

**DEVELOPMENT OF HEALTH DRINK WITH
CARROT JUICE BLEND AND LIME JUICE**

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ABSTRACT

The juice industries still considering only fruit as a raw material for juice production. However now a day the juice produced out of vegetables presented more appeal and nutritive value. Juice blending is considered as best method used to improve the nutritional quality and sensory characteristics of the juice product. Carrot (*Daucus carota*) is an important root vegetable cultivated worldwide. Carrot juice is an appreciable sources of carotene and acceptable for its vitamins and mineral contents. Lime (*Citrus aurantifolia*) is widely grown and serving as one of the most abundant source of vitamin C and antioxidants which are beneficial to human health. The objective of this work was to develop a lime added carrot juice. 02 preliminary trials were conducted to select the best fruit juice type; Pineapple, Orange, and Lime, and the best level of selected fruit juice (1%, 2%, 3%, 4% and 5%) to incorporate with carrot juice. For further development of product, best sugar level (6%, 7%, 8%, 9% and 10%), best Xanthan gum level (0.2%, 0.1%, 0.09%, 0.08% and 0.07%) and best carrot pulp incorporation level (4%, 6%, 8% and 10%) were determined by sensory evaluation using 10 trained panelists. Shelf life determination was done by analyzing TSS, pH at 7 days intervals for 2 month period and TPC at 1 month intervals for 2 month period. Carrot juice with 3% lime juice, 7% sugar, 0.08% Xanthan gum and 10% carrot pulp showed higher ($P < 0.05$) preference in all sensory attributes. No significant difference in TSS and pH fluctuation observed with the time. TPC was less than one CFU per ml. Based on results, it can be concluded that carrot juice with 3% lime juice, 7% sugar 0.08% Xanthan gum and 10% carrot pulp has highest sensory attributes with 02 months of shelf life at room temperature.

Keywords: Carrot, Sensory evaluation, TSS, pH