



SPICES BOARD, INDIA
PRESENTATION ON THE OCCASION OF
THE ANNUAL MEETING OF
THE AMERICAN SPICE TRADE ASSOCIATION

19th APRIL 2005
Arizona, Phoenix

BY
C J JOSE I A S
CHAIRMAN, SPICES BOARD
INDIA

SPICES BOARD

EXPORT OF INDIAN SPICES

YEAR	QTY (TONS)	VALUE (MLN US\$)
2000-01	235916	400.51
2001-02	243203	407.85
2002-03	264107	431.45
2003-04	246566	415.14
2004-05 *	303166	414.25

* PROVISIONAL (Apr 04 – Feb 05)

SPICES BOARD

EXPORT OF SPICES FROM INDIA

(QTY IN M.T; VALUE MLLN US \$)

ITEM	2003 – 04		2004 – 05 (Provisional) (Apr 04-Feb 05)	
	QTY	VALUE	QTY	VALUE
MINT PRODUCTS	11250	92.63	5675	54.93
SPICE OILS & OLEORESINS	4750	81.08	5000	91.48
SEED & OTHER SPICES	84550	70.67	97440	77.91
CHILLI	81500	77.39	124000	100.10
PEPPER	16700	31.27	12875	24.58
TURMERIC	34500	27.79	38500	31.46
CURRY POWDER	7600	14.18	6900	12.66
GINGER	5000	5.10	12200	11.41
CARDAMOM(SMALL)	690	7.19	560	4.59
VANILLA	26	7.86	16	5.13
TOTAL	246566	415.16	303166	414.25

SPICES BOARD

EXPORT OF SPICES TO USA

(QTY IN M.T; VALUE MLLN. US \$)

ITEM	2002-2003		2003-2004		2004-2005 (Provisional) (Apr-Feb)	
	QTY	VALUE	QTY	VALUE	QTY	VALUE
SPICE OILS & OLEORESINS	1757	23.16	1580	22.99	1385	22.54
MINT PRODUCTS	2200	22.70	2281	23.82	1194	11.86
CHILLI	16970	17.94	13349	16.17	17822	20.90
PEPPER	9656	15.09	5872	10.53	4109	7.25
VANILLA	20	3.58	20	6.58	14	4.72
TURMERIC	3914	2.75	3880	2.86	2207	2.76
CELERY	2694	1.69	3360	2.25	2457	1.65
CURRY POWDER	1166	2.60	668	1.79	713	1.39
CUMIN	1505	3.20	600	1.21	1507	2.79
GINGER	623	0.46	608	0.67	481	1.37
OTHER SPICES	5023	5.24	4055	4.60	4135	4.78
TOTAL	45528	98.41	36273	93.47	36024	82.01
% OF TOTAL EXPORT	17	23	15	23	12	20



SPICES BOARD

EXPORT OF SPICES TO USA

UNIT Value US\$/KG

ITEM	2003-2004	2004-2005 (Apr – Feb)	2005 Feb
SPICE OILS & OLEORESINS	14.55	16.27	17.46
MINT PRODUCTS	10.44	9.93	9.29
CHILLI	1.21	1.17	1.15
PEPPER	1.79	1.76	1.69
VANILLA	329.00	337.14	34.51
TURMERIC	0.74	1.25	1.22
CELERY	0.67	0.67	0.88
CURRY POWDER	2.68	1.95	2.76
CUMIN	2.02	1.85	1.98
GINGER	1.10	2.85	2.78
OTHER SPICES	1.13	1.16	1.25

SPICES BOARD

CURRENT FOCUS

- **PRODUCTION, PROCESSING AND EXPORT OF ORGANIC SPICES**
- **PRODUCTION, PROCESSING & EXPORT OF VANILLA**
- **TIMELY AND ADEQUATE RESPONSE TO FOOD SAFETY CONCERNS (SUDAN, AFLATOXIN)**
- **CONTROL OF PESTICIDES RESIDUES IN SPICES**
- **TECHNOLOGY UPGRADATION IN SPICE PROCESSING**
- **PROMOTION OF INDIAN BRANDS FOR THE PREMIUM MARKET.**



