

Crop Report Capsicum

Sushama Srikandath

AVT McCormick Ingredients Pvt. Ltd



Agenda

Crop Overview

1. Biology and Spread
2. Area / Production

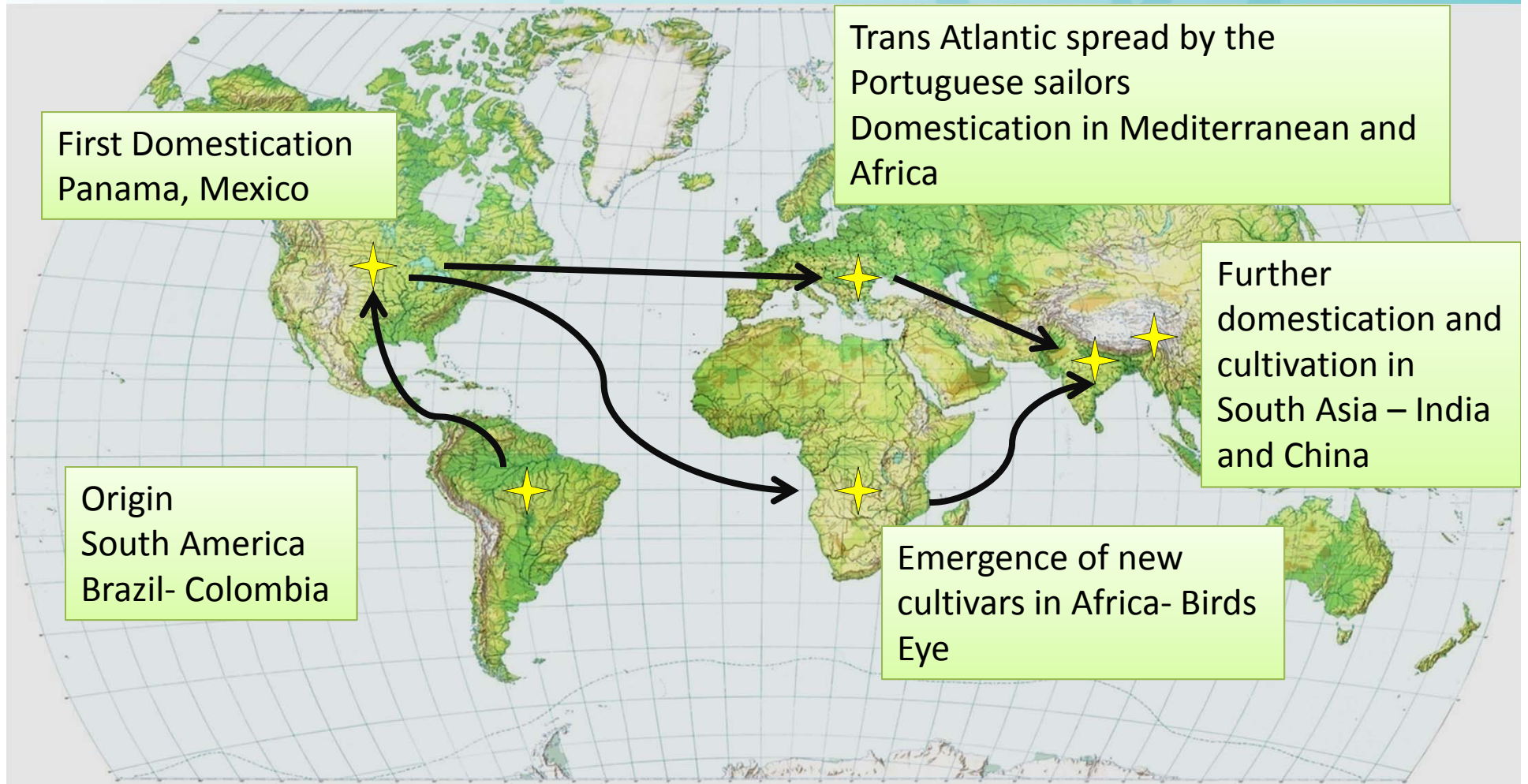
International information

1. Commerce
2. Issues impacting demand and supply
3. Issues Impacting quality concerns

The Indian Story

1. Area/Production
2. Trade
3. Quality
4. Demand and Supply
5. Limiting factors for growth
6. New Developments

The Chilli Route



Sourcing - Geographies



Mexico – Jalapenos, Guijillo



Peru – Paprika



South Africa – Birds Eye



India China – Availability
across the usage spectrum



Chilli Sourcing

Red pepper – World Average Production

Country	Production (MT)	Area (Ha)
India	1200000	809000
China	250000	40000
Bangladesh	170000	150000
Peru	160000	21500
Pakistan	130000	66000
Ethiopia	120000	290000
Ghana	80000	12500
