Xylooligosaccharide (XOS) Enriched Bread and Cookies

Salient features	➢ Extraction of water soluble xylan using pressure based system from rice bran (17%) and finger millet seed coat (14%). ➢ No distortion of the typical structure by water extraction method. ➢ XOS with high yield (68% from rice bran xylan and 72% from finger millet xylan) by enzymatic treatment of water soluble xylan ➢ Highly nutritious XOS enriched bread and cookies
Advantages	✓ Highly nutritious and functional ready-to-eat food products with high market potential ✓ Less energy intensive, economical and simple method of xylan extraction ✓ No use of chemicals. ✓ Rapid extraction using neutral water.
Process Technology Product developed by	Dr. Usha Antony, Centre for Food Technology, Department of Biotechnology Anna University, Chennai, Tamil Nadu E mail: usha.antony@gmail.com Dr. D. Malathi, Department of Food Science and Nutrition, Post Harvest Technology Centre, Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University (TNAU), Coimbatore, Tamil Nadu
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More information	**Status of commercialization / Patent / Publication** Ayyappan, P., Abirami, A., Anbuvahini, N.A., Tamil Kumaran, P.S., Naresh, M., Malathi, D. and Usha Antony. 2015. Physicochemical properties of cookies enriched with xylooligosaccharides. Food Science and Technology International, 22(5): 420-428. Ayyappan, P., Shanmugasundharam, Y., Saravanan, S. and Usha Antony. 2017. Characterization of xylan from rice bran and finger millet seed coat for functional food applications. Journal of Cereal Science, 75: 296-305. Ayyappan, P., Geetha, V.B. and Usha Antony. 2017. Prebiotic potential of xylooligosaccharides derived from finger millet seed coat. Food Biotechnology, 31(4): 264-280. Karuppasamy, P., Malathi, D., Banumathi, P., Varadharaju, N. and Seetharaman, K. 2013. Evaluation of quality characteristics of bread from kodo, little and foxtail millets. International Journal of Food and Nutritional Sciences, 2(2): 35-37.