ORGANIC SPICES

- NATIONAL PROGRAMME ON ORGANIC PRODUCTION
- INTERNATIONAL CERTIFYING AGENCIES ACCREDITED
- CERTIFICATION UNDER NPOP, NOP, JAS, EU 2092/91





SPICES BOARD

ORGANIC SPICES

CERTIFIED ORGANIC SPICE FARMING GROUPS

1. PEERMEDU DEVELOPMENT SOCIETY, IDUKKI, KERALA
pdsexports@sifi.com
2. SAMANWITA, KANDHAMAL DISTRICT, ORISSA- samanwita@india.com
3. HEALTH OF PEOPLE AND ENVIRONMENT, TAMIL NADU
hopeinn@md5.vsnl.net.in
4. WYNAD SOCIAL SERVICE SOCIETY, KERALA - wss@satyam.net.in
5. BOSCO REACHOUT, MEGHALAYA- bosco@gw1.vsnl.net.in
6. DESTITUTE WOMEN'S UPLIFTMENT SOCIETY, MANIPUR
apollorajkumar@hotmail.com
7. ECO-AGRI RESEARCH FOUNDATION, MYSORE – jnk@blr.vsnl.net.in
8. KASAM,ORISSA - orissakasam@rediffmail.com
9. VARANASHI AGRO FARMS – info@varanashi.com





SPICES BOARD

OTHER CERTIFIED ORGANIC EXPORTERS

1.POABS ORGANICS, PALAKKAD

poabs@poabs.com

2.NARMADA AGROPHARMA PVT.LTD, INDORE

3.CANARA ECO FARM EXPORTS LTD, MANGALORE

canecoexports@vasnet.co.in

4.UREKA EXIMS, GRAINS, JAIPUR

vipulgup@sancharnet.in

5.ORGANIC FOODS INDIA, BANGALORE

nidhi_gupta@organicfoodsindia.com

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ORGANIC SPICES

ORGANIC SPICE FARMING GROUPS – IN CONVERSION

1. AGENCY FOR INTEGRAL DEVELOPMENT ACTION,
NAGALAND frgeorgetd@vsnl.net
2. SHANTI SADHAN ASHRAM, ASSAM
santisadhan@yahoo.com



SPICES BOARD

ORGANIC SPICES

ORGANIC SPICE PROCESSING FACILITIES

- ❖ STEAM STERILIZATION
- ❖ WHITE PEPPER PRODUCTION
- ❖ GROUND SPICES
- ❖ VANILLA CURING
- ❖ VANILLIN EXTRACTION



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ORGANIC SPICES CERTIFYING AGENCIES ACCREDITED TO OPERATE IN INDIA

- **ECOCERT, GERMANY**
- **APOF, BANGALORE**
- **SGS, GURGAON**
- **INDOCERT, KERALA**
- **SKAL, THE NETHERLANDS**
- **IMO, SWITZERLAND**
- **LACON, GERMANY**
- **ISCOP, COIMBATORE**

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ORGANIC SPICES

PRODUCTS ON OFFER



BLACK PEPPER	THYME
WHITE PEPPER	OREGANO
VANILLA	PARSLEY
GINGER	GARCINIA
TURMERIC	NUTMUG & MACE
ROSEMARY	CLOVE
VANILLA EXTRACTS	



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VANILLA

AREA EXPANSION

15000 HA. BY 2007

5000 HA. SUPPORTED BY SPICES BOARD

PRODUCT FEATURES

VANILLIN CONTENT OBSERVED UP TO 3%

FLAVOUR COMPARABLE WITH THE BEST
OF BOURBON



A VANILLA GARDEN

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VANILLA

	2002-03	2003-04	2004-05
TOTAL AREA(Hec.)	2545	3543	5370
YIELDING AREA (Hec.)	914	1253	2087
EST.PRODUCTION (TONS)	92	134	236

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RESPONSE TO FOOD SAFETY CONCERNS OF IMPORTERS

SUDAN RED

FIRST RASFF RECEIVED ON 12.05.03
FROM FRANCE FOR THE PRESENCE OF
SUDAN RED (3.8 TO 4.6 gm/kg) IN HOT
CHILLI PEPPER EXPORTED BY TWO
MUMBAI BASED EXPORTERS



