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NOW, BETTER POSSIBILITIES WITH CARDAMOM

by P. ABRAHAM

THE cardamom is one of the most ancient and profitable agricultural products of the mountainous regions of south-west India and Ceylon. Along with pepper, cardamom made history in South India, as these two crops were indigenous only to this part of the world. Although Ceylon, Eastern Archipelago and Java produce some quantity, even today South India contributes anything up to 90 per cent of the world's supply of cardamoms, thus holding a monopoly for this very valuable spice. The Portuguese navigator Barbosa (1514) who frequently mentions cardamom in his writings as a product of the Malabar Coast, seems to be the first writer who has correctly recorded the country of origin of the spice. 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 products, 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 in this way from the forests.

Cardamoms are cultivated in the South Indian area of the Western Ghats, from North Kanara district in Bombay State to Tinnevely district in the extreme south of Madras State. Because of the hill tracts where cardamoms are grown not being easily accessible, and of the different systems of cultivation followed for the crop, it is not easy to estimate correctly the area under the spice nor the production in South India. Roughly, the total area under this crop in North Kanara, Mysore, Coorg, Madras, Cochin and Travancore-Cochin is 1,20,000 acres and production 1,80,000 maunds (of 28 pounds each).

During the last two decades, the area under cardamoms has expanded considerably, especially in Travancore, as a result of improved communications due to which a considerable area of jungle suitable for cardamom-growing has become easily accessible. The steep fall in coffee prices in Mysore and Coorg which occurred some years ago and the satisfactory price level of cardamoms, led to parts of coffee areas in those tracts being planted to cardamoms.

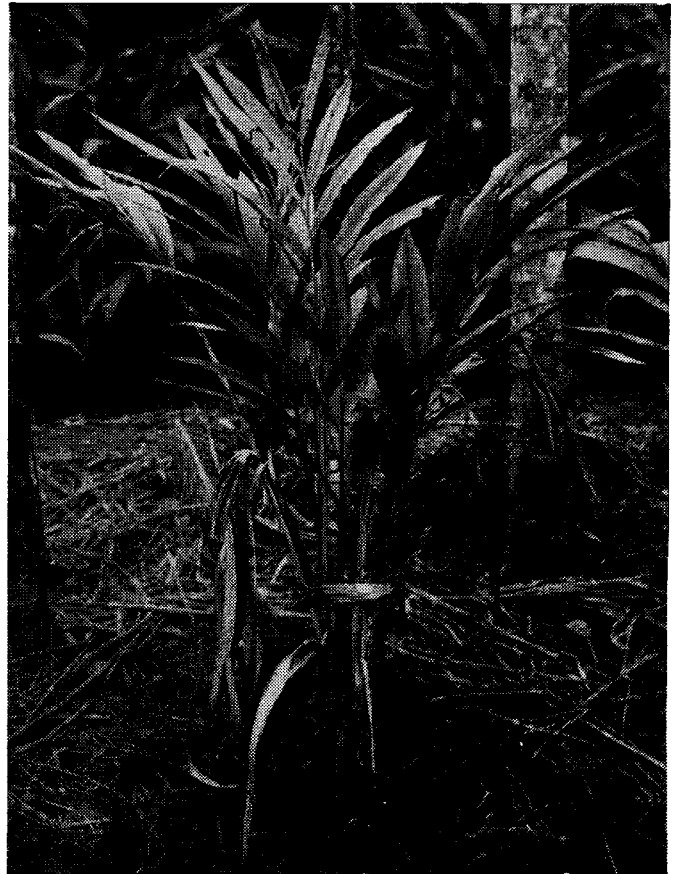
When this expansion was taking place, production of the commodity began to show signs of seriously

falling off in other regions, mainly because of the aging of the older plantations, a long period of climatically unfavourable years and above all, the appearance of thrips as a major insect pest and mosaic (Marble or *katte* disease) as a most serious disease threatening the industry.

