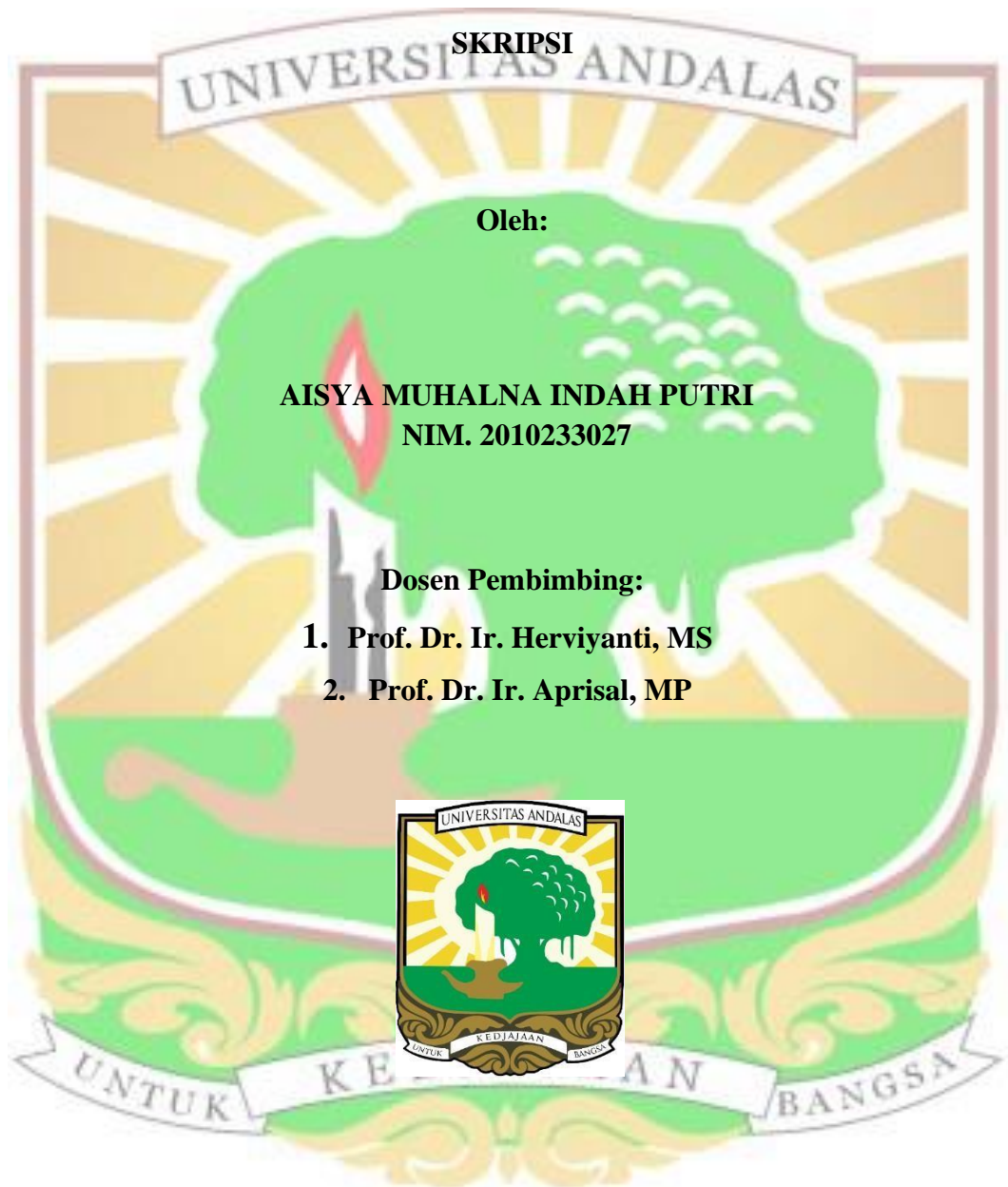


**EFEK RESIDU FORMULASI AMELIORAN BERBASIS SUMBER  
DAYA LOKAL TERHADAP SIFAT KIMIA INCEPTISOL DAN  
PRODUKSI TANAMAN BUNCIS (*Phaseolus vulgaris* L.)**



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**FAKULTAS PERTANIAN  
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# EFEK RESIDU FORMULASI AMELIORAN BERBASIS SUMBER DAYA LOKAL TERHADAP SIFAT KIMIA INCEPTISOL DAN PRODUKSI TANAMAN BUNCIS (*Phaseolus vulgaris* L.)

