

Thesis Title IMPROVEMENT THE PRIMITIVE PROCESS OF SA-PAPER MAKING

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ABSTRACT

Sa paper making is a folk activity which has become a typical home industry in Changwat Chiangmai,Chiangrai and Lumpang. Since most paper-makers are farmers,their applied technological process has been transfered by generation to generation some what like handicraft and it has almost no development and changing in the process of sa-paper making. This research is aimed at improving the existing process in the aspects of production cost reduction and upgrading of the sa-paper quality. Research work has started from the field and laboratory study to establish the quality parameter on the properties of sa-paper and to identify the drawbacks as well as problems in the primitive process of sa-paper making.Futher laboratory study was made to generate information on the properties of Po-sa. The main part of this research consisted of 3 major steps: the laboratory experiment on sa-paper making procedures; the design and selection of equipments; and full scale production trials with the new processes to provide the quality and cost data for process comparision.

From the laboratory on the properties of Po-sa to be studies, it can be concluded that the sa-branches of 30-50 mm. diameter are most suitable for pulp-making with regards to the higher pulp yield and the ease of pulping.

The results from full scale production trials were quite encouraging with respect to the cost reduction and quality upgrading. The quality of sa-paper made by the new process was much better in many aspects like brightness, cleanliness, sheet weight uniformity and sheet strength. The higher paper yield of 62% could be achieved with the new process. The production rate was 2.6 times faster which had helped lower the production cost by 60% through the saving of labour and fuel cost.
