

## **ABSTRACT**

*PT. XYZ is one of the national pesticide companies that has been established since 1979. The problem that is currently happening is the absence of preventive maintenance actions on several existing machines. One of the machines that often experiences damage and does not have a preventive maintenance schedule is the Carbofuran Mixer, on this machine there is a conveyor belt that has the highest frequency of damage, this causes a high frequency of Time to Failure (TTF) and Time to Repair (TTR) for activities. corrective maintenance which has an impact on the production process being hampered which results in a number of financial losses for the company. Therefore, it is necessary to have scheduled preventive maintenance activities. The RBM method aims to calculate and analyze the risks that will arise in the Conveyor Belt components. The results of this research produced several consequence values and also the risks involved in damage experienced by the machine, such as wear on the surface of the pulley which resulted in the belt not pulling and the belt not running perfectly. Then the maintenance interval on the Carbofuran Mixer machine will be carried out once every eleven weeks or four times a year and only costs IDR. 56,197,232. With this research, it is hoped that it can reduce damage to machines, increase operational efficiency, and minimize costs incurred by companies for repairs.*

**Keywords:** *Belt Conveyor, Risk Based Maintenance (RBM), Preventive Maintenance.*