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SUDAN RED

ACTION TAKEN BY THE SPICES BOARD IN RESPONSE TO RASFFs ON SUDAN-1

- SUSPENDED THE CERTIFICATE OF REGISTRATION OF THE 2 INVOLVED EXPORTERS. IN ALL 7 EXPORTERS PUT OUT OF BUSINESS FOR VIOLATION OF THE CONDITIONS OF REGISTRATION RELATING TO FOOD SAFETY.
- INTRODUCED MANDATORY SAMPLING AND ANALYSIS FOR SUDAN-1 OF CHILLI & CHILLI PRODUCTS (IRRESPECTIVE OF DESTINATION OF EXPORT).



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SUDAN RED

- EXTENDED THE SCOPE OF ANALYSIS TO COVER SUDAN II-IV & AFLATOXIN
- UPTO 21st MARCH, 2005, 6500 SAMPLES ANALYSED.
- ❖ SUDAN-1 ANALYSIS AVAILABLE WITHIN 24 HOURS OF RECEIPT OF SAMPLES AT QUALITY LABORATORY
- ❖ ADDITIONAL LABORATORY EQUIPMENT WORTH Rs.15 MLN (INCLUDING LC MS/MS) PROCURED AND INSTALLED AND MORE BEING PROCURED WITH LOD OF 5 ppb
- ❖ PRESHIPMENT SCREENING MEASURES TO COST Rs. 50 MLLN. PER YEAR
- ❖ PRESHIPMENT CERTIFICATION FOR SUDAN MANDATORY FOR ALL DESTINATION AND AFLATOXIN MANDATORY FOR SHIPMENT TO EU,US AND GULF FROM 10.03.05 ,BEING MADE MANDATORY FOR ALL DESTINATION FROM 15TH JUNE 2005

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SUDAN RED

No. OF RASFFs RECEIVED	61
No OF RASFFs RELATING TO MATERIALS SUPPLIED BY M/s. GAUTAM, M/s. PATON, M/s.VOLGA AND THEIR ASSOCIATES	35
OUT OF REMAINING 12 RASFFs	
No OF RASFFs WHICH DO NOT SPECIFY ANY INDIAN EXPORTER	8
No. OF RASFFs WHICH DO NOT QUANTIFY PRESENCE OF SUDAN-1	20
REPORTED PRESENCE OF SUDAN-1	
LESS THAN 10 ppm	15
10 – 15 ppm	3
ABOVE 15 ppm	23

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SUDAN RED

SUDAN (ADULTERATION ?) PER TON OF CHILLI POWDER

LEVEL OF SUDAN-1	ABSOLUTE QTY OF SUDAN-1 Gm/Ton
73 PPB	0.073
10 PPM	10
15 PPM	15
25 PPM	25

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SUDAN RED

ANALYSIS : MYSTERIES

SAMPLE DETAILS	LABORATORIES AND ANALYTICAL RESULTS			
	SPICES BOARD	AVT Mc CORMICK	SYNTHITE LTD	VKL LTD
CURRY POWDER	35.3 PPM	NEGATIVE	NEGATIVE	NEGATIVE

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SUDAN RED

MORE MYSTERIES

LOT No. : 23/325
PRODUCT : CRUSHED CHILLIES
EXPORTER : VKL, ALLEPPEY
CUSTOMER : EURICO WEBB, S7/122 - LIVORNO, ITALY

TESTED BY	EQUIPMENT	LIMIT OF DETECTION	RESULT
VKL – LAB	HPLC	2.5 PPM	NEGATIVE
NEOTRON, ITALY	HPLC	0.25 PPM	NEGATIVE
NEOTRON, ITALY	LC MS/MS	0.01 PPM	NEGATIVE
APPAT (LIVORNO, ITALY) (ITALIAN PUBLIC HEALTH LABORATORY)	HPLC	NOT KNOWN	0.15 PPM *

