



SPICELA



Vol. 25 No. 7 July 2012







Vanishing worry on leaf









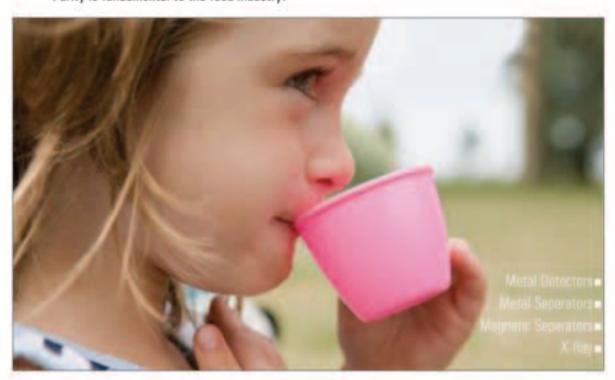
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A JOURNAL DEVOTED TO THE PROMOTION OF INDIAN SPICE INDUSTRY



IN JULY ISSUE



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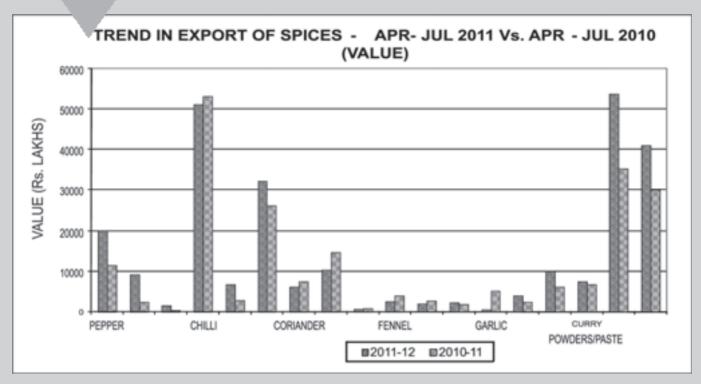
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CALENDAR OF OPERATIONS FOR IMPORTANT SPICES -AUGUST 2012



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CARDAMOM ON THE RISE AS INDIAN SPICES EXPORTS CROSS \$ 2 BILLION MARK



ardamom, the queen of spices, is inching to regain its lost position in international trade fetching more value and volume; contributing to the upswing in spices exports crossing the \$ 2 billion mark"-says Dr. A Jayathilak IAS, Chairman, Spices Board India.

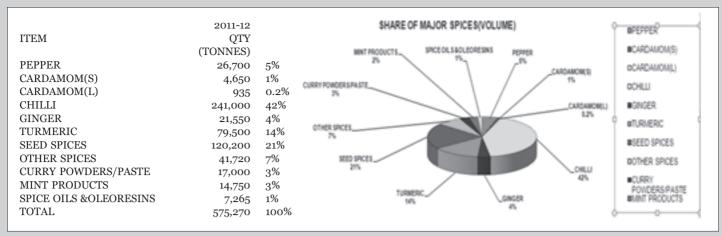
During the financial year 2011- 2012, cardamom export registered phenomenal growth of 296 per cent in volume and 175 per cent in value as the Indian spice export for the year 2011-2012 showed an increase of nine per cent in volume and 43 per cent in rupee terms than the previous year. Total spices exported from the country for the year is 5, 75, 270 metric tonnes valued ₹ 9,783.42 crore (\$2037.76 million). The export marked a rise of 36 per cent in dollar terms. The

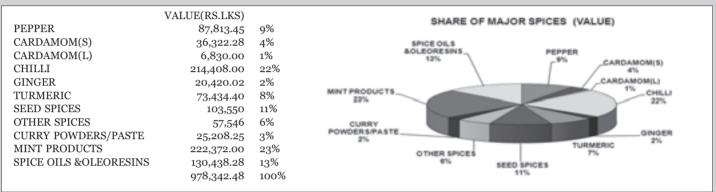
Indian spice industry could realize its target for the year and the achievement is 115 percent in quantity, 151 per cent in rupee value and 141 per cent in dollar terms.

The unprecedented record rise in export of cardamom and sharp rise in the value of chilli exports have contributed to the all time achievement in the export of Spices from India. Cardamom exports totalled 4,650 metric tonnes valued at ₹363.22 crore. A quantity of 935 metric tonnes of large cardamom valued ₹68.30 crores was exported from India registering a rise of 21 per cent in volume and 53 per cent in value than the previous year. The UAE, the UK, Pakistan, Kuwait etc remained the major importers of cardamom. Chilly export exceeded more than 40 per cent in value compared to the previous year though the increase in quantity is negligible.

United States of America is the main importer of Indian spices contributing to 16 per cent of total export value followed by China (nine percent), The UAE and Malaysia(six per cent), Saudi Arabia, Germany, Sri Lanka, Singapore and the UK (four per cent each). Mint and mint products, chilli, Spice oils and oleoresins, pepper, turmeric, cumin, cardamom (Small) etc were the key contributors in achieving the target.

Export of all the major spices like pepper, ginger, turmeric, cumin, fennel, fenugreek, mustard, aniseed, ajwan seed, nutmeg and mace, asafoetida, tamarind etc have increased both in terms of volume and value.





Export of mint products spice oils and oleoresins increased in terms of value where as export of coriander, celery and garlic for the year showed a decrease both in terms of quantity and value.

Like the previous years, mint and mint products remained as the single largest earner in the spices basket. During this fiscal year 14,750 metric tonnes of mint and mint products were exported at a rate of ₹2,223.72 crore as against the 17,450 metric tonnes valued ₹1,696.79 crore in 2010-2011. The lift in the value of exported mint and mint products is 31 per,cent where as Spice oils and oleoresins accomplished an increase of 43 per cent in value. India exported 7,265 metric tonnes of Spice oils and oleoresins at a value of ₹1304.38 crore.

Pepper export for the year registered a raise of 42 per cent in quantity (26,700 metric tonnes in 2011-2012 as compared to 18,850 metric tonnes in 2010-2011) and 129 per cent in value (₹878.13crore in 2011-2012 in comparison to ₹383.18 crore in 2010-2011). The USA, Vietnam, the UK, Germany, and Italy were the top importers of pepper from India.

Export of turmeric also marked an all time record as the quantity exported reached 79,500 metric tonnes fetching ₹734.34 crore in 2011-2012. In the case of ginger, export for the period is 21,550 metric tonnes valued at ₹ 204.20 crore as against15, 750 metric tonnes valued at ₹121.31 crore during last year. For the current year, export of cumin increased by 40 per cent in quantity and 63 per cent in value. Cumin export for the year 2010-2011 was 32,500 metric tonnes valued ₹395.98 crore where as in the current year it went up to 45, 500 metric tonnes valued ₹ 644.42 crores.

The export of fennel crossed 8,100 metric tonnes and the fenugreek export reached 21,800 metric tonnes this year. The export of nutmeg and mace together is 3,620 metric tonnes valued ₹ 240.97 crore, last year it was 2.100 metric tonnes valued ₹97.76 crore. The increase in the case of nutmeg and mace is 72 per cent in quantity and 146 per cent in value. In the case of chilli the exported quantity is 2, 41,000 metric tonnes at a value of ₹2,144.08 crore as against 2, 40, 000 metric tonnes valued ₹1535.54 crores. With regard to curry powders/paste, export growth marked in the current year is 11 per cent in quantity and 20 percent in value. 17,000 metric tonnes of curry powder/ paste valued ₹252.08 crore was exported during the current year as against the 15,250 metric tonnes valued ₹210.50 crore of last year.

