

**ESTABLISHMENT, PHENOLOGY AND FLORAL VISITORS OF THE
MEDICINAL PLANT *Ipomoea mauritiana***

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Ipomoea mauritiana Jacq.(Convolvulaceae), is a widely used medicinal plant in Sri Lanka. Its medicinal and pharmaceutical properties have been well studied. However, its specific growth requirements and phenology have not been examined in detail. The floral biology and growth conditions required for initial establishment were examined in this study.

Floral events in *I. mauritiana* (initiation of blooming, corolla opening, anther dehiscence, stigma receptivity, nectar production, perishing and corolla shedding) were observed continuously over a period of two days. During this period, the exact time of pollen production, duration of pollen and nectar availability to floral visitors and the diversity and frequency of floral visitors were recorded. The total soluble solid content of nectar was measured using a refractometer.

The best substratum for initial establishment of *I. mauritiana* was determined by growing seedlings under 50% shade (maximum instantaneous light intensity was 925 $\mu\text{mol}\cdot\text{s}^{-1}\cdot\text{m}^{-2}$), and in three different potting media where soil: sand: farm yard manure were mixed in the ratios of 1:1:1, 1:2:1 and 2:1:1, respectively. The experiment included three treatments and three replicates (20 seedlings/ replicate). The growth of *I. mauritiana* in terms of number of leaves, number of branches, fresh and dry weights of above (shoot) and below ground parts (tubers) were recorded.

Twenty one bee species visited flowers for nectar. Among them the most frequent visitors were *Amegilla comberi*, *Apis cerana*, *Nomia formosa*, *Pithitis binghami*, *Tetralonia sp.*, *Trigona iridipennis*, *Xylocopa tenuiscapa*. Wasps, butterflies, moths, flies and fruit flies also visited the flowers for nectar. Most of the bee species and the other insects visited the flowers throughout the day; mainly from 0600 to 1730 h in large numbers. This attraction is attributed to the high amount of total soluble solids (mainly sucrose, glucose and fructose) present in nectar. The attraction of large numbers of insects, moths and fruit flies by *I. mauritiana* increases the diversity in medicinal plant gardens and enhance the pollination frequency of flowers.

Among the three potting mixtures used, the best growth of *I. mauritiana* was observed when grown in the substratum comprising soil: sand: farm yard manure in the ratio of 1:2:1. Hence, this medium can be recommended for the initial establishment of *I. mauritiana* in medicinal gardens.

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