



# ASTA 2007 Annual Meeting & 100<sup>th</sup> Anniversary Celebration

## ASTA Crop Report

Sushama Srikandath,  
AVT McCormick Ingredients (P) Ltd

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Ritz-Carlton Laguna Niguel  
Dana Point, California

# Chilli ( Capsicum) Crop Report

## □ Scope

### ▣ World Information

#### ■ Production, Import & export Statistics

### ▣ Indian Panorama

#### ■ Crop information

#### ■ Quality Considerations

#### ■ Factors Affecting Price

### ▣ Chinese Panorama

### ▣ Conclusion

# World Growing Areas

## □ Countries

- ▣ India
- ▣ China
- ▣ Pakistan
- ▣ Bangladesh
- ▣ Myanmar
- ▣ Thailand
- ▣ Vietnam

## □ Countries

- ▣ Ethiopia
- ▣ Nigeria
- ▣ Egypt

## □ Countries

- ▣ Mexico
- ▣ Hungary
- ▣ Others

# World Production Statistics 2005 \*FAO Rome

Countries	Area hectares	Production Tons	Yield kgs/hect
India	768,910	1,234,590	1,606
China	36,500	240,000	6,575
Pakistan	48,400	90,400	1,868
Bangladesh	162,280	138,000	850
Ethiopia	290,000	116,000	400
Vietnam	51,000	78,500	1,539
Myanmar	108,000	70,000	648
Hungary	7,000	75,000	10,714
Mexico	34,000	55,000	1,618
Nigeria	30,500	47,500	1,557
Egypt	14,500	45,600	3,145
Thailand	25,000	39,000	1,560
Others	237,193	354,046	1,493
<b>Total</b>	<b>1,813,283</b>	<b>2,583,636</b>	<b>1,425</b>

# Importing (Partner) countries: UNSTAT 2004

Importing country	Tons	%	Major Export partner
USA	93021	22	India 31%, China 12%, Mexico, Peru, Spain
Malaysia	54239	13	India 50%, China 49%
Mexico	24763	6	India 11%, China 49%, USA, Peru
Spain	24347	6	India 2%, China 3%, Peru
Thailand	23207	6	India ( -ve), China 2%, Malaysia
Rep. Of Korea	20941	5	China 100%
Sri Lanka	19928	5	India 100%
Bangladesh	18407	4	India 100%
Indonesia	16724	4	India 22%, China 58%
Germany	13849	3	India 2%, China 7%, Brazil, Peru
Japan	10255	2	India 4%, China 77%
Others	94484	23	
<b>TOTAL</b>	<b>414165</b>		

# World Exports of Chilli

(capsicum / pimenta) ITC 090420

## □ 2004 as per UNSTAT

### ▣ Total 414165 mts

- India 128,716 mts @31%
- China 98479 mts @24%
- Mexico 31191 mts @8%
- Spain 28529 mts @ 7%
- Peru 27543 mts @ 7%
- Malaysia 26468 mts @ 6%
- Others 73239 mts @ 18%



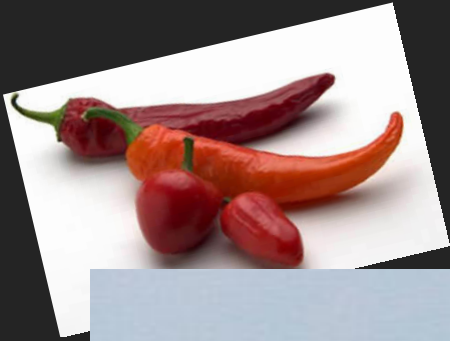
# Capsicums: The Indian Panorama



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# Capsicums: The Indian Panorama



# India: Growing areas

## ❑ Traditional Growing areas

- ▣ Andhra Pradesh: Guntur, Prakasam, Krishna
- ▣ Karnataka: Bydagi
- ▣ Maharashtra: Nagpur
- ▣ Madhya Pradesh: Indore
- ▣ Tamil Nadu: Sankaran Koil & Virudhanagar

## ❑ New Upcoming areas

- ▣ Karnataka: Bellary, Raichur, Gulbarga
- ▣ Andhra Pradesh: Khammam, Warangal
- ▣ North East

# India: Basic information

States	Area 2004 Hectares	Area 2005 Hectares
Andhra Pradesh	250,000	233,940
Karnataka	69,880	69,880
Orissa / West Bengal	1 35,540	1 23,750
Maharashtra	90,000	102,900
Tamil Nadu	75,210	66,990
Madhya Pradesh	48,810	47,090
Others	1 28,000	1 23,000
Total	~1,270,000	~ 1,234,000
Area under cultivation lower, but with increased productivity, the crop available is not lower		

# India: Basic information

- Crop cycle
  - ▣ Preparation of farms to Sowing Extends from May – July
  - ▣ Harvesting November to March
- Diseases / Pests:
  - ▣ Mites, Aphids, Thrips, Helicoverpa, Spodaptera
  - ▣ Powdery Mildew, root wilt
- Traditional Varieties:
  - ▣ S-4, S-9, Mundu ,S-7 Indore High Heat

# India: Basic information

## □ New Varieties

	SHU Range	Variety
□ Low heat	4 – 10K	Wonder Hot, BSS 304
□ Medium Heat	20- 30K	BSS – 273
□ Medium Heat	30 – 40K	Dyavanur Deluxe
□ Medium heat	50 – 60K	Goli
□ Medium Heat	50 – 60K	Indom 5
□ High Heat	70 – 85K	Namdhari, Teja

# India: Usages

- ❑ Domestic/internal consumption
- ❑ Exports as dried whole pods, seeds, crushed, powdered and a small qty as fresh/ chilled
- ❑ Exports as extracts/ oleoresin, currently at about 3000mts
  - ▣ Bydagi chillies: Low heat , High color Harvest October-November
    - 50,000 mts used by extractors for color
  - ▣ Guntur/ Khammam Chillies: High heat Variety
    - 20,000 mts“ Teja” hybrid SHU @ 80K used by extractors











# India: Issues impacting Quality

## □ At Production Cultivation Level

- Chilli crop grown under good management with recommended practices yields 1.3 to 1.4 ton per acre (4000 sq. m).
- In order to reap higher yields of over 2 tons per acre, farmers adopt faulty agronomic practices like use of excessive use of fertilizers and pesticides.