*

	% CHANGE IN 2010 - 11 TY VALUE	. 129%			90%	%89	94%	2%	93%	901-	%6 :	5 11%	%9	%08-	146%	9001	20%	31%	43%	43%	36%
11	% C	45%	396%	21%	%0	37%	61%	-31%	40%	-3%	12%	18%	4%	-87%	72%	45%	11%	-15%	-4%	%6	
ARCH 2010 -	VEMENT RGET VALUE	195%	303%	137%	149%	227%	147%	113%	161%	%82	120%	121%	%86	%97	241%	%002	120%	135%	141%	151%	141%
APRIL - MA	% ACHIEVEMENT OF TARGET QTY VAI	134%	310%	94%	107%	216%	159%	%08	130%	%16	135%	125%	104%	15%	181%	144%	113%	83%	94%	115%	
RED WITH	- 11 (*) RATE (₹/Kg)	203.28	1124.79	575.86	63.98	77.02	142.71	41.14	121.84	96.89	90.87	35.40	44.46	40.33	465.56	63.43	138.04	972.37	1198.19		
12 COMPA E: RS / KG)	APRIL - MARCH 2010 - 11 (*) 2TY VALUE R, NNES) (₹ LAKHS) (₹	38,318.50	13,216.25	4,462.90	153,554.00	12,131.25	70,285.18	16,663.23	39,597.75	2,585.89	6,588.25	6,548.10	5,558.05	6,977.30	9,776.82	16,015.30	21,050.50	169,679.00	91,062.45	684,070.72	1,502.85
ARCH 2011 -	APRIL - QTY (TONNES)	18,850	1,175	775	240,000	15,750	49,250	40,500	32,500	3,750	7,250	18,500	12,500	17,300	2,100	25,250	15,250	17,450	7,600	525,750	
PRIL - M UE: RS.L	12 (*) RATE (₹/Kg)	328.89	781.12	730.48	88.97	94.76	92.37	58.37	141.63	64.11	89.00	33.37	45.07	64.35	89.599	89.23	148.28	1507.61	1795.43		
OM INDIA DURING APRIL - MARCH 2011 - 12 COMPA (QTY: TONNES; VALUE: RS.LAKHS; RATE: RS / KG	APRIL - MARCH 2011 - 12 (*) QTY VALUE R. ONNES) ($\overline{\epsilon}$ LAKHS) ($\overline{\epsilon}$	87,813.45	36,322.28	6,830.00	214,408.00	20,420.02	73,434.40	16,401.85	64,442.05	2,340.05	7,209.20	7,275.20	5,881.25	1,415.70	24,097.51	32,033.00	25,208.25	222,372.00	130,438.28	978,342.48	2037.76
ROM INDLATOR (QTY: TO	APRIL - I QTY (TONNES)	26,700	4,650	935	241,000	21,550	79,500	28,100	45,500	3,650	8,100	21,800	13,050	2,200	3,620	35,900	17,000	14,750	7,265	575,270	
F SPICES I	r for 12 Value	45,000	12,000	2,000	143,500	9,000	50,000	14,500	40,000	3,000	00009	00009	00009	5,500	10,000	16,000	21,000	165,000	92,500	650,000	1450.00
EXPORT O	TARGET FOR 2011 - 12 QTY VALU	20,000	1,500	1,000	225,000	10,000	50,000	35,000	35,000	4,000	000'9	17,500	12,500	15,000	2,000	25,000	15,000	17,750	7,750	500,000	
ESTIMATED EXPORT OF SPICES FROM INDIA DURING APRIL - MARCH 2011 - 12 COMPARED WITH APRIL - MARCH 2010 - 11 (QTY : TONNES ; VALUE : RS.LAKHS ; RATE : RS / KG)	ITEM	PEPPER	CARDAMOM(S)	CARDAMOM(L)	CHILLI	GINGER	TURMERIC	CORIANDER	COMIN	CELERY	FENNEL	FENUGREEK	OTHER SEEDS (1)	GARLIC	NUTMEG & MACE	OTHER SPICES(2)	CURRY POWDERS/PASTE	MINT PRODUCTS	SPICE OILS & OLEORESINS	TOTAL	VALUE IN MILLION US \$

⁽¹⁾ INCLUDE MUSTARD, ANISEED, AJWANSEED, DILL SEED, POPPY SEED ETC.

⁽²⁾ INCLUDE TAMARIND, ASAFOETIDA, CASSIA, SAFFRON ETC. (3) INCLUDE MINT OILS, MENTHOL & MENTHOL CRYSTAL.

^(*) INCLUDE LATE REPORTS OF PREVIOUS MONTHS .

SOURCE: ESTIMATE BASED ON DLE FROM CUSTOMS, REPORT FROM RO'S AND LAST YEAR'S EXPORT TREND ETC.

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- 05. Health Management (+Periodical De Worming +Minerals & Vitamins +Water)
- 06. Diseases Management (+Common Diseases +Periodical Vaccination + Farm sanitation)
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wonders!



njoy the little things, for one day Lyou may look back and realize they were the big things." This is a quote by Robert Brault which seems to be quite true. It is easy to neglect things which are small. They do not have the awe that attracts attention but we have to keep our hearts young and our eyes open that nothing worth while shall escape us. It is often the reality that we are late to realize things of importance. Care about really small and seemingly insignificant things and it can really surprise you. Really proud as it is, they won't come near you but are available in abundance in your vicinity. Go in search of them (you won't have to go too far) and grab them

This is found true when it comes to the story of Curry leaves. Curry leaves, an inevitable part of spicing up dishes are not a part of mere garnishing. They are rich in medicinal, nutraceutical properties and have even cosmetic uses. But from the age old days it is customary to pick up curry leaves from dishes and throw it out first before even tasting it. This system continues, unaware of the significance of this tiny little fresh

at the earliest because they can do

leaves. Curry leaves can help you from premature greying of hair, a morbid condition that can depress you to a great extend. A home remedy, that grows you lush and luxuriant black hair, it alleviates dizziness, nausea, vomiting, stomach disorders, indigestion, constipation, diabetic issues and many more!

But it has come out that curry leaves have received red alert message from the European Union who are the major importers, where the pesticide residue limits were found much beyond the permissible levels. The high dosage of pesticides can even cause serious health troubles like cancer if consumed highly. This created a panic among the mass and curry leaves constitute a major spice exported from India. Spices Board, the organization nodal for the development and worldwide promotion of spices has taken as its mandate to impart knowledge to the farmers who grow curry leaves. Extensive campaigns are being done by Spices Board India in the major curry leaf cultivating areas in Tamil Nadu to create awareness on the harmful effects of pesticide usage in curry leaves.

The first phase of the campaign conducted for five days made a considerable impact about the pesticide residue problem of the export industry. Good Agricultural Practices were explained to the curry leaf growers by various agricultural scientists. Guidelines given for organic farming practices were well received by the farmers. The campaign was also successful in creating curry leaf farmers' association to tackle the issue in the longer run which would strictly adhere to the quality of curry leaf to cater to the international market. Suitable farmers were identified for the formation of peer groups who will be given training by the experts from the industry. The peer groups will in turn provide guidance to other farmers. A significant landmark was achieved when it was announced that the farmer association groups would be linked directly with the exporters of curry leaf to avoid the menace created by the middle-men. The programme saw the participation of organizations like Krishi Vigvan Kendra, M S Swaminathan Research Foundation and also people's representatives like Panchayat Presidents. A booklet published by Spices Board on curry leaves in a story format was distributed during the meeting which contained all the basic information like the organic method of cultivation, on curry leaves.

A brain storming session was conducted at Krishi Vigyan Kendra, Gandhigram Rural University, Gandhigram near Dindigul on 18th May 2012 after the formal meeting which was attended by officials from Spices Board, Dr. P S S Thampi, Deputy Director Publicity, Dr. Perinmbam, Deputy Director(Dev), Mr. B Venkateson Asst Director, Mr. S Palanichami, Editor, Mr. K Kanagadileepan, Sr Field Officer, Mr Jaisaravanan, Field Officer, Mr. S K Gopal, Project Coordinator, Krishi Vigyan Kendra. Dr. Narayanaswamy, Registrar, Gandhigram Rural University, Mr. A Anant, Technical Officer, M S Swaminathan Research Foundation and a group of farmers interested in curry leaf cultivation. The following were some points that came up during the discussion:

- Formation of farmer groups in the curry leaf growing areas.
- The officials of Krishi Vigyan Kendra Gandhigram Rural University took the responsibility of arranging training programmes for the group in association with Spices Board.
- Krishi Vigyan Kendra Gandhigram Rural University agreed for the base line survey of current farmer practices in curry leaf cultivation and approximate area of cultivation in Dindigul district.
- After proper training of the group and organic cultivation, linking these groups with the curry leaf exporters are also planned.
- Krishi Vigyan Kendra Gandhigram Rural University also expressed its willingness for standardization of new receipts



Shri.K.Kanagadileeban, Senior Field Officer, Spices Board, Coimbatore speaking at a meeting held at Pungampalayam.

