

# MANAGEMENT OF CASHEW ORCHARDS

K. B. ABDUL KHADER\*

Till recently cashew crop received very little attention. An analysis of production figures in India shows that the increase in production has not been proportionate to the increase in area under cashew. Cashew plantations are raised in marginal lands where no other crop could give an economic return and it receives very little attention from the growers. The reason for the low production can be attributed to a large proportion of the plantations consisting of self-sown seedlings and poor management. Scientific management of cashew orchards has become imperative to increase the production of cashew nuts to the maximum extent possible within the shortest time. Its yield potential has never been exploited on good soils using the best available plant types, fertilizers and pesticides such of those used for other crops to which cashew is compared.

**Manuring, cultural operations, weeding, mulching, cover cropping, pruning and plant protection practices** are some of the important aspects to be considered for improving the production potentials of the cashew orchards.

**Manuring.**—Cashew has been seldom manured regularly in India. This situation was probably justified because cashew was not cultivated with intensive management until recently. Reasons for poor productivity were rarely the concern of cashew growers, and the disadvantage of self-sown crop was not realized. Recent research findings indicate that with regular fertilizer application it is possible to ensure early and higher yields in new plantation and regular high yields from immature trees. It was reported that a 30 year old cashew tree removes 2.80 kg N, 0.75 kg P<sub>2</sub>O<sub>5</sub> and 0.75 kg K<sub>2</sub>O per year.

Preliminary trials on nutrient requirements indicated that an annual application of 500g N, 125g P<sub>2</sub>O<sub>5</sub> and 125g K<sub>2</sub>O per tree/year is optimum dose for cashew. It is recommended to apply the fertilizers in two equal split doses, first in premonsoon and the second dose being in post-monsoon when there is optimum moisture in the soil.

Studies on root distribution of a 10 year old cashew tree revealed that more than 90 per cent of the cashew roots are confined within 2 m radius and the maximum depth up to which the roots extended was 9.5m. These results indicate that because of the concentration of the maximum feeding roots within 2 m radius which extend to more than 9m deep, placement of fertilizers within a radius of 2 m may result in a better utilization of applied nutrients. Fertilizer applications must be taken up only after weeding and cleaning the basins of indi-

dual trees both during pre and post-monsoon seasons in order to avoid the competition for nutrients from weeds.

**Irrigation and Drainage.**—Cashew is a hardy crop and with extensive root systems can absorb sub-soil moisture and hence irrigation may not be very much needed to this crop. However in seedling stages it may require irrigation in summer especially in sandy soils. Cashew cannot withstand water stagnation, flooding or impeded drainage. Adequate drainage should be provided where there is possibility of water stagnation.

**Cultural operations.**—Cashew is commonly grown in slopy land in west and east coasts. Soil erosion and leaching of plant nutrients are generally expected in such situations. Terracing the bases of the trees during May-June months to provide a flat basin of about 2m radius is adequate. Soils may be cut from the elevated portions of the slope and spread to the lower side to form a levelled basin which may help to prevent soil erosion and consequent loss of plant nutrients. Contour bunding system may also be adopted in cashew orchards as a soil conservation measure.

**Weeding.**—Weeds may compete for nutrients, moisture and also for light (in initial years) with cashew plants. Keeping the cashew orchards free of weeds is one of the important aspects of management. The first round of weeding may be done before heavy rains and before the first dose of fertilizer application. The second weeding may be taken up during November-December months after the rains recede before the application of second dose of fertilizer. Weeding and cleaning the plantations in the postmonsoon period also facilitate easy picking of nuts.

**Mulching.**—Mulching the cashew plantations with organic matter prevents weed growth, reduces surface evaporation during summer, regulates the soil temperature, improves the soil fertility and also prevents soil erosion. Therefore, organic matters obtained during weeding may be utilised for mulching the plantations.

**Cover cropping.**—Leguminous cover crops enrich the soil by fixing atmospheric nutrients, add organic matter and also prevent soil erosion. *Centrosema pubescens* and *Calapagonium muconoides* may be sown in the beginning of monsoon (May-June) with a seed rate of 7.5 kg/ha and by the end of the monsoon it may be cut and incorporated in the soil.

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\*Central Plantation Crops Research Institute Regional Station, Vittal 574 243, Karnataka.