



## Seasonal variation in success of softwood grafting of jamun under Akola conditions

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### ABSTRACT

An experiment was conducted at University Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola during the year 2005-2006 to study the effect of time of softwood grafting on success of jamun grafts under Akola conditions. For commercial multiplication of Jamun, softwood grafting performed on 15<sup>th</sup> September and 15<sup>th</sup> March proved significantly superior in respect of survival of grafts, scion length, number of functional leaves, leaf area and stionic ratio.

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**Key words :** Jamun, Softwood grafting and time of grafting

The jamun (*Syzygium cuminii* L.) is a evergreen tree belongs to family Myrtaceae. In India, the maximum number of Jamun trees are found scattered through out the tropical and subtropical regions. It is one of the hardy but underutilized fruit crop can easily be establish in neglected and marshy areas where other fruit crops fails to grow successfully. Virtually every part of the tree has been utilized by both urban and rural dwellers, which has valuable medicinal and nutritional properties. The fruit is good source of iron, sugars, minerals, protein and carbohydrate etc. Fully ripe fruits are consumed fresh and can be processed into beverages, jelly, jam, squash, wine and vinegar etc. Fruits are used as an effective medicine against diabetes. Seeds contain an alkaloid jambosin, glycoside, jambolin and antimelin, which reduce the diastic conversion of starch into sugars. A wide range of variability occurs with regard to fruit size and quality owing to the seed propagation which need to be conserved and exploited. Despite its varied advantages, it could not attract suitable scientific attention towards its propagation. Due to presence of polyembryony, the new plant bears true to type, but come into bearing later than budded and grafted plants. Hence, there is need to standardized multiplication method with high success and which has to be cost effective, as well. So trial was framed with view to find out proper time for softwood grafting under Akola conditions.

### MATERIALS AND METHODS

The experiment was conducted at University Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth Akola, laid out in Randomized Block Design with twelve times of softwood grafting and replicated four times. The softwood grafting was carried out at fifteen days interval from 1<sup>st</sup> February to 1<sup>st</sup> April and 1<sup>st</sup> July to 1<sup>st</sup> October. Ten plants in each treatment formed a unit. The observations were recorded 120 days after grafting operation for final survival, scion length, number of leaves per plant, leaf area and stionic: ratio.

### RESULTS AND DISCUSSION

Data presented in Table 1 indicated that, the maximum length of sprout (11.17 cm) was observed in grafts which was grafted on 15<sup>th</sup> February was at par with sprout length (10.40 cm) of grafts grafted on 1<sup>st</sup> February and July (10.21cm). However, minimum length of sprout was recorded in propagules prepared on 1<sup>st</sup> October (3.31 cm). The maximum number of leaves per plant (13.25 cm) was noticed when, the grafting was done on 1<sup>st</sup> February which was at par with 15<sup>th</sup> February (12.22 cm). The possible reason may be, the quick and strong union formation and better nutrient uptake might have caused for better plant growth and more number of leaves per plant. These findings are in line with the results