- and new product development with curry leaf as main ingredient.
- Linkages with M S Swaminathan Research Foundation for dissemination of daily market information to curry leaf farmers and technical messages on curry leaf cultivation, could also be thought of to enhance the information delivery system to farmers in future.
- M S Swaminathan Research Foundation is ready to offer their mobile soil testing facility to curry leaf farmers at the area.
- Spices Board may plan for a state level one-day awareness programme by inviting about 200 curry leaf farmers to highlight pesticide issue and to improve export market.

The following were some of the feed backs obtained during the discussion session in the campaign:

- Shri P R Rengaraj from Marudur requested for the formation of curry leaf powdering units with a subsidy component from Spices Board to avoid fall in prices due to surplus production.
- Shri S Palanichami, Vice President, Sikkaram Grama Panchayat requested the Board to monitor the price fluctuation of curry leaf and to take necessary

- measures to get steady price throughout the season.
- Shri Vaiyapuri, President of United Agriculturists Association laid emphasis on growing curry leaves under organic methods.
- Most of the farmers complained of the acute labour shortage. It was requested that the Board should take steps to modify the Mahatma Gandhi National Rural **Employment Guarantee Scheme** to avoid the labour shortage. They are ready to contribute even 50 percent of the labour wage to the farm labourers of MGNREGS so that the central Government can make them work under the farmers who make 50 percent of contribution and thereby better quantity and quality of work can be expected from these labourers. They opined that if the trend continue for another 10 years, farming will become totally uneconomic and very difficult to maintain the farms and it may lead to various social and economic problems in the rural areas.
- The farmers stated that Spices Board may introduce new schemes for curry leaf cultivation and marketing strategies by opening their establishments in curry leaf growing areas.

Sri.S.R.Sundara Raman, Organic Grower and President of Tamil Nadu Farmers' Technology Association. Sathyamangalam, , Sri. Sahadevan, Vigvan Krishi Kendra. Vivekanandapuram, Near Mettupalayam, Dr.B.S. Nagarajan, Former Dean and Director Extension. Gandhigram Rural University, Sri.S.Senthil Kumar, Krishi Vigyan Kendra of Gandhigram Rural University, Dindigul. Smt. Shakin Taj, Krishi Vigyan Kendra of Gandhigram Rural University, Dindigul were present during the campaign as subject experts and addressed the farmers about the necessity to produce quality curry leaf.

The curry leaf campaign was led by Sri.B.Venkateson, Assistant Director (Dev.), Spices Board Sulthan Bathery. Sri. K. Kanagadileepan, Senior Field Officer Spices Board, Coimbatore. Sri. S. Jaisaravanan, Field Officer, Spices Board, Puttady and Sri. Shivalingam, Agriculture Assistant, Spices Board, Coimbatore.

List of resource persons in the campaign

- 1. Sri.P.R.Rangaraj, Panchayath President, Marudhur.
- 2. Sri.Nandakumar, , Mettupalayam.
- 3. Sri. S.R. Kandasamy, Mettupalayam.
- 4. Sri.S.Palanichamy, Panchayat Vice President, Sikkarampalayam, near Mettupalayam.
- 5. Sri.Sugavaneshwaran, Kannarpalayam.
- 6. Sri.Vigneshwaran, Kannarpalayam.
- 7. Sri.Bhoopathy alias Kumaresan, Panchayath President, Bellathi.
- 8. Shri. Makesan, Fair Exports India Pvt. Ltd., 28, Arumugam Nagar, M.L.Puram,
 Pollachi-2. Ph. 04259 227724.
 e-mail: makesan_fair@rediffmail.com
 cell phone 9443386438.
- 9. Sri. Vaiyapuri, farmer and President of United Agriculturist Association, Chitheri, Near Athur, Salem Dist.
- 10. Sri.Subramanian, Manjini, Near Athur, Salem Dist.
- 11. Sri.P.Selvakumar, Manjini, Near Athur, Salem Dist.
- 12. Sri. S.R. Kandasamy, Mettupalayam.

The date and venue of the campaign meetings held in Tamil Nadu:

Date	venue
14-05-2012	Pungampalayam-
15-05-2012	Kannarpalayam
16-05-2012	Therampalayam
17-05-2012	Sitheri (Attur-Salem)
18-05-2012	A Vellodu (Dindigul)



ජරිබ්බා**ජා** නංයි CURRY LEAF POWDER

AYURVEDIC HERBAL SPICES

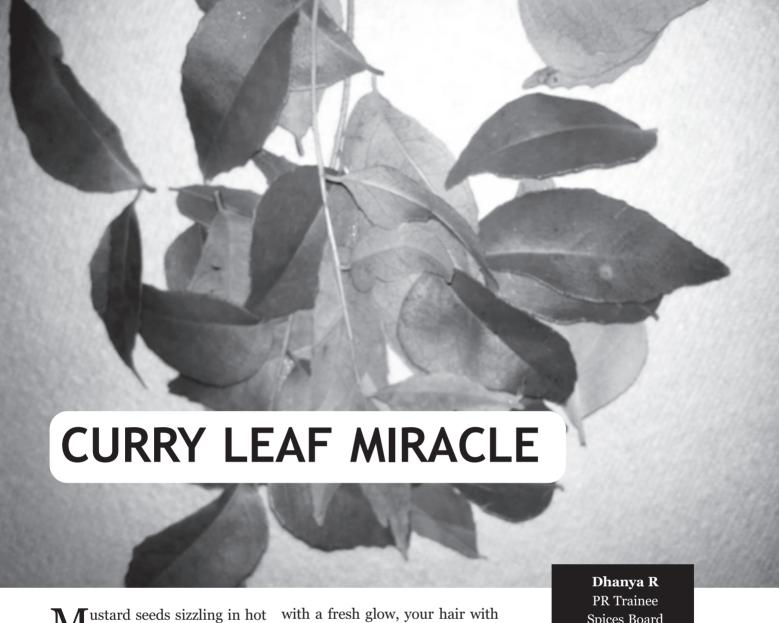
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Loil...into it goes chopped onion and curry leaf... "sssssshh"... No curry in South India is complete without this step. Indian cuisine experts, specially in South India made it a habit to include curry leaves in our daily diet. More than adding to the multi-hued look and spicy taste, there was definitely some other reason why the wise Indian ladies included curry leaf a necessary ingredient in all our dishes.

Though it is customary to remove these deep green leaves from dishes we are truly unaware of its health benefits. These leaves rich in Vitamin C and iron help to purify blood, leaving your skin

more luster and your eyes with brilliance. A simple mix of buttermilk and curry leaves can rectify problems related to indigestion. The list on the benefits of curry leaves thus goes on. To remind you of this next door medicine let me take you to a small hamlet in Tamil Nadu.

In the beauty and calmness of her village grew up Hema. Like any other girl of her age, this typical young lady had dreams about a happy family life. Her wishes were granted and she was married at the right age. She had just started a life and was in her twenties. One day, to her dismay she happened to notice a white

Spices Board

spot on her face. As days passed she found the spots growing into patches and soon the white patches expanded its domain all over her body. Yes she was suffering from depigmentation of the skin. Hema couldn't accept her present appearance and she was depressed.

