Development of appropriate methods for preservation of pulp extracted from tamarind, woodapple and papaya.

A wide range of fruit crops are cultivated in Sri Lanka. However, crop production is often seasonal resulting gluts soon after harvest, followed by scarcities and high market prices during off seasons. Among the available fruits, a higher market potential exist for Tamarind, woodapple and papaya especially in the fruit processing industry. Chemical preservation of fruit juices/pulps during the glut is the available practices and sodium or potassium meta-bisulphite is the most commonly used chemical preservative. However, a growing concern over the sulphites sensitivity among human beings, use of sulphites in food processing in the future may questionable. In this context, a study was conducted to find effective and non-hazardous pulp preservation methods in order to exploit the market potential that exists for processed fruit products from tamarind, woodapple and papaya.

Results of the study revealed that post harvest life of tamarind pulp, extracted using 1:2 water: fruit ratio and stored in plastic containers was extended for four months at the ambient conditions by the treatment of 3% sodium chloride followed by one minute heating. However, at refrigerated conditions, 1% sodium chloride was adequate to extend the postharvest life of that pulp up to six months. Postharvest life of wood-apple pulp, extracted using 1:1 water: fruit ratio and stored in glass bottles or laminated film after heating for 15 minutes at 50 ° C was extended up to three months at the ambient conditions. Preliminary experiments on papaya pulp which was preserved using different GRAS compounds and physical methods revealed that all those methods were unsuccessful to extend the storage life of papaya pulp more than three weeks.