

STANDARDISATION OF A TECHNIQUE FOR THE PREPARATION OF CANDY FROM UNRIPE PAPAYA

The candying process consists essentially of slowly impregnating the fruit with sugar syrup until the sugar concentration in the fruit is high enough to prevent spoilage. The process of impregnation with sugar must not be hurried through because otherwise, the fruit would shrivel and sweat and become unfit for glacing.

Unripe papaya has a milky secretion rich in papain which imparts a characteristic odour and astringent taste to the fruit. Removal of such undesirable constituents in certain fruits by chemical treatments has been reported (Cruess, 1958; Lal. *et al.*, 1960). They include treatment with brine containing 15 per cent sodium chloride, sulphurous acid of 2,000 ppm sulphur dioxide and 2 to 3 per cent calcium hydroxide. However, no specific method has been prescribed the removal of the astringency of unripe papaya for candying. The above three methods were, therefore, employed for this purpose and it was found that the treatment with calcium hydroxide gave satisfactory results. The following method was then standardised for the preparation of candy from unripe papaya.

The fruit was peeled with stainless steel knives and cut into convenient size preferably 1 cm³ and kept immersed in a solution of 2 to 3 per cent calcium hydroxide for about 12 hours. Next day, the pieces were taken out, washed thoroughly and blanched in boiling water for 15 to 30 min. till it got softened. This treatment removes the residual calcium hydroxide and inactivates the enzymes. The water was then drained off. A sugar syrup was prepared by dissolving two parts of sugar in three parts of water. The amount of sugar was equal to the weight of the fruit. A suitable vegetable colour was added to give the desired colour to the product. Citric acid at the rate of 2 to 3 g per kg of sugar was also added. The addition of citric acid results in the hydrolysis of sugar. The products of hydrolysis are dextrose and levulose and the mixture is much sweeter than the cane sugar alone. Moreover, invert sugar does not crystallize. It also prevents crystallization of cane sugar in heavy syrups. The fruit was placed in the above syrup and the content was boiled slowly till the concentration of sugar in fruit attained 75 per cent. Then the syrup was drained off and reserved for further use. The candy was dried and packed in polythene bags.

Papaya candy can be used in bakeries as an ingredient of cakes and fruit buns. The process described is simple and economical. The profit rate is about 100 per cent since unripe papaya fetches only a very low price, when sold as such.

സംഗ്രഹം

പച്ചപ്പായ ഉപയോഗിച്ചുകൊണ്ട് കാൻഡിയുണ്ടാക്കുന്ന വിധം പഠന വിധേയമാക്കി. പപ്പായയുടെ അരുചി നീക്കുന്നതിനും 2 മുതൽ 3 ശതമാനം വീര്യമുള്ള ചുണ്ണാമ്പു ലായനി ഉപയോഗിക്കുന്നതാണ് നല്ലതെന്ന് കാണുകയുണ്ടായി. ഇപ്രകാരം അരുചി മാറ്റി കാൻഡിയുണ്ടാക്കുന്ന ഒരു രീതി ആവിഷ്കരിച്ചിരിക്കുന്നു.

References

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(MS Received: 21-7-1980)