

Propagation and Nursery Management

PLANT PROPAGATION and nursery management are integral part of horticulture development in the country. Often, we consider 'Plant Propagation' and 'Nursery Management' are same, though they are altogether different but inter-related. In fact, mass multiplication of quality planting materials is the central theme of nursery management but nursery management is trade oriented dynamic process of efficient utilization of resources for better economic return. The word nursery is also used for young saplings raised by seeds. Besides seeds, there are various propagation techniques for perpetuation of clonal material. The main phases of nursery management are: (i) planning, (ii) implementation, (iii) monitoring and evaluation, and (iv) feed-back for further refinement whereas, the key elements of nursery are (i) the place, (ii) the plant and (iii) the person behind (Saroj, 2004).

Establishment of ideal nursery and production of quality planting materials is a vital component for development of good cashew plantations. In fact, cashew was introduced in India for afforestation of wastelands and spread over coastal regions by large-scale plantations of seedling in origin. Before standardization of vegetative propagation technique, cashew was multiplied by seeds and being a cross pollinated crop, a lot of variability in plant vigour, precocity, bearing habit, nut yield, fruit colour and its quality etc. was observed. Thereafter, the potential of cashew for its delicious kernel was realized and it was considered as one of the important export oriented horticultural crops. Crop improvement programmes were started by researcher to identify varieties with high yield potential and bold nut size. After identifying such types from the seedling population, the techniques for vegetative propagation were standardized to maintain the genetic purity of the mother plant. Now, cashew industry has been revolutionized with development of soft wood grafting technique for the mass multiplication of cashew quality planting materials. However, the clonal multiplication of rootstocks in cashew is yet to be standardized, thus the raising of rootstocks by seeds are still continue. Though, use of dwarfing rootstocks is adopted in cashew propagation in Brazil.

Seed propagation

The seed propagation is not only done for raising of rootstocks but in varietal evolution also, the seedling population is raised by the seeds to assess the hybrid for desired traits. Still the concept of seed garden in cashew is not popular and mature seed nuts collected from the orchard and after drying, seeds are sown for