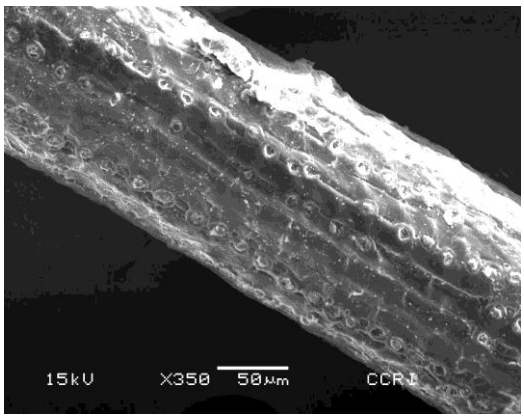
STANDARDIZATION AND IMPROVIZATION OF THE TECHNOLOGY OF FIBRE MAGIC TREATMENT OF MACHINE EXTRACTED GREEN HUSK AND DRY HUSK FIBRES

ABSTRACT

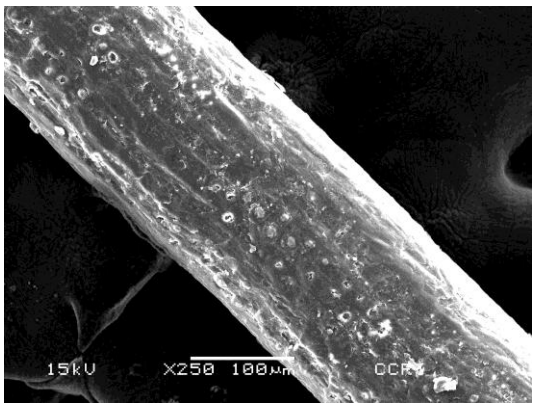
Coir is the fibrous husk of the coconut shell. Coir fibre can be extracted from the coconut husk by retting in saline water for 9 to 12 months, the traditional method. But this method had many disadvantages such as backwater pollution and drudgery of labour. The use of Mobile Fibre Extraction Machine (MFEM) has reduced the time required for the extraction of fibre as well as eliminated the problem of backwater pollution. However, the fibre thus extracted is inconsistent in color and has harsh texture. A solution to this problem is the development of the innovative technology of Biochem solution, a formulation developed to improve the quality of machine extracted coir fibre. The present study reports the results obtained for the chemical analysis of the Biochem treated machine extracted coir fibre.

Scanning Electron Microscopy (SEM)

The untreated and Biochem treated coir fibre samples were subjected to Scanning Electron Microscopic study. The image results obtained from the SEM are as follows:



Untreated Coir Fibre



Biochem Treated Coir Fibre

The microorganisms in the formulation acted upon the cellulolytic surfaces of fibres, leaving a definite number of pores in the surfaces. The SEM analysis shows that the Biochem treated coir fibre has a smoother and polished surface due to the deposition of the Biochem solution in the

pores of the fibre. The untreated fibre had rough and porous surface. The surface also appeared shiny by the action of Auxisoftner and the tartaric acid present in tamarind.