She did have the support of her family. They took her to expert physicians to cure the problem. People had different opinion and she tried them all. Desperately trying to get back the normal colour of her skin she even tried all the medical treatments under the sun - all the medical aids she had heard so far in her life. Nothing helped. The side effects of the medicines started eating up her health. As a result of the various medicines she took, her internal organs slowed down. There was every chance for her to move to a sinking stage due to the deterioration of her internal organs. It all started in a skin disease but it had started affecting her health and her life.

But miracles do happen in life. For her, it was nature that bestowed her with blessings. A medical practitioner of indigenous medicine was the one who brought miracles in her life. Hema was so desperate that she was ready to do anything to bring herself back to the normal state. The medicine prescribed was simple. She was asked to take in curry leaves along with another herb named Phyllanthus niruri (Kizharnelli). This was to be done continuously for a month. As advised by the physician she strictly followed the medicine. After a month he told Hema to leave a gap of ten days and restart the medicine and continue for a month. Again the same procedure was continued for a few more months.

Incredible was the result. Her skin was regaining its lost colour and charm. Hema was recovering from the disease a problem she thought she will have to carry all through her life. Her skin is now 75 percent back to the normal state. It was a curry leaf miracle! This is just one instance for the medicinal benefits of the deep green herb.

Curry leaf is an oft-prescribed drug for liver diseases. It enhances the digestive power and is particularly efficient in expelling poisons stuck in the alimentary system. It heals wounds, swelling, fever, skin diseases, intestinal worm infections, dysentery and diarrhea.

When cooked with food, curry leaf provides protection against poisonous substances. But today this herb itself is getting polluted by poisonous pesticides.

It is high time we realized the importance of this natural wonder.
We need to preserve it from the poisons leaving it pure

for consumption. A simple thing which all of us can do is to plant it in our own homesteads and courtyards and help our family have a healthy life utilizing the benefits of curry leaves.

As Donald Miller says "It is always the simple things that change our lives." Most often simple aspects goes un-noticed leaving us little aware of what we missed. Thanks have Madhu.Ramakrishnan, an organic farmer from Pollachi area in Tamil Nadu, who informed Spice India about Hema for the benefit of the readers and also to record the value of curry leaf and other valuable herbs which are available in plenty around us.

(Three photos showing the various stages of Smt. Hema are given in the cover page.

1.Before marriage 2. The disease spread condition 3. After taking curry leaf and Kizharnelli)



Top: A graphic portrayal of Spices export performance.

Bottom: (from left)

- Curry leaf farmers seen interacting with Shri S.R.Sundara Raman an organic farm expert from Sathyamangalam.
- 2. Board's officials discussing with the curry leaf farmers on formation of Curry leaf Farmers Group in and around Dindigul area after the campaign meeting held at KVK Gandhigram.
- 3. Shri.P.R.Rangaraj,
 Panchayat President,
 Pungampalayam speaking
 at the curry leaf campaign.

Right side Box:

Transition in face due to a curry leaf miracle.

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(Cheeku Rogam)





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(Pattamarappu)



Cheeku Rogam in Rubber / Jathi

Clean the affected stem and junctions using Kora cloth. Stir the paint well in the tin and apply it using a brush.

For pepper, clean the bottom areas of the vine and apply the paint about 1 to 2 ft. height.

Convert the Kondody's Ready to use Bordeaux Paint into ready to use Bordeaux Mixture by dissolving 1 litre plus 9 litres of water.

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Fine spray on both the sides of leaves to be done during April, May and June as pre-monsoon spray and second spray during August, September and October as post monsoon spray.

Diseases

Cardamom : Azhukal, Leaf Rot

Rubber : Pink disease, Patch canker,

Abnormal leaffall, Corespora

Pepper Vine : Bud rot, Mahali Grape Vine : Powdery Mildew Cocoa : Black Pod Coffee : Leaf Rust

Jathi : Pink disease Arecanut : Koleroga

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CBC Coconut Mix

World's first special organismanure for Goconut



- . Blocks falling of tender nuts
- · Blocks yellowing of leaves
- · Gives bright green colour to leaves
- Eradicates pests
- · Prevents stem bleeding
- Accelerates growth
- · Increases nut weight

(Enriched with Natural Pesticide Azadiractin)



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- Sizable increase in DRC and sustainable increase in productivity.
- Protects against leaf fall disease, powdery mil dew, leaf disease, pink disease, Bark rot & pests.
- * As testified by farmers, who used CBC Rubber mix in specified quantity at specified time & method.)

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Bhimbetkar...
Bhimbetkar...
130 rock shelters
13

ery deliberately, we stepped into the Early Stone Age.

Forty-five kilometers out of Bhopal, we turned, bumped over a level-crossing, and ascended a boulder-strewn hillock where palas flowers bloomed as livid as clotted blood. There, we parked near a board erected by the Archeological Survey of India which said it all.

Bhimbetkar...130 rock shelters .. Biggest repository of prehistoric art in India. Continuous habitations from the Early Stone Age... At the end of the stone-flagged path a huge outcrop of rocks towered like a great, forbidding, bastion. We walked up, climbed a short flight of stone steps, and stood in front of a high, openended, cave. This was the doorway to a place inhabited by mankind for many millennia: far longer than even our oldest cities have existed .It was also the portal to an amazing display of murals, graphically recording the evolving life-styles, and mind-sets, of our ancient ancestors.

As a very rough and ready rule of thumb, the oldest paintings are green or dark red. Their lines are simple and no humans appear. It is also interesting to observe that the earliest paintings show no conflicts between warring tribes.

Ancient Pursuits BHIMBETKAR Hugh &

Hugh & Colleen Gantzer

A stone age warrior hunting an elephant - Bhimbetka



Murals in a rock shelter - 10,000 years old

After this our 'discoveries' came fast and thick. On a plum-coloured slab, two bull elephants with huge tusks stood out. One had two hunters on its back, spearing it to death. Elephants were common in Bhimbetkar in those, moist, lush days.

Clearly, the world was not a crowded place then and so there was no need to kill our fellow creatures to acquire their territories! Significantly, the most recent paintings are, often, the crudest: as if the very process of building a material civilization had destroyed the artists' ability to tap the essentially intuitive talents so necessary for all great works of art. Horses appear in the middle period because they were, possibly, introduced into our land by the nomadic Indo-Iranian steppe people, later referred to as

2 0 1 2

the Aryans. But all these are technical considerations which, in a way, detract from the empathic enjoyment of Bhimbetkar.

We didn't hurry. We ambled around it, examining every smooth boulder, every overhanging rock. It is amazing how variations of light and shade highlight new

discoveries at virtually every step. We had just rounded a massive rise of rock when the sun lanced down through the sal trees, straight into our eves. Instinctively, we raised our heads to deflect the beam, and we glimpsed it. Something shone red on a rock high above us. We stepped right, left, forward. backward. It blurred, vanished, glistened again. And only from one place did it leap out clearly. A huge red bison had been caught, charging, head lowered, at a desperately fleeing man. Somehow, we feel the man never made it. But the agony of his last, frightened, seconds was frozen, down untold centuries, on this rock.

After this our 'discoveries' came fast and thick. On a plumcoloured slab, two bull elephants with huge tusks stood out. One had two hunters on its back, spearing it to death. Elephants were common in Bhimbetkar in those,



A wounded buck and a pregnant doe



The great bison and its victim

moist, lush days. Another rock captured a wounded buck and a pregnant doe, her sagging belly heavy with her embryo.. There were horned deer, here, probably sambar, but two of them had loops on their backs which looked like saddles. In fact there was a chairlike structure above these animals which could well have been a primitive saddle. If this vignette does depict saddled deer then we've made quite a discovery. Today, the only deer used as pack and riding animals are reindeer domesticated by the Sami of Finland. This prehistoric painting could, therefore, prove that the art of domesticating deer existed and was lost in India in the distant past. But there was something even more interesting here. When we looked carefully to the left of this scene, we saw someone's right hand with a carefully amputated index finger. The line of amputation has been clearly shown as has the upper bit of the

finger that was removed. We know that early humans did operations but this is the first time that anyone has noticed such a surgical feat in Bhimbetkar. Then, on another overhang, there was a vivid hunting scene. Men fired arrows at animals, hurled sticks, protected throwing themselves with large shields, and were psyched to greater efforts by a larger-than-life shaman in a horned headdress. The presence of the shaman gave us reason to believe that most of these paintings were manifestations of sympathetic magic. People believed that if images of hunters were depicted slaughtering of animals then, possibly, living hunters would be able to kill real animals in their endless quest for food. The image would become reality. Advertising agencies, in our age, make a good living similarly blurring the lines between the food and fantasy!

