

Organic Cutlery: Substitution of Plastic Wares

Kanishka Sharma¹, Deepak Kumar Dubey², Rishi Gautam³

¹Student, Sanskar World School, Ghaziabad, Uttar Pradesh, India.

²PGT Physics, Sanskar World School, Ghaziabad, Uttar Pradesh, India.

³Academic Coordinator, Sanskar World School, Ghaziabad, Uttar Pradesh, India.

Abstract:

Edible cutlery is the best alternative to plastic cutlery. It is prepared by baking a mixture of sorghum, rice and wheat flour with different types of flavours, like ginger, garlic, black pepper, sugar, cinnamon, cumin and mint. A splash of colours is added to the cutlery by including spinach (green), beet root (red) or carrot (orange) pulp into the product mix. They contain fibre, iron, protein and calcium. One of the naturally occurring high micro-nutrients in this is sorghum. It is highly nutritious with no preservatives and easily decomposable. Moreover, it won't get softened by the use of any hot material or liquor contained with it. Edible cutlery is a solution that provides the same convenience as disposable forks, spoons, plates and chopsticks without any environmental (hazards) problems. It's delicious, hygienic, and durable and it promotes a healthy tomorrow. These are edible containers that are strong enough to contain food till the food ends on the plate. According to one of the brands – Bakery's – some edible cutlery can last up to 18 months. They are biodegradable if they are not consumed before expiration, they can be easily decomposed by pouring it into the water and converting it into compost.

Keywords: Edible cutlery, Bakery's etc.

I. Introduction

Plastics are composed of hydrocarbons that can be easily modified to meet the demand of the hour and performance can be easily improved and improvised using additional plastics, colours etc. needs to be non-biodegradable and all of them are poisonous and toxic to human health. With the enhanced usage of plastics, over time, food stands and food storage have easily adapted the use of plastic containers, which provide easy transit of food from producer to the end consumer. This is a breach in the ecosystem. The carcinogenic petroleum products enter into the food web and food chain, negatively impacting biodiversity. Worldwide efforts are carried out to acknowledge and provide the knowledge to encourage the masses to take effective measures to reduce the destructive effects of plastic waste on the surroundings. Although the features of plastic edible cutlery are difficult to replicate, the required substitute has to act responsibly for the ecosystem and improvise a suitable option for plastic cutlery that should be biodegradable, environmentally friendly, cost effective, sustainable and often sometimes nutritive.

All around the globe, nations are coming up with innovative and better planning to reduce the use of plastic cutlery, containers and food packaging using decomposable and environmentally friendly products to reduce

the amount of waste produced, thereby taking steps in reducing the global plastic waste influx -The global production of plastics surpassed ~300 MMT/year in 2014. The solid plastic pollutants pose a serious risk of contaminating the food chain by leeching into the natural ecosystem and finding their way into organisms. Studies conducted worldwide have estimated that most of the disposed solid waste account for plastic products and derivatives that disperse and alter the physic-chemical balance of the environment, which, in tandem with rapid industrialization, deforestation and urbanization, have had a major effect on the biological characteristics of the biota.



Moreover, these synthetic petroleum derivative pollutants degrade at an extremely slow pace, the life cycle of which has been estimated by scientists to be ~500-1000 years. Only 9% of the plastic pollutants are recycled worldwide and the remainder find their way into landfills and the oceans. Approximately 85% of all market sectors require the application of plastics. Everyday plastics have a large usage share in everyday activities. The demand of the minute is to introduce initiatives towards removing plastics for our comfortable day to day needs, so that we can efficiently reduce consumption and provide a tidy, greener and enhanced ecosystem.

II. NEED FOR EDIBLE CUTLERY

Plastic items release harmful gases which cause pollution. It takes a long time to dispose of soil. Plastic cutlery causes cancer, metabolic disorders and reduces fertility etc. So to solve all these problems...we have a convenient and biodegradable solution that is EDIBLE CUTLERY...It's tasty, it's healthy, it's convenient, and it promotes a cleaner tomorrow.



III. Advantages of edible cutlery

- Edible Cutlery is safe to Eat-Nutritious and Healthy.
- Edible Cutlery is strong and durable.
- Edible Cutlery is Environmentally Friendly and Sustainable.
- Edible Cutlery can be Flavorless or Flavorful.
- Edible Cutlery is functional.



IV. Effectiveness of Edible cutlery:-

1. It is strictly organic and safe to consume.
2. It is safe as well as have high nutritive value.
3. It has very large life.
4. It is highly durable.
5. It reduces plastic wastage.
6. It consist of highly fibrous content.
7. It is cost effective.
8. It can be easily customisable.



V. CONCLUSION:

Although popularity of metal cutlery is non-diminishing, their use and maintenance is resource-demanding. Their inexpensive counterparts i.e., plastic cutlery are relatively undemanding and easy to use, butthey

end up fouling the environment as solid wastes. Plastic wastes in the environment are detrimental to the biota and end up in the living organisms often times having harmful toxic effects. The detrimental effects of plastic pollution is evident worldwide via the quantum of disposables, containers and packages that find their way into landfills that often spill over into the water bodies, damaging aquatic life and creating hazardous effects by integrating into the food chain. Effects of plastic poisoning and presence of carcinogenic compounds in BPA and PVA is well documented and evident. To avoid such pernicious effects of plastics to the environment and also provide a sustainable alternative to cutlery, 'Edible Cutlery' is a creative and futuristic approach towards manufacture of food deliverables and storages.

According to our research 'Edible cutlery' provides enough scope for the business model to improvise and subsequently the unavailability of this kind of product as the field is vastly untouched. The most tedious task of this model is to develop molds for different kind of cutleries. Also, value addition of the mix to obtain not only bio-degradable and eco-friendly products but also as vessels to contain and deliver nutrition to the consumers is another area that warrants active investigation. Nutritive content that are rich in vitamins and minerals, can add value to this 'edible cutlery' to not only provide the flavor but it also add nutritious content to add in our health and welfare.



VI. References:

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