

ABSTRACT

The study was carried out to develop an organic preservation technique for the canning process of Rose apple (*Syzygium samarangense*) using 3 types of osmotic solutions in the Tropical Health Food (Pvt) Ltd. Rose apple (*Syzygium samarangense*) is a tropical fruit tree which belongs to guava family (*Myrtaceae*). Though the whole fruit of rose apple is edible, products made out of these are not commonly available in the market. As a result the post harvest loss of rose apple is very high.

The canned products that are produced from rose apple fruits with improved organoleptic qualities by the diversification processes result in higher utilization of the less exploited fruit crop. The production of value added products from this underutilized crop will increase gainful employment opportunities in the country. The end products resulting from the organic preservation of rose apple contain organic ingredients and no artificial food additives or preservatives. Canning process is a processing method which mainly used high temperature to preserve food. Rose apple fruits are usually high in acid, this prevents the growth of bacteria, molds, and yeasts in the product.

The study was carried out using three canned samples of rose apple made out of with different concentrations of salt solution, sugar syrup and pineapple juice. Then most suitable concentration for each salt and sugar solution was selected prior to obtain optimum organoleptic properties. Samples were exhausted, sealed and pasteurized in an auto clave. Each product was analyzed during and after processing to determine pH, brix and titratable acidity. Then the level of preference for each sensory attribute (Colour, Smell, Appearance, Taste, Overall acceptability) in 3 samples were identified through a sensory evaluation by using 30 un-trained panelists. Obtained results from the sensory evaluation were analyzed by Minitab statistical analysis software with the aid of Kruskal- wallis test at 5% significant level.

According to the sensory evaluation, the canned product with sugar syrup was the most preferable. So that, canned rose apple fruits with 75g/l concentrated sugar syrup were more suitable for the local market. But the product with pineapple juice was selected by Tropical Health Food (Pvt) limited for the exporting purpose according to the preference of German people. The selected product was proximately analyzed and it contained 92% water, total sugar content of 9.74%, 2.2 % ash, 0.31% protein and 1.3% fat.