Vietnam	78000	51000
Myanmar	75000	109000
Mexico	65000	37000
Nigeria	50000	31200
Others	421000	249650
Total	2799000	1866850

Harvest Calendar

	Sowing
	Harvesting

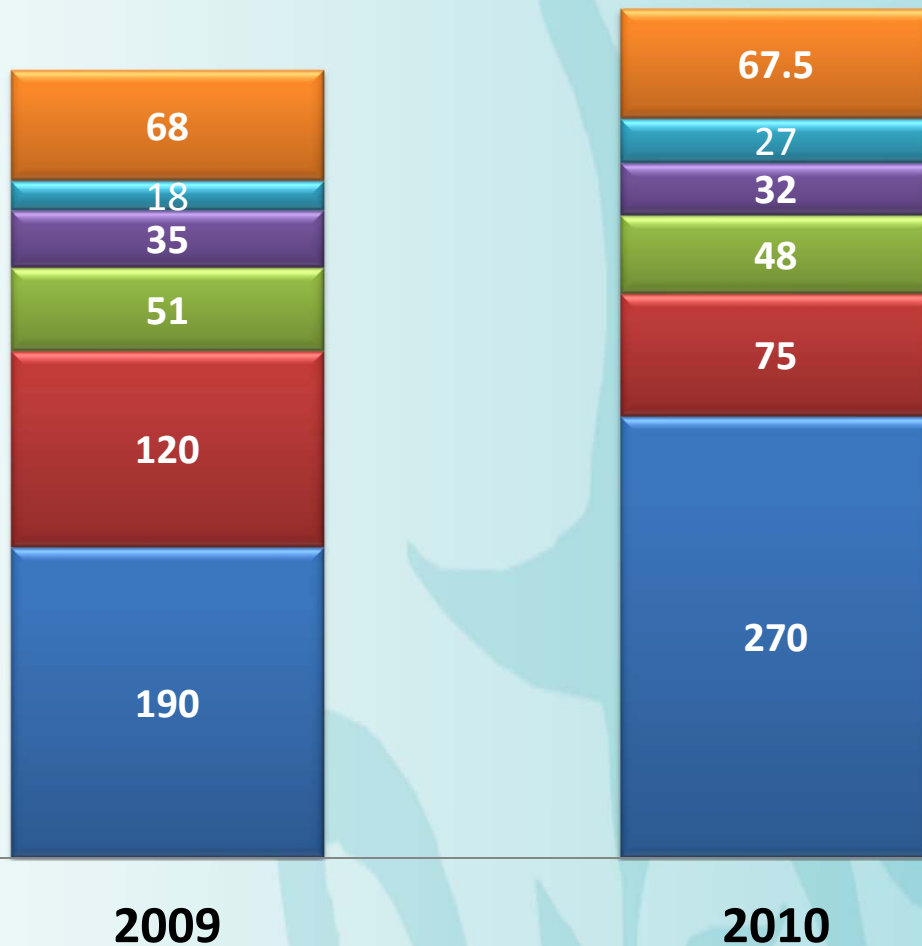
Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
India	Harvesting	Harvesting	Harvesting				Sowing	Sowing	Sowing			
China	Harvesting					Sowing	Sowing	Sowing	Sowing			
Pakistan		Sowing	Sowing	Sowing			Harvesting	Harvesting	Harvesting	Harvesting	Harvesting	
Spain		Sowing	Sowing	Sowing	Sowing		Harvesting	Harvesting	Harvesting	Harvesting		
Mexico						Sowing	Sowing	Sowing			Harvesting	Harvesting

Harvest Calendar

Sowing	
Harvesting	

Top Exporters ('000 mts)

■ India ■ China ■ Peru ■ Spain ■ Malaysia ■ Others



India leads the way by a considerable margin

Chinese Exports have diminished – internal consumption? Poor crop?