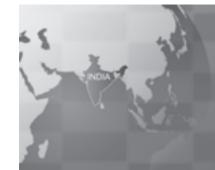
Curiously, in all the rock-art that we have seen around the world, there has not been any depiction of cooking. From the remains left behind in his middens, his piles of garbage, we are sure that Early Man cooked to make the fibres of his food more digestible. Similarly, as a huntergatherer, he realised that certain herbs, roots, seeds and bark made his meals more palatable. Spices, in those early days, however, went beyond adding flavour. Their smouldering fumes heightened sensitivity. Anthropologist Steven Mithen, described the atmosphere in which those ancient artists worked.

A cluster of animal fat lamps burn on the floor of the cave. The artist is an old but sprightly man with long grey hair, naked but with painted flesh. Amid the lamps are his paints. There is a sweet smell in the air: herbs are smouldering upon a fire. Every few moments the artist kneels and inhales deeply to refresh the vision within his mind.

And while he does this, the sounds of the chants around him convince the artist that his evocative painting would never fade. He is right. In course of time, the natural pigments are absorbed by the cellular structure of the rocks, and slowly, they become as permanent as tattoos on human skin. Which is why we, who live today, can still view that magical world through eyes that are many millennia old.

We can still step into the fascinating Early Stone Age.

公



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INVITES APPLICATIONS FOR COURSE ON GOOD AGRI PRACTICES

The Spices Board is inviting applications for admission to the ninth batch of the course on Good Agricultural Practices from candidates of the states of Andhra Pradesh, Karnataka and Tamil Nadu. This course is being offered by the Board to train educated and unemployed youths having agrarian background with the aim of enabling them to perform as agricultural resource persons in various aspects involved in the production of quality spices. The Board has already given training for over 200 applicants from north-eastern states and other states including Kerala.

The course will cover Good Agricultural **Practices** like production of good quality materials, planting crop husbandry practices, integrated pest management (IPM) & integrated disease management (IDM), post harvest handling, storage and processing, organic certification requirements and organic production practices of major spices and herbs. The scheme is planned to act as an alternative extension mechanism fully conversant with good agricultural practices rooted in rural communities with selfreliance. The programme will help in bridging the gap between current yield level and the potential yield of spice crops. The trained youth would provide an interface between the Board and Spices growers by rendering advisory services.

CURRICULUM

The curriculum will cover topics like 'Crop production and protection aspects of spice crops such as cardamom, black pepper, chilli, ginger, turmeric, vanilla, tree spices and herbal spicespractical training on production of quality planting material-organic inputs such as vermi-compost,- conventional composting, bio dvnamic preparations- vriksha ayurveda preparations such as panchagavya, Fish Amino Acid, Egg Amino Acid etc - bio-fertilizers (Azospirillum, Azatobacter, Phosphobacteria), (Trichoderma, bioagents Pseudomonas, Mycorrhizae etc.)soil testing and advisory services, mechanization, post harvest handling and processing of spice crops including value addition and farm management'. Communicative English, computer application personality development are the specialty of this curriculum. Medium of instruction will be English.

Location

The training will be given at the Indian Cardamom Research Institute, Spices Board, Myladumpara, Idukki District, Kerala, 685 553.

Duration

The duration of the programme is two months (1st November 2012 - 31st December 2012) and 25 candidates will be accommodated in a batch. It is a

fully residential programme.

Eligibility:

Unemployed youth having an agricultural background including agricultural laborers with Plus Two qualification are eligible. The plantation managers/ supervisors and candidates who are members of Kudumbasree or similar farmers' self help groups will be given preference. Candidates must be 18-35 years old as on 31/07/2012.

Stipend for trainees:

A stipend of Rs.3000/ per month will be given to the trainees during the period of training.

Post training activity:

After successful completion of the training programme, it is expected that the trainees will continue to engage themselves in agricultural based activity including production of quality spices in their villages and provide side by side extension services to the interested spice growers in sourcing their expertise on payment basis.

Submission of application

Neatly hand written or typed application in the prescribed format shall be addressed to The Director (Research), Indian Cardamom Research Institute, Spices Board, Myladumpara, Kailasanadu P.O. Idukki District, Kerala, 685 553. The cover containing the application shall be super scribed as 'Application for GAP training Nov-Dec 2012'

Last date for receipt of application: **30.07.2012**

Selection of candidates:

Based on the merit, candidates will be short-listed. The decision of the Board will be final.

The selected candidates will be given second class railway fare / bus fare from their home town to ICRI, Myladumpara, for onward and return journey by shortest route, . More details can be obtained from

from

Training In charge

Tel: 04868-237207, 237206

Extn: 211

Fax: 04868-237285,

Email: icrimyla@yahoo.com



APPLICATION FORM FOR TRAINING

	तेन बोर्ड खा					Affix passport
1.	Name of the applicant	:				size photo
2.	Date of birth* (as on 31.07.2012)	:				
3.	Educational qualification*	:				
4.	Address for communication (With pin code, Mobile & telephone number)	:				
5.	Permanent address	:				
6.	Occupation of Father/Guardian	:				
7.	Do you belong to SC*/ST*/OBC	:	Yes		No	
8.	Are you an agriculturist cultivating own land	:	Yes		No 🗌	
	(or)					
	Are you cultivating in the land taken on lease	/rent:	Yes		No	
9.	Details of agricultural land if any, owned or lea	ased :				
	Area ha:	Sy. no:				
	Village:	Taluk : _				
10.	Name of crops cultivated by your family:					
11.	Are you member of any farmer group?	:	Yes		No	
	If yes, give name and address of the group (? Attested proof to be attached)					
I cei	tify the details and information given in this fo	rm are c	orrec	t to the	best of my	knowledge and belief

(Signature of the candidate)

N.B:-Selected applicants shall be intimated by post and no enquiry regarding the selection shall be entertained.

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- Fruit fall, yellowing, budrot and stem bleeding of coconut
- Mahali, yellowing, budrot and fruit fall of arecanut
- Fruit fall, capsulerot, rootgrub and 'katte' or mosaic disease of cardamom
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LAO PDR IN SEARCH OF SPICES FARMS



Lao PDR team in the organic field.

An eight member official delegation from Lao PDR which visited the spices growing areas in Kerala has expressed their liking for various spices crops including cardamom. The delegation toured Idukki district on 18th and 19th June 2012 to know the growing practices of spices.

The delegation visited the cardamom plantation at Karakkatt in Attapallam and had interaction with the grower, Mr. Philipose on organic growing practices. The team members were interested in knowing about crops like pepper, ginger, turmeric, bird's eye chillies, nutmeg, clove, cinnamon , turmeric, tapioca and other fruit trees. The team had also visited the Spices Park in Puttady. They were received by the Deputy Director, Mr. P. Perinbam who had explained the facilities at the Park for auctioning and for processing.

During the visit to ICRI in Myladumpara. Scientists, Dr KM Kuruvilla, Head, Dept. of Botany gave an overall view of cardamom cultivation, aspects on selection planting material, site selection and planting of location specific varieties. Dr Dhanapal Scientist,



Lao PDR team in the Cardamom estate of Sri Chacko , Puthuparambil. Also seen are Mr. P. Ravikumar, Senior Field Officer, Anakkara and Joshy, Manager, Puthuparambil estate, Vazhaveedu.

explained the common diseases of cardamom and their control and Dr Nataraj, Head, Soil Science, elaborated on the importance of soil for cardamom cultivation, fertilizer requirement for the crop was discussed. In the course of discussion, Dr. Kulwant Singh, the leader of the delegation informed that climatic and soil factors prevalent in Laos and Kerala are almost the same. Lao PDR has a forest cover of over 80 per cent with seven to eight months of rain and temperature in the region of

25 to 30°C. Lao has a history of importing around 10,000 cardamom suckers from India some time ago though none of the plants survived. Dr Kulwant Singh has again requested Board's assistance in supplying suitable cardamom planting material for Laos PDR.

