



## **Utilization of food processing industries by-products**

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Food waste is expected to rise globally to about 126 million metric tons by 2020 without additional prevention policies or activities. The food industry produces large volumes of waste, both solid and liquid, resulting from the production, preparation and consumption of food. These wastes pose increasing disposal and potentially severe pollution problems and represent a loss of valuable biomass and nutrients. Up to now, the typical forms of food waste created through the food processing have never been viewed by those who produce it as waste, because it has been traditionally sold. Furthermore, this practice was considered safe from the perspective of environmental protection, as the waste was composed of food. The amount of food waste being produced is constantly rising, because in recent years processed and semiprocessed products have jointly accounted for two thirds of global food trade.

Fast growing food processing industry across the world, generates huge quantity of by-products, including pomace, hull, husk, pods, peel, shells, seeds, stems, stalks, bran, washings, pulp refuse, press cakes etc., which have less use and create considerable environmental pollution. Many of the food processing industrial by-products are rich sources of dietary, functional and novel fibres as well as these can be used for the manufacture of various foods. The composition of wastes emerging from food processing factories is extremely varied and depends on both the nature of the product relevant chemical compounds and the production technique employed. Thus, efficient, inexpensive and environmentally sound utilization of these materials is becoming more important due to profitability.

Besides their pollution and hazard aspects, in many cases, food processing wastes can have a potential for conversion into value-added products. Food processing wastes are those end products of various food processing industries that have not been recycled or used for other purposes. They are the non-product flows of raw materials whose economic values are less than the cost of collection and recovery for reuse and are therefore discarded as wastes. These wastes could be considered valuable by-products.

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