_2O_5 and K_2O which are very low.

Keywords: cocoa, Nglanggeran, cocoa productivity, soil fertility status