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CASHEW, PEPPER AND CARDAMOM IN THE NEW SYSTEM

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CASHEW, pepper and cardamom are important commercial crops grown by small as well as big farmers. Cashew and pepper are grown along the plains and foothills while cardamom is confined to higher elevations. The export earnings from cashew alone were to the tune of Rs 1,190 million in 1974-75. Pepper fetched Rs 344 million and cardamom Rs 131 million. A very high proportion of these export earnings was accounted for by the small holdings. The importance of these crops in our national economy in general, and socio-economic set-up in particular, is very much evident from these figures.

A Wrong Concept

Cashew is considered to be a crop for marginal lands unsuitable for other crops. This is a wrong concept. Suitability of a crop for a given land is a concept that changes with available resources and time. Though cashew tolerates a wide range of soil and climatic conditions and it comes up in so-called marginal lands, economic yields on a plantation or a commercial scale can be expected only if proper management practices including fertilization and plant protection measures are adopted. With increasing inputs, two possibilities exist: (1) so-called marginal lands considered 'suitable for only cashew' today may profitably be used for other crops in future; (2) better classes of land may be used for cashew in future when high-yielding varieties become available and better profits are ensured for the farmers from increased prices of nuts, and better commercial use of apple, shell liquid and testa. For example, several lands in Kerala which were once considered marginal and good for only cashew have since been planted with other crops. There are no areas which are suitable for cashew alone. Similarly areas which were once quite suitable for plantation crops like pepper and cardamom are now becoming more or less unsuitable for these crops because of indiscriminate deforestation and the attendant disturbances in the microclimatic conditions. The growth of cardamom plantations was once very luxuriant in some tracts in the high ranges of Kerala and in Coorg areas of Karnataka. But some of these areas now face aberrant climatic conditions like drought and the result is poor performance of the crop. This necessitates a sort of realignment in

the cropping pattern and suitable adjustment in the management practices.

Deviation

There was a time when the concept of cropping patterns for different tracts was thought to be rigid. Now the farmers are for deviation from the traditional practice. The current need is to utilize every centimetre of available land space and produce maximum per unit area. Cultivators are also well aware of the changed socio-economic situation and the dire need for immediately increasing production, making use of the results of research. Unlike in other crops, adequate research results are not available in cashew, pepper and cardamom and the cultivators still follow the age-old traditional practices of farming. Where irrigation facilities are adequate, any number of crops can be thought of. But in areas where irrigation is a limiting factor, cashew, pepper and cardamom are the probable crops that can be combined with other garden land crops. Indiscriminate crop combinations now grown by the farming community have often made the problem of garden land management rather complex. Very little information is available on crop combinations suitable for cashew, pepper and cardamom for garden land and their management, involving different agro-ecological regions. The suggestions made in the following paragraphs are, therefore, based on my impressions from field observations rather than on results supported by experimental evidence.

Cashew with Other Crops

Cashew comes up well on all soils. Growing quick-yielding fuel trees like casuarina is a common practice in sandy soil tracts of the East Coast of India. In such tracts crop combinations of cashew and casuarina, cashew and coconut, and cashew, coconut and casuarina are worth trying. Cashew and coconut require a spacing of 7.5 to 8 m between trees and the interspace can be utilized for raising casuarina, which can be cut down by the time cashew or coconut come to yield. A trial with these crop combinations is already in progress in the coastal sandy tracts of Orissa. This system of cropping has an added advantage in that the crop combination acts as an effective wind-breaker also. This opens

up new vistas for converting the entire coastal sandy belt into evergreen and highly remunerative plantations. In one hectare, 160 to 200 coconut/cashew and about 2,000 to 3,000 casuarina plants can be raised. Cashew-casuarina combination has a very high potential and deserves priority consideration since, at present, there is a growing tendency among farmers for replacing cashew with casuarina, without the realisation that under planned management both of them can be a remunerative and a compatible combination in sandy soils.

Pepper

Planting pepper cuttings at the base of any tree in the home garden is one of the oldest and simplest form of pepper cultivation. Alternatively the vines are also grown by small holders as a secondary crop in tree crops like *Areca catechu*. At higher altitudes it is an important crop of the shade trees in coffee plantations. A more intensive form of cultivation employed in the northern districts of Cannanore and Calicut of Kerala is to grow the vines up a shading support like *Erythrina indica*. A most intensive method is to train the pepper vines on dead standards, a method extensively practised by the Chinese in Sarawa. With the increase in price of pepper, some enterprising farmers have started raising pepper on cashew trees and the initial indications are very encouraging. Thus there is no tree on which pepper cannot be grown provided the shade is regulated and proper attention is paid. It is probably one of the

economically important crops which does not demand a separate space. It lives with other crops. Studies at the CPCRI have shown that pepper thrives well as a mixed crop with coconut and arecanut. It can also be grown in-between the rows of coconut and arecanut, either on dead or live standards. A proper crop combination with coconut, arecanut and other garden land crops and a package of practices for such a mixed cropping would go a long way in increasing the production of pepper.

Cardamom

Cardamom has been raised as a mixed crop with arecanut by arecanut growers, especially of higher elevations, in the Sampaje region of Karnataka and the Panathady region in Cannanore district of Kerala. This crop mix becomes a profitable proposition only up to about 700 m, since at higher altitudes arecanut cultivation may pose its own problems. However, under suitable agro-climatic conditions this practice has been found to be highly remunerative. Such a practice can enhance the production of cardamom without any additional involvement of area. The arecanut palms provide adequate shade for the cardamom plants.

Cashew, pepper and cardamom can thus be the choice for a crop mix for any farmer, marginal, small or big. Depending on the area, agro-ecological conditions and resources available these crops can be fitted into the crop mix for every type of holding.