Senior Field Officer, Anakkara, Mr P Ravikumar escorted the team to the farmers' fields and explained the various practices in vogue in the plantations.

ORGANIC KERALA-2012 - COCHIN



A view of Board's stall at Organic Kerala-2012 held at Cochin during 29th April to 1st May 2012. (From left) Ms. Rose Mary and Mrs.Ambily Sadanandan, Field Officer, Spices Board, Thodupuzha are seen discussing with visitors at the stall.

DISEASE MANAGEMENT CAMPAIGNS FOR LARGE CARDAMOM and application of the control o



The meeting in progress at Todey

The Board's Zonal Office in Kalimpong conducted Disease Management Campaigns at Todey Tangta, the core large cardamom growing area in Darjeeling District of West Bengal.

Colletotrichum blight is the major fungal disease and Furkey & Chirkey are the viral diseases infecting large cardamom. Campaigns were conducted in

three locations viz. Godak, Chisang and Todey Bazzar during 19-20, June 2012 to create awareness among the large cardamom farmers about the diseases and to demonstrate disease management practices.

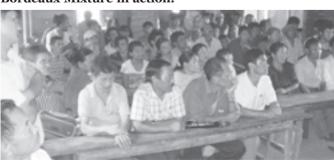
During the campaigns, live disease specimens were displayed. Phytosanitation, preparation of one per cent Bordeaux Mixture and application of bio-control agents viz. *Pseudomonas flourescens* and *Bacillus subtilis* were demonstrated to the growers.

Leaflets on disease management in large cardamom [in Nepali language] were distributed to the participants. Bio-control agents produced at ICRI-Tadong viz *Pseudomonas* and *Bacillus subtilis* were supplied to the growers.

Large cardamom growers from Suruk, Godak, Chisang, Pala, Keram, Todey bazzar and Tangta hamlets participated in the campaigns. Dr.U.Gupta, Deputy Director [Res], Dr A K Vijayan, Dr T N Deka, Scientists of ICRI, Tadong, Shri M S Ramalingam, Assistant Director, Spices Board, Shri R J Mandal, Farm Manager and Shri Sudhir Rai OTA participated in the campaigns and interacted with growers.



Demonstration of preparation of one per cent Bordeaux Mixture in action.



A view of farmers attending the meeting at Kodak.



A grower is seen interacting with scientists at Todey



Growers keenly observing the demonstration of BM preparation

IPC PANEL FINALISES GMPs FOR PEPPER, SPICES

The International Pepper Community (IPC) Committee on Quality has announced the revised IPC Good Manufacturing Practices for Pepper and other similar spices.

The IPC GMP (Code of Hygienic Practice) which was revised recently applies to pepper and other similar spices - whole, broken, ground, blends or processed pepper and it covers the minimum requirements of hygiene for harvesting, post harvest handling (curing, drying, cleaning, grading, packing, transportation and storage including microbial and insect disinfestations), processing (grinding, blending, freezing, freeze drying, extraction, dehydration etc.), packaging and storage of processed products, at farm level, processing establishments and manufacturers premises.

The IPC Secretariat will be sending the revised IPC GMP to the member countries for their views



Left to right: Mr. S. Kannan, Executive Director of IPC, Mrs. Husniaty, Chairperson of IPC Committee on Quality, and Mr. KRK Menon, Vice-Chairman of Committee

and comments before placing it for consideration adoption at the next 40th Session of IPC, to be held at Colombo during 30th Oct - 2nd November 2012.

At the recent meeting held in Jakarta in Indonesia during 4-5 June 2012, the Committee discussed and addressed issues related to quality such as Pesticide Residues, Mycotoxins, follow on the IPC Interlaboratory Proficiency Testing Programme and sampling methods for pepper. The meeting also decided to undertake training programme for laboratory's personnel in Cochin, India besides training for farmers/extension workers on the IPC GAP in member countries.

The meeting of the Committee was hosted by the Center for Goods Quality Control, Ministry of Trade, Government of Indonesia and attended by expert members from India, Indonesia, Malaysia, Sri Lanka, Vietnam and official representatives from Ministry of Trade and Research Institute of Spices and Medicinal Crops (BALITTRO) and Ministry of Agriculture, Government of Indonesia.

The IPC Committee is chaired by Mrs. Husniaty, who is the Director of the Center of Goods Quality Control, Ministry of Trade, Government of Indonesia. The members include technical officials from the IPC member countries viz. Mr. K.R.K Menon (India - Vice Chairman), Mrs. S. Padmaja (India - Member), Dr. T. John Zachariah (India - Alternate Member), Mrs. Dyah Palupi (Indonesia - Member), Mrs. Wiyas Prawesti (Indonesia - Alternate Member), Mr. Zehnder Jarroop (Malaysia - Member), Dr. M. Dharmadasa (Sri Lanka - Member), Dr. Bui Chi Buu (Vietnam - Member).



Chairperson of IPC Committee on Quality along with expert members and other participants after the closing of the Meeting on 5th June 2012 in Jakarta

SPICE CLINIC CATCHING UP



Dr. P Natrajan, Head of the Department of Agronomy and Soil Science speaking to the farmers at the Spice Clinic. Dr. S.S. Chandrasekhar, Department of Entomology, ICRI [extreme right] and Mr. Joseph Sebastian, President of the Aadukidanthan Karshaka Smaraka Samithi are also seen.

The concept of Spice clinic initiated by the Indian Cardamom Research Institute of Spices Board is catching up as more and more spices farmers are showing interest in participating in the deliberations. This is evident from the various programmes organized by the Institute in Idukki district for the growers. A recent Clinic conducted on 13th June 2012 at Aadukidanthan in Udumbanchola of Idukki district witnessed unprecedented presence of farmers. A team of scientists consisting of Dr. P Natrajan, Head of the Department of Agronomy and Soil Science, Dr. S.S. Chandrasekhar, Department of Entomology, Dr. K Pradeep Kumar, Department of Crop Botany, Dr. Ajay and Dr. Sadanaik, Department of Pathology visited different plantations to study various problems encountered in the estates.

A scientist farmer interface was also organized on the same day at the residence of Mr. Thomas Mooppilakkatt, Patron, Aadukidanthan Karshaka Smaraka Samithi. Scientists shared their experiences and suggested ways and means to improve production and productivity in the plantations. Mr. M.N Sundaresan, Senior Field Officer, **Spices** Board,

Udumbanchola explained the various development initiatives taken by the Board for Cardamom and Pepper. Mr. Joseph Sebastian, President of the Samithi presided over the meeting. Dr. V Sreekumar, welcomed the gathering and Mr. K Govindan, expressed the vote of thanks.

Spice Clinic is an open house interaction between farmers and experts from ICRI where the scientists visit various plantations and advise the farmers on the various agricultural -practices to be followed especially on the judicious use of pesticides.

AGRI INTEX EXHIBITION: COIMBATORE

Spices Board participated in the International Agricultural Technology Trade Fair during 30 May - 3 June, 2012 in Coimbatore. Samples of export potential spices viz., Alleppey cardamom, Malabar pepper, Cochin ginger, Erode turmeric, Guntur chilli, seed spices, tree spices, vanilla, organic turmeric and valued added products viz curry powder, branded spice packs, oils & oleoresin were displayed in the Board's stall.

The visitors are very keen on knowing about the method of cultivation of spices and schemes of the Board. The farmers are particular on subscribe to the Board's publication Spice India.

