Soil moisture of dry-evergreen forest and shifting area

at Sakaerat Experimental Station.

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ABSTRACT

A measurement of soil by neutron probe was studied once a week from June 1968 – June 1969 at Sakaerat Experimental Station on two areas of 500 meter apart, the natural dry-evergreen forest and shifting area with 70 meters radius. The levels of measurement were taken at the surface 30, 45, 60, 90 and 120 cm. of soil depth. The results found that moisture content of dry-evergreen forest soil was dominated close to the surface, then gradually decreased with soil depths, and the moisture content of shifting area was shown the opposite way. Concentration and distribution of roots would be supported the results as well as the amount of more organic matter and soil evaporation. The analysis pointed out that soil moisture above 60 cm. dry-evergreen forest was found higher than open area, if increasing soil depth the result was opposite. Also, soil moisture in dry period was found higher in shifting area but opposite in wet season. However, annual soil moisture content found 28.92 and 29.48 cm. per unit area in dry-evergreen forest and shifting area, respectively. This result brought to pinpoint that clearing the forest area of 70-meter radius caused increasing water in soil approximately 0.56 cm. per unit area or 1.94 percent.