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Research Note

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Effect of different level of indole butyric acid on air layering of cashewnut (*Anacardium occidentale* L.) cv. VENGURLA-6

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ABSTRACT : In present studies, use of different levels of IBA on air layering of cashewnut reveals that IBA 500 ppm was found significantly superior in minimum days (20.61) for appearance of 1st rooting, days taken (29.52) for harvesting, per cent success (59.97), number of primary root (12.60), number of secondary roots (23.86), number of roots (66.66) length of primary roots (5.25 cm), thickness of primary roots (0.31mm) per layer and survival per cent (46.95) after one month of detachment in comparison to untreated control.

KEY WORDS : IBA, Air layering, Cashewnut

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Cashewnut is an important fruit of tropical and sub-tropical regions of the country. India is supposed to be the highest producer of this fruit in the world. Cashewnut (*Anacardium occidentale* L.), a member of the family Anacardiaceae with the natural order Sapinadales, is an evergreen tree. In India, out of the total coverage, about 75 per cent area is on the West coast covering the states Karnataka, Kerala, Goa and Maharashtra, while in East coast, the states includes Andhra Pradesh, Orissa, Pondicherry, Tamil Nadu, Tripura and West Bengal.

The uniform cashewnut trees, cv. VENGURLA-6 were selected for the study, and on the selected tree shoots of uniform age (1 year old), growth (50 to 60 cm length), and thickness (0.8 to 1.0 cm diameter) were randomly selected for air-layering. The experimental unit consisted of a single tree with twenty layers in each treatment. The treatments were arranged in Factorial Randomized Block Design with three replications.Before application of IBA, ringing was done to all shoots selected for experimentation. Such ringed shoots were treated with various concentrations of IBA as per the treatment on same day. Out of which such ringed layers were wrapped with black polythene sheet for etiolation as per treatment for ten days. Then after ten days, the black polythene wrapping were removed and all the open ringed (etiolation and unetiolated bunches) were wrapped with sphagnum moss followed by transparent white polyethylene sheet with string, and kept for rooting.

All the concentration of indole butyric acid (IBA) were found significant in reducing the period for appearance of first rooting over untreated control (I_1). Indole butyric acid at 500 ppm (I_2) was observed most effective in reducing the rooting period (20.61 days), followed by IBA at 1000 ppm (I_3) which were at par with each other and the longest period (31.77 days) was recorded with treatment untreated control (I_1) (Table 1). Indole butyric acid 500 ppm (I_2) was observed most effective in reducing the harvesting period (38.33) days, followed by treatment I_3 (IBA at 1000 ppm). Similar result was recorded by Sen and Chakrobotry (1969). The longest period (38.33) days