

**DETERMINATION OF AN OPTIMUM SPACING PATTERN FOR  
CULTIVATION OF ASH PUMPKIN (*Benincasa hispida*)**

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by  
**SANDANAYAKA ARACHCHILAGE NILMINI UDESHIKA  
SANDANAYAKA**

**Export Agriculture Degree Programme  
Faculty of Animal Science and Export Agriculture  
Uva Wellassa University of Sri Lanka**

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## ABSTRACT

Ash pumpkin is a monotypic genus belongs to family Cucurbitaceae. It is called as ash guard, wax guard, winter melon and white gourd because of the powdery white flakes of wax that coat the fruit surface. As a traditional vegetable and due to high demand in processing industry, farmers tend to cultivate ash pumpkin in Dry and Intermediate Zones in Sri Lanka. However, there is no proper agronomic package for cultivation of ash pumpkin. Hence, present study was carried out to determine an optimum spacing pattern for ash pumpkin cultivation in Sri Lanka. The research was conducted using four different spacing treatments (T1 = 3 x 3m (20 plants), T2 = 2.5 x 2m (36 plants), T3 = 2 x 2m (42 plants), T4 = 1.5 x 2m (60 plants)) in a Randomized Complete Block Design (RCBD) with three replicates at the field of Regional Agricultural Research and Development Centre, Makandura during August to December 2016. Different parameters, namely, number of days for first flowering, 50% flowering, 100% flowering, number of flowers per vine, number of fruits per vine and yield per hectare were recorded. Results revealed that different spacing patterns did not significantly affect the number of days for first flowering, 50% flowering, and 100% flowering. Significantly higher average number of flowers and fruits per vine were recorded in 1.5 x 2m and 2 x 2m spacing systems. However, the highest yield per hectare was recorded in 2 x 2m spacing and this spacing was found to be as the optimum spacing pattern for ash pumpkin cultivation in Sri Lanka. As Ash pumpkin is cultivated in the open field under various environmental interactions throughout the year, it is suggested to extend this experiment during other months of the year and in other geographical areas as well.

**Keywords:** Ash pumpkin, Flowering, Fruits, Spacing pattern, Yield