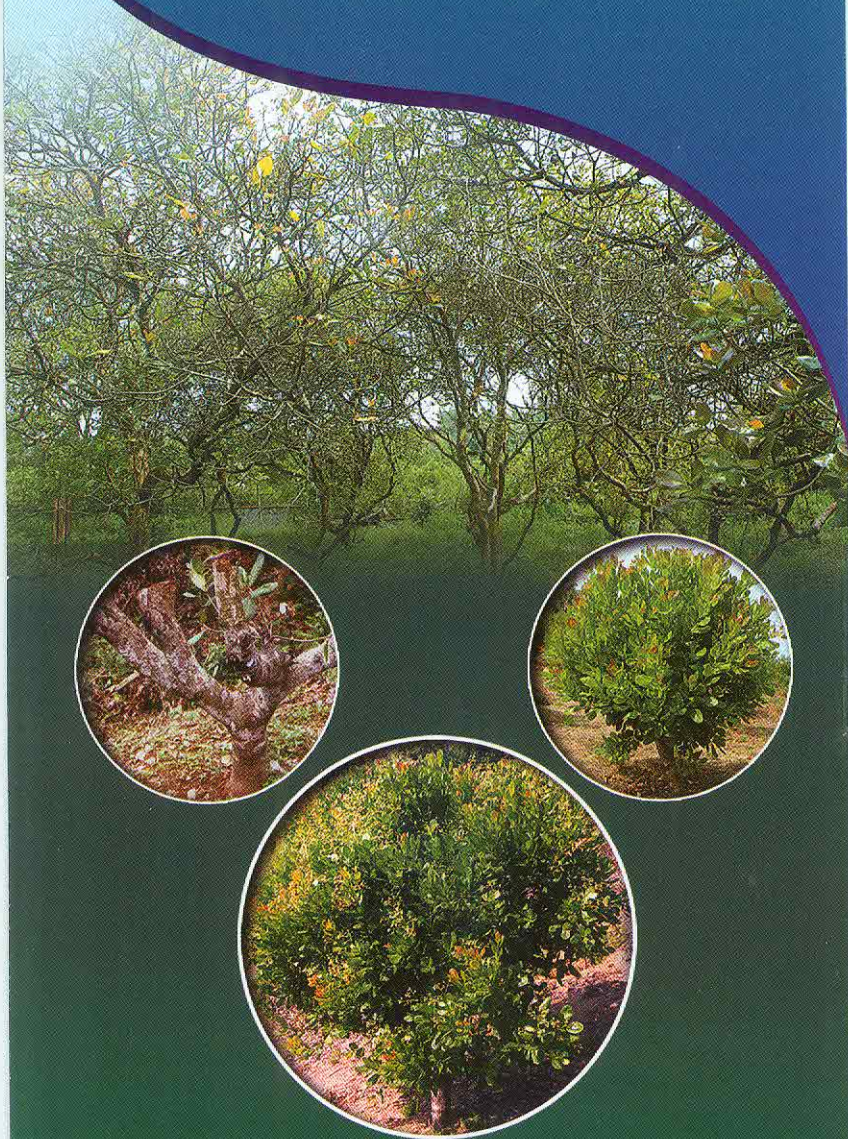


REJUVENATION TECHNIQUES IN CASHEW



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REJUVENATION TECHNIQUES IN CASHEW

The old cashew plantations available in the country are mostly of non-descript seedling origin and have gone senile due to poor plantation management. There is urgent need to rejuvenate such plantations to achieve the targeted nut production in the country. The individual trees can be pruned or headed back to its primary branch frame work to a reachable height and new canopy can be developed to rejuvenate such senile trees. With regular nutritional and plantation management such old plantations can be rejuvenated with enhanced yield performance, provided such old trees have originated from elite planting material. If the old trees have gone senile due to their origin from poor performing trees, then such trees can be rejuvenated by heading back and then top grafting with elite scion shoots on the new sprouts arising from the remaining portion of the trunks which is called as "top working".

Purpose of rejuvenation :

- To enhance the yield performance of poor senile yielding trees.
- To change the variety of existing plantations.
- To include several cashew varieties in a single tree.
- To conserve large number of genetic stock in smaller piece of land.
- To redevelop the exhausted canopy.
- To improve the aesthetic performance.

Conditions for rejuvenation :

1. Tree should be healthy and free from cashew stem and root borer (CSRB) infestation.
2. Trees should not be very old and unrecoverable.
3. In plantations only senile and very low yielders need to be rejuvenated.
4. Pruned tree should have sufficient exposure to sun light.
5. Area should be free from bushes and trees competing for nutrition and space.

Rejuvenation by pruning :

Old and very low yielding trees of elite varieties are selected and their major branches are detopped at 1.00 to 1.50 m height from the ground. Care should be taken to prevent the breaking of or splitting of bark on remaining portion of the stump. The stump should be sprayed with Chlorpyrifos 0.2% to prevent the egg laying by CSRB. The operations can be taken up during April – May months in west coast region.

Heading back of the canopy needs to be done by cutting the major branches up to its frame work of primary branches. While pruning, the bark or stem portion should not be allowed to split or break away. The cut wounds should be treated with 10% Bordeaux paste or Blitox to prevent invasion of fungal pathogens. Pruned and brush wood need to be cleared within 1 or 2 days of pruning and the basin of the trunk be cleared and monitored to prevent the possible entry and damage by CSRB.

If the senile trees have originated from elite material, they may be allowed to redevelop the canopy from the new sprouts arising from the remaining portion of the trunk. The fresh canopy can start bearing flowers and fruits in the subsequent flowering season provided pruning is attended immediately after completion of the crop harvest. In a trial, average yield of such old trees prior to rejuvenation was approximately 3.0 kg per tree irrespective of varieties. The crop yield in the subsequent harvests was highly encouraging in the rejuvenated trees as given below-

Table-1. Yield performance of rejuvenated trees by heading back or limb pruning

Varieties	Yield (kg./tree)		
	2003-04	2004-05	2005-06
VRI-1	1.62	3.19	8.01
Ullal-1	2.95	4.42	8.84
VTH 30/4	1.18	4.61	9.30
NRCC Sel-1	0.44	1.23	8.10