The visitors profile includes growers, plantation companies' Executives and Managers, Extension Officials, representatives of Industrial Companies, representatives of agro-input manufacturers etc.

Shri. K. Kanagadhileepan, Senior Field Officer, Shri. R. Shivalingam, Shri. N. V. Haneefa and Smt. Geetha T. K. of Coimbatore, Spices Board office represented the Board's stall in the exhibition.

STAKEHOLDERS JOIN HANDS FOR DEVELOPMENT OF SPICES IN NE REGION



Mr. Barkos Warjri, IAS, Additional Chief Secretary, Government of Meghalaya delivering the inaugural address as Chief Guest

Coming together of exporters, farmers, NGO representatives and Government officials from the

North Eastern region facilitated a concerted appeal for development of capacities and capabilities for spices development in the region. In accordance with the directives of the Joint Secretary in the Union Ministry of Agriculture who is also the Director of the National Horticulture Mission, Government of India, Sri Sanjiv Chopra, the Spices Board took up the initiative to organize a workshop to commemorate the Horticulture Year 2012. However the workshop turned to be an opportunity for introspection and an inspiration for planning future development.

The deliberations of the workshop on "Organic Spices and Value Addition in North Eastern Region" held on 16th May, 2012 at



Mr. S. Siddaramappa, Director (Dev), Spices Board delivering the welcome address.



A farmer expressing views in Panel Discussion





The audience in the workshop

Hotel Polo Towers, Shillong, Meghalava helped in hearing the expressions of likes and of different expectations stakeholders in spices development in the North East. The suggestions that came out were valid points that could be taken up for a concerted development. Some of the very important thoughts were for local availability of organic certifiers, a survey to assess the quality and quantity of organic products available for marketing, strengthening the Spices Board's presence in N.E. region and convergence of activities of all departments for spices development in the area. The participants were unanimous in demanding organizing awareness campaigns on judicious use of hormones/ chemicals and quality requirements. Scope of taking up large-scale area expansion programme for spices like turmeric, ginger, black pepper, large cardamom, cinnamon and King chilli and a common facility for spice processing was also demanded. Other points that were noted included providing marketing network and forward linkage for spices in N.E. region, establishment of a spice park, identification of N.E. region as a source of organic spices, exposure visit of state Government officers/ farmers to South India, promotion of bee-keeping. minimum support price for ginger and supply of turmeric boiling units to Assam.

The workshop was an initiative to gather views and suggestions of the representatives of all the stakeholders for promotion of organic spices production & marketing from the N.E. Region and to highlight the potential of the N.E. region for organic spice production and marketing with spices like bay

leaf, turmeric, ginger, large cardamom and black pepper.

Sessions were designed to cover topics like organic soil and organic nutrients (with special reference to spices crop), organic production and post harvest of spices, organic farming and group certification, value addition in spices and future market strategies in N.E. region, Organic farming - present scenario and its importance in North East India. Subjects like strategies for organic spice business and export, funding schemes on organic projects and value chain on Spices etc were also touched upon. The workshop was attended by the officials from State Horticulture Department, Agriculture Department, Meghalava Rural Development Society, Soil & Water conservation Department, NERCORMP, Exporters from different parts, farmers & NGO members from Meghalava, Arunachal Pradesh, Tripura, Mizoram, Assam and Nagaland states besides the officials of Spices Board.

Mr. Barkos Wariri, IAS, Chief Secretary, Additional Government of Meghalaya in his inaugural address emphasized the importance of organic food and opined that the organic certification of spices like turmeric, ginger, etc should be done like that of organic tea. He welcomed the Spices Board for organizing the workshop and requested to give more importance for spices crop development with sufficient staff strength in the N.E. region. Mr. C.O. Rangad, Director, Directorate of Horticulture, Government of Meghalaya, Shillong in his address congratulated the Spices Board for organizing this workshop and went on to stress that all related departments should work together in order to achieve success in organic spice production and marketing. Dr. S.V. Ngachan, Director, ICAR, Barapani, Meghalaya, in his address emphasized on the resourceful biodiversity with potential for spices crops like King Chilli, turmeric, large cardamom, etc in N.E. region.

Mr Siddaramappa,, Director, Development of Spices Board delivered the welcome address. Dr. Pritom Kr. Borthakur, Professor, Assam Agricultural University, Jorhat, Dr. Amit Nath, SAenior Scientist, Indian Council of Agricultural Research, Barapani, Meghalava, Mr. Bidvut Baruah, Assistant General Manager, Agricultural Processed and Export Development Authority (APEDA), Guwahati, Assam, Mr.S. Dewan, Member of faculty, Indian Institute Entrepreneurship (IIE). Guwahati, Assam. Dr. Р. Ravindranath, Assistant Director, Regional Centre of Organic farming, Imphal, Manipur, Mr. Afreen Rahman, Noya Eco Engineering, Jorhat, Assam, Mr. Wankhede, General manager, NABARD. Regional Office, Shillong, Meghalaya and Mr. A.R. Suting, Manager Technical Services, MRDS, Shillong, Meghalaya led the deliberations. Dr. R.C Upadhaya, Consultant, National Horticulture Mission, New Delhi emphasized on the diversification in present scenario, minimum support price for spices, collection centre and ware house facilities in N.E. Region while Mr. Abhijit Sarkar, NERCORMP spoke on the sales and channel sales figures of horticultural crops and the Indian development gateway website. Mr. B.J. Brahma, Deputy Director (Dev), Spices Board, Regional Office, Guwahati proposed a vote of thanks.

CALENDAR OF OPERATIONS FOR IMPORTANT SPICES - AUGUST 2012

Timely planning and execution of farm operations based on agro-climatic conditions of the area is important for successful farming for higher productivity and sustainability. Having a calendar of operations in hand will be useful. To facilitate this broad indication in respect of important spice crops for August is given below.

Name of the crop/ Type of operations	Details of operations to be carried out					
CARDAMOM (SMALL)	NURSERY					
1. Agronomic measures	Provide adequate drainage.					
	Thin out seedlings if overcrowded in beds					
THE CALL	Remove and discard disease affected seedlings, if any.					
	MAIN FIELD					
	> Trashing plants and weeding in interspaces may be completed if not; done.					
	Plant shade tree saplings in open patches					
	Depending upon weather conditions, replanting and rejuvenation works to be continued.					
到是是	➤ After planting, staking and tying around sticks mulching plant base with leaves and weeds to conserve soil and moisture needed					
	Drain out, if water stagnates around plant base.					
2. Pest management	Collect and destroy beetles of root grubs from the plantation.					
	For Integrated Pest Management, spray either quinalphos @ 200 ml or phosalone @ 200 ml in 100 liters of water (sprays must coincide with shoot borer moth emergence).					
3. Disease management	MAIN FIELD					
The second	Provide adequate drainage if water stagnation is noticed.					
	Towards Integrated Disease Management against azhukal and rhizome rot in severely affected areas, phytosanitary measures and application of fungicides/bio-control agents may be taken up.					
法交色	COC (0.2 per cent), drenching + one per cent Bordeaux mixture spray. 15 days later apply Trichoderma alone or with Pseudomonas fluorescens at plant base. Repeat bio agent application and foliar spray with Akomin 0.4 per cent.					
	➤ If bio-control measure is followed, basal application of Trichoderma harzianum alone or with Pseudomonas fluorescens is recommended.					
MECH	Katte infected plants if found must be rouged and destroyed.					
4. Harvest and Post harvest operations.	Annual maintenance of curing houses and cleaning of flue pipes may be attended for efficient fuel management and curing.					
	Collection of firewood for curing purpose, may be done without disturbing the ecosystem if curing devices with alternate fuels like LPG, diesel or Bio-mass are not available.					

Fly picking can be started. Harvest only mature capsules for better out-turn on curing. LARGE CARDAMOM NURSERY Nursery beds may be mulched properly with dried forest leave to prevent soil erosion and weed growth. Disease/pests infested suckers may be removed and destroyed. Overhead pandals may be erected in sucker nurseries opened during June and July.

