

GUINEA GRASS FOR PAPER MAKING

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Guinea grass (*Panicum maximum*) popularly called wild Guinea thrives in all climatic conditions below an elevation of four thousand feet in Sri Lanka. In its tender age of four to six weeks the leaves are succulent and edible for the grazing cattle, but later it becomes fibrous, and cannot serve as a cattle fodder.

Therefore experiments were conducted in the laboratory of the National Paper Corporation at Valaichchenai to investigate the possibilities of using this matured grass for papermaking. The raw material was chipped manually and pulped with 12% caustic soda. The yield of pulp was 42%. The pulp was bleached in two stages using calcium hypochlorite. Evaluation of this pulp gave enough promising evidence of quality to try this raw material in the manufacturing process.

A mill trial was then carried out. About 7 tons of matured dry grass was chipped and pulped with 14% caustic soda. The pulp was bleached in two stages with calcium hypochlorite; and 60% of this pulp in the furnish was used to make type-writing grade of papers. The quality of the paper was comparable to that produced in the regular manufacturing process with straw pulp in the furnish.

The chemical and physical constituents of the fibers compared with those of Esparto grass (*Lygeum spartum*) Salai grass (*Eulaliopsis binata*) and Rice straw (*Oryza sativa*) indicate that wild guinea grass merits consideration as a fiber source to make quality papers.