C-2.1 Influences of acidification in the root environment to microorganisms and nutrient balances (Final Report)

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Total Budget for FY1996-FY1998 29,382,000 Yen (FY1998 9,762,000 Yen)

Keywords *Cryptomeria japonica* D.Don, Rhizosphere microorganisms, Nitric acid, Base cations, Acid deposition

Nitrate nitrogen accumulation was observed in some soils in Kanto plain. Acidification by nitrogen application decreased the height growth of Sugi (*Cryptomeria japonica* D.Don) seedlings in sand culture. Nitric acid was applied to the soil of Sugi plantation. The nitrogen compound applications caused the decrease of soil pH. Nitrate, calcium, and magnesium in the soil water of the plot increased. The rhizosphere microorganisms increased, and the nitrogen compounds in the needles of Sugi also increased. The concentrations of phosphorous and potassium in the needles decreased. However, the influence of applications on the tree growth was not clear.