

**Title** Effects of plant extracts on shelf life and postharvest behavior of banana  
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#### **Abstract**

The experiment was conducted at the laboratories of the Departments of Horticulture and Biochemistry to study the effects of various plant extracts on physico-chemical changes during storage and extension of shelflife of two recommended varieties (Amrita sagor and Mehersagor) of banana at ambient condition. The experiment was conducted in completely randomized design with three replications. The plant extracts used in the study were Neem, Biskathali, Garlic, Neem + Garlic, Neem + Biskathali and Biskathali + Garlic including a control. The results of the experiment revealed significant increases in pulp to peel ratio and in the contents of moisture, titratable acid, total sugars, reducing sugars and total soluble solids during storage. Dry matter and starch contents of the pulp and weight of the fingers decreased during storage. The plant extracts used in the study registered significant increase in shelflife of banana over control. Among the extracts used, Neem registered the longest shelf life followed by Biskathali and Garlic but the latter two were statistically identical. The shelflife of Amritasagor was longer than that of Mehersagor. Longer shelflife was found to be related to the slower changes in pulp to peel ratio and in the contents of total sugars, reducing sugars, titratable acid, TSS, ash and starch but no direct relationship of shelf life could be established with any of the parameters studied. It is suggested that any technology which could slow down the process of hydrolysis of starch may be used to extend the shelflife of banana.