RP-27

" Reprinted from June 1958 issue of 'Indian Farming' "

Pepper vines grown in a household garden. The vines have been trained on coconut trees and deadwood posts

Small Holders Should Come to the Rescue of Spices

by

P. Abraham

RECENT surveys and studies clearly indicate that the production of spices in India can be established on a stable economic basis by encouraging their cultivation as a small holder's crop, mainly in household gardens.

Spices such as pepper, cardamom and ginger are among the outstanding foreign exchange-earning crops of India at present. Clove, nutmeg and cinnamon—the important tree spices of the world—although very widely used in India, still remain articles of import. It is an urgent need, therefore, that the production of all these spices should be stepped up—of the first three mainly for maintaining and expanding the export trade and of the latter three minor spices for making their import unnecessary and, on the other hand, for establishing, if possible, their export trade.

During the last quarter century, pepper, ginger and, occasionally, even cardamom in India experienced very wide price fluctuations, often hitting the country very badly, bringing about serious slumps in their production and trade.

Pepper and ginger, which had artificial 'spurts' during the World Wars, cannot be expected to have the same 'scarcity value' in the future also in view of the serious competition in the world market for these commodities.

Hence, it is important for India to establish her production of spices on a sound economic and scientific basis, so that she may successfully compete with the other spices-producing countries in these very valuable dollar-earning commodities. The best way of doing this seems to be by bringing down their cost of production as much as possible by producing them mainly in household gardens and small holdings in the regions where these crops can be grown.

PEPPER

In south-west India, comprising Kerala State and the Kanara district of Mysore State, which is its original home, the pepper vine has been under cultivation since very ancient times, perhaps a couple of thousand years, or more, before Christ. Pepper is one of the few cash crops of the region. In this region, almost every house compound contains some pepper vines, the number in each compound varying widely. These

vines are mostly trained on the mango, jack, *Erythrina indica*, arecanut or coconut palm or, any other rough barked tree which serves as a good support or 'standard.' Nearly every household is self-sufficient in pepper. The surplus after meeting the domestic needs is sold. It is the produce of the vines of these innumerable small compounds that contributes the lion's share, nearly 90 per cent, of the pepper produced in India today.

It was only in 1928 that the temporary rise in the price of pepper to about Rs. 700 per candy encouraged pepper growers to start new plantings on a plantation scale in North Malabar and South Kanara. The great demand for black pepper in the world market and the consequent phenomenal increase in pepper prices during the last decade, immediately after the Second World War, again encouraged pepper cultivation to some extent, and new homestead pepper gardens and some large-scale plantations sprang up in this region. Indian production of pepper has not even then kept pace with the increase in the world demand for the produce during the post-War period.

The price of black pepper in the world market has been, however, on the decline during the past three or four years. The price per candy, which rose to Rs. 4,500 from the pre-war price of about Rs. 200, has again come down to the present average price of about Rs. 550.

Indonesia and Malaya have brought back their pepper production to the pre-war level, and a very high quality pepper is reported to be now exported by Brazil to the United States of America at a premium.

In the European markets, it is reported that there is greater preference for Sarawak (Indonesian) pepper which being of a much lower quality than Indian pepper, goes much cheaper.

America is now trying to produce pepper in Puerto Rico.

If, on account of all this competition, the price of pepper in the world market goes down still further, there is every possibility of pepper production in India, especially on a plantation scale, coming to a standstill, and even seriously declining, depriving our country of a very important source of foreign exchange from an indigenous product.

Clove trees growing among coconut and arecanut trees

A DELICATE CROP

Pepper is a delicate crop which requires constant attention and care. The initial cost of laying out a pepper plantation itself is heavy. Whether a good crop and price are realized or not, one cannot afford to neglect one's plantation. A permanent labour force has to be maintained. With the slump in the price of pepper during the years 1931-41, a large proportion of pepper plantations on the West Coast became derelict and were abandoned on account of the prices going far below the expenses incurred.