# Farm level Cultivation Issues

- ❑ Excessive usage of Fertilizers Leads to
  - Succulent growth in Plants
  - Invites more insect pests & diseases
  - Frequent & indiscriminate pesticide applications
  - Destruction of natural enemies of pests
  - Pesticide residues in chilli

*Today Control of chemical contaminants is the hot topic world wide*

# Post harvest processing concerns

## □ Processing

- ▣ Microbial contamination
- ▣ Extraneous / foreign matter
- ▣ Excreta of mammalian & other
- ▣ Aflatoxin, Yeast and mold

## □ Farm Level Packaging Problems

- ▣ Old Burlap bags, dye contamination

## □ Storage Problems

- ▣ Infestation / defiling
- ▣ Presence of rodent hairs & excreta
- ▣ Damage to appearance, color, flavor & aroma

# India: Quality Up-gradation Initiatives

- ❑ Education & Awareness creation
  - ❑ At Governmental Level
    - Enactment of new Food Safety & Standards Act 2006
  - ❑ At farm level
  - ❑ At processor's level
  - ❑ At chemical products' supplier level
- ❑ Providing additional resources to both farmers & processors to improve quality

# India: Issues impacting price

- ❑ Transition from traditional S-4s to hybrid varieties
  - ❑ Higher yield, better quality, & consistency
  - ❑ Far quicker to yield to “weather related” stress and destruction
- ❑ Increased cost of cultivation
  - ❑ Increased cost of labor
  - ❑ Cost of safe chemicals, hybrid seeds
- ❑ Moving cultivation locations .... New crop arrival patterns
- ❑ Changing weather patterns ..... 2007 the late crop arrival and “no peak” arrivals, but staggered pattern
- ❑ IT & Online trading in spice commodities in India
- ❑ Global (Mis) Information availability

# India: A balance sheet

<b>Qty in mts</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007 (est.)</b>
<b>Production Trade Est.</b>	<b>722,000</b>	<b>527,0000</b>	<b>816,000</b>	<b>730,000</b>	<b>566, 000</b>	<b>750,000</b>
<b>Production Govt Est.</b>	<b>n/a</b>	<b>n/a</b>	<b>1,273,860</b>	<b>1,234590</b>	<b>n/a</b>	<b>n/a</b>
<b>Exports Govt. Reports</b>	<b>75,000</b>	<b>81,000</b>	<b>138,000</b>	<b>113,250</b>	<b>112,000* Until Feb. 07</b>	<b>Beg Apr 07</b>
<b>CNF NY Prices/ cents/lb</b>	<b>\$0.400 - \$0.500</b>	<b>\$0. 550 - \$0.640</b>	<b>\$0.520- \$0.540</b>	<b>\$0.500- \$0.550</b>	<b>\$0.550- \$0.900</b>	<b>\$0.700- \$0.830</b>

# China: A Quick Review

- ❑ Crop season: Mainly Aug -Feb
- ❑ Land acerage. 3-4.0 million acres
- ❑ Productivity: 1 200-1 300 kgs/ acre
- ❑ Total estimated production: 420 - 480,000 mts
- ❑ Primary Exports at 33,000 -57,000 mts
  - ▣ USA: Tianjin Chillies, Competes with S-4 in India
  - ▣ Korea, Japan: Yiddu Chillies for the Kimchi market
  - ▣ Mexico : Yunnan chillies as it is similar to Arbol chilli
  - ▣ Malaysia: Shannxi wrinkle competes with Indian Bydagi chillies

# China: A quick Review

- ❑ Whole plant harvested, and dried on roof
  - ▣ Low chances of extraneous matter
  - ▣ Aflatoxin is low and at  $<10$  ppb
  - ▣ Microbial contamination low
- ❑ Levels of banned chemicals like DDT non existent
- ❑ Farmers now experimenting with their open pollinated seeds to get more consistency in heat and also higher heat products



# China: A Quick Review

Varieties	Heat SHU	Crop region	Target Market	Export mts
Tianjin Small	25-40,000	Tianjin, Shandong, Hebie	Japan, USA, Mexico	5 - 10,000
Yiddu	5-25,000	Shandong, Xinjiang	S. Korea, USA, Japan, S.E Asia, Mexico	8 - 15,000
Yunnan	30,000		USA S.E Asia, Mexico	8 - 20,000
Shannxi Wrinkle	28,000	Shannxi, Xinjing, Guizhou	Malaysia, Singapore	~ 10,000
Fujian Rice	100,000	Fujian	Europe	~ 2000

Year	2003	2004	2005	2006
Avg. Price FOB	\$780/mt	\$800/mt	\$1300/mt	\$3200/mt

# Capsicum (chilli) Conclusion

- ❑ Production is only one part of the equation
- ❑ Cost of cultivation is significant in price determination
- ❑ “Availability Of Quality” product will determine the supply side equation
- ❑ India & China who satisfy over 50% of demand will be market drivers
- ❑ 2007 Indian crop is good, although delayed & arrivals are staggered
- ❑ Until Sept of 2007, India will determine prices



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## Thank you!

*Sushama Srikandath @*



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