Weeding may be attended depending on necessity.



VANILLA

1. Agronomic measures

PLANTATION

- ➤ Replantation/gap filling operation if not done, may be completed immediately.
- Chirke and Foorkey infected plants may be destroyed by uprooting/ burial at regular intervals in the pits.
- ➤ Regular inspections may be carried out to observe caterpillar/shoot borer/shoot fly incidence if any and may be hand picked and destroyed mechanically and burning.
- The crop starts maturing at low altitude area. Hence, weeding and trashing should be done before harvesting.
- Farmers who are not having bhatties for curing cardamom may construct improved flue pipe technique modified bhatties before harvesting of the crop.
- After harvesting old shoots/mother plant/dry leaf must be collected and destroyed or burned.

Planting of vanilla cuttings about 50 c.m. length near the already

existing standards or rooted cuttings in polybags can be continued.

Adequate drainage facilities may be provided to avoid water stagnation.

PEPPER MAIN FIELD Activity of planting of pepper on established standards may be continued 1. Agronomic measures if not done. Do not allow water to stagnate in and around the base of the plants. Inspect plant bases after heavy rain and drain out stagnating water. Care should be taken to avoid injury to root system during cultural practices. The growing vines may be tied to the standard and trained properly. 2. Pest management Top shoot borer attack in young plantations can be controlled by spraying quinolphos 0.05 per cent (200 ml./100 liters of water). This spray can also help in controlling pollu beetle incidences. 3. Disease management Against incidence of foot-rot disease, spray one per cent bordeaux mixture. In severe situations, drench 0.2 per cent COC (200 grams in 100 liters water) at the plant base @ five liters per vine apart from

bordeaux mixture spraying.

- Decomposed organic matter, bone meal, well dried cowdung, compost, vermicompost, fermented neem/ground nut cakes etc. can be applied as manure and plant base mulched with suitable material.
 - Trailing of vines on support trees may be continued.
 - ➤ Keep constant vigil over appearance of pest and disease problems.
- 2. Disease management



- Soil application of Trichoderma @ 0.5 kg./plant at the root zone and spraying pseudomonas (0.2 per cent) on the foliage recommended to arrest spread of fungal diseases.
- ➤ If fungal diseases like shoot tip rot, stem and bean rot are still observed, spray one per cent bordeaux mixture or 0.2 per cent dithane M 45 (200 grams in 100 liters of water) after removing the disease affected portions.
- Wherever infection is suspected by Fusarium sp., spraying of Bavistin 0.2 per cent (two grams per liter of water) may be done.
- ➤ Plants showing mosaic symptoms (viral attack) may be removed and destroyed then and there.

GINGER



- Weeding, earthing up the beds and mulching may be done depending on requirement.
- Application of suitable organic manures can be done and provide earthing up and mulching.
- Water stagnation should be avoided by providing sufficient drainage.
- For controlling shoot borer 0.05 per cent dimethoate(167 ml/100 liters of water) may be sprayed and infested clumps may be uprooted and destroyed.
- > If soft rot disease is noticed dig out the affected plants and drench the beds with cheshunt compound or one per cent Bordeaux mixture.
- **TURMERIC**



- > Additional application of organic manures can be done.
- Weeding, earthing up beds and mulching may be done depending on requirement.
- To avoid water stagnation, proper drainage may be ensured.
- > To control shoot borer incidence spray 0.05 per cent dimethoate (167 ml. in100 liters of water) and infested clumps may be removed and destroyed.
- Rhizome rot can be controlled by drenching 0.3 per cent dithane M 45 or 0.3 per cent Cheshunt compound.

CHILLI



- ➤ If green manure crop flowered and ready, it can be incorporated in the fields.
- > Transplant seedlings to the main field.
- ➤ If moisture inadequate in the main field irrigation may be taken up.
- Fifty per cent of the recommend dose of fertilizer (i.e., NPK 100:50:50 kg per hectare) may be applied at the time of transplanting.
- Bio-fertilizers can also be applied.
- ➤ The main seed spices are coriander, cumin, fennel and fenugreek. Being kharif season now, the land is kept fallow to take up cultivation operation during rabi season. For kharif fennel (transplanted) the nursery already opened may be maintained well.
- SEED SPICES

MONTHLY AVERAGE PRICES OF SPICES FOR JUNE 2012

SPICE	CENTRE	GRADE	PRICE ₹/KG
Black Pepper	Kochi	Ungarbled	381.23
		Garbled	396.23
Cardamom small	Vandanmettu/		
	Bodinayakanur	bulk e-auction	696.91
Cardamom (L)	Siliguri	Badadana	709.75
	Siliguri	Chotadana	649.00
Chillies	Guntur		46.00
Ginger(Dry)	Kochi	Best (New)	76.50
	Kochi	Medium (Old)	83.00
Гurmeric	Kochi	Nadan	48.20
	Kochi	Salem	40.00
		Agmark	40.00
	Chennai	Erode	44.00
Coriander	Chennai	Rajasthan Green	54.50
	Chennai	Deluxe	46.80
Cumin	Chennai	Ordinary	141.50
Fennel	Chennai	-	75.00
Fenugreek	Chennai	-	34.00
Mustard	Chennai	Small	47.00
Garlic	Chennai	Medium	16.80
Clove	Cochin	-	838.27
Nutmeg(with shell)	Cochin	-	325.38
Nutmeg(without shell)	Cochin	-	562.31
Mace	Cochin	-	759.62

Prices are collected from secondary sources like Agricultural Produce Market committees, Kirana Merchants Association, India Pepper and Spice Trade Association, Spices Review' from Chhaganlal Kalidas Mehta, Licensed Cardamom Auctioneers etc.

ALL INDIA CARDAMOM AUCTION SALES AND PRICES FOR JUNE 2012 COMPARED WITH JUNE 2011							
PERIOD	JUNE	2012	JUNI	2011			
	Quantity sold (Kg)	Average price (₹/Kg)	Quantity sold (Kg)	Average price (₹/Kg)			
First week	268421	712.10	206734	643.51			
Second week	216439	700.94	267397	722.97			
Third week	229263	674.70	327907	739.30			
Fourth week	257988	700.68	353694	736.51			
Fifth week (2days)	71334	685.29	122452	754.54			
Total	1043445	696.91	1278184	721.08			

Source: Auction reports received from licensed cardamom Auctioneers

AVERAGE INTERNATIONAL SPOT PRICES FOR JUNE 2012

MARKET	GRADE	(USD/KG)	(₹/KG)
U.S.A	MG-1	7.28	407.90
U.S.A	Muntok	9.83	550.77
Saudi Arabia	India Asta Extra Bold	19.13	1072.00
U.S.A	India S4	2.87	160.81
	Chinese Small	4.30	240.93
U.S.A	Indian	2.98	166.97
U.S.A	AFT 525 Curcumin	3.31	185.46
U.S.A	Canadian	1.37	76.76
U.S.A	Syrian/Indian	3.75	210.11
	Egyptian fancy	2.82	158.00
U.S.A	Ind/Turkey	1.10	61.63
U.S.A	Mad/Zan/Com	15.35	860.06
	U.S.A U.S.A Saudi Arabia U.S.A U.S.A U.S.A U.S.A U.S.A U.S.A	U.S.A MG-1 U.S.A Muntok Saudi Arabia India Asta Extra Bold U.S.A India S4 Chinese Small U.S.A Indian U.S.A AFT 525 Curcumin U.S.A Canadian U.S.A Syrian/Indian Egyptian fancy U.S.A Ind/Turkey	U.S.A MG-1 7.28 U.S.A Muntok 9.83 Saudi Arabia India Asta Extra Bold 19.13 U.S.A India S4 2.87 Chinese Small 4.30 U.S.A Indian 2.98 U.S.A AFT 525 Curcumin 3.31 U.S.A Canadian 1.37 U.S.A Syrian/Indian 3.75 Egyptian fancy 2.82 U.S.A Ind/Turkey 1.10

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