Cardamoms are usually grown at elevations between 2,000 and 5,000 feet, but the most productive range of elevations seems to be from 3,000 to 4,500 feet. Soils which hold a good growth of evergreen forest are the ones suitable for cardamoms, irrespective of their mineral content, provided there is a well-developed mulch, a well-marked layer of humus accumulations and adequate moisture supplied from a well-distributed rainfall. Very steepy areas and ridges which cannot hold leafy mulch and sufficient moisture as well as areas exposed to strong winds, cannot also maintain good cardamoms. Cardamoms appear to flourish only when the soil receives the minimum disturbance, no intercultivation of any kind except for one or two weedings per year being necessary for the crop. Soil erosion is fatal for cardamoms, and at the same time the crop does not tolerate inadequate drainage. For this reason, a gradual sloping area protected from strong winds seems to be the best for cardamoms.

In the cardamom-growing areas of the Western Ghats, the rainfall ranges from about 60 inches to over 250 inches. Most of the heavier rainfall districts are in the north. But here, the distribution of rainfall is irregular. In these areas, cardamoms are less

A three-year-old healthy plant of cardamom



CATALOGUE

dependent on rainfall for moisture supply, which is ensured by a careful selection of the site, like the moist valleys in the jungles or ravines in coffee or other plantations, where moisture is guaranteed by ground water supplies.

Cardamoms are invariably grown under conditions of shade, where the light is filtered through a continuous overhead canopy of the evergreen jungle. Before planting cardamoms, the jungle has to be thinned out by removing the undergrowth to such an extent that a correct amount of shade is provided.

VARIETIES

The cultivated cardamoms (*Elettaria cardamom*, Maton) of South India can be divided, based on their size and vigour and panicle habit, into two broad classes: (1) the larger and (2) the smaller cardamoms.

The larger and the more vigorous type grows to anything up to 15 feet or sometimes more in height and has erect or flexuous panicles with usually large longish fruits having a more or less circular cross-section. This type is usually called the 'Ceylon' or 'Mysore' cardamom.

The smaller type, on the other hand, rarely, if ever, exceeds 10 feet in height and has prostrate or creeping panicles with almost spherical fruits. Ovoid or rather oblong fruits also do occur in this group in the types seen in cultivated areas. This type is usually known as 'Malabar' and in Mysore as 'Munserabad' cardamom.

The larger cardamom is undoubtedly a much harder type of the two. The smaller cardamom is light-sensitive, and needs more shade and protection than the larger type. It requires an ample soil moisture supply and, therefore, is more suitable for situations where these conditions are obtainable.

In well-laid out plantations, with favourable conditions the larger type yields on an average anything from 50 to 100 pounds of dry capsules per acre, while the smaller cardamom may yield from 50 to 85 pounds per acre. The larger cardamom, however, exhibits very great variability in yield from plant to plant and crop to crop, while the smaller type is much more uniform and steady in its productivity. For this reason, many a cardamom-grower, especially in North Kanara, Coorg and Mysore, prefers the smaller type.

With regard to the quality of the dried product, a larger, round and uniform produce having a good dark green colour always gets the highest price. Pods of a large, round shape usually fetch a premium of seven to eight annas per pound. The small type of cardamom with the creeping panicle produces round or globular fruits of uniform size and shape giving a very attractive product. The larger type of cardamom in bulk gives different kinds of fruits of varying shapes and sizes from globular to longish fruits of nearly an inch in length resulting in a very ununiform product. However, the dried product of the larger type retains the dark green colour which makes bleaching for the market easier.

Trials conducted at the Cardamom Research Station, Singampatti Hills, have shown that desirable plants selected from the larger type have given yields four times that of the bulk. Selections were made not

only for high yield, but also for bold, globular fruits. Some selections from the smaller type of Bodinayakanur and Pattiveeranpatti areas have also given two to three and a half times the yield of the bulk of the larger type, indicating that good selections from the smaller type of cardamom can approach, if not equal, the yield of the best selection from the larger type.

The smaller type of cardamom has another useful character. It is comparatively less susceptible to fruit injury by thrips (*Taeniothrips cardamomi*, Ramakrishna), than the larger type, probably because the panicles of this type lie prostrate on the ground on the moist leaf mulch, affording very little shelter to the insect from the conditions within a foot of the soil surface. The smaller cardamom, however, is considerably more susceptible to the dreaded mosaic or *katte* disease than the larger one.

