



## Edible Cutlery – A Sustainable Alternative to Single-Use Plastics

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The article on topic “Edible Cutlery – A Sustainable Alternative to Single-Use Plastics” provides readers an insight about detrimental and ill-effects of plastic wastes dumped in oceans, being fatal to marine organisms. This article talks about single-use plastics especially cutlery items that are being perturbing soil, water resources & human health. The upcoming article offers sustainable alternative for traditional plastic cutlery by switching to edible cutlery. Immense of benefits of edible cutlery over traditional plastic cutlery, which are available in variety of flavours are explained. Thus, edible cutleries are considered “Innovation of the era” and its adoption in Indian Restaurants, Banquets & Party outlets would aid in creating a sustainable cleaner & greener planet for generations to come.

**Keywords:** Plastic wastes; Edible cutleries; Sustainable; Eco-friendly

### Oceans Poisoned with Plastics

Over a century, we have been harbouring a slow killing poison in our homes, offices & our surroundings. It has been playing an irreplaceable role in each & everyone's life. It has been even occupying the entire 600 sq km floating island called the Great Pacific Garbage Patch. Yes, I'm talking about the deadliest plastics which are ruling the whole world. Everything right from bottles to the money we handle is of Plastics. A survey says, “Plastic wastes are being dumped at an alarming rate with India suffering from 9.46 million tonnes of plastic wastes generated annually”. Out of this, nearly 43% comprises of single-use plastic items like packaging & cutlery, pertaining to land pollution & environmental degradation. Another survey reports that, “Around 120 billion pieces of plastic cutlery including forks, spoons & knives are being thrown away in India every year”. Have we ever thought about the fate of these plastics? It's shocking to know that it can take upto thousand years for plastic cutlery to decompose in a natural way.

Apart from plastics, there is also a fancy term called ‘microplastics’ which is gaining momentum in recent days. Some scientists have estimated the “average person eat 5 grams of microplastics which is about the weight of a credit card every week”. Not only human beings suffer from the devastating effects of plastic wastes but also marine & wildlife. Marine organisms mistakenly intake plastic wastes considering it as food, and eventually dies from internal blockages & choking. Moreover, noxious toxins emitted from decomposition of plastics, not only affect human health but also soil & water resources devastating agricultural productivity. If we still persist on using plastics, then by 2050 there would be more plastics than fish in oceans. As we have over-exploited our mother earth, by dumping plastics causing land infertility, there is a pressing need for adopting sustainable alternatives.

## Eco-friendly Edible Cutlery

Edible cutlery seems to be the one-stop solution to end the era of plastics. Edible cutlery is considered a sustainable alternative to plastic cutlery. Edible cutlery is made with a blend of millets, grains, spices & pulses. Edible cutlery is made in the form of spoons, forks, soup spoons, ice cream sticks and bowls. The ingredients used for manufacturing these are normal food components. Perhaps, it is free from harmful chemicals like BPA (Bisphenol A), Polyvinyl Chloride (PVC), Phthalates which are used as additives to enhance production quality of plastic cutlery, causing cancer & serious health implications.



Edible Spoons of different flavours  
(Source: Pinterest)

## History behind evolution of edible cutlery

The trend of using edible cutlery was first sparked in 2011 by Narayana Peesapaty, a 50 year old former scientist at the International Crops Research Institute for the Semi-Arid Tropics in Hyderabad. Once when Mr. Narayana Peesapaty went to a restaurant, he ordered Idly-Sambar, which steward delivered with plastic spoons. He observed that the spoon was oily and not even had been thoroughly cleaned. This served as a spark for Mr. Narayanan for the designing of edible cutleries. With years of research & hard work, he developed a prototype for utensils purely made of rice, millet & wheat flours. He then founded a start-up called Bakeys from which he sold his edible cutlery to consumers around the globe. The edible cutleries are GMO-free and can also be made of all-natural ingredients including a variety of fresh herbs, spices & flavoured olive oil. They're also available in variety of flavours, like chocolate flavour, pepper flavour, oat flavour & masala flavours, giving customers a wide range of varieties to relish. The production process of edible cutlery involves mixing the grains with sugarcane juice by boiling them at high temperatures to create jaggery & moulding them into preferred cutlery items.

## Don't waste it! Rather Taste it!

**Advantages of edible cutlery:** Edible cutlery is a new concept wherein the cutlery can be eaten along, after consuming the food or drink. Edible cutlery can be made to impart taste & texture using different flavours and colours with food ingredients of plant origin. Since, grains like rice flour, sorghum flour and soy flour are used in the manufacture of edible cutleries, they improve health by lowering the risk of serious illnesses like obesity, coronary heart disease & constipation. These edible cutleries also add nutrients like Carbohydrates, Proteins, Iron, Calcium, Riboflavin, Thiamine, Folic acid & Niacin to our body. They can be used to eat salads, soups, desserts & various dishes without melting or breaking. Edible cutlery can withstand contact with liquid, and is highly durability for about 6 months.

**Disadvantages of edible cutlery:** The price of edible cutlery is quite high when compared to other types of cutleries. Shelf life of edible cutleries is lesser than other types due to perishable nature of raw materials used in the production process. Chance of microbial spoilage of edible cutleries is higher due to its edible nature. Moisture can also easily penetrate the product when kept in open air. These may be the reasons for trouble in marketing of edible cutleries, making plastic cutleries still stand in the highest consumption rate by the people.

## Conclusion

Though the concept of edible cutlery is still in beginning stage, the global market for edible cutlery is expected to reach \$56.9 million by 2026 from \$24.8 million in 2018. Thus, edible

cutlery not only serves as an alternative for minimizing plastic waste but also aid in creating a sustainable cleaner & greener planet for our future generations to come.

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