

# Potential Non-wood Fiber Sources for Paper Making <sup>†</sup>

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**Abstract:** The consumption of paper and paperboard products is a yardstick of the development of a society or country, and their use is absolutely indispensable in our daily lives. The Indian paper industry faces several challenges; among these is the scarce availability of quality raw material. The raw materials used in papermaking are classified into three groups: wood (31%), non-wood (22%), and recycled wastepaper (47%). Owing to the growth in the global request for fibrous raw materials, shortage of trees in many counties, and growing sustainability consciousness, agricultural residues have become one of the most important substitute resources. The current usage of non-wood plant fibers such as rice straws, corn stalks, cotton stalks, and bagasse would play a chief role in increasing papermaking raw materials. Production of pulp and paper from non-wood materials includes many benefits compared with wood, such as ease to a pulp, good-quality bleached pulp, and excellent sources for special types of paper. Recently, a high-tech innovation in all the fields of papermaking has made non-wood more reasonable with wood as a raw material for papermaking. Consequently, the future of non-wood plant fibers as pulping and papermaking raw material looks bright. Therefore, the main objective of current research is to present physical, chemical, and structural characteristics of agro residues (commonly used in the Indian pulp and paper industry) that can develop new paper qualities.

**Keywords:** agricultural residues; non-wood fibers; papermaking; chemical characteristics; structural characteristics.

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## Conflicts of Interest

The authors declare no conflict of interest.