* FOLLOWED BY RAPID ALERT No. 2003/CPC – 04.12.2003

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SUDAN RED

STILL MORE MYSTERIES

SAMPLE IDENTIFICATION	GERMAN LAB 1	GERMAN LAB 2
1-7762/04	51	60
2-7122/04	9.1	11.9
3-6850/04	14.1	14.4
4-6967/04	0.03	N,D
5-7259/04	<0.01	N.D
6-7900/04	15.5	16.6
7-8167/04	12.1	12.7
8-8199/04	10.5	10.8
9-9060/04	2080	1908
10-6763/04	0.08	N.D
11-12009/04	117.2	119.3
12-13601/04	13	7.9
13-15806/04	8	9.8
14-15986/04	0.16	<0.5

N.D: NOT DETECTED

ANALYTICAL RESULTS(PPM)

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SUDAN RED

STILL MORE MYSTERIES

SAMPLE IDENTIFICATION	GERMAN LAB 1	GERMAN LAB 2
15-15983/04	4600	4100
16A-16068/04	1050	1000
16B-16068/04	1720	2000
16C-16068/04	140	N.D
17-16030/04	2450	1100
18-16050/04	75	N.D
19-16055/04	130	N.D
20-16108/04	1120	1600
22-16329/04	420	500
23-16330/04	510	500
24-16331/04	510	500
25-16475/04	360	290
26-16605/04	1400	2400
27-16618/04	490	550
28-16785/04	210	280
29-16931/04	<10	N.D
30-17023/04	940	1400
31-17242/04	1900	1800

N.D: NOT DETECTED

ANALYTICAL RESULTS(PPB)

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SUDAN RED

STILL MORE MYSTERIES

SAMPLE IDENTIFICATION	GERMAN LAB 1	GERMAN LAB 2
32-17099/04	530	440
33-17360/04	120	125
34-17349/04	320	280
35-17358/04	140	115
36-17359/04	580	820
37-17362/04	820	1050
39-17459/04	15	10
40-17467/04	240	220
41-17507/04	1200	880
42-17531/04	3300	3700
44-17537/04	1600	1300
45-17538/04	1900	1000
46-17539/04	1100	700
54-17678/04	3600	2200
55-17679/04	103000	54000
69-17754/04	<10	N.D
80A-17832/04	280	270
80B-17832/04	500	270
81-17876/04	240	220

N.D: NOT DETECTED

ANALYTICAL RESULTS(PPB)

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SUDAN RED

STILL MORE MYSTERIES

SAMPLE IDENTIFICATION	GERMAN LAB 1	GERMAN LAB 2
83-18037/04	920	710
87-18240/05	610	870
88-18258/04	200	220
89-18203/05	220	150
90-18244/05	20	15
91-18377/05	<10	N.D
92-18432/05	220	300
93-18432/05	2800	3000
94-18447/05	40	30
95-18484/05	870	940
96-18484/05	70	70
97-19026/05	3200	3200
98-19088/05	360	360
99-19209/05	125	160
100-19209/05	370	485

N.D: NOT DETECTED

ANALYTICAL RESULTS(PPB)

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EFFECT OF SUDAN-1 ON COLOUR VALUES OF CHILLI POWDER

ADDED QUANTITY OF SUDAN -1 (PPM)	COLOUR VALUE AFTER ADDITION OF SUDAN – 1 (ASTA UNITS)
0	52.9
25	52.8
50	53.8
100	52.5
200	54.6
1000	58.7
2000	68.9

SOURCE: TRIALS AT QEL, SPICES BOARD

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ASTA COLOUR VALUES OF INDIAN CHILLIES

1	BIRDS EYE CHILLIES	15
2	GUNTUR SANNAM RAMNADU MUNDU	30 - 32
3	ELLAICHIPUR SANNAM SANGLI SANNAM MADRAS PARI NALCHETTI SANNAM JWALA BORANE LOCAL TEJASWARI }	73 - 98
4	TOMATO CHILLI BYADAGI	113.4 143.3

