

## Quality planting material key to better productivity in orchards

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Right technique: Workers grafting mango plants.-  
Photo: C.V.Subrahmanyam.

Any fruit crop is perennial in nature and takes a minimum of three years after planting to bear the first fruits. "In spite of repeated cautioning, the farmers fail miserably in establishing their orchards due to faulty planting materials. Whenever due care is not taken to procure genuine planting materials, farmers will face a lot of problems in undertaking maintenance operations; thereby they lose their hope and incur heavy loss," says Dr. M. Selvarajan, Professor and Head, Department of fruit crops, Horticultural College and Research Institute, Periyakulam, Tamil Nadu. It is a big challenge to scientists and extension functionaries to motivate farmers to bestow personal attention in sourcing genuine quality planting materials.

### **Sudden drying**

"In almost all the training programmes, the farmers complain about sudden drying of grafts even after 2 to 3 years, non-flowering of the trees even after 6-7 years, poor fruit setting, less yield and poor quality of fruits. The only reason for all these problems is that the farmers have not taken proper care to procure quality planting materials," he says. Though farmers are keen in procuring genuine planting materials they are unaware of the techniques in identifying the correct nurseries to source the right planting materials from. There are certain guidelines to be followed for selecting planting materials. Nurseries should have a well maintained mother block (scion bank), which should have proper labeling of the variety, the nursery should maintain the documents for the source of planting materials for the mother block, the grafts should have proper labels of the variety and the date of grafting should be displayed. Normally farmers procure the grafts without seeing the plants at the nurseries. One should realize that the fruit plants will start bearing only after four or five years and if the fruits are of poor quality, faulty planting materials are responsible and whatever money and energy have been spent are a waste.

### **Next question**

After selecting the nurseries, the next question is how to identify and select the genuine and quality planting materials. An easy technique to identify the best quality planting material is that all the grafts of a particular variety should be uniform in their leaf characters. If variation is observed among the grafts displayed with the label of a particular variety, then these can be adjudged as faulty, poor quality planting materials. Further, the saleable grafts in the nurseries should be properly hardened before delivery which can be judged from the label displaying the date of grafting.

### **Minimum period**

The grafts, before sale, should have been hardened for a minimum period of three months. In reputed nurseries, hardening is normally done by gradually exposing the grafts to open sunlight. Another confusion which quite often bothers the farmers relates to what types of planting materials have to be used for different fruit crops. Except banana, acid lime and papaya most of the other fruit crops are cultivated by

planting grafts. Farmers usually prefer tall vigorous and two-year old approach grafts. But, considering the cost, difficulty in transport and poor field establishment, these grafts are not recommended for planting and at present it is recommended to plant soft-wood grafts. These two types of grafts exhibit good field establishment with less mortality and faster growth. Since, these two methods are very easy and rapid, the nurserymen also have started producing these grafts. In recent times, the farmers have also realized that these grafts are better than the approach grafts. "The Department of Fruit crops, Horticultural College and Research Institute, Periyakulam imparts need based trainings both for extension functionaries and farmers grafting technology. Farmers should come forward to learn these techniques to produce their own grafts. If the farmers learn to do this by themselves, then they can multiply their own planting materials," says Dr. Selvarajan.

### **Suggestion**

A word of caution for nurserymen is that they must always produce and supply true-to-type, quality planting materials at a reasonable cost to the farmers.

**For more information contact**

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