The best organized and most extensive pepper plantations of India are in North Kerala. The most

prominent and enlightened pepper planters of this region, who have spent their lifetime on pepper production and have reaped good profits during the post-war boom period, are now of the view that unless the price of a candy of pepper remains at a high level, i.e., anything between Rs. 1,500 and Rs. 2,000 it would be impracticable and unprofitable to maintain large-scale plantations in the region. They hold that at present, to be really an economic success no one should have more than about ten acres of the pepper crop.

According to Blacklock (1954), the average size of a pepper garden in Sarawak is about half an acre, this being the most convenient area for a family in that country to handle without outside help. Hedda Morison writes that in Sarawak "pepper is generally cultivated as a small holder's crop. A great deal of hard work and unremitting attention is called for. Generally, the whole family helps to care for the pepper and an average garden totals about 500 vines." In Indo-China and Malaya also, the situation remains the same.

These facts point to the fundamental conclusion that pepper production, which all along has been a household garden crop in India, should remain largely as a cottage industry.

In homestead gardens in India, very little is spent on the maintenance of pepper vines. The diggings and manurings given to the trees and other crops in such gardens benefit the pepper vines also; the small amount of labour and attention bestowed on the pepper vines is chiefly by the members of the household. Under such circumstances, whatever returns are obtained from the pepper vines are a gain for the owner.

What is required to be done now is to help increase the population of pepper vines in the country by scientifically planting selected superior vines to all the suitable trees in household gardens and small holdings in the areas suitable for pepper cultivation. The vines that die periodically, and old and unthrifty vines in such gardens should also be replaced with selected superior vines.

IN PLANTATIONS

Pepper can also be grown as a subsidiary crop in plantations of tea and coffee by using the shade trees as supports for the vines, and in arecanut and coconut plantations as a mixture as well as by using the palms themselves as supports. In such plantations also, there would not be much expenditure on the pepper vines.

By this method, India will be able to attain in the prescribed time her target of production of high quality pepper on a sound economic basis.

Production of pepper in household gardens and small holdings would reduce pepper plantations to smaller, and very cheaply and efficiently managed, holdings almost eliminating the risks of low prices. On such small holdings, mixed planting of pepper with coconut, arecanut, banana, fruit trees, etc., could be taken up with the greatest advantage to the growers. It was on this basis that pepper cultivation in India survived the past centuries.

Nutmeg trees growing in a household garden

GINGER

Ginger is believed to be a native of Tropical Asia, and is cultivated mostly in India, West Indies (Jamaica and Barbados), Sierra Leone, Brazil, China, Japan and the Dutch East Indies. At present, the most important producers of commercial ginger are India, Jamaica and Sierra Leone. Kerala is the most important area in India producing commercial ginger, while in other parts of India, ginger is grown for local consumption as green ginger.

Fortunately, ginger in India, especially in Kerala, has all along been produced as a small holder's crop, the average size of a ginger block being not more than ¼ acre.

Exports of dried ginger from India, amounting to about 3,000 tons at present, are gradually on the increase. As compared to the quantities exported before the War, the present exports to Ceylon, Africa and some of the Middle East countries are on the increase, while exports to the United Kingdom, the U.S.A., Aden and Iran have fallen below the pre-war level.

During the last half century, India's commercial ginger has experienced serious slumps in prices, threatening the industry with extinction. Even today, the prices are at a very low level. The one factor which has maintained ginger production in

Turmeric and ginger among coconut trees

India is that it has all along been a small holder's crop.

In the trade, ginger is known by the quality, method of curing and place of shipment, and is classified by such names as *Jamaica, Cochin, Brazil, Africa* and *Japan*. The produce of Kerala, the commercial ginger of India, marketed as *Cochin* is second only to *Jamaica* which is of the best quality.

There are two classes of ginger—one producing fibrous rhizomes and the other soft rhizomes, of which the latter is of higher quality.

From the point of view of international trade, we have to put the Indian ginger industry on a sound economic basis, so that it may be capable of facing competition. This can be best done by improving the quality of the country's produce by evolving soft (fibre-free) varieties by introduction and trial of exotic varieties, cross-breeding and/or selection, as well as by maintaining ginger as a small holder's crop in India.

TURMERIC

Turmeric cultivation in India can also be developed on exactly the same lines as indicated for ginger. Export of turmeric from India has been on the decline during the last few years, and is at present about 6,000 tons. This position can be vastly improved by extending the cultivation of selected superior varieties as a small holder's crop.