PESTS

Thrips (*Taeniothrips cardamomi*, Ramakrishna) are a very serious insect pest of cardamoms, and when virulent, cause loss of 60 per cent of the crop. At the Cardamom Research Station, Singampatti Hills, very effective methods of controlling the insect pest have been found out. Dusting the clumps with 'Gammexane' once a month seems to be the most economical treatment. Spraying with 'Autoxene' (0.2 per cent), DDT (0.25 per cent) and nicotine sulphate (0.25 per cent) was also found to be very effective against the pest. By such treatment, crop losses can be reduced to about 10 per cent.

The use of sprays needs water, the transport of which is costly and difficult where the plantation is on hill slopes away from water sources.

Other minor pests which are not of a serious nature are the leaf-eating caterpillar (*Eupterote canaraica*), the shoot and capsule-borer (*Dichocrocis punctiferalis*), the root-borer (*Hilarographa caminodes*) and the scale insects (*Disapis* sp.).

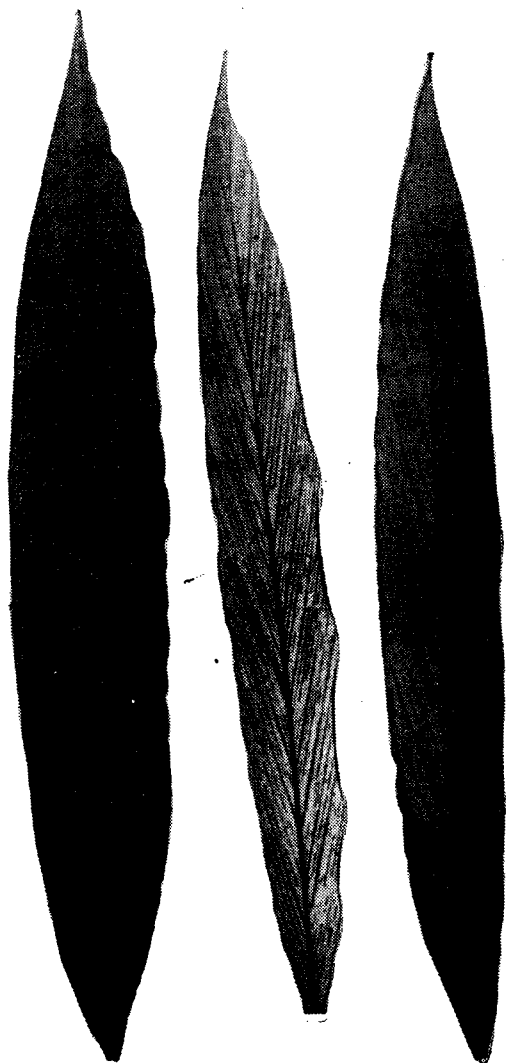
Of these minor pests, the hairy caterpillar is next in importance to thrips. The caterpillar appears during certain seasons in an epidemic form and does considerable damage to the crop by completely defoliating it. The caterpillars were found to descend from shade trees in enormous numbers at night and attack and consume the entire foliage of the cardamom plants leaving only the midribs of leaves behind. They often move from field to field rapidly, defoliating extensive areas. Continuous dry weather is suspected to help the multiplication and spread of this pest.

Trials conducted with a number of insecticides have shown that fish oil rosin soap, even at one pound in 10 gallons of water, was capable of accounting for cent per cent mortality of the caterpillars in 24 hours. 'Parathion' 0.025 per cent also effected a complete kill in the same time. Fish oil rosin soap is cheap, non-poisonous and effective in controlling the pest by contact action, but without any residual effect on the pest. This insecticide, however, is not always available for purchase in heavy stocks. Messrs Geigy Product '1250' or 'Parathion' 0.025 per cent (Ekato x 20, one ounce in five gallons of water) can be effectively used against this pest, where its handling can be done under proper supervision to avoid the human toxicity hazard.

Mosaic or *katte* is the most serious disease of cardamom. It appears as pale mottling and curling of young leaves and rapid dwindling in size of newly-formed shoots, followed by the dying of the whole clump. The disease is a threat to the cardamom industry. The only control measure possible at present is the rooting out and destruction of the affected plants. The affected plants must be destroyed on the spot. Very badly affected crops must be completely rooted out and destroyed by burning on the spot, and the land left fallow for a year and then replanted.