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SUDAN-1 AND COLOUR VALUES

CONCLUSIONS

GIVEN THE COLOUR VALUES OF INDIAN VARIETIES OF CHILLIES ADULTERATION IN EXCESS OF FEW gm/kg WILL BE REQUIRED TO CONVERT THE VARIETIES WITH LOW COLOUR VALUE TO HIGH COLOUR VALUE VARIETIES. THEREFORE, REPORTED PRESENCE OF SUDAN-1(RASFFs) IN AT ppb OR LOW RANGE ppm LEVELS CANNOT LEAD TO PERCEPTIBLE COLOUR CHANGES IN THE PRODUCT, CANNOT BE DELIBERATE NOR RESULT OF ADULTERATION BUT ATTRIBUTABLE TO OTHER REASONS SUCH AS ABSENCE OF STANDARDISED METHODS OF ANALYSIS, EQUIPMENT DEFECTS OR FALSE POSITIVES

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“AS FAR AS WE KNOW, THERE IS NO VALIDATED ANALYTICAL METHOD FOR THE DETERMINATION OF SUDAN COLOURS IN FOOD. THIS HAS LED TO MANY FALSE-POSITIVE RESULTS AND THE DESTRUCTION OF PRODUCTS WHICH WERE FIT FOR HUMAN CONSUMPTION. THESE ECONOMIC LOSSES DAMAGE THE INDUSTRY WITHOUT HAVING ANY BENEFIT FOR THE CONSUMER”

FROM THE LETTER DATED 02.02.2004 OF EUROPEAN SPICE ASSOCIATION – ADDRESSED TO MS.PATRICIA BRUNKO OF EUROPEAN COMMISSION

SPICES BOARD

THE SCIENCE OF SUDAN AND CANCER

STUDY CONDUCTED 20 YEARS AGO IN THE US

FINDINGS-RATS AND MICE FED 30 MG OF SUDAN 1 FOR EACH KG OF BODY WEIGHT EVERY DAY FOR TWO YEARS WERE FOUND TO BE ON THE WAY TO GETTING TUMORS.

STUDY WAS PEER REVIEWED, NOT REPLICATED

REPORTEDLY, THE INTERNATIONAL AGENCY FOR RESEARCH OF CANCER DID NOT THINK THAT THE STUDY WAS ROBUST ENOUGH TO CATEGORIZE SUDAN AS A LIKELY CAUSE OF CANCER

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THE SCIENCE OF SUDAN AND CANCER

**REQUIRED DAILY DOZE FOR AN AVERAGE SIZED
MAN (80 KGS) TO MATCH THE DOSE USED IN
ANIMAL STUDIES: 2.4 GRAMS**

**CLAIMED PRESENCE OF SUDAN IN THE
WORCESTER SAUCE INVOLVED IN THE UK FOOD
RECORD – 3 MG/KG**

**REQUIRED CONSUMPTION OF WORCESTER SAUCE
TO MATCH THE DOSE IN THE ANIMAL STUDIES – 800
LITERS WORCESTER SAUCE EVERY DAY FOR TWO
YEARS**

Source : The Economist 26th February 2005

SPICES BOARD

AFLATOXIN IN CHILLIES/SPICES

SPICES BOARD PROGRAMMES FOR AFLATOXIN AND PESTICIDE RESIDUE CONTROL

- IMPLEMENTATION OF IPM
- ASSISTANCE FOR CONSTRUCTION OF SOLAR DRYERS
DRYING YARDS AND SUBSIDISED SUPPLY OF
POLYTHENE SHEETS





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SPICES BOARD PROGRAMMES FOR PRE AND POST HARVEST IMPROVEMENTS

SOLAR DRYING FOR UNINTERRUPTED AND AFLATOXIN FREE DRYING





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SPICES BOARD PROGRAMMES FOR PRE AND POST HARVEST IMPROVEMENTS CONCRETE DRYING YARD FOR HYGIENIC DRYING



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PESTICIDE RESIDUES

DETERMINATION OF MRLS FOR SPICES AT CODEX LEVEL

- 37th SESSION OF CCPR [April 20-23,05- THE HAGUE] WOULD DELIBERATE ON DRAFT MRLS FOR SPICES BASED ON MONITORING DATA
- MINISTRY OF HEALTH , GOVT. OF INDIA EXPECTED TO FOLLOW THE CODEX ROUTE TO FIX MRLS FOR SPICES UNDER THE PFA ACT

SPICES BOARD

CURRENT FOCUS

TECHNOLOGY UPGRADATION IN SPICE PROCESSING

ASSISTANCE AT THE RATE OF 33% OF CAPITAL COST SUBJECT TO A CEILING OF RS 7.5 MILLION [AT 50% WITH A CEILING OF RS. 15 MILLION IN THE NORTH EAST AND FOR ORGANIC SPICE PRODUCING GROUPS].

