

## ABSTRACT

*PT Perkebunan Nusantara VIII Ciater is one of the tea production industry companies in Indonesia that located in Ciater, Subang, West Java. Production activities in the company lasted for 24 hours, it mean the machine at the company is always working. PTPN was established since 1957 until now and the machines that they used are old. Rotorvane machine is a machine that is classified as old with 45% condition and required appropriate maintenance policy. To know the cost of the company on the Rotorvane machine then used Life Cycle Cost (LCC) method, by using LCC method can be known optimal maintenance crew and retirement age on the machine. To know the total Life Cycle Cost required processing cost of sustaining cost and acquisition cost. Another method used in this research is Cost of unreliability (COUR) method to identify the losses cost of the company for damage to critical components on the Rotorvane machine. Based on the LCC method, the total LCC on the Rotorvane machine is Rp 452,811,014,- and has th optimal number of maintenance crew of  $M = 1$  where on the team has three engineers and the Rotorvane machine has retirement age for eight years. Based on the COUR method, the company losses in maintenance process is Rp 589,395,123,-.*

***Keywords – Rotorvane Machine, Life Cycle Cost, Sustaining cost, Acquisition cost, Maintenance Set Crew, Retirement age, Cost of unreliability.***