CLUMP ROT

The clump rot or 'falling off' disease appears in patches. It is characterized by the brittleness of the shoots at the bulbous base where they break and fall off. This disease is caused by a fungus (*Pythium*, sp.). The panicles of the broken shoots are also affected and become useless. Investigations on



Healthy (extreme left) and diseased leaves of cardamom

the control of this disease at the Cardamom Research Station revealed that ammonium phosphate, superphosphate or lime when applied at three ounces per clump checked the progress of the disease and also induced a fresh growth of aerial shoots.

PROPAGATION

The mosaic disease is widespread in most of the cardamom-growing areas, such as the Travancore cardamom hills, the Lower Pulneys, the Anamalais, Mysore and North Kanara. As the disease is carried through rhizomes used for planting, new planting with rhizomes should be completely avoided till the disease is completely eradicated, unless the rhizomes have been obtained from regions completely free of the disease. Happily, the disease is not transmitted through seed. Propagation through seed is, therefore, the safest method for raising new plantations.

In raising nurseries, much difficulty is felt because of poor germination. Also, nursery diseases cause extensive failures of seedlings. Trials show that cardamom seeds are best sown immediately after harvest and the best season for sowing is from December to March, when fresh seeds are available.

The site of the nursery should be near a water source to minimize the cost of watering, and preferably surrounded by jungle trees to afford protection from the hot sun in summer. The nursery beds should be raised on terraces if the site is slopy, and should be provided with rain-proof thatched roof. The beds may be about three feet broad, of any convenient length, preferably not more than 6 to 10 feet, and separated by foot-paths to facilitate movement between the beds for watering, inspection and other operations.

The beds should at first be stirred and the pebbles and stones in them picked out. The surface of the beds has to be burnt with a thin layer of trash and the ash removed. Well-decomposed black jungle soil should be spread evenly over the beds about an inch deep. Equal quantities of well-rotted cattle manure and wood ash may be spread over the jungle soil to a depth of a quarter inch. Some unwanted seeds may be present in the jungle soil and the manure. To eliminate them, water the beds regularly for a fortnight. Such seeds as will germinate can easily be removed.

SEED MATERIAL

The selection of seed material is important. Seeds should be gathered from plants giving good yield, bold, globular or ovoid fruits borne on compact panicles and showing resistance or tolerance to pests and diseases. The fruits should be fully ripe. Reject the undeveloped seeds and remove the mucilaginous, sticky coating of the seeds, washing the seeds four or five times in water. Sow the seeds shallow, just buried under the surface, in the beds. A suitable seed-rate is 80 seeds per square foot.

After sowing, cover the beds with a layer of fine sand, $\frac{1}{4}$ inch thick. Over this, a one-inch layer of dry grass or finely cut pieces of dry leaves may be spread

to serve as mulch. This mulch retains moisture and maintains optimum temperature for the germination of seeds and growth of seedlings. The beds should be watered regularly with the aid of a rose can keeping the beds moist but not too wet. Germination usually starts a month after sowing and goes on up to seven or eight months.

By adopting these methods, 50 to 65 per cent germination of the seeds can be had.

When an appreciable extent of germination is seen, the seedlings should be sprayed fortnightly with one per cent Bordeaux mixture to protect them from the nursery diseases.

When the seedlings are at least a year old and develop a small rhizome each, they have to be transplanted in a second nursery for further development and care before they are ready for planting out in the field. The second nursery should be in a convenient place near a water source and under the shade of jungle trees. No thatched roofs or *pandals* are, however, necessary. Small pits of a six inches cube may be dug two to three feet apart either way in the selected area. A mixture of cattle manure and wood ash may be applied in small quantities mixed with surface earth to each of these pits. Seedlings may be transplanted in these pits three inches deep in a slightly slanting position against the direction of the wind. Plantings in the second nursery should be done during the monsoon while it is raining, to avoid costly waterings. Mulching the seedlings with dry leaves is beneficial. After a year in this nursery, the seedlings will be ready for transplanting in the field.

