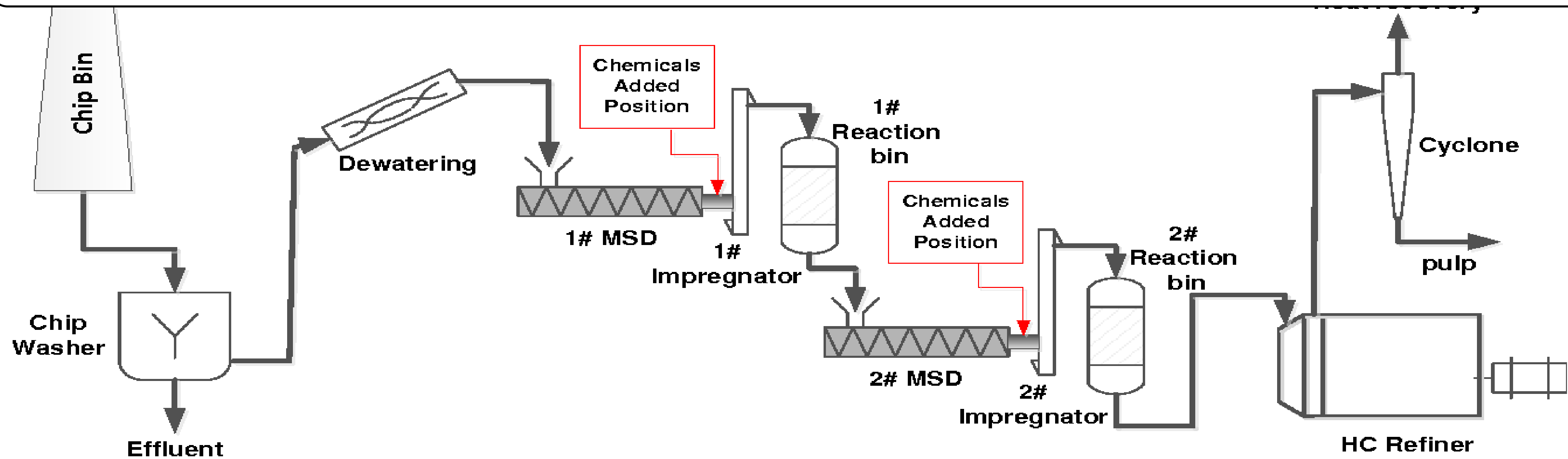


## APMP Wheat Straw and Miscanthus Pulp for Tissue Making.

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### Alkaline Peroxide Mechanical Pulping



APMP consists of a mild chemical treatment with hydrogen peroxide and sodium hydroxide followed by mechanical refining

### Methodology

Feedstock	Pre-treatment	Chemical Impregnation
Miscanthus Wheat Straw	Hot water wash 90 °C, 120 min	Liquor:Wood Ratio 10:1 Time: 120 min Temperature: 90 °C Chemical Charges: 6%NaOH+6%H <sub>2</sub> O <sub>2</sub> 8%NaOH+6%H <sub>2</sub> O <sub>2</sub> 8%NaOH+8%H <sub>2</sub> O <sub>2</sub>