Malaysia a re-exporter to ASEAN?

Source: World Spice congress database

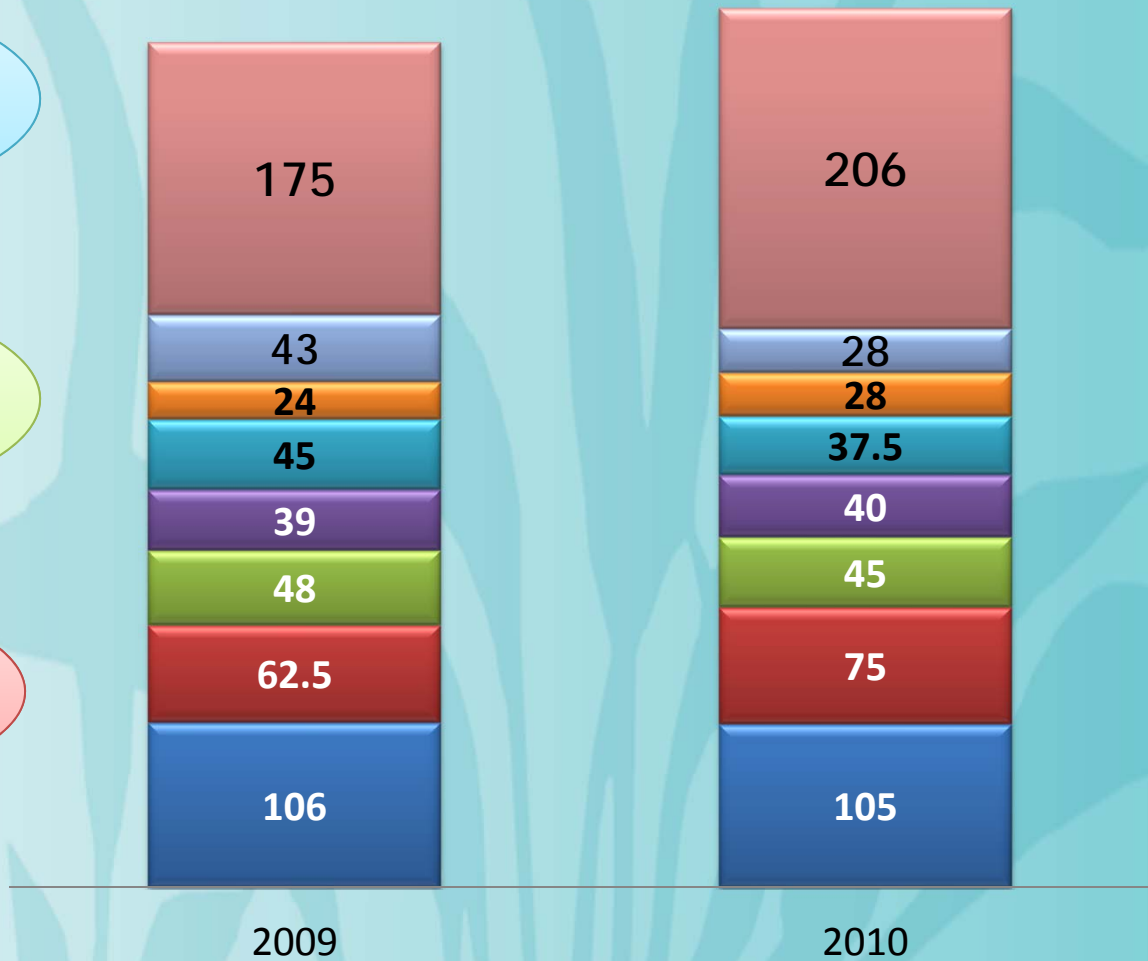
Top Importers ('000 tons)

