Indiscriminate Use of Chemical in Fruits and Their Health Effects

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Abstract: Fruits are highly nutritious and form as key food commodity in the human consumption. They are highly perishable due to their low shelf life. These food commodities are reported to be contaminated with toxic and health hazardous chemicals. Chemicals like calcium carbide, higher doses of ethylene and oxytocin are reportedly being used in fruit for artificial ripening of fruits and for increasing the size of fruits etc. Moreover, formalin also used for extending the shelf life of fruits also causes several health problems. Calcium carbide more commonly known as “masala” is a carcinogenic agent and banned under PFA rules. Recently in Bangladesh peoples are consuming toxic fruits which are ripened by a hazardous chemical, calcium carbide. This poses great health risks to consumers. Calcium carbide has cancer-causing properties and causing neurological disorders. It can result in tingling sensation and peripheral neuropathy. A significant number of pregnant women consume fruit ripened with carbide, the children born with abnormalities. Moreover, the widespread use of formalin, in preservation of fruit is posing a threat to public health. The chemical used as a solution in water keeps makes fruits like mangoes attractive. Use of non-edible coloring materials and toxic coating materials in fruits for extending shelf life and attractiveness also cause serious health hazardous in Bangladesh. This paper is mainly focuses on the indiscriminate use of chemicals and their effects on health hazard have been addressed. Moreover, research results conducted by the M.S., Ph.D. students here in BAU-GPC (the largest fruit repository in Bangladesh) also addressed e.g., how to produce attractive, chemical free safe fruits for the consumers. Use of edible coating like Chitosan, Aloe Vera gel, non-chemical ripening processes, non-chemical process of extending shelf life of different fruits has also been suggested. Residual limit of different chemicals for safe fruits are standardized. Consumer's awareness for these toxic chemicals also suggested.

Keywords: Fruits and vegetables, chemical, indiscriminate use, health hazard.