

Nanthasiri Pichasamut 2013: Yield and Financial Analysis of the Investment in Eucalypt Plantation at Sung Noen District, Nakhon Ratchasima Province. Master of Science (Forest Resource and Environmental Administration), Major Field: Forest Resource and Environmental Administration, Faculty of Forestry. Thesis Advisor: Mr. Chongrak Wachrinrat, Ph.D. 93 pages.

The objectives of this study were to evaluate yield and financial return in terms of B/C ratio, NPV which obtained from Eucalypt plantation by age classes and site quality. In addition, the optimal economic rotation were determined. The 50 samples plots with 20\*20 m<sup>2</sup> in size were randomly established and then the assessment of growth and yield were carried out. Moreover, the NPV, B/C ratio, were obtained from financial analysis will be employed for determining the optimal rotation.

Based on the studied Eucalyptus area were classified into 3 classes namely; good (SI 13) medium (SI 12) and poor (SI 11), the results of the yield study indicated that the highest merchantable fresh weight was found in 4 year-old of the good site quality at 50.24 KG.tree-1, following by 5 year-old at 46.84 KG.tree-1. Furthermore, due to the financial analysis visualized that, there are no profit in 3 year old Eucalypt for all site quality. In contrast, the 4 year-old Eucalyptus plantation at the good site quality provided B/C ratio over than 1 of 1.64, 1.58 and 1.46 and NPV over than 0 of 3,202.07, 2,786.47 and 2,078.33 Baht/rai, by the given 3 interest rates of 6, 8 and 12 percent respectively. And the price that generated the break-even point was 787.567 Bath per ton, following by the 5 year-old of Eucalypt, Based on such given interest rates their B/C ratio were 1.35, 1.28 and 1.14, and their NPV were 1,797.11, 1,383.97 and 672.15 Bath/rai, respectively. The optimal rotation was 4 year-old Eucalypt. Moreover, due to the poor site quality under the given condition is in appropriate for the investment, therefore, planting improvement should be concerned in the future.

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Thesis Advisor's signature