CARDAMOM

Cardamom is at present a plantation crop in India.

Although cardamom has been a commercial commodity of south-west India for hundreds of years, it is only since about a hundred years that its production on a plantation scale and development as an agricultural industry commenced.

In earlier times, like all hill produces, cardamoms, both for internal consumption and for export, were collected from wild cardamom plants in the jungles. Even today, a certain amount of cardamom is collected this way from our forests.

At present, cardamom is cultivated in the south Indian area of the Western Ghats from North Kanara in Mysore State down to Tirunelveli district in the extreme south of Madras State, i.e., Mysore, Kerala and Madras States.

A good proportion of the cardamom produced in India is used in the country itself, especially in north India, and only the surplus of about a 1,000 tons is exported. It is a crop which can be cultivated with comparative ease, and is, in fact, a valuable cash crop for cultivators living in areas where there are not many other cash crops.

The price level of cardamom has never suffered any serious fall, except during the First World War, and has generally remained at a satisfactory level. In 1950, the price went up to a phenomenal level of Rs. 12 per pound and remained more or less at that level till 1953, when it fell to Rs. four per pound. It rapidly rose again, and now remains more or less steady at Rs. ten per pound.

The hill districts ranging between elevations of 2,000 and 5,000 feet in which cardamom is cultivated are now being gradually colonized by farmers from the plains, with the result that large-scale cardamom plantations are being reduced to small holdings ranging from an acre to about 15 acres. This process is bound to extend to all cardamom areas in the course of a decade or two.

There is also a tendency towards a number of such small holders joining together and forming cardamom producing co-operative societies. This is a development in the right direction.

In Mysore State, cardamom is already a small holder's crop, being grown as a subsidiary crop in arecanut gardens and coffee and other plantations. The *male* system of cardamom cultivation prevailing in Coorg is also based on small holdings by the villagers.

Thus, in India, cardamom is also gradually becoming a small holder's crop.

CLOVE, NUTMEG AND CINNAMON

The cultivation of clove, nutmeg and cinnamon, the most important tree spices of the world, is only in its infancy in India.

Introduced into this country nearly 180 years ago by the East India Company, there are hardly 200, 300 and 350 acres, respectively, of these spices in India today.

The imports of clove and nutmeg in 1955-56 were 56,904 and 6,759 hundredweights, valued at Rs. 1,46,24,000 and 12,74,000, respectively. Information on the amount of cinnamon imported into India, however, is not available.

The main reason why the cultivation of these spices has not spread to any considerable extent in this country during the last 180 years, is that very little is known to the public about the advantages of and profits from growing a few of these spice trees in every homestead garden in the regions where the soil and climatic conditions are suitable for the normal growth and development of these trees.

The irregular behaviour, especially of clove trees, the high cost of raising large-scale plantations of these trees and the consequent risks were also very important factors which operated against the extension of production of these spices in India on a plantation scale.

Recent surveys have, however, indicated that the easiest and the best way of extending the cultivation of these spices in this country is to grow them in homestead gardens and in small compact groves in all suitable, well protected, moist and cool situations in orchards and coffee, tea, coconut, arecanut, rubber, pepper and cardamom plantations. A household garden can have a dozen or two of trees of each kind. In such gardens, the cost of production will be insignificant, and whatever returns will be obtained from the spice trees will be a gain for the owner. By this method, clove, nutmeg and cinnamon production in India can be stepped up to the desired level in the next 15 to 20 years.

It has been repeatedly emphasized that mixed cropping is of the greatest importance in the farming economy in India, as it is unwise and very risky to have all your eggs in one basket. The soil and climatic requirements of all the spices mentioned above, except cardamom, are about the same, and they can all be grown as mixtures not only among themselves but also with other annual as well as perennial crops (orchards and other tree crops) at a minimum cost.

If the production of spices in India is encouraged and developed on these lines, it can be established on a stable economic basis at the desired level, capable of successful competition in the world markets and steadily earning foreign exchange for our country and cash for the growers.

I may repeat here that it was on the household garden basis that spices production in India survived through all these centuries.