

## RINGKASAN

Degradasi tanah pertanian merupakan isu penting di seluruh dunia. Isu ini mendapat perhatian Pemerintah Indonesia yang ditandai dengan dikeluarkannya Peraturan Pemerintah No. 150 Tahun 2000 untuk pencegahan degradasi tanah pertanian. Penelitian ini bertujuan untuk: 1) Mengetahui faktor apa saja yang menyebabkan terjadinya kerusakan tanah di lahan kering Kecamatan Karangjambu Kabupaten Purbalingga dan 2) Mengevaluasi tingkat kerusakan tanah menurut Peraturan Pemerintah Nomor 150 tahun 2000 di lahan kering Kecamatan Karangjambu Kabupaten Purbalingga.

Penelitian ini dilaksanakan di lahan kering Kecamatan Karangjambu Kabupaten Purbalingga dari bulan Januari sampai Maret 2017 dan analisis sampel dilakukan di Laboratorium Balai Pengkajian Teknologi Pertanian Yogyakarta, Laboratorium Ilmu Tanah dan Sumberdaya Lahan Fakultas Pertanian Universitas Jenderal Soedirman, dan Laboratorium Perlindungan Tanaman Fakultas Pertanian Universitas Jenderal Soedirman. Penelitian ini merupakan penelitian survei yang diawali dengan pembuatan peta Satuan Lahan Homogen (SLH) dan penentuan titik sampel, kemudian dilanjutkan dengan pengambilan sampel tanah dengan metode *purposive random sampling*, pengamatan variabel-variabel lapang, dan analisis laboratorium. Variabel yang diamati meliputi ketebalan solum, kebatuan permukaan, tekstur tanah, berat isi, porositas total, permeabilitas tanah, pH tanah, daya hantar listrik, nilai redoks, dan jumlah mikroba.

Hasil penelitian menunjukkan bahwa tanah di semua wilayah penelitian sudah mengalami kerusakan. Tingkat kerusakan rendah terjadi pada SLH Gm1, Pd2, dan Pd4 yaitu seluas 1074,31 ha atau 31,29%. Tingkat kerusakan sedang terjadi pada SLH Gm2, Gm3, Gm4, Lt2, Lt3, Lt4, dan Pd3 yaitu seluas 2358,93 ha atau 67,71%. Parameter yang paling berpengaruh dalam kerusakan tanah di lahan kering adalah redoks, komposisi fraksi liat, berat isi, porositas total, dan derajat pelulusan air.

## SUMMARY

*Agricultural soil degradation is an important issue all over the world. This issue had gained attention by Indonesian Government as indicated by the released of Indonesian Government Regulation with serial Number of 150 on 2000 for prevention of agricultural soil degradation. This research aims to: 1) Knowing the factors cause the occurrence of soil degradation in dry land Karangjambu Subdistrict Purbalingga Regency and 2) Evaluate the level of soil degradation according to Government Regulation No. 150 year 2000 in dry land Karangjambu Subdistrict Purbalingga Regency*

*This research was carried out in dry field of Karangjambu Subdistrict, Purbalingga Regency from January until March 2017 and analysis of soil sample was conducted at Agricultural Technology Research Center Yogyakarta, Soil Science and Land Resources Laboratory Faculty of Agriculture, University of General Soedirman, and Plant Protection Laboratory Faculty of Agriculture, University of General Soedirman. This research is a survey research that begins with making the map of Homogeneous Land Units (SLH) and determinate the sample point, then continued with soil sampling using purposive random sampling method, observation of field variables, and laboratory analysis. The variables observed were thickness of solum, surface unity, soil texture, bulk density, total porosity, soil permeability, soil pH, electrical conductivity, redox value, and microbial count.*

*The results showed that soil in all research areas had been degraded. The low level of soil degradation occurs in SLH Gm1, Pd2, and Pd4 which is 1074.31 ha or 31.29%. The medium level of soil degradation in SLH Gm2, Gm3, Gm4, Lt2, Lt3, Lt4, and Pd3 which is 2358.93 ha or 67.71%. The most influential parameters in soil degradation in dry land are redox, clay fraction composition, bulk density, total porosity, and degree of water smoothing.*