

Research Note

VITAMIN C ENRICHMENT OF BANANA NECTAR¹

Every year the peak of the local banana production occurs during the summer months, resulting in an oversupply at this time and scarcity in winter. Studies have been made in the Food Technology Laboratory of banana products that might be suitable for commercial application, including the development of a method for production of banana nectar from previously frozen banana pulp.²

Analysis of samples of the nectar showed it contained very low quantities of vitamin C. The present study was conducted to find out how much the vitamin C level of banana nectar can be enriched without affecting its quality and shelf-life. Samples of nectar were prepared following the method described by Hernández² and enriched with vitamin C at 0.25, 0.50, 0.75 and 1 mdr³ per 7.1 oz servings.

Samples were stored at 45° F (7.2° C) and 85° F (29.4° C) and evaluated at two different time intervals for quality and vitamin C content.

Vitamin C was analyzed by the indophenol method.⁴ A trained test panel evaluated the samples using the method described by Kramer and Ditman,⁵ which uses a 5-point scale where +2 indicates very acceptable and -2 not acceptable.

Vitamin C content of the nectar had not decreased significantly after being stored for 6 months at 45° F (7.2° C) and 85° F (29.4° C):

<i>Vitamin C added</i> <i>mg/7.1 oz</i>	<i>Samples stored for 6 months at</i>	
	<i>45° F</i> <i>mg/serving¹</i>	<i>85° F</i> <i>mg/serving</i>
0	8.34	7.12
15	15.24	13.35
30	31.83	29.81
45	58.28	50.70
60	62.62	56.08

¹ A serving equals 7.1 oz

¹ Manuscript submitted to the Editorial Board May 27, 1975.

² Hernández, I., Preparation and acceptability of banana nectar, *J. Agr. Univ. P.R.* 57 (2): 96-9, 1973.

³ 1 mdr (minimum daily requirement) of vitamin C for an adult: 50 mg/day.

⁴ Association of Official Agricultural Chemists, *Methods of Analysis*, 10th ed., p. 764, 1965.

⁵ Kramer, A., and Ditman, L. P., A simplified taste panel method for detecting flavor changes in vegetables treated with pesticides, *Food Technol.* 10(3): 155-9, 1956.

The results of the sensory evaluation tests demonstrated that samples stored for 6 months at both temperatures had an acceptability from 0.7 to 1.00 on the Kramer-Ditman scale, which means that samples were acceptable. No significant differences among samples were observed. However, there was a trend toward preference of the enriched samples. Addition of vitamin C did not produce noticeable change in flavor, color or quality. It is recommended that commercial preparations of banana nectar be enriched to 1 mdr of vitamin C per 7.1-oz serving to improve its nutritional value, while maintaining its quality and shelf-life.

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