

**Determination of flower biology of pollinator attracting underexploited vegetable,
Luffa cylindrica (L.) growing in home gardens of Jaffna**

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Abstract

Luffa cylindrica is an edible, underexploited, Cucurbitaceae vegetable crop in Sri Lanka. It has the potential to attract diverse pollinators and to sustain their visits to the home gardens. Conserving the pollinator diversity through the sustained contribution of potential plants that support pollinators in the home gardens were studied. Flower biology of *L. cylindrica* was investigated by assessing the flowering stages over time, corolla opening with time, maximum nectar production, anthesis, pollen shedding time and stigma receptivity. The rate of flower opening was at peak around 03.45 hr to 04.15 hr. Anthesis was prolonged for 2-21/2 hours and stigma receptivity was 3-31/2 hours after flower opening fully. The nectar volume appeared to be the highest around 6 hr after flower opening. Of the *L. cylindrica* flower visitors, nine bee species (*Amegilla* sp, *Amegilla cingulata*, *Apis florea*, *Apis cerana*, *Ceratina binghami*, *Trigona iridipennis*, *Thyreus ramosellus* and *Lasioglossum vagans*, *Xylocopa fenestrata*), three butterfly species (*Catopsilia pyranthe*, *Telchinia violae* and *Appias paulina*) and an ant were found. These results confirm the potential of *L. cylindrica* to be grown as one of the pollinator conserving plant in the home gardens of Jaffna.