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Water management in the food industry

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With the increasing global population the demand for processed food is also rising and consequently, greater amounts of drinking water are required for use in the food industry, a sector which already consumes large volumes of water. Agencies worldwide encourage the implementation of strategies for water management in all sectors. Considering hygiene concerns, the food industry needs to apply water management strategies. The applied model of food industry water management (FIWM) consists of seven stages: Collection and analysis of documents; Water balance; Identification of the points of greatest water consumption; Minimization of water consumption; Evaluation of the potential for direct water reuse and recycling; Evaluation of the potential for indirect water reuse and recycling; and Maintenance of water management. However, for this model to work effectively, it is also necessary to carry out solid waste management (SWM). Hence, an economic evaluation stage should be added, since there are several gains associated with the implementation of FIWM+SWM: Reduced consumption of water and energy; lower emissions of pollutants and organic solids in the effluent; reduced cost of wastewater and solid waste treatment; increased involvement of the industry in the concepts of cleaner production; more environmentally conscious actions (green marketing) taken by the company; the production of edible or inedible co-products from waste and increased competitiveness of the company. Considering the water stress related to densely populated and highly industrialized areas around the world, FIWM+SWM models address the issues of environmental and economic concerns and aid the achievement of sustainable food production.

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How packaging innovation can increase children's school milk consumption

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The presentation will show the results of studies indicating that children prefer milk in plastic or carton bottles and that they will consume more milk, more often, when it is presented in a bottle format. The cost of plastic bottles made with traditional technology has however sometimes meant that schools in the USA have not been able afford to provide school milk in plastic bottles. This presentation will describe an innovation in how plastic bottles are made, using patented thermoforming film-to-bottle technology, which significantly reduces the cost of plastic bottles. Since this type of thermoforming technology could save 30%-50% in material over traditional extrusion blow molding, its use could put plastic bottles within reach of more USA school milk programs. The result of more milk available in schools in a format that children prefer could result in maintained/increased school milk consumption and the possibility of retaining children as lifelong milk consumers. Maintained milk consumption is of particular importance of for girls of school age in terms of the prevention of osteopenia and osteoporosis in later life.

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