■ USA ■ Malaysia ■ Thailand ■ Sri Lanka
■ Spain ■ Bangladesh ■ Mexico ■ Others

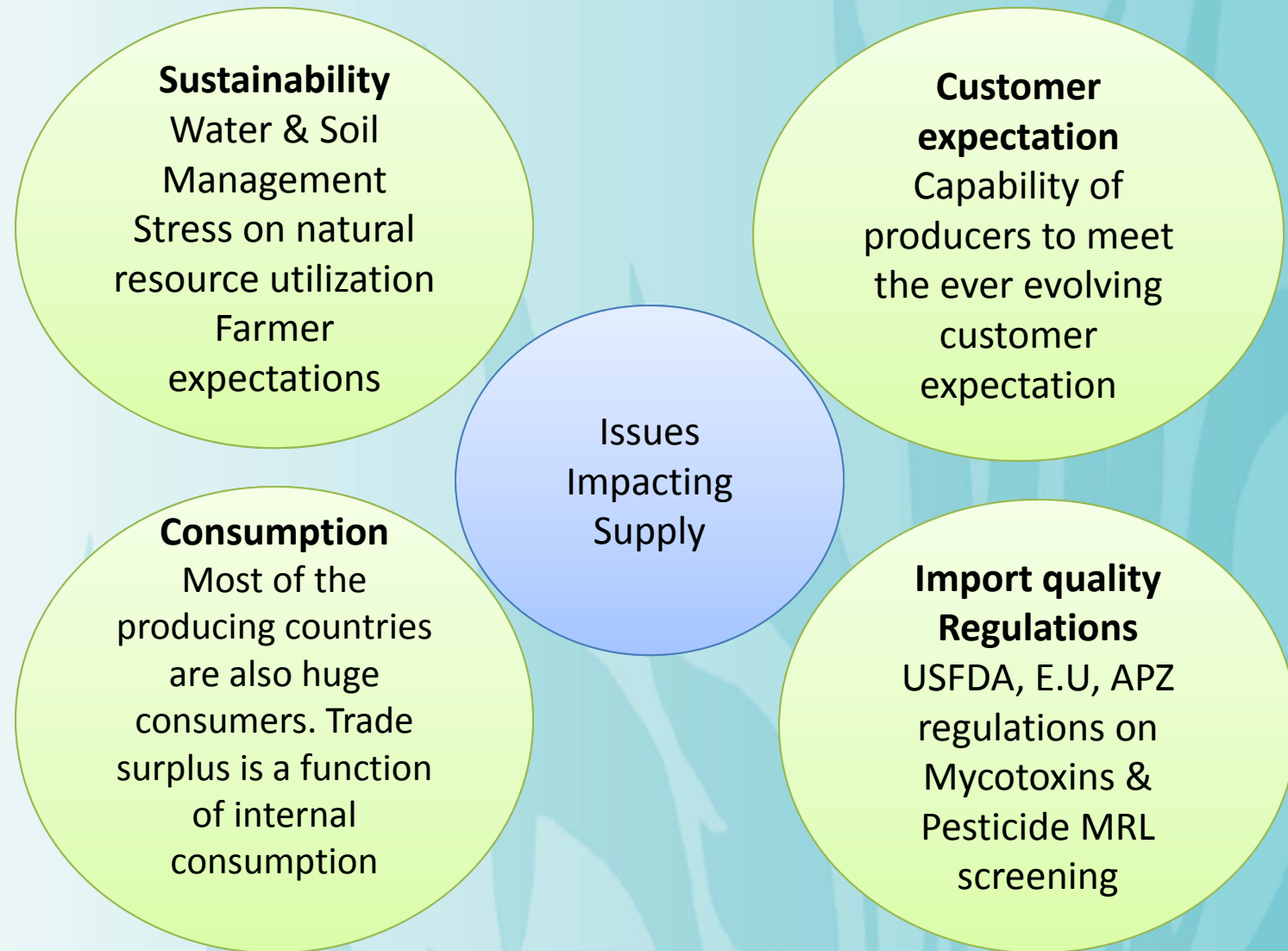
U.S.A remains the top importer of chillies

Malaysia has been importing at a healthy growth rate

Spain and Mexico involved in re-export?



