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Versatility and utilization of underutilized tropical tuber 'taro'

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Taro (*Colocasia esculenta*) being an underutilized tropical tuber widely consumed for its underground corms and cormels. Its richness in high soluble dietary fibre and other components makes this tuber distinguishable from other tubers. Taro is highly digestible which makes this tuber useful for preparing number of food products especially baby foods. Processing makes them digestible and palatable, extends the shelf life and reduces post-harvest losses. Post-harvest losses of around 60% limit its utilization. Processing is the suitable option for extending its uses in various food applications. Another factor that limits its utilization is the acridity present in crystals due to the presence of calcium oxalate. These crystals are released during various unit operations resulting in itchiness, sharp irritation and burning sensation in the throat and mouth on ingestion. Prolonged cooking, fermentation, baking and extraction with ethanol are required for removal of acridity in taro tubers. Antinutrients present in taro corms further limits its utilization. Various anti-nutrients present in taro corms are oxalate, phytate, total polyphenol, trypsin inhibitor, etc. This issue is resolved by giving various treatments. Converting this tuber to flour and starch extends its application in various food products. Appropriate attention is required in cases when taro is processed so that its functionality and versatility does not get affected. The use of taro as a food ingredient, in canned products, extruded products, baby foods, etc. has been widely known. Improvements on existing technologies and further value addition can make taro based products more attractive to the consumers.

Biography

Pragati Kaushal has completed her MTech in Food Engineering and Technology from Sant Longowal Institute of Engineering and Technology, Longowal, Punjab, India. She is a Gold Medalist in MTech, having a teaching experience of more than 4 years as an Assistant Professor (FET Department, SLIET, Longowal, Punjab, India). Currently, she is working as a Teaching Assistant in Food Science and Technology Department, Punjab Agricultural University, Ludhiana, Punjab, India. She has published 14 papers in reputed international journals.

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