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Standardization of soft wood grafting season on success of custard apple (*Annona squamosa* L.)

R.R. KUDMULWAR, R.M. KULKARNI, S.G. BODAMWAD, P.B. KATKAR AND S.B. DUGMOD

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See end of the article for authors' affiliations

Correspondence to:

R.R. KUDMULWAR
Department of Horticulture, Marathwada Agricultural University, PARBHANI (M.S.) INDIA

ABSTRACT

The present investigation was carried out at Fruit Research Station, Himayabag, Aurangabad. It was found that grafting done on 15th February recorded highest precentage success (88.87) maximum length of scion (2.38 cm). Highest number of leaves (21.93) and maximum diameter of scion (0.26 cm). Minimum number of days to sprouting was recorded in plants grafted in February (1st and 15th).

Key words : Custard apple, Soft wood grafting

Custard apple is an important dryland fruit of India. It is popular by virtue of its spontaneous spread in forests, wastelands, rocky slopes and other uncultivated places, it is generally classed as a semiwild fruit. Custard apple is hardy and known to thrive under diverse conditions of soil and climate. Annonaceous fruits are mainly propagated through seed and therefore, there exists a great variation in respect of growth, yield and fruit quality amongst the trees grown in the orchard. The reports on the development of superior and known variables are meagre, as very little efforts in this directs on have been done. However, it is a common experience to come across individual free exhibiting superior fruit quality and profile yield. If such promising trees are further perpetuated vegetativly the desirable types can be multiplied and orchards with uniform fruit quality can be established. Pawar *et al.* (2003) reported that soft wood grafting was effective in terms of percentage success, per cent of survival, shoot length and the number of functional leaves. However, the studies in respect of standardization of date for soft wood grafting under Marathwada conditions have yet not been carried out. Keeping this in view the present trial was carried out to find out suitable time for obtaining maximum success for softwood grafting in custard apple.

MATERIALS AND METHODS

Softwood grafting was done on local root stock of custard apple. One year old fifty seedlings of uniform growth (Pericil thickness) were used. The softwood grafting by using custard apple cultivar Balanagar as scion was done at fortnight interval. The scion bud of last season growth before sprouting from a single mother plant was taken for soft wood grafting. The trial was laid out in randomized block design with three replications. Fifty plants in each treatment formed a unit. The trial was initiated on 1st January, 2005 and continued upto 15th May, 2005.

RESULTS AND DISCUSSION

The data presented in Table 1 clearly indicates that, the effect of different dates on the percentage success were significant. The highest percentage of success was (88.87) noticed on 15th February (T_4). It was at par with grrafting done on 1st February (T_3), 1st March (T_5) and 15th March (T_6), The minimum percentage success was noticed on 15th May (T_{10}). In case of custard apple, scion budsticks for grafting are available only after December onwards. Being deciduous nature of the crop it shades its leaves in the month of December and January. Plant remain dormant from January onwards and sprouts April onwards, when one or two unusual rains received in the month of April or May. During dormant conditions budsticks stores sufficient amount of food material which results in more success of grafting in February and March month only. These results are in agreement with Gholap *et al.* (2000) who reported that soft wood grafting in *Annona reficulata* gave highest percentage of success in February and March only.

The results obtained regarding the number of days required for sprouting indicates that there was significant variation in the period during different dates. The lowest number of days to sprouting was recorded in plant grafted in February followed by March. Similar results were recorded by Joshi *et al.* (2000) who reported that the lowest number of days to sprouting was recorded for