Source: World Spice congress database



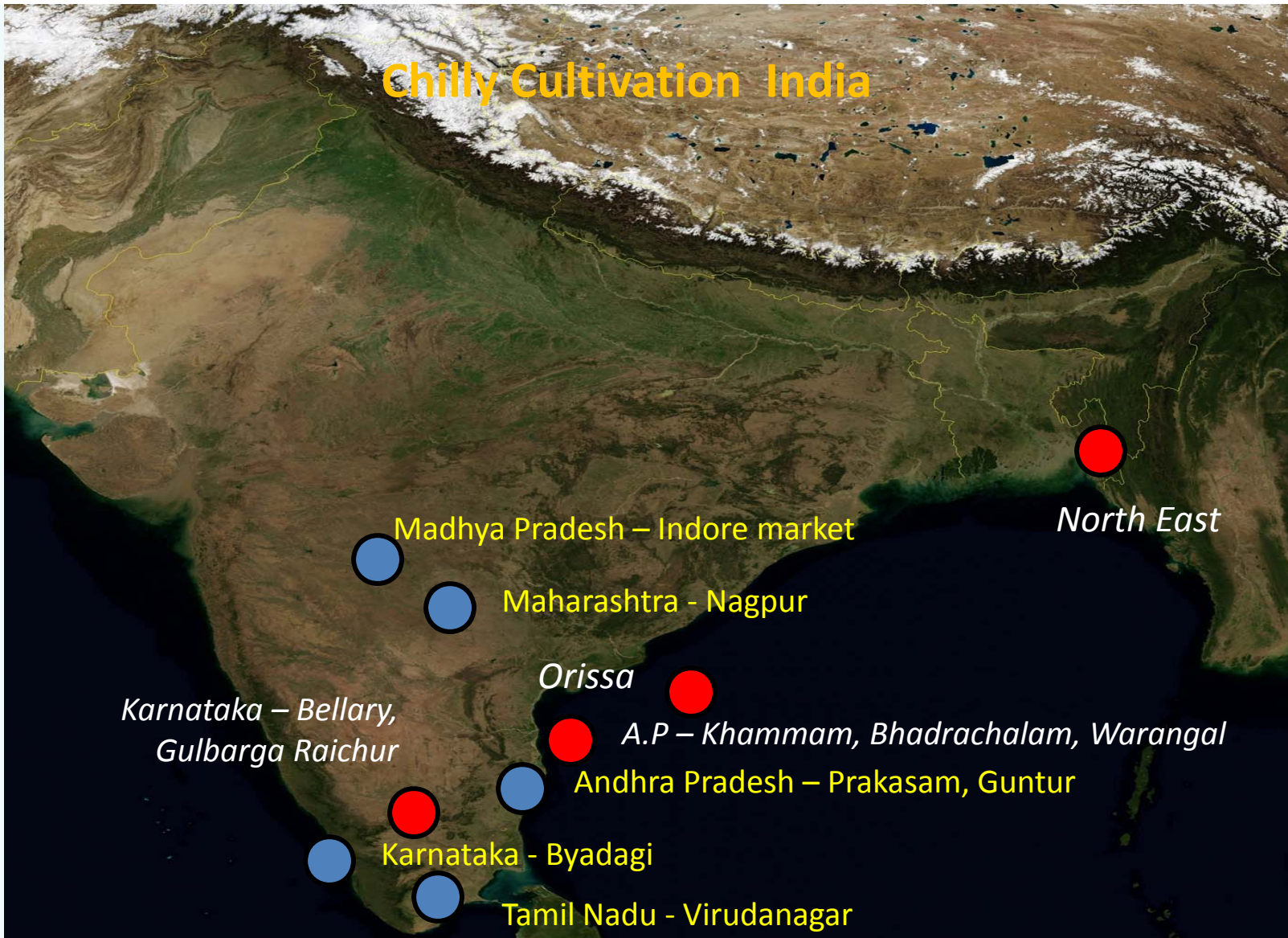


The Indian Story



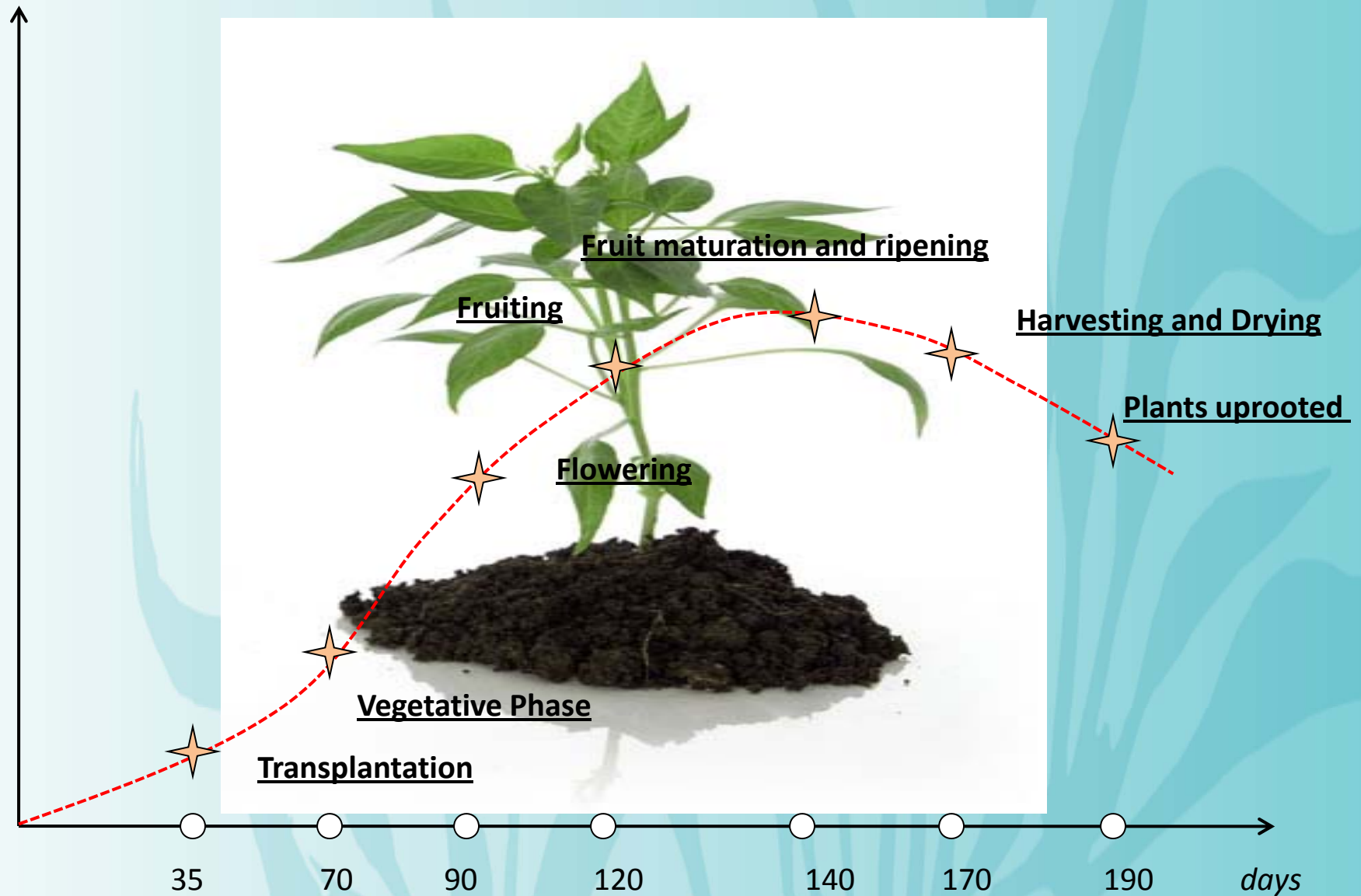
The Indian Story

Chilly Cultivation India



