**Effect of grater position on the size of grated sago (Metroxylon spp.)**


ABSTRACT

The natural arrangement of sago palmôs fiber orientation is parallel to the vertical axis of the trunk. Extraction of the sago starch requires breaking of the trunk into fine sizes. The sago size is affected by the grater position which affects the of starch recovery. This study was conducted to evaluate grating efficiency through sago size produced at the different direction of grating (0° and 90° to roller teeth rotation). Sago palm trunks without outer layer were cut into square blocks of 100 mm3. Each trunk block was placed on roller grater platform at a different position where the cutting spike was parallel to the vertical axis of sago trunk fiber orientation (grating at 0° direction) and perpendicular (grating at 90° direction). 100 g of dry grated sago was sifted to determine the size distribution with different sieve sizes i.e. 2.80 mm, 2.00 mm, 1.00 mm, 0.85 mm and 0.425 mm. A total weight of 1 kg of grated sago was mixed with water and squeezed to be extracted. The starch recovery produced by the grating process at 0° directions was 10.30% higher than 90 0 directions. The present study showed that the direction of grating at 0° was able to produce finer grated sago with maximum starch recovery.



**Keyword:** Sago; Trunk; Fiber orientation; Grated size