## Abstrak

Pemberian formulasi amelioran sumberdaya lokal yang teretdapat di kecamatan Banuhampu merupakan upaya menangani permasalahan Inceptisol yang dimanfaatkan secara intensif untuk lahan pertanian. Amelioran yang bersifat relatif stabil di dalam tanah, meninggalkan residu yang masih dapat dimanfaatkan untuk masa tanam selanjutnya, maka dilakukan penanaman kembali pada musim tanam kedua tanaman buncis dengan keadaan lahan tidak diberikan perlakuan. Penelitian ini bertujuan mengkaji efek residu pemberian formulasi amelioran sumberdaya lokal terhadap beberapa sifat kimia Inceptisol, produksi, kadar hara buah buncis dibandingkan dengan konvensional dan membandingkan sifat kimia Inceptisol terhadap musim tanam ke-1 dan musim tanam ke-2. Penelitian dilakukan di Jorong Kandang Jilatang, Nagari Pakan Sinayan, Kecamatan Banuhampu, Kabupaten Agam, Sumatera Barat, menggunakan metode Rancangan Acak Kelompok (RAK) 6 perlakuan 3 kelompok. Perlakuan terdiri dari 10 ton/ha formulasi Amelioran dan 1/2 rekomendasi pupuk sintetis (B=BB + Puhiti + Pukan + Kompos + 1/2PS, C=BB+ Puhiti + Pukan + 1/2PS, D=BB + Puhiti + Kompos + 1/2PS, E=Puhiti + Pukan + Kompos + 1/2PS, F=BB + Pukan + Kompos + 1/2PS) terhadap perlakuan A= konvensional 10 ton/ha Pukan dan 1 PS, yang menjadi pembanding dalam formulasi amelioran. Hasil penelitian menunjukkan perlakuan B=BB + Puhiti + Pukan + Kompos + 1/2PS masih mampu memperbaiki sifat kimia tanah dan menunjang produksi tanaman buncis pada musim tanam ke-2 dengan meningkatkan pH 0,38 unit, KTK 10,02 cmol/kg, C-organik 0,77 %, menurunkan Al-dd 0,49 cmol/kg dan produksi maksimum tanaman buncis 8,96 ton/ha, kadar hara buah buncis 4,33% N, 0,045% P, dan 0,023% K dibandingkan dengan konvensional. Efek sisa amelioran yang diberi pupuk hijau titonia, tidak berdampak signifikan dikarenakan sudah terdekomposisi sempurna pada musim tanam ke-1 dan tidak tersedia untuk musim tanam ke-2. Secara umum pH, KTK dan C-Organik masa tanam ke-2 lebih tinggi dibandingkan masa tanam ke-1 sedangkan K-dd, N-Total dan P-Tersedia lebih rendah dibandingkan masa tanam ke-1.

**Kata kunci:** Amelioran, Buncis, Inceptisol



# RESIDUARY EFFECTS OF LOCAL RESOURCE-BASED AMELIORAN FORMULATIONS ON THE CHEMICAL PROPERTIES OF INCEPTISOL AND THE PRODUCTION OF GREEN BEAN (*Phaseolus vulgaris* L.)

## Abstract

The provision of local resource ameliorant formulations found in Banuhampu subdistrict is an effort to deal with Inceptisol problems that are intensively utilized for agricultural land. Ameliorants are relatively stable in the soil, leaving residues that can still be utilized for the next planting period, so replanting was carried out in the second planting season of green beans with the condition of the land not given treatment. This study aims to assess the residual effects of applying local resource ameliorant formulations on several Inceptisol chemical properties as well as production, nutrient levels of green beans compared to conventional and compare the chemical properties of Inceptisol in the 1st and 2nd growing seasons. The research was conducted in Jorong Kandang Jilatang, Nagari Pakan Sinayan, Banuhampu District, Agam Regency, West Sumatra, using the Randomized Group Design (RAK) method 6 treatments of 3 groups. The treatment consisted of 10 tons/ha of ameliorant formulation and 1/2 recommendation of synthetic fertilizer (B=BB + Puhiti + Pukan + Compost + 1/2PS, C=BB + Puhiti + Pukan + 1/2PS, D=BB + Puhiti + Compost + 1/2PS, E=Puhiti + Pukan + Compost + 1/2PS, F=BB + Pukan + Compost + 1/2PS) against the conventional treatment A= 10 tons/ha Pukan and 1 PS, which is the comparison in ameliorant formulation. The results showed that treatment B=BB + Puhiti + Pukan + Compost + 1/2 PS was still able to improve soil chemical properties and support green bean crop production in the second growing season by increasing pH 0.38 units, CEC 10.02 cmol/kg, C-organic 0.77%, reducing Al-dd 0.49 cmol/kg and maximum production of green bean crops 8.96 tons/ha of green bean fruit nutrient levels 4.33% N, 0.045% P, and 0.023% K compared to conventional. The residual amelioran effect of titonia green manure, has no significant impact because it has been completely decomposed in the 1st growing season and is not available for the 2nd growing season. In general, pH, CEC and C-Organic of the 2nd planting season were higher than the 1st planting season while K-dd, N-Total and P-Available were lower than the 1st planting season.

**Keywords:** Amelioant, Green Beans, Inceptisol

