PROCESSING OF SRI LANKAN VEGETABLES

I. Ridgegourd (Luffa acutangula) and snakegourd (Tricosanthes anguina)

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Samples of ridgegourd (Luffa acutangula) and snakegourd (Tricosanthes anguina) were subjected to different pre-treatments: T_1-unblanched, T_2-blanched in distilled water, T_3-blanched in 0.3% Potassium meta bisulphite (KMS) solution and T_4-blanched in distilled water and dipped in 1% $NaHCO_3$ solution for 1 min. The treated samples were stored in the freezer at -18°C. B-carotene, ascorbic acid, chlorophyll, free sugars and alcohol insoluble matter of the fresh samples and frozen treated samples after 8 weeks of storage were determined. Microscopic changes were also examined.

Blanched samples of ridgegourd had a significantly higher (P 0.01) value of B-carotene than the fresh sample (2.59 3.01-3.93mg/100g DM.), whereas the value for the unblanched sample was similar to that of fresh sample. No significant differences were observed in other measured components except ascorbic acid. In the case of sankegourd, blanching in KMS solution resulted in higher amounts of B-carotene than the fresh sample while the sample treated with $NaHCO_3$ had lower amounts. The unblanched sample and those blanched in distilled water were similar to fresh material, except ascorbic acid which gave a value of 25.00mg/100g DM.

The drip loss of unblanched samples of snakegourd and ridgegourd were lower (26.0 and 17.3%, respectively) when compared to those of blanched samples. Microscopic examination of frozen vegetables showed the cellular collapse, possibly to ice crystal formation. These results indicate the possibility of freezing these two vegetables without the conventional blanching step.

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References:

1. Sangasena, K. et.al.(1986) Proc. Sri Lanka Ass. Advmt.Sci.42 64
2. Tore.H, et.al., Physical, chemical and biological changes in food caused by thermal processing (364-367).

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