Effect of season on success of air layering in water apple in red laterite zone of West Bengal

S. N. Ghosh
Department of Fruits and Orchard Management
Faculty of Horticulture
Bidhan Chandra Krishi Viswavidyalaya, Mohanpur-741252, India
E-mail: profsngosh@rediffmail.com

ABSTRACT

An experiment was conducted during 2004-05 on farmers’ field at Jhargram to work out optimum time for air layering in water apple. Results revealed that air layering performed during June and July resulted in highest rooting success (100%) with maximum field establishment (100%). Considering overall performance, the months of June and July can be recommended for air layering in water apple in red laterite zone of West Bengal.

Key words: Air layering, water apple, season, West Bengal

Data presented in Table 1 indicate that the highest number of rooted layers (100%) was recorded when layering was done from 10th June to 25th July, whereas establishment percentage was maximum (100%) from 10th June to 25th August, followed by 10th September. After 10th September, it showed a decreasing trend and was zero on 10th November, when rainy season completely ceased. It was interesting to note that the percentage of rooted layers in water apple was maximum during the rainy season. Meteorological data (Table 2) indicate that a maximum temperature of 40.3°C and a minimum of 25.2°C, with relative humidity of 95% at 7.00 am and 51% at 2.00 pm are congenial for getting higher percentage of rooted layers of water apple in the red laterite zone of West Bengal. The maximum percentage of rooted layers was recorded in rainy season (June to July); this may be attributed to the prevalent favourable weather conditions which fostered better root formation and development. Suitability of air layering in rainy season (June to September) in many fruit crops has also been advocated earlier by many workers (Sharma and Grewal, 1989; Ghosh, 1998; Ghosh and Banik, 2008). For separation of rooted layers from the mother plant, a minimum of 80 days were required during September-October, while, during June-July, it took a maximum of 110 days.
Field establishment of rooted layers is considered to be an important observation in any layering experiment, as, the ultimate aim is to get maximum number of plant surviving under field conditions. Results from Table 1 indicate that establishment of rooted layers was highest (100%) when the operation was done during 10th June to 25th August, followed by 10th September, and, it reduced thereafter. It is clear from data in Table 1 that root growth was maximum in layers prepared on 10th July which resulted in highest root number (11.5) and longest root length (11.6 cm), followed by 25th July. Considering the production of maximum number of rooted layers and their establishment, the months of June and July are the best, followed by August, for air layering in water apple in red laterite zone of West Bengal.

### REFERENCES


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