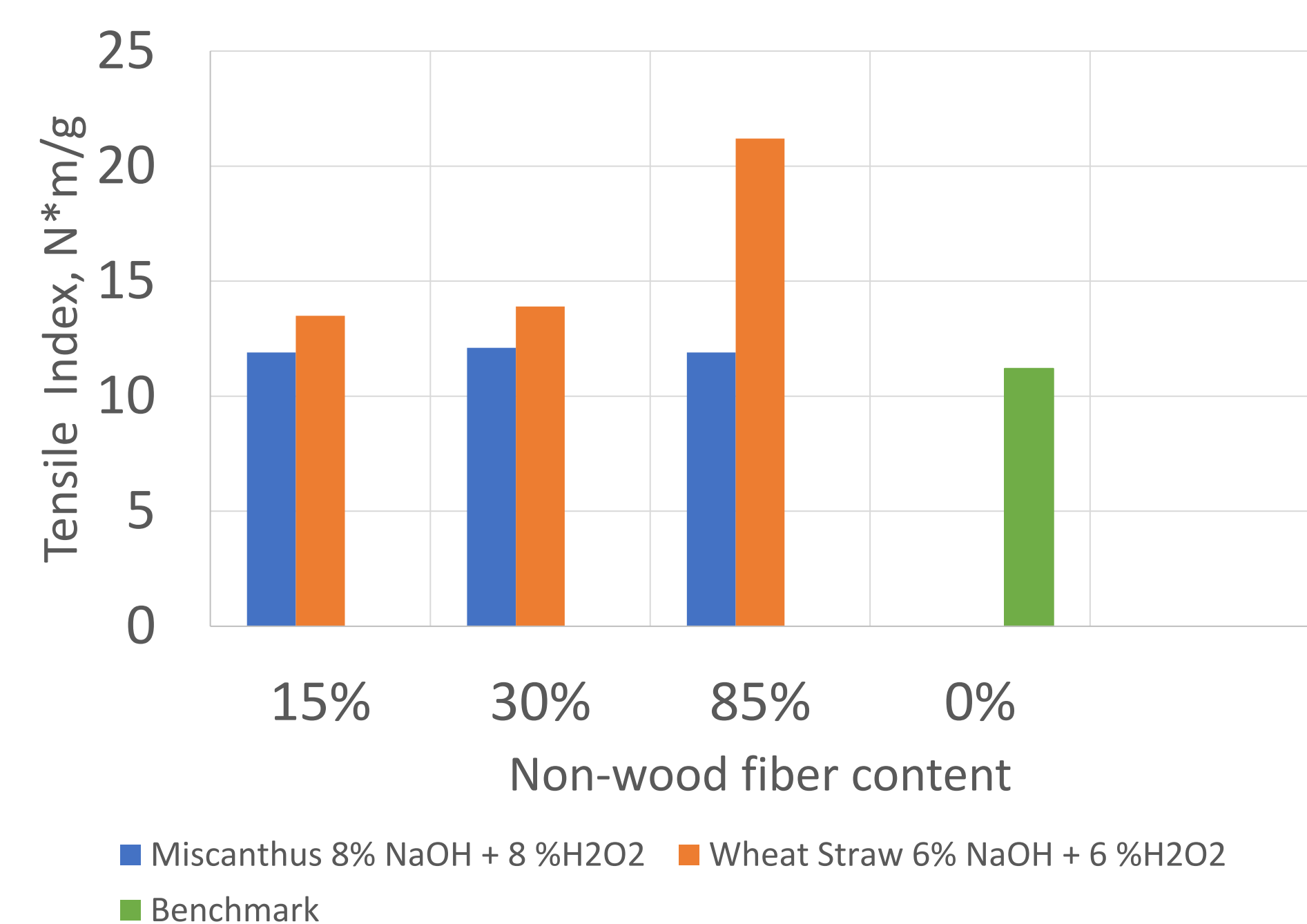
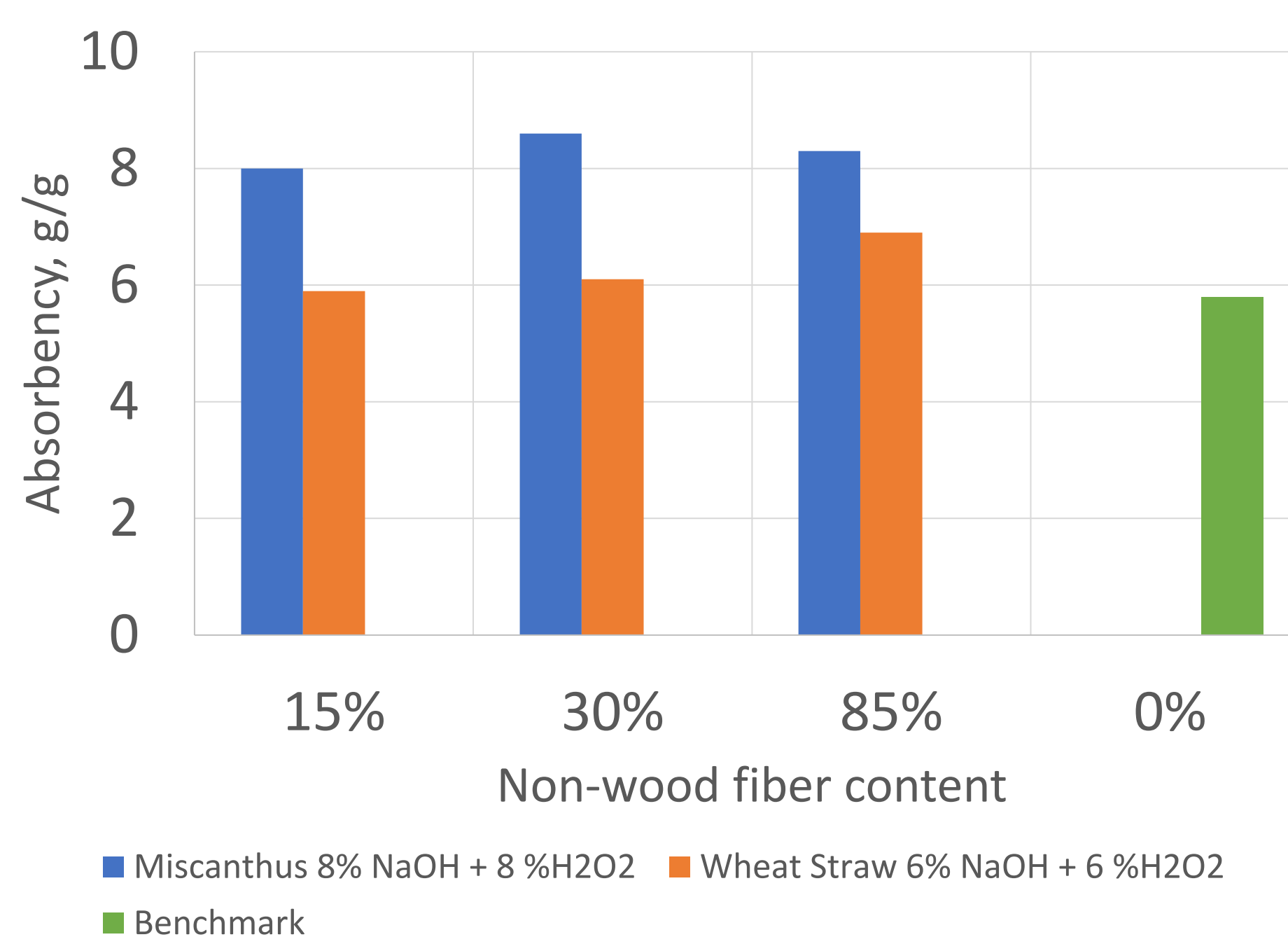
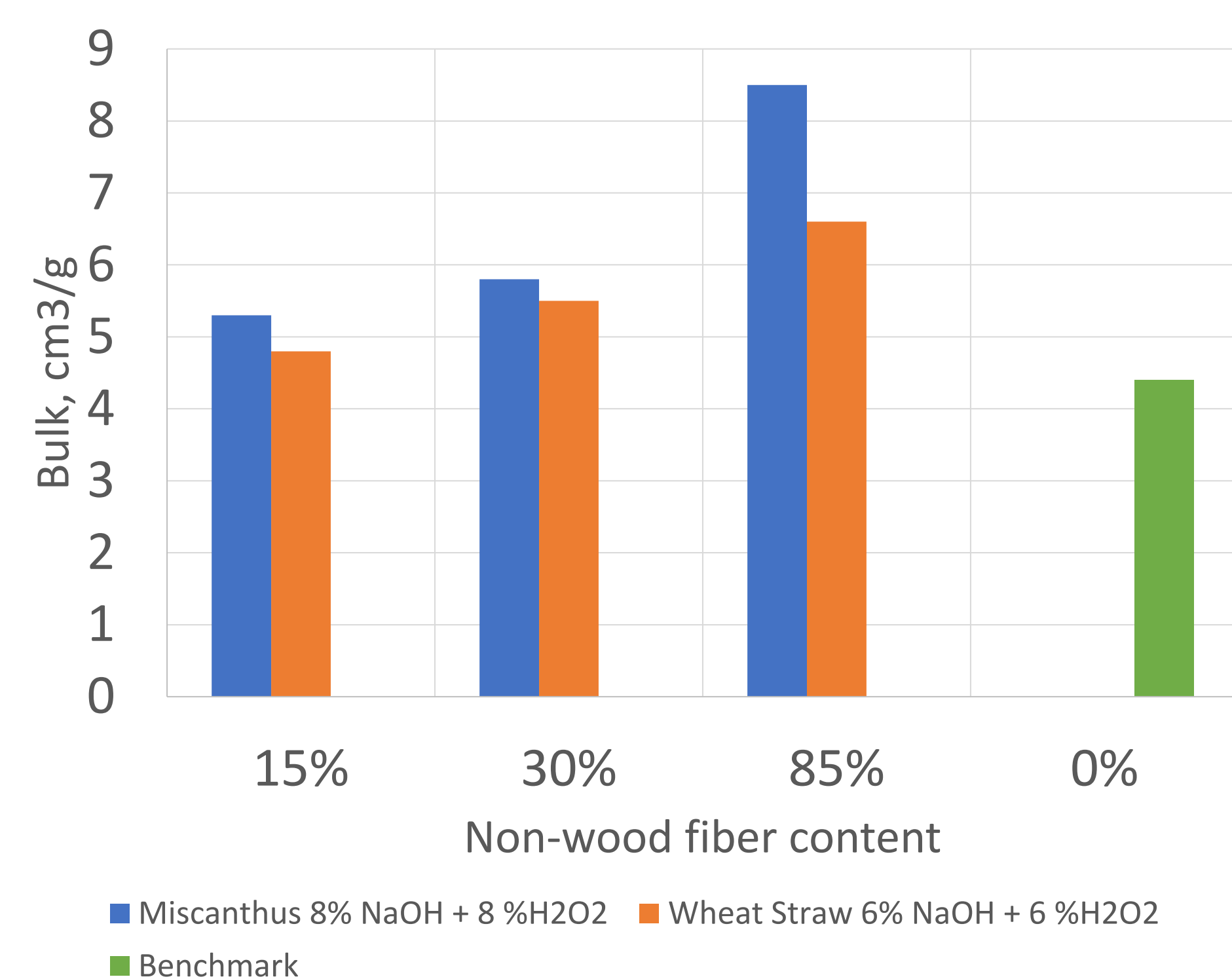
Chemical Charge	Pulping					
	6% NaOH+6%H <sub>2</sub> O <sub>2</sub>		8% NaOH+6%H <sub>2</sub> O <sub>2</sub>		8% NaOH+8%H <sub>2</sub> O <sub>2</sub>	
Properties	Total Yield %	Brightness %ISO	Total Yield %	Brightness %ISO	Total Yield %	Brightness %ISO
Wheat Straw	77.9	36.4	75.6	37.6	74.9	36.9
Miscanthus	81.4	46.1	78.9	45.1	78.1	45.3

### BEK Substitution

Bulk vs Non-wood content

Absorbency vs Non-wood content

Tensile index vs Non-wood content



Different levels of BEK fiber substitution were assessed and compared with handsheets consisting of 85% BEK and 15% NBSK