

E2-02 Preliminary studies on the chemical composition of banana varieties grown in Sri Lanka

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Banana (Family Musaceae) is widely used in Sri Lanka as a fruit and a vegetable. Various parts of bananas are also used in Ayurveda and traditional medicinal system. There are a vast number of varieties of bananas popular among Sri Lankans and these varieties exhibit different tastes and different textures. Giving preference to their uses, 6 varieties were selected for analysis.

Bananas of the same maturity were selected from different areas and were tested for their composition of fats (Majonnier method), protein (Kjeldhal method), reducing sugar (Lande and Egnon method), tannins (Titrimetric method AOAC), moisture (Oven-drying method) and ash (Ignition method). A statistical analysis was performed for the percentage composition.

Alukehel (raw) showed low percentage of reducing sugar as one would expect. Low percentage compositions for reducing sugars was shown by Rathkehel, which is most commonly used by physicians for medicinal preparations. Suwandel, another variety used for medicinal preparations also showed low percentage of reducing sugar when compared with the other varieties.

The protein content was almost similar in all varieties except unripe alukehel where it was low. The highest percentage composition of tannins and fats were found from Suwandel, which is also used for medicinal preparations by physicians.

Phytochemical screening tests were carried out on fruits of banana varieties. Alkaloids were absent in all varieties (tested with Drangendraff reagent) whereas steroids (Liebermann-Burchard test), saponins (froth test), tannins and polyphenols (FeCl_3 solution) were present in all samples.