

Performance evaluation of pilot cashew nut processing unit

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SUMMARY : A small cashew (*Anacardium occidentale* L.) processing unit consisting of steamer, cooker, shelling machine and dryer was tested for its performance for the cashew nut variety 'Vengurla-5'. The unit was received at Zonal Agricultural Research Station, Sub-montane Zone, Shenda Park; Kolhapur under "Technology Park" sanctioned Commissioner, Agriculture M.S., Pune. The six treatments consisting of various combinations for pressure and time were evaluated for the performance of the pilot unit. The study revealed that treatment combination (4.5 kg/cm² and 20 min.) gave maximum recovery of whole kernels as well as over all recovery of kernels with minimum moisture content, which is desirable for good quality product in the markets. Therefore, the treatment condition consisting of keeping raw cashew nut at 4.5 kg/cm² pressure for 20 minutes duration for the given processing unit was found to be the best giving maximum recovery of good quality kernels and overall total recovery of kernels with minimum moisture content.

Key Words : Cashew nut processing unit, Quality of cashew kernel, Kernel recovery, Grading of cashew kannel

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Cashew (*Anacardium occidentale* L.) was not considered as fruit crop in India since a long time, rather it was considered as a wild crop on non arable land for soil conservation. Cashew is mostly grown in costal area of Kerala, Karnataka, Goa, Maharashtra, Andhra Pradesh, Orissa and Tamil Nadu. Cashew kernels are nutritious and tasty. They are mostly used as roasted and salted nuts in snacks, alone or in mixture with other nut. Broken kernels are used in confectionary and sometimes as substitute for almonds. Ground powder can replace peanuts butter in exotic dishes. Cashew kernels are integrated in delicious chocolates. The value added products are honey coated cashew, cashew roasted with special flavours-garlic, cheese, etc. It earns maximum foreign exchange.

Cashew kernel may be used as food medium for loss of appetite, general depression, nervous weakness and scurvy. It is also a rich source of riboflavin, which keeps body active and energetic. 100 g of cashew kernel contributes about 600 kilocalories energy, 22 per cent carbohydrates, 21 per cent protein and 47 per cent fat along with minerals like Ca, Mg, K, Na and Fe (Ohlem, 1979). Being rich in iron it also useful in anemic. Its regular use is beneficial in the treatment of gastric, chest, urinary and liver disorders. Cashew nut shell liquid (CNSL) is a by-product of cashew industry. It is a unique monomeric source for making various polymeric compounds. Cashew apple is used for manufacturing of cashew apple jam, cashew apple candy, chutney, canned cashew apple, pickles, vinegar, and alcoholic beverages. The distilled cashew liquor called "feni" is very famous in Goa. The Maharashtra state has maximum scope for farm mechanization and initiating subsidiary occupations. Small and marginal farmers /or cashew growers can initiate such type of family owned agro-business for supplementary income through value addition. In view of this, a pilot cashew processing unit was studied for its performance. The study was, therefore, undertaken with following specific objectives:

- To study the performance of cashew processing unit.
- To study various combinations of steaming pressure

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