

**THE PHYSICAL AND CHEMICAL CHARACTERISTICS OF SOIL
UNDER TEAK AND PINE STANDS IN RPH KALIRAJUT, BKPH
KEBASEN, KPH BANYUMAS TIMUR, BANYUMAS REGENCY,
CENTRAL JAVA PROVINCE**

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ABSTRACT

The aim of this research was to examine the physical and chemical characteristics of the soil under teak and pine stands in RPH Kalirajut, BKPH Kebasen, KPH Banyumas Timur, Banyumas Regency, Central Java Province. The research used survey and purposive sampling methods. Based on research, the soil in teak stands has a dominant texture of sandy clay loam; rounded lumpy structure; good aggregate stability; brown color (7,5 YR 4/2 and 10 YR 4/3); with a low C/N ratio; average value of BJ 2.15 g/cm³; BV 1.10 g/cm³; porosity 48.98%; permeability 5.12 cm/hour; pH 6,35; KPK 15.14 me%; C-Organic 2.21%; N 0.23%; exchangeable phosphorus 0.65 ppm; and exchangeable potassium 0.63 me%. The soil in the pine stands has a dominant texture of clay loam; a rounded lumpy structure; fairly stable aggregate stability; dark brown in color (7,5 YR 3/3, 7,5 YR 3/4, and 10 YR 3/3); with a medium to high C/N ratio; average value of BJ 2.13 g/cm³; BV 1.04 g/cm³; porosity 51.27%; permeability 13.72 cm/hour; pH 6,28; KPK 11.9 me%; C-Organic 1.87%; N 0.12%; exchangeable phosphorus 0.37 ppm; and exchangeable potassium 0.32 me%.

Keywords: organic matter, pine, soil chemistry, soil physics, teak