

Prospects of Pulp and Paper Industry in Rajasthan

T. N. Srivastava

In Rajasthan, the important sources of pulp and paper are bamboos, grasses and *Boswellia Serrata*.

Bamboo-bearing forests of Rajasthan lie in Sirohi, Chittorgarh and Udaipur Forest Divisions covering an area of approximately 14,000 sq. miles. From a Bamboo potential survey carried out in part of Bamboo-bearing areas, it was found that the total air dry weight of all matured and pollarded clumps comes to 0.15 metric tonne per acre annually.

During the course of survey, it was also noticed that the stocking of bamboo clumps in the bamboo bearing areas is very variable. Although in well stocked areas as many as 132 clumps of 8'—16' diameter can be found in one acre, the average number of clumps can be taken varying from 20 to 40.

The bamboos at present are utilised for roofing basket and chicks, seed drills and in remote places it is also used as fencing material for the agricultural fields.

Salar (*Boswellia Serrata*) grows almost on higher slopes of Aravallis in association with *Lannea Coromandelica*, *Anogeissus latifolia* and occasional *Sterculia urens*. It is not being utilised on commercial scale due to difficulty in extraction from higher slopes. The exploitable diameter for the species has been prescribed as 12" at d. b. h. From enumerations carried out in part of Salar-bearing areas in 1959, it was estimated that about 35,000 trees of over 12" diameter at b. h. are available annually.

There are some of the grasses, which can also be utilised for the production of pulp and paper. These grasses were analysed by the Forest Research Institute, Dehra Dun and have been recommended as raw material for pulp and paper industry. The results of the analysis are reproduced below :-

| Name of species | Yield of | |
|--|-------------|----------|
| | Un-bleached | Bleached |
| | Pulp | Pulp |
| 1. Polad (<i>Apluda mutica</i>) | 30.2% | 37.8% |
| 2. Ratarda (<i>Themeda quadrivalvis</i>) | 36.7% | 34.0% |
| 3. Sin (<i>Sehima nervosum</i>) | 37.6% | 33.4% |
| 4. Surwal (<i>Hetropogon contortus</i>) | 38.8% | 35.8% |

From the above table, it will be seen that the yield of pulp, both bleached and unbleached is quite satisfactory. The consumption of chemicals (caustic soda and bleaching powder) on the grasses is also found to be within economic limit.

Polad and Ratarda possess suitable fibre length for paper manufacture, whereas Sin & Surwal yield short fibre length. The later ones can, however, be utilised for the production of paper only in admixture with pulp from *Apluda mutica* and *Themeda quadrivalvis*.

The other species having good fibre length suitable for pulp and paper industry is the *Eucalyptus*. Some 30 varieties have been tried in the nursery at Jaipur, out of which *Eucalyptus* hybrid has shown promising results under nursery conditions.

Field trials with *Eucalyptus* hybrid and *E. globulus* have also been taken up.