PREPARATION OF LAND

As previously mentioned, the land for planting cardamoms is prepared firstly, by removing the undergrowth and then thinning out the forest trees to give a correct amount of shade. The thinning out of the tree-growth to adjust and equalize light conditions may be postponed for six months or a year after the land has been planted up, so the planter can become familiar with the light conditions of the area. The debris resulting from the cut-down undergrowth and trees is cut up and heaped in rows to decay. If the land is sloping, such debris may be disposed of in rows along the contour in such a way as to assist in checking any soil movement which the exposure of the soil surface may help. The purpose of thinning the forest trees is to develop a complete and evenly thick overhead canopy that will be most satisfactory for the growth and production of cardamoms.

SPACING AND PITTING

The optimum spacing of cardamoms in the field is 8 feet \times 8 feet for the larger type and 6 feet \times 6 feet for the smaller type. These spacings may be increased in the case of larger cardamoms and decreased for the smaller type, according to the fertility of the soil.

It is best to plant cardamoms in specially prepared pits. In the southern districts with a well-distributed rainfall, the root system of cardamoms seems to be superficial and pits for planting in these areas need not be deeper than a foot, a convenient size of the pits being 2 feet \times 2 feet \times 1 foot. In the northern areas,

such as Coorg, Mysore and North Kanara, where the rainfall is more seasonal and characterized by long dry spells, the root system goes deeper than in the southern areas, and pits 1½ feet \times 1½ feet \times 1½ feet, seem necessary. In slopy places, the full depth of the pits may be on the lower side and filled only to the lower edge, so that small individual clump platforms are formed. The pits should be filled with surface soil, jungle soil or mixture of soil and compost or well-rotted cattle manure.

PLANTING

Planting material may either be seedlings or portions of rhizomes with their leafy shoots. As has been said earlier, raising the cardamom crop with seedlings is the safest. In areas completely free from the mosaic disease, plantings with rhizomes obtained from the same area may be done, but rhizomes should on no account be imported from areas infected with the mosaic disease.

One advantage in planting rhizomes is that the crop comes to yield two years earlier than when it is planted with seedlings. However, seedlings produce a healthier and more long-standing crop than a crop raised from rhizomes. Experiments have shown that while planting rhizomes, a sufficiently large-sized rhizome, at least six inches in length, with its leafy shoot should be used. Rhizomes for planting should also be taken from heavily yielding clumps free from important diseases and pests and having bold, ovoid or oblong fruits.

The most suitable season for planting cardamoms is with the showers of April and May, filling vacancies, if any, in the south-west monsoon months. Deep planting of either rhizomes or seedlings is harmful, the normal practice being to scoop a small depression in the filled pit and to lay the plant down at an acute angle to the ground against the slope and just cover the rhizome with a thin layer of soil and leaf mulch. When seedlings are planted, two plants may be planted in each pit, one of which may be used later for filling gaps.

AFTER-CARE

New plantings need weeding and mulching. Several weedings are essential in the first year to control the re-generating undergrowth and to save the young plants from choking. The pulled out weeds are used for mulching the young plants or the mulch moved from in-between the rows to around the young cardamoms and the weeds piled up in its place. In Mysore, where cardamoms are planted in old coffee lands, some form of digging or forking is given in the first year.

CARE OF ADULT CARDAMOMS

The care of adult cardamoms consists in weeding and preserving and augmenting the mulch cover. Only one or two weedings are necessary and these may be adjusted according to periods of heavy weed growth as well as harvests; one may be given at the beginning of the dry season and another early during the south-west monsoon. This is, however, a matter for adjustment according to conditions existing in different localities.

Mulching of clumps, where necessary, is of great importance while the soil is disturbed the minimum. As mentioned previously, a well-developed mulch and a well-marked layer of humus accumulations are

essential for the development of good cardamoms. In places where mulch accumulations are defective, the mulch lying in between the rows of clumps may be moved to around the clumps periodically. Mulching with transported green material is both laborious and very costly in large plantations, but feasible and very useful in small holdings. In parts of Mysore where mulch accumulations are insufficient, the practice of earthing up of clumps periodically is resorted to.

The cardamom plant as such needs little attention after planting, except the periodical removal of old leafy shoots which have ceased their productivity and show signs of drying off. They are cut off about a foot above the ground. It is useful also to cut off old and drying fruiting shoots.

