

Air layering in cassia (*Cinnamomum aromaticum* Nees.)

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ABSTRACT

Air layering in 2 year old cassia plants (*Cinnamomum aromaticum*) is reported for the first time. A success of 87.5 and 50.0% rooting was obtained when carried out during July and November, respectively, with 100% field establishment.

Key words : air layering, cassia cinnamon, *Cinnamomum aromaticum*.

Cassia cinnamon (*Cinnamomum aromaticum* Nees.) (Syn. *C. cassia* Bercht & Presl.) (Lauraceae) is a closely related species of *C. verum* Bercht & Presl., the true cinnamon. Cassia bark, bark and leaf oil and oleoresin are the products of commerce and are important in international trade. Cassia is cultivated mainly in China. Very few trees of *C. aromaticum* are available in India and the existing ones are being replaced by other crops at present. Non availability of planting material is a major handicap in undertaking experiments in cassia and for cultivation also. Hence an attempt was made to multiply the existing collections of cassia available at the Experimental Farm of National Research Centre for Spices, Peruvannamuzhi (Kozhikode district, Kerala). Cassia is propagated through seeds; vegetative propagation has not been reported. However, vegetative propagation of a closely related species

(*C. verum*) has been reported (Vadivel *et al.* 1981; Rema & Krishnamoorthy 1993).

Air layers were made on 2 year old cassia seedlings during July and November, 1993. Lateral branches, 1.0-1.5 cm in diameter were girdled by removing 5 cm of bark band. Seradix-B (a commercial rooting hormone) was applied at the girdle and covered with moist coir dust and wrapped with polythene sheet to prevent moisture loss. Due to limited availability of experimental material, only 8 and 18 layers were done during July and November, respectively. The air layers were detached after 2-3 months and observations on rooting and survival percentage, number of primary and secondary roots and length of primary roots were recorded.

A success of 87.5% was obtained during July with an average of 6.4 primary and 12.1 secondary roots. But during No-

Table 1. Response of cassia to air layering

Month	Rooting (%)	Field survival (%)	No. of roots				Length of primary roots (cm)	
			Primary		Secondary		Mean	Range
			Mean	Range	Mean	Range		
July	87.5	100.0	6.4	5-7	12.1	12-13	6.2	3-8
November	50.0	100.0	4.0	2-8	6.2	1-15	4.8	5-9

Table 2. Rainfall at Peruvanna - muzhi (June - December 1993)

Month	Rainfall(mm)	No. of rainy days
June	771	26
July	1207	30
August	703	29
September	128	13
October	793	27
November	158	10
December	80	3

vember, the success was 50.0% with an average of 4.0 primary and 6.2 secondary roots. The average lengths of primary roots were 6.2 and 4.8 cm during July and November respectively (Table 1). The success in layering was higher during July probably due to the

higher humidity prevailing in the atmosphere due to rain (Table 2) which is congenial for production of adventitious roots. All the air layers established in the field.

This is the first report of air layering in cassia. The method has great potential, since air layers ensure genetic uniformity and early maturity of planting material.

References

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