

# Better Establishment with Air Layers in Cashew (*Anacardium Occidentale* L.)

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It is fortunate that unlike some of the plantation crops, cashew is amenable for multiplication by vegetative means. Several scientists tackled different methods of vegetative propagation in India and abroad and met with varied degrees of success with each method. No method however is found feasible to go as a commercial practice and thereby cashew is yet being propagated by seed. It is a known fact that seedling progenies exhibit variation both in vegetative and reproductive characteristics as against those propagated by vegetative methods. It is, therefore, necessary that a suitable technique to propagate cashew by vegetative method suiting to the particular region is to be evolved. Propagation techniques like patch budding, veneer grafting, side grafting and air-layering are the known horticultural methods to resort to vegetative propagation.

Techniques like veneer grafting and patch budding are although successful for *in-situ* operation, their efficiency in large scale multiplication is yet to be assessed. On the otherhand, air layering is a widely known practice in cashew and there is absolutely no problem to obtain satisfactory rooting on layering

the shoots, but the crux of the problem lies with regard to their establishment. This aspect has been studied at CPCRI Regional Station Vittal in 1977 and found that about 90 per cent of air layers planted have been successfully established in the main field and making satisfactory growth. As expected these layers planted in July 1977 had come to flowering and set nuts in March 1978 in about nine months.

The monthwise air layering trials carried out at Vittal revealed that air layering done during March-April gave high percentage of rooting (79.9) and better field establishment (89.6). It is found that curing of air layers is indispensable to avoid large scale mortality in the field on separation from the mother tree. The technique adopted for curing the layers is to plant the separated layers in polybags of 40 x 30 cm of 500 guage and keep the bags in a cool place for a period of about three weeks before being transplanted to the main field. The polybags are to be filled in with 2 parts of sand and one part each of compost and red soil. The layers after separation and before being planted should be given gentle

pruning to reduce the transplantation losses and to narrow-down the gap in shoot and root ratio. After careful unwrapping the polythene film, the layer is planted in such a way that the rooted portion is placed near the centre of the polybag to avoid the roots being shaken when strong winds blow. Another important precaution to be taken is to avoid pressing the soil around the layer after placing in the polybag. The rooted portion is to be covered by just putting the soil and subsequently consolidating by pouring water gently with a rose can or dipping the bag in a tub of water.

In course of curing the air layers some layers may shed their leaves and put forth new growth of flush. Within about three weeks, the air layers get

hardened and will be fit for shifting to their respective positions. Before planting in the main field it is necessary to give a cut at the bottom of polybag with a sharp blade and keep the bag in the pit and cover it with soil. Planting air layers in polybags for curing and subsequent transplanting in the main field would not cause any disturbance to the growing root system and thus ensures better establishment in the main field. From our studies it was found that 89.6 per cent of layers got ultimately established in the field when planted at the onset of monsoon.

Just like any other horticultural varieties of fruit crops, cashew layers also need due attention by the grower for better growth and production.

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