

Biodegradable food packaging material from banana leaves

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The generation of plastic waste increases every year as plastic is used most commonly for packaging. The food processing sector is one of its biggest users and the advent of online food ordering and delivery systems has increased its accumulation. Plastic is employed because it is easy to produce but its long-time decomposition leads to environmental consequences. To overcome this issue, alternative packaging materials are being employed by food industries. Many biodegradable materials are being researched to generate innovative new alternatives to traditional packaging materials. Biodegradable materials are those that can easily decompose into natural polymers by the action of microorganisms within a short period. Biodegradable packaging materials by being economical and safe can produce a positive effect both environmentally and ecologically. Plant-based resources such as leaves, barks and agro-based waste materials could serve as excellent packaging options as they are sustainable and ecofriendly. Particularly, *Musa spp.* (banana) leaves have caught the attention of researchers as they provide additional qualities to the packaging material. They have been found to extend the shelf life of the food product by providing a physical shield as well as a semi-permeable barrier from gases and water vapour. Their protection of the product against physical factors and biological contaminations might reduce food wastage too. *Musa spp.* leaves already have wide applications ranging from cooking, wrapping and food-serving in wide cuisines in tropical and subtropical regions but a recent study on making biodegradable food packing material by biopulping and biobleaching methods is found to be a promising one. With improved research on its fabrication, commercial production on a large scale could be achieved.

Keywords: Musa spp., Biodegradable food packaging material, Plastic, Food packaging, Banana leaves

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