MANURES AND CARE OF THE SOIL

It seems very doubtful whether applications of fertilizers can be very profitable for cardamoms. Cardamom is a very peculiar crop adapted to peculiar and highly specialized environments in evergreen jungles. It is reported that when an evergreen jungle soil was compared with that of an area which had been under cardamoms for 25 to 30 years, there was practically no difference in the potash and phosphate contents of the two soils, but the organic matter and nitrogen contents in the planted area were a third less than that of the jungle soil. Moreover, observations for many years have convincingly shown that the care of the soil for cardamoms depends on the care of the shade. If the shade canopy is good and provides abundant and regular leaf fall to give sufficient mulch, the soil can be maintained in good condition for cardamoms. Wherever the shade deteriorates and the cardamom is exposed, the crop rapidly deteriorates.

A high content of rotting vegetable matter in the root zone is an essential factor for the satisfactory development of cardamoms. Marked responses have been noted of cardamoms to applications of compost, cattle manure and other vegetable wastes in several places.

Elaborate and well-laid out experiments conducted at the Cardamom Research Station, Singampatti Hills, showed that an adult cardamom gave significantly increased yields in the season following the application of manures, nitrogen and potash. Applications of trace elements showed that manganese had a significant response while molybdenum indicated some response. Boron depressed the yield. Combinations of zinc and copper, zinc and iron, copper and molybdenum and boron and magnesium also increased the yield significantly.

The response of cardamom to manuring may vary from locality to locality according to the variations in soil composition. Manuring the crop may be resorted to only if the return is considered to be sufficiently profitable.

ECONOMIC LIFE AND REPLANTING

The economic life of the cardamom crop is of great importance. There are crops of the larger type of cardamom giving very profitable yields continuously for 25 to 40 years, but there are others of the same variety which were very well-cared for, but are rapidly deteriorating in yield anything from 10 to 16

years after planting. It has also been observed that after declining steeply in yield for four or five years, such crops revive in productivity temporarily for a few years. But this is a factor which cannot very much be relied upon.

The economic life of the smaller cardamom seems to be much shorter, i.e., 7 to 10 years in Mysore. In Coorg under the *male* system of cardamom cultivation, the useful life of the smaller type may last even up to 20 years. The author has seen a plantation of the smaller cardamom in Mysore State, very near the Coorg border, in which productivity was very satisfactory even in the 25th year. In the same plantation, certain clumps aged nearly 60 years were found to give more than average yield, but such instances are very rare indeed.

The best method of overcoming aging of the cardamom crop seems to be to adopt a system of replanting to inter-planting. Inter-planting may be done in-between the existing clumps with the same spacing. This should be done immediately any serious decline in yield of the crop for at least two to three years is noticed, so that by the time the older crop becomes uneconomic, the replants should start yielding. In cases where the crop has become entirely uneconomic, it may be pulled out and the area replanted.

HARVESTING

The cropping periods of the larger and smaller cardamoms differ very much. Observations made on two types of cardamom grown side by side at the Government Research Station, Singampatti, showed that the smaller cardamom cropped earlier than the larger type by about a month. Harvests could be begun in August in the smaller but only a month later in the larger. While harvests could be practically completed by February in the smaller type, fruits continued to ripen even up to May in the larger types. In Coorg, Mysore and North Kanara in general, where the smaller type is predominantly grown, the crop is over even before the end of December.

Harvesting is generally done once a month, great care being taken to pick only fruits which are just attaining ripeness, but are not fully ripe. Fully ripe fruits tend to split on drying and do not develop a good dark green colour which is insisted on by the buyer.

PREPARING THE PRODUCE

The harvested fruits are dried in different ways. In large-size plantations, drying is done in a drying-house in which the fruits are heated by a system of pipes through which hot air from a furnace is passed. In the small holdings of Coorg, they are dried on platforms heated from below and sheltered by a roof open on all sides. Drying is also done on a beaten ground or on a mat in the sun.

ECONOMICS

The following is a rough estimate of the economics of cardamom cultivation. Modifications will have to be made for different districts and localities according to local conditions of labour and cultural practices.

