

**ABSTRACT**  
**PROPOSED DESIGN OF MACHINE MAINTENANCE**  
**BLACK TEA ORTHODOKS**  
**USING RELIABLE CENTRED MAINTENANCE**  
**AT PT PERKEBUNAN NUSANTARA VIII RANCABALI**

PT PTPN VIII is a company engaged in the production of tea, rubber, oil palm, and quinine. In the existing maintenance activities of PTPN VIII using corrective maintenance, so it does not have a damage prevention equipment, while equipment was damaged as a result can cause the system to stop the impact of high loss of production.

To operate the machinery and equipment necessary to effectively and efficiently care system good machines. The method used is Reliable Centred Maintenance (RCM) by combining qualitative analysis covering Failure Mode and Effect Analysis (FMEA) and Decision Worksheet. RCM is a systematic process that is used to determine what must be met in order to ensure every physical facilities will continue to operate according to its function.

From the results of the determination of critical systems, subsystems milling was selected as a sub-critical systems which will be discussed further daam this study. Then determined the policy of care and effective treatment time interval in accordance with the characteristics of destruction by using the method Reliable Centred Maintenance. Based on the results of data processing using RCM conducted on milling equipment sub-systems, obtained 20 scheduled on-condition, and 5 scheduled restoration task. Difference in treatment costs if the company uses the policy of preventive maintenance is 2%, less than if companies are still using corrective maintenance policy.

Key word: *Maintenance, RCM, FMEA, Decision Worksheet, Scheduled on Condition, Scheduled Restoration Task.*