**Development of low cost edible coating for extending Shelf life of guava fruits (Bangkok giant)**

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Guava is an economically important fruit which occupies a prominent position among fruit crops grown in Sri Lanka. The reported post harvest loss of guava is 46%.Therefore the study was conducted to identify a suitable edible coating treatment to extend the shelf life of fresh fruits. Guava harvested at correct maturity stage and medium size fruits were selected after discarding diseased and damaged fruits. The first experiment was done to discover the best treatment to be used to coat the fruits from six treatment combinations, cassava starch (1%, 2%, 3%) with 1% sunflower oil and rice bran (1%, 2%, 3%) with 1% sunflower oil and 1% bee wax. The treated fruit were stored under ambient condition (28$^{o}$C to 30$^{o}$C+55%-60%RH) and quality evaluation was done to find the suitable treatment and the treatment where 2% cassava starch mixed with 1% sunflower oil (T1) and the treatment where 1% rice bran mixed with 1% sun flower oil and 1% bee wax (T2) were selected as the best performed treatments.

The second experiment was done to identify suitable storage condition for treated fruits. Fruits were coated with T1,T2,T3-2% cassava starch with 1% sunflower oil and 1% bee wax and stored under ambient as well as refrigerated conditions(7$^{o}$Cto 9$^{o}$C+55-60% RH). The results suggested that the coating with T1, T2 and T3 were most effective treatments in retaining the overall quality. Fruit stored at refrigerated condition exhibited better retention of storage life for 24 days.

The cultivars grown in Sri Lanka send to local market without giving any treatment for shelf life extension leads to wilting and shriveling due to higher moisture losses. That's leads to higher economic loss and demand for local produce also decreased. Such type of technologies will be

beneficial as a low cost and easy applicable method to producers as well as retailers. The above wax formulation tested has to be prepared at the time of use and it is time consuming. It is required to further develop its properties as a ready to use product and lengthening the storage life.