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## Assessment of quality attributes of kitul (*Caryota urens*) sap by tappers

M A P K Seneviratne and D M D K S Dissanayake
*Department of Export Agriculture, 1095, Kandy Road, Peradeniya*

Kitul sap is extracted from the inflorescence and processed into treacle and jaggery. Sap quality is the most important factor that governs the quality of the final product. Since kitul is primarily a cottage industry, tappers have their own way of assessing sap quality. The objective of the study was to examine quality attributes of kitul sap from the point of view of kitul tappers. A questionnaire survey was conducted in 12 kitul growing districts (Kandy, Matale, Badulla, Matara, Nuwara Eliya, Kurunegala, Ratnapura, Galle, Kegalle, Moneragala, Hambantota and Kalutara) to collect data. A multi-stage stratified sampling scheme was adopted for data collection. Three hundred and four tappers were included in the sample.

The respondents had assessed sap quality according to attributes such as light brown color (57.6%), clearness (14.8%), stickiness (12.8%), absence of sour taste (11.5%), absence of salty taste (7.6%) and absence of gelatinous substances (7.0%). Some respondents had given multiple responses on sap quality. The desired color of sap was light brown resembling tea infusion. Decrease in this color towards whitish showed the initiation of the fermentation process. The sap should be very clear for the bottom of the container to be seen through the liquid from the top. When the sugar content was high, the sap became sticky. Sour taste of sap was an indication of the process of fermentation due to yeast and bacterial action. Salty tasting sap was secreted at the beginning and when tapping of an inflorescence is terminated. A gelatinous substance was observed in rainy weather which prevented crystallization of sugar when jaggery was made. The most important quality attributes: light brown color, clearness and absence of sour taste can be maintained, if sap is collected and processed without delay. However, stickiness and secretion of gelatinous substances can be related to inherent tree characteristics and weather conditions which are difficult to be controlled. Salty tasting sap can be discarded without making treacle and jaggery until the sap flow of a newly tapping inflorescence is sustained.

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mapkseneviratne@gmail.com Tel: 071-4474304