

Detection of Non-Permitted Food Colors in Edibles [†]

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Abstract: Food colors are used to give an attractive appearance to food themes. Food colors are categorized as permissible and forbidden colors. , The unauthorized use of food colors, has led to the loss of true food quality. Adultery in food products is a cause for concern these days. The aim was to detect the presence of color-coded food in the diet for the first-time color testing and chromatography of the thin layer. Materials and methods: Four types of samples, namely turmeric, jelly, raw peas, and females, are collected at different locations for analysis. Twenty samples each were collected in different areas to be analyzed to find the most commonly used food colors, namely metanil yellow as well green malachite. Unauthorized food colors in collected food items were obtained using preliminary color tests and a thinner layer of chromatography. Color change and RF values for test samples were analyzed and found to be 46%. The tested food products were mixed with metanil yellow, and the adultery and raw malachite was almost 44% of the samples tested. The detection methods can be used in the food quality control area to determine that harmful colors and restrictions on edible foods other than heavy metals.

Keywords: food colors; adulteration; color tests; TLC, etc.

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Conflicts of Interest

The authors declare no conflict of interest.