● Traditional Area
● New Area

Chillies - Crop Cycle



- At Production Cultivation Level

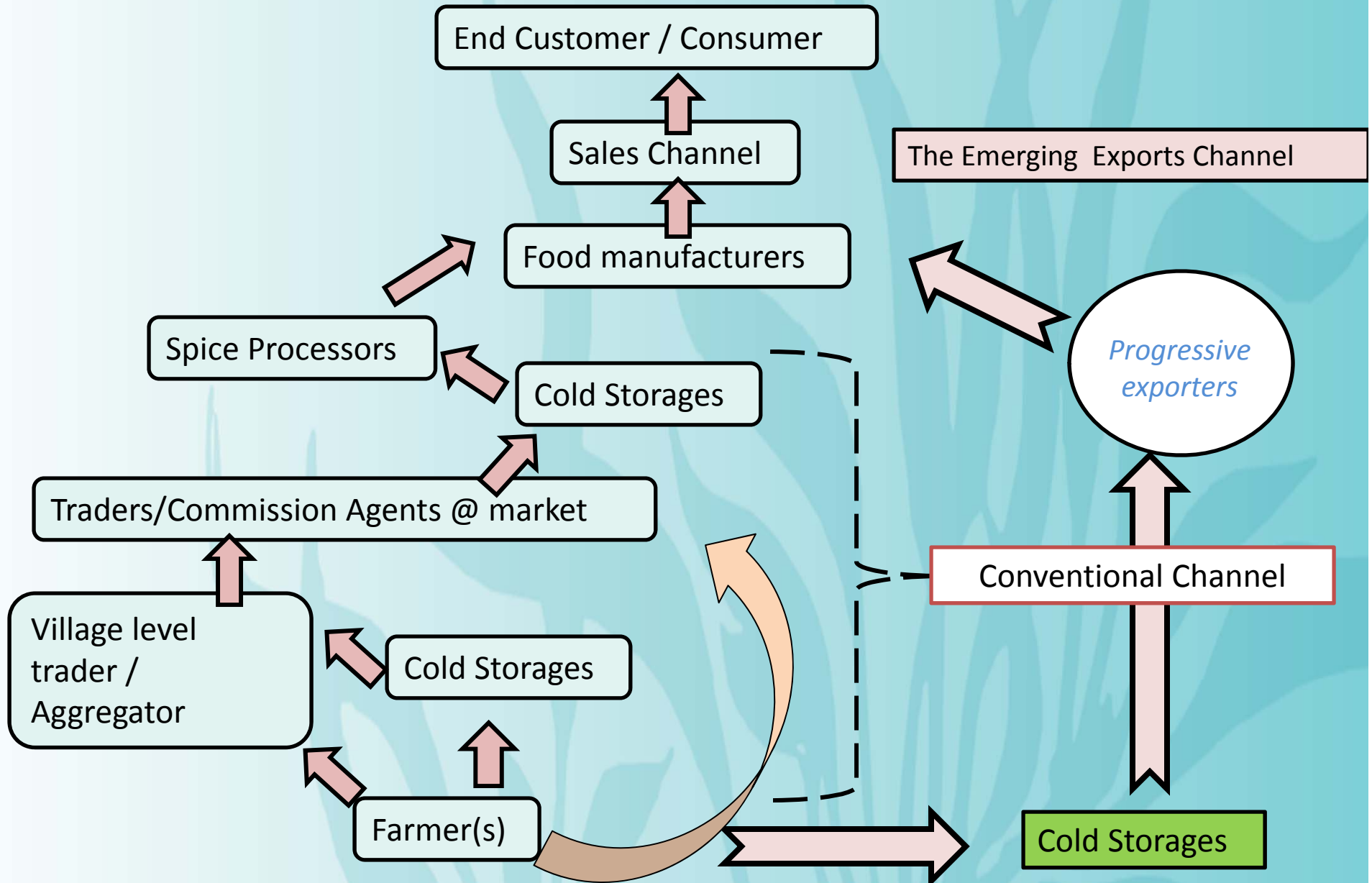
- Chilli crop grown under good management with recommended practices yields 1.3 to 1.4 ton per acre (4000 sq. m).
- In order to reap higher yields of over 2 tons per acre, farmers adopt faulty agronomic practices like excessive use of fertilizers and pesticides

