

A Note on Seasonal Influence on Detached Scion Grafting in Mango

Mango (*Mangifera indica* L.) the king of fruits is gaining importance as a orchard crop among the farming community in recent years. Mango varieties like Alphonso, Pairi and Neelum are the popular varieties of Northern Karnataka. Alphonso has got export potential, while pairi has very vast internal market. . Presently farmers are getting plant material from Maharashtra, Agricultural Universities and from State Department of Horticulture and the cost of the graft is quite expensive. Small farmers hesitate to take-up the cultivation of mango due to non availability and higher cost of the grafts. The traditional method of grafting in mango is approach grafting, which is cumbersome, skill oriented and quite expensive.

For a speedy nursery work and for *in situ* grafting, easier methods i.e. detached scion grafting can be taken up. An effort has therefore been made to findout the suitability of detached scion grafting in mango for finding out most congenial period and suitable variety to transition., zone of Northern Karnataka. The study was carried out at Agricultural Research Station, Hanumanamatti during 1988-91.

Local mango stones were sown in nursery bed and grafting was carried out 7 to 10 days after their germination. Alphonso and Pairi scions were prepared by defoliating them 5-6 days prior to the grafting in the mother plant. The scion of Cv. Alphonso and Cv. Pairi were grafted at

15 days interval between 1st July and 30th August in open conditions. The grafts were kept in partial shade condition and assessed for success, 60-90 days after grafting.

The data reveals that, there is a significant difference for the period of grafting (Table-1). Among the four grafting periods tested, first fortnight of August (P_3) was found significantly superior over others (50.33%). The next best period for grafting was July second fortnight (P_2). However, during 89-90 success of grafting was very less in all the treatments, this may be due to very less R.H. and high temperature prevailed during that period. It is very much clear from the data that one should not take-up grafting beyond 15 th of August. Desai and Patil (1984) observed that 40% success of detached scion grafting with Alphonso could be achieved when grafting is done during 1st fortnight of July in open condition of Ludhiana. However, there is not much difference between Alphonso and Pairi variety of mango which are used for detached scion grafting.

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References

- DESAI, J.B. AND PATIL, V.K., 1984, Success of stone grafting in mango in glass house and in open. *Punjab Horticulture Journal*, 24 (1/4) : 7-10.

Table 1. Percentage of mango graft success in different years.

Treatments	1988-89	1989-90	1990-91	Means
Due to Varieties				
Alphonso (V ₁)	31.50	41.60	65.0	47.03
Pairi (V ₂)	54.80	36.00	55.00	48.06
S Em ±	-	6.28	10.52	-
CD at 5%	9.70	N.S	N.S	
Due to period				
1. First fortnight July (P ₁)	37.50	20.12	57.50	38.37
2. Second fortnight July (P ₂)	50.25	21.50	57.50	43.08
3. First fortnight of Aug. (P ₃)	57.50	8.50	85.00	50.33
4. Second fortnight of Aug. (P ₄)	27.50	30.50	40.00	32.66
CD at 5%	13.73	14.85	24.88	
Interaction CD at 5%	19.41	21.00	35.19	