

# STICKERS ON FRUITS & VEGETABLES

*Are they safe?*

## SUMMARY

Use of stickers on food products to provide information on traceability, grades, price etc. is a common practice across the globe. A lot of times, these stickers are applied directly on food surfaces such as on fruits and vegetables. Apples, kiwis, mangoes, oranges, bananas, pears, bell peppers are some common fruits and vegetables which have stickers applied directly on the surfaces. However, it is observed that in India, traders use stickers to make their product look premium and sometimes to hide any decay or defect on the product. "Brand Name of Trader" or "Tested OK" or "Best Quality" or "Names of Product" are some common terms mentioned on stickers which do not have any significance. A wide variety of adhesives are used on these stickers to paste them effectively. Safety of these adhesives is not known. It may contain harmful chemicals which may affect human health. We generally remove the stickers from fruits or vegetables and consume them without thinking about residues of adhesive present on them. The risk of consuming these adhesives is high in case of fruits or vegetables consumed with skin. Therefore, it is important to understand the safety of stickers used on food products. This document will guide traders and consumers regarding safety of stickers and best practices to prevent its ill effects.

## KEY TAKEAWAYS

- Consumers should check the quality of fruits and vegetables before buying them. Presence of stickers on them does not guarantee their premium quality.
- Consumers should remove the stickers properly and peel the skin or cut the area where the sticker was applied, before consuming the fruits and vegetables.
- Traders should use a functional barrier to avoid direct application of stickers on fruits & vegetables. A few fruits can be packed in transparent thin films on which these sticker may be applied.
- Traders should discourage the use of stickers directly on fruits which do not provide any traceability or other regulatory information.
- As per the provisions in Food Safety & Standards Act, 2006, no food business operator shall store, sell or distribute any article of food which is unsafe.

## I. Introduction

Stickers are important tool for consumers to get information about the products in order to make the purchase decision. The skin of fruits and vegetables is porous and absorbs substances that comes in contact with them. It is a common practice to apply small stickers on the surfaces of individual fruit or vegetable across the world. The stickers are directly applied on the skin of fruits and vegetables with the help of “pressure sensitive adhesives”. These adhesives form a bond with contact surface when pressure is applied. Large number of chemicals are used in manufacturing of adhesives whose safety is not known. These chemicals may migrate into the food or may be consumed along with the fruits and vegetables. Therefore, adhesives used on stickers shall not pose any adverse health effects on humans.

## II. Health effects

Adhesives may contain harmful chemicals which may impact the health of consumers. Studies show that substances such as surfactants used in adhesives are toxic for the reproductive system. Harmful chemicals present in adhesives may come in direct contact with the food along with stickers and migrate into it. Heat from sunlight on the fresh fruits and vegetables sold in open market may also increase the migration of harmful chemicals from adhesives.

## III. Purpose of stickers

- **International scenario** - Stickers are used to facilitate traceability and easy accessibility of the information. These stickers contain traceability information and price look up (PLU) codes. The PLU coding system is voluntary, not mandated by any governing body. This type of coding systems can be seen in the supermarkets of India on imported fresh produce.
- **Domestic scenario** - Stickers used by the traders mostly do not contain any traceability or other relevant information. Traders generally use stickers to make their product look premium and sometimes to hide any decay or defect on the product. These stickers generally contain “Brand Name of Traders” or “Tested OK” or “Best Quality” or “Name of Product” printed on them which does not provide any quality information.



Stickers on imported fruits



Stickers used on fruits in Indian market

#### **IV. Provisions under Food Safety & Standards Act, 2006.**

As per the provisions in Food Safety & Standards Act, 2006, no food business operator shall store, sell or distribute any article of food which is unsafe. Unsafe food means food whose nature, substance or quality is affected so as to render it injurious to health by the article itself or by its package, which is composed of poisonous or deleterious substance. Specific requirements for packaging of fresh fruits with reference to stickers or its adhesive is not prescribed under Food Safety & Standards Regulations.

#### **V. Advice for consumers**

- Fruits and vegetables with stickers are not necessarily of premium quality. Consumers must check the quality before buying them.
- Stickers should be removed before consumption of fruits and vegetables.
- Consumers must peel or cut the skin of fruits and vegetables where sticker was applied to prevent consuming residues of adhesive.
- Wash the fruits and vegetables properly with clean water before consumption.

#### **VI. Advice for traders**

- Stickers without any relevant information such as traceability, grade, price, barcode etc. should not be used.
- The traders should avoid putting stickers or labels directly on fruits.
- If stickers are used, the adhesives used on the stickers must be of quality which should not cause any adverse effect on human health.
- A functional barrier may be used to avoid direct application of stickers on fruits and vegetables. Few fruits may be packed in transparent thin film on which sticker may be applied.
- The ink used on the stickers should be of food grade. It should not migrate into food.

#### **References**

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