VIDYA

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The NSF celebrates World Science Day 2020 on 20th November

The World Science Day for Peace and Development has been declared by UNESCO on 10th November every year. The celebration highlights the significant role of science in society and the importance and relevance of science in our daily lives by linking science more closely with society. The National Science Foundation (NSF) organizes the World Science Day (WSD) in November every year under a selected theme of importance with the participation of school children, undergraduates, scientists and media personnel.

Considering the current COVID-19 health concerns, NSF is planning to celebrate World Science Day under the theme "Let's Apply Science to Rebuild the Nation" on 20th November 2020 from 10 am -12 pm as a virtual event with the online participation of school students, teachers and invited scientists. The main focus of this event will be on creating research culture in schools and kindling interest among school children to learn and use science in day to day life. Around 300 are expected to participate in the event. The event will be conducted in Tamil language on the same day (20th November) from 2 pm - 4 pm.

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Promoting Healthy Food Habits

An innovative fermenter to break barrier in rice flour based bakery industry

At present, there is an upward trend for the consumption of fast food, especially bakery items like bread, buns and biscuits due to busy lifestyles and comfort. However, it has been identified that the consumption of such bakery products containing wheat flour is unhealthy and has a direct adverse impact on human health. Frequent consumption of these food items causes non communicable diseases (NCDs), such as diabetes, cardiovascular disease, cancers and leads to unhealthy conditions like obesity.

According to the statistics of the World Health Organization, NCDs result in 75% of total death in Sri Lanka. In addition, there is a high cost associated with the management of NCDs and it is a huge burden to Sri Lankan health sector. As such, the Government has taken initiatives to promote healthy food habits among general public to improve their nutritional levels and to reduce the consumption of fast foods.

In this connection, a "Fermentation Chamber" has been developed through a Technology Development grant of NSF. Developed fermenter is capable of producing bakery products (i.e., bread and biscuits) containing rice flour instead of wheat flour.

According to the existing literature, substitution of wheat flour with 30% rice flour has contributed to the best quality leavened food products in terms of the specific volume and the cellular structure properties. This invention can be applied to substitute wheat flour with 50% of rice-flour in order to obtain leavened food products with improved gas retention capacity and more uniform porous crumb cells distribution pattern. Currently, the research team has developed two fermentation chambers, for domestic and industrial purposes. The main aim of the researchers is to introduce this chamber to the bakery industry to promote rice flour-based bakery products.

Domestic Fermentation Chamber

Industrial-scale Fermentation Chamber

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