

**DESIGN AND BUILD OF G4191 BETEL NUT DEVELOPERS
WITH VARIATION OF RPM AND DISTANCE BETWEEN
INTRODUCTION WITH THE BLADE EYES TOWARDS
QUALITY BETEL NUT**

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ABSTRACT

The areca nut splitting machine is a tool used to speed up a job to split the areca nut to make it easier for workers and to help with lighter work and get good results. The areca splitting machine that was made at the Bengkalis State Polytechnic experienced several problems, namely uneven division. This is due to the Rpm and the distance between the introductory blade and the blade. The Rpm of the machine and the distance between the introductory blade and the blade are very influential in the cleavage process of the areca nut. Therefore, the research was carried out using Rpm 800, 1000,1300 and the distance of the introductory blade with the blade, namely with a distance of 2 mm, 4 mm, 6 mm, 8 mm, 10 mm, with the aim of getting a good percentage of the results of the cleavage of the betel nut. less good cleavage and the resulting capacity. After conducting the research, the percentage of incomplete cleavage results was found at rpm 1300 and the distance between the introductory blade and the blade was 10 mm with the percentage of not perfectly split areca 70%, while the percentage of perfectly split areca was at Rpm 1000 and the distance between the introductory blade and the blade 6 mm, namely the percentage of perfectly split areca 96.6%. The resulting capacity is more at Rpm 1300 and the distance of the introductory blade to the blade is 10 mm with the resulting capacity of 357 kg / hour, while the slit capacity is at least Rpm 800 and a distance of 2 mm with a capacity of 184 kg / hour.

Key words: *Areca splitting machine, distance of introductory blade with blade, Rpm machine*