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Colour prreservation of ddehydrated vegetable, Lotus stems, Bitter grourd, okra, and Brinjal

Lotus (*Nelumbium nelumbo*) stem, Bitter ground (*Mormordica charantia*), Brinjal (*Solonum melongena*) and Okra *(Abelmoschus esculentus*) are commonly used vegetable in Sri Lankan die. Excessive harvest within short period of the season leads to their irrational use and higher wastage.

Dehydration is one of the successful preservation methods of the vegetable enabling farmers to maintain a constant supply to the market with less post harvest losses. However, major constraint of the dehydration is colour deterioration due to enzymatic browning and pigment destruction during the dehydration and storage. A study was carried out to estimate the effect of common preservatives on the retention of colour in order to develop a simple dehydration method which is easily adoptable and affordable for local communities.

Citric acid (0.1%), lime juice (1%), vinegar (1%) and heat treatments (steam blanching 1-6 minutes and dip blanching 1-6 minutes) were found to be not effective in preventing

enzymatic browning reactions in lotus stem and brinjal. Dipping in solution of 0.1% citric acid Sodium metabisulphite (SMS) (1:1 ratio) was effective as it retained the colour of lotus stem and brinjal for more than 5 months.

Treatments of bitter gourd and okra with lime juice (1%), vinegar (1%), SMS (0.1%), combination of SMS (0.1%) and citric acid (0.1%) were also not effective in preserving the colour of final product. Among heat treatments (Steam blanching 2min, steam blanching for 2 min with subsequent dipping in 0.1% NaHCO3, and dip blanching for 1-6 minutes), steam blanching for 2min followed by subsequent immersing in 0.1% NaHCO3 was more effective in preserving the colour of bitter gourd and okra for more than 3 months.