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VEGETATIVE PROPAGATION OF *CAPPARIS DECIDUA*

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Capparis decidua 'Ker', is an extremely drought hardy shrub adapted to the harsh climate of the arid zones. It grows in the lower piedmont and pediment plains. The fruits are believed to have medicinal value in cardiac and gastric troubles. The fresh or dehydrated fruits are used extensively as vegetable and also pickled. Natural propagation is by root suckers thrown upto a distance of 5 m from the shrub. Initial plantations are also done by clumps with roots but this method is cumbersome as the clumps are very bulky. Since no precise information was available on the propagation by cuttings, studies were undertaken to standardize this method of vegetative propagation by using both semi-hard wood and hard wood cuttings.

The following treatments were given to both semi-hard wood and hard wood cuttings.

1. 2 minute dip in Indole-butyric acid (IBA) 1000 ppm
2. Quick dip (for two seconds) in IBA 1000 ppm
3. IBA powder formulation Seradix B(2) for semi-hardwood and Seradix B(3) for hard wood cuttings
4. Control : Cuttings dipped in distilled water.

For the treatments (1) and (2), the solution of IBA (1000 ppm) was prepared by first dissolving 1.0 g of IBA in ethyl alcohol and then raising the volume to 1000 ml with distilled water. Cuttings were treated by dipping 3 cm of basal portion in this solution. After the dip, excess solution on cuttings was removed by jerking away. For the treatment (3) with Seradix powder, the cuttings were first dipped (3 cm basal portion) in distilled water, the excess water removed by jerking and the wet portion of cuttings gently stirred in Seradix. The surplus powder sticking to cuttings was removed by tapping. One hundred cuttings in each treatment were planted on 7 Sept. 1984. keeping 2/3 of the lower portion in the soil. Watering was done as normally required. The observations were recorded in December 1985 for the percentage of total cuttings sprouted, average number of roots, length of root, average number of shoots and maximum shoot length per cutting for 20 cuttings in each treatment taken out of the nursery bed (Table 1).

Quick dip with IBA effected maximum sprouting (65% in semi-hard wood and 52 per cent in hard wood cuttings) followed by the 2-minute dip.

George and Nissen (1983) reported good rooting in annona cuttings with 2000 ppm IBA treatment. Randhawa and Nito (1980) observed 90 per cent rooting in the

Table 1. Effect of indole-butyric acid (IBA) on rooting of cuttings in *Capparis decidua*.

Treatments	Cuttings sprouted (%)	Av. no. of roots	Av. length of root (cm)	Av. no. of shoots	Max. shoot length (cm)
Semi-hard wood cuttings					
IBA 1000 ppm (2 minutes)	32	2	0.35	4	30
IBA quick dip	66	2	0.90	6	40
Seradix B(2)	28	2	1.05	8	38
Control	30	3	0.85	13	34.5
Hard wood cuttings					
IBA 1000 ppm (2 minutes)	42	6	4.9	5	30
IBA quick dip	52	3	1.9	6	36.5
Seradix B (3)	26	3	1.3	5	29.5
Control	22	3	2.4	8	21.5

cuttings of *Malus prunifolia* treated with IBA 2500 ppm concentration. In the present studies, a good success in rooting was achieved in the dip treatment with IBA at 1000 ppm only. However, Seradix was at par with control. Average number of roots were more with IBA 2-minute dip in hard wood cuttings as compared to other treatments. Treatment differences were not pronounced in semi-hard wood cuttings for the average number and length of the roots. Curiously, average number of shoots were maximum in control in both types of cuttings. Maximum shoot length was observed with IBA (quick dip) as compared to other treatments.

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