

DU develops cheap, compact food processors

Dhaka University Applied Chemistry and Chemical Technology Department under the sponsorship of the Varsity's Renewable Energy Research Centre has recently started a research programme with a view to developing designs of indigenous food processing equipment followed by fabrication and evaluation of working efficiency, says a Press release.

Under this programme design

work has been completed for two compact food processors suitable for home use and for small and cottage scale production. Fabrication of the smaller one and evaluation of its work efficiency has already been completed and fabrication work of the larger model is progressing.

It may be mentioned that in Bangladesh, a primarily agricultural country, much importance is being given recently to industrial development, but agrobased and specially food processing industries have not received adequate attention so far. Some work has been done in the country for development of process know-how in this area, but nothing has been done to develop processing equipments except some agricultural equipments. As a result all machinery and equipments for food processing have to be imported from abroad at huge cost. This is why the Applied Chemistry and Chemical Technology Department of the University decided to take this research project.

Food Processor for Home Use

The Food Processor developed is a light weight portable equipment suitable for manual as well as electrical motor driven operation. It consists of a metallic rectangular tank with a metal shaft piercing two opposite walls and mounted on two ball bearings fixed on the outer walls of the tank. The metal shaft has plastic pulley fixed at one end with provision for rotating the pulley using a V-belt drive powered by a small AC electrical motor mounted on the outside wall of the tank. There is also provision for rotating the shaft manually with a handle.

Various attachment devices (a) a

circular metallic saw (b) a perforated small metal cylindrical drum with metal scraping edges protruding inside the drum, (c) a slicing/grating circular disc and (d) a scraper/corer device of convenient size can be fixed, one at a time to the shaft which can be rotated either manually or by the electrical motor at convenient speed. When only the circular saw attachment is used the equipment can be used for slicing bread, vegetables, meat and fish pieces, cheese or other soft/medium hard food articles. When the perforated drum attachment is used it works as an efficient abrasive type peeler for various vegetables, fruits etc. By using the slicing/grating attachment vegetables, fruits, spices etc. can be processed. The scraper/corer device can be used as a coconut scraper or for handling pine apple.

The Compact Food Processor could be cheaply and easily fabricated in the University work shops at a cost of approximately Taka 2000 piece. Food processing equipment available in the market do not have all the features incorporated in this model. Their cost is also prohibitive. It is estimated that fabrication and marketing on a large scale will substantially bring down the cost of production. This device was found suitable for batchwise processing of upto 1 kg portions of different vegetables, fruits etc. in 2-6 minutes. It can therefore be highly recommended for home use.

The technical know how may be supplied to genuine social welfare organisations and jobless youth free of cost.

Interested organisations/persons may contact Prof. S.S.M.A. Khorasani, Supervisor of the Research Scheme for further information.