

Development and evaluation of jaw type cashew fruit picker with container unit

In cashew orchards, conventional fruit collection is done by 'handpicking' methods for collecting the cashew fruits that are scattered on the ground from the individual fruit trees. This is not only a time-consuming but also tedious, backbreaking, and knee-painful task. It is well known that the collection of fallen fruits on a large scale is still inefficient and not cost-effective. To solve this challenging task, a hand-held jaw-type cashew fruit picker with a container unit has been developed and evaluated to increase efficiency and reduce harvesting costs. The developed prototype consisted of a main handle, a guiding handle, side covers, spring mechanisms and a container unit. The developed tool's average collecting capacity was determined to be 38.81 kg h⁻¹, depending on the density of fruits and the percentage of debris was found to be < 2.5%. The picking efficiency of the tool ranged from 91 to 95%. The developed tool is light in weight (0.8 kg) and gender-friendly.



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Influence of foliar nutrient sprays on tea mosquito bug infestation in cashew

Tea mosquito bug (TMB) is a serious pest of cashew, can cause up to 100 % yield loss, if timely management measures are not taken up and no resistant cashew genotype is presently available in India. Three rounds of foliar nutrient sprays were done at monthly intervals starting from flushing on the trees of Ullal-4, Dhana and Bhaskara varieties. After three rounds of sprays, none of the nutrient treatments tested were effective in reducing TMB damage.

Overall, TMB damage grade varied from 0.39 to 2.5 in the treated trees (out of 0-4 score). The pooled mean TMB damage grade was less only in insecticide treated trees (0.40 and 0.43), but high in all the nutrient treatments. Under pot culture trials during 2023, six nutrient treatments at higher doses viz., potassium silicate liquid and powder formulation (0:0:32.4:52.8) @ 3 and 6 ml/L and @ 3 and 6 g/L, respectively, potassium sulphate @ 2 % and mono potassium phosphate @ 2 % were imposed as foliar sprays on 4 months-old cashew seedlings. After three rounds of nutrient sprays, fourth instar TMB nymphs were allowed @ 2 /plant for 48 hours of feeding. All the treatments exhibited TMB damage grade above 3.5. Thus, foliar nutrient sprays could not reduce TMB infestation under high population pressure.



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Report of anthracnose disease in cashew apple

The disease infected cashew apple samples suspected for anthracnose were collected from Alankar and Sowthadka plantations of Karnataka Cashew Development Corporation (KCDC) and experimental cashew plots of ICAR-Directorate of Cashew Research. The initial symptoms can be observed on ripened cashew apples as irregular small dark brown to black spots. Later, the affected cashew apple develops sunken or depressed, prominent dark brown to black decay spots. The spots initially appear superficial but can coalesce and eventually penetrate deep into the fruit, resulting in fruit rotting. The mycelial growth on potato dextrose agar (PDA) medium showed aerial, whitish to greyish coloured fluffy mycelium on upper side and greyish to yellow colour on the reverse side. The conidia are single celled, hyaline, cylindrical shaped and conidial size ranges from 12.78 ± 1.54µm × 4.75 ± 0.75µm. Based on the symptoms observed and the morphological characteristics, association of *Colletotrichum* spp. causing anthracnose disease of cashew apple is