EXPENDITURE

Particulars	Labour	Rate	Amount	Cost per acre per year
A. Non-recurring				
Cleaning the undergrowth in the forest	25	1 8 0	52 8 0	
Lining—marking spots for planting	5	"	7 8 0	
Digging 680 pits—20 pits per labourer	34	"	51 0 0	
Pulling out old clumps and preparing rhizomes for planting	5	"	7 8 0	
Cost of rhizomes for 680 pits		Lump sum	20 0 0	
Planting—50 pits per labourer	14	1 8 0	21 0 0	
Extra weeding during the first two years	30	"	45 0 0	
		Total	204 8 0	
Share of non-recurring expenditure apportioned for each year, taking the life of the crop as 20 years				10 4 1
B. Recurring				
Annual weeding and cleaning—15 labourers @ Rs. 1-8 per labourer	15		22 8 0	
Picking charges @ 0-1-3 per pound (120 pounds green pods)			9 6 0	
Drying, cleaning and packing		Lump sum	4 0 0	
Dusting 'Gammexane' against thrips—12 times a year @ 2-8 per time			30 0 0	
Supervision charges			5 0 0	
Transport charges per acre (Lump sum)			2 0 0	
		Total	72 14 0	
C. Interest on the capital invested on the purchase of land or the annual lease thereof				72 14 0
D. Interest on non-recurring expenditure at four per cent per annum				7 0 0
				4 0 0
				94 2 1

RECEIPTS

If dusting against thrips is done once a month, 30 pounds of dry capsules may be expected even on a very conservative estimate.

The crop does not give any yield for the first two years and gives only poor yield (say, half normal) during the last five years. Thus, 15½ years out of 20 may be taken as normal yielding years. So the average annual yield should be taken as $30 \times 15\frac{1}{2} \div 20 = 23\frac{1}{4}$ pounds or 23 pounds. The value of 23 pounds of dry cardamoms at the present rate of Rupees eight per pound, is Rs. 184. The net profit works out to Rs. 184 minus Rs. 94, i.e., Rs. 89-14 0.

USE OF CARDAMOMS

A good sort of the cardamom produced in South India is used in the country itself, especially in the North, as a masticatory, as a common ingredient in curry powder and for flavouring sweetmeats. The surplus is exported to other countries of the East and to Europe and the U.S.A. Cardamom is used to a great extent in Germany and other central European countries for flavouring various food stuffs, such as gingerbread, cakes, sausages, etc. It is also used in making pickles. The essential oil is used for flavouring certain bitters and liquors and also in the manufacture of perfumes. In Britain and America, they manufacture tinctures of cardamom, chiefly used in medicine as a carminative or stomachic and in the preparation of certain drugs.

FUTURE OF THE INDUSTRY

The future of the cardamom industry which is one of the few dollar-earning agricultural industries of India, is promising. The demand for this commodity in and outside India is steady.

The price level of cardamom has never suffered any serious fall, except during the first world war,

and has almost always 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 steady until 1953 when it fell to Rupees four per pound. It is again rising and is at present about Rupees eight per pound. Due to the steady demand for the commodity, South India appears to hold a permanent monopoly in cardamom production and trade. This is a very encouraging fact and augurs well for the future of this industry.

Cardamom production affords a very valuable source of revenue from evergreen forest lands which can be cultivated with this crop with the minimum of disturbance to the soil. This is of great importance, because of the great necessity of avoiding the degradation of hill lands by erosion. Moreover, the adverse effect on rainfall believed to be caused by deforestation is avoided by the limited degree of undergrowth clearance required for the cultivation of the spice, which leaves the larger trees of the evergreen forests intact.

Communications in the hill tracts of Travancore-Cochin, Malabar, Coorg, Mysore, Tinnevely, Ramnad, Madura and Coimbatore districts, are now being rapidly improved because of the main plantation industries like tea, coffee, rubber, and pepper. This should greatly facilitate the expansion of the cardamom industry also. Large plantation concerns interested in tea and having jungle areas which could not be opened up for tea owing to restrictions, may profitably utilize such lands now for cardamom.

Cardamom, in fact, represents a valuable money crop for cultivators living in areas where such crops are not very numerous, a crop which can be cultivated with comparative ease and has a satisfactory and steady market position.