The Potential of Biodegradable Compostable Eco-Straw from Lepironia Articulata sp. (Purun/Kercut)

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ABSTRACT

Plastic drinking straws are widely used to drink water and have shown to be a useful tool in restaurants. Excessive usage, on the other hand, generates a large amount of plastic garbage that is hazardous to the environment can harmful the endangered species. According to the findings, subjective norms and perceived behavioural control all have a significant influence on their receptive purpose toward biodegradable drinking straws. The goals of this study were to look into the degradable duration of biodegradable straw, analyse the density of Escherichia coli in biodegradable straw as an indicator of potentially harmful bacteria, and estimate the cost and benefit analysis of producing biodegradable straw from Lepironia Articulata sp. The methods such as tensile testing, flexural testing, Young's modulus testing, and organoleptic testing will be covered in this technique. E.coli test for straw hygeneity utilising water and waste-water treatment guidelines. In terms of straw structure that can be dissolved in less than 6 months, hygiene test that thinks there is no E.coli in this straw, and public and consumer approval of straw purun Finally, Lepironia Articulata Sp. (purun/kercut) has the potential to become a biodegradable compostable eco-straw and a plastic straw alternative. The respondents chose biodegradable straws because they can lessen the hazard of ocean waste, reduce microplastics at sea and on land, and are non-toxic. From tensile test, flexural test and young's modulus test can conclude that the rate of reduction of fiber strength from straw purun increases in the presence of NaOH as a decomposition reagent. Biodegradable straw from Lepironia Articulata sp. In accordance with the toward sustainable development goal.

KEYWORDS

Biodegradable straw; Lepironia Articulata sp.; Plastic waste; Drinking straw

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