# AN IMPROVED METHOD OF ROLLING OF SHEET RUBBER

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Received: 03 March 2017 Accepted: 07 August 2017

Thomas,V. (2017). An improved method of rolling of sheet rubber. *Rubber Science*, **30**(2): 181-192.

An experiment was conducted in four Group Processing Centers (GPCs) attached to Rubber Producer's Societies (RPSs) with additional rolling of wet ribbed sheet through a conventional 1) plain, 2) ribbed and 3) a specifically fabricated 'twin roller' (comprising of an upper plain and a lower grooved one), using the sheet batterry. Additional rolling using twin roller led to a reduction in thickness (34%) and an increase in effective surface (3-15%). This led to faster drying of sheets, thereby saving the drying time by 25 per cent. Comparable results were obtained by additional rolling using a normal grooved roller that can be easily adobted by the small growers. The present innovation resulted in saving firewood and using smoke house space effictively even as quality of the sheet produced was good.

**Key words** : GPCs, Quick smoke drying, RSS 1, Sheet rubber, Thinning, Twin roller

## INTRODUCTION

Proper and quicker drying of sheets is important in the processing of natural rubber latex as ribbed smoked sheets (RSS). Of the more than one million rubber growers in India, more than 70 per cent prefers to process latex obtained from the field into sheet rubber (Thomas, 2011). The price of sheet rubber fluctuates quite often, and therefore, growers are tempted to store the sheets to sell at the right time. Driven by industry demand, majority of small growers produce RSS 4 or lower grade sheet in their own house hold (Kuriakose, 1992) whereas Group Processing Centers (GPCs) working under the Rubber Producers Society (RPS) collect latex from their members to produce superior quality RSS 1 or RSS 2 grade sheet which fetch a higher price.

The steps involved in sheeting of the latex coagulum and smoke drying are important in the production of good quality sheet rubber within a reasonable time. The thickness, serum content in the wet sheet and retention of effective surface area are important factors affecting sheet drying. Conventionally, sheet rubber is prepared by rolling the latex coagulum through a set of plain roller followed by grooved roller for squeezing out water and increasing the surface area for facilitating fast drying (Morris, 1989; Mathew, 2001). After completing the dripping process, the wet sheet will be loaded in smoke house and it takes four days to get RSS 1 grade sheets in the GPCs. Not much of research has gone into shortening the duration of drying without compromising sheets quality. A quick and easy method for effective drying of sheet rubber ensuring better quality has been attempted which involves thinning, increasing the surface area and reducing the

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