

Miscellany

Flowering and fruit set in vanilla (*Vanilla planifolia* Andr.)

Cultivation of vanilla (*Vanilla planifolia* Andr.) is becoming increasingly popular in recent years in the hill zone of Karnataka, India. However, information on duration of flower opening and the ideal period for hand pollination is not available for this region. Hence studies on anthesis, stigma receptivity and hand pollination were conducted during March 1992 at the Regional Research Station, Mudigere (Karnataka, India). Four flower buds which were about to open during the next day were tagged and the time of flower opening and closing were recorded. Four flowers each were tagged and selfed by hand pollination immediately after flower opening at an interval of 30 min till the flowers closed completely. These flowers were observed for effective fertilization and fruit setting for 15 days.

Flower opening was initiated around 1.15 am and was completed by 6.00 am. However the calyx was completely spread by 9.00 am only. Closing of flowers began around 1.00 pm and was completed around 3.00 pm. Effective

fertilization and fruit set was observed in all the flowers when hand pollination was resorted to immediately after opening of flowers around 1.15 am and continued till closure of the flowers around 3.00 pm at an interval of 30 min. Hand pollination when continued even after closure of flowers by opening the closed flower up to 6.00 pm revealed that flowers pollinated after 6.00 pm dropped indicating that pollination was effective from 1.15 am to 6.00 pm. Though the stigma was receptive from 1.15 am to 6.00 pm, hand pollination from 6.00 am to 11.00 am was ideal for quick and effective pollination. The efficiency of hand pollination was reduced after 11.00 am since anther dehiscence was at its peak during this period resulting in wastage of pollen.

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