

FEASIBILITY STUDY OF ALSTONIA MACROPHYLLA WALL.  
EX G. DON FOR CHEMICAL PULPING

I.L.M. Hamthoon and B.M.P. Sinhakumara

A series of experiments was carried out on Alstonia macrophylla to investigate its feasibility for chemical pulping. In addition, the fibre length, wall thickness, lumen diameter and the basic density of wood were determined.

The results revealed that the mean fibre length was 1.50 mm with the range of 1.03 to 2.28 mm. The mean wall thickness was 7.2  $\mu$ m and the mean lumen diameter was 10.2  $\mu$ m. The mean basic density was 533.1  $\text{kg/m}^3$  and it varied from 432.1 to 612.3  $\text{kg/m}^3$ .

Laboratory experiments on soda pulping with 20.0% active alkali yielded a screened pulp in the range of 43 to 45% with a kappa number 17.2 to 18.4. The physical strength properties of unbleached pulps were found satisfactory.

This study shows that A. macrophylla to be a suitable hardwood raw material to produce writing and printing grade pulp. Lines of future investigation on A. macrophylla are indicated.