ASSISTANCE AVAILABLE FOR PROCESSES SUCH AS SUPERCRITICAL EXTRACTION, CRYOGRINDING, STEAM STERILIZATION, UPGRADATION OF LABORATORIES AND ACCREDITATION UNDER ISO/HACCP

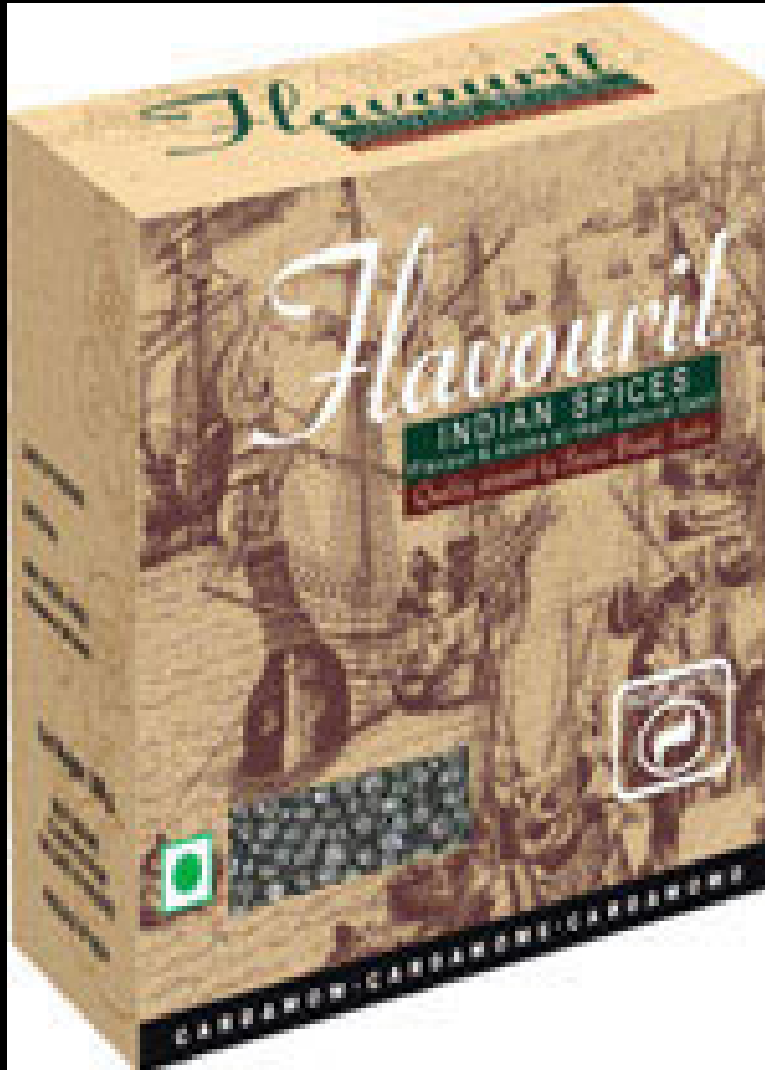
CURRENT FOCUS

**PROMOTION OF INDIAN BRANDS IN
MAINSTREAM MARKETS IN THE
DEVELOPED COUNTRIES, SUPPORT FOR
RESEARCH INTO THE CLAIMED
MEDICINAL VALUES OF SPICES,
PRODUCT DEVELOPMENT , CLINICAL
TRIALS AND PATENTING**



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CURRENT FOCUS-PROMOTION OF INDIAN
BRANDS FOR THE PREMIUM MARKET.



Launched on 5th March 2005

www.flavourit.com

THANK YOU