- Excessive usage of Fertilizers Leads to

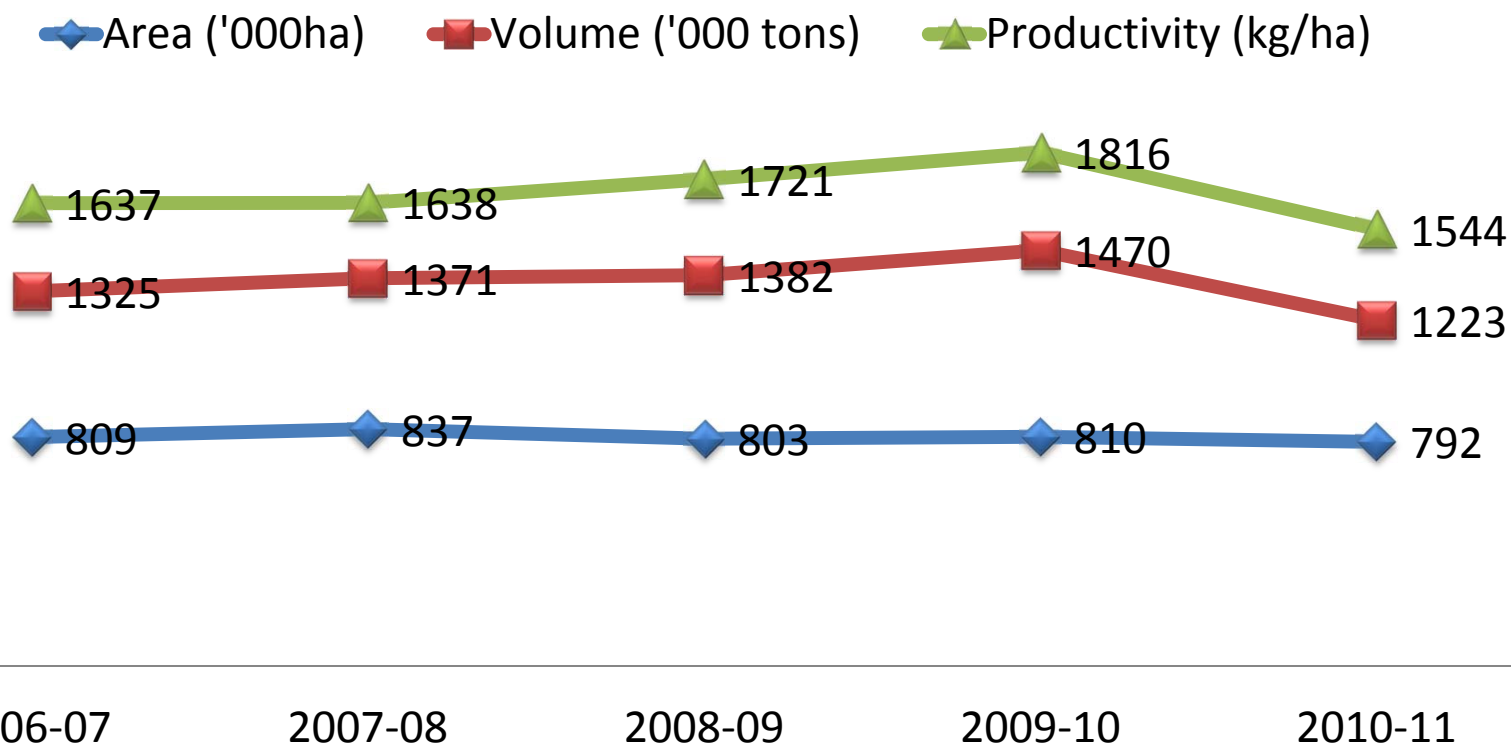
- Succulent growth in plants
- Invites more insect pests & diseases
- Frequent & indiscriminate pesticide applications
- Destruction of natural enemies of pests
- Pesticide residues in chilli

Today control of chemical contaminants is a hot topic

Chilli Supply chain



India - Chilly crop statistics



Source: Ministry of Agriculture, GOI

Latest Production estimates

	2009	2010	2011
Andhra Pradesh	672000	705600	740880
Karnataka	145000	130500	104400
MP	55000	82500	123750
Orissa	64000	70400	72512
West Bengal	50000	51500	52530

Surge in production mainly for the vegetable market – Spices market is relatively low on supply

Source: Internal trade data

Traditional crop Market Update!

- 2011-12 output estimated at above 1.25 million tons vs. 1.05 million tons in 2010-11.
 - Every region shows increase in output
- Recent price trend indicate weakening of prices stabilizing around Rs. 45/kg
- Prices hovering at less than cost of cultivation worrisome for coming season
- Upcoming Pakistan & China crop to have an impact on the price movement



A busy day at the Guntur Market





Old Vanishing sights!



Small may be, but surely major improvements

Slowly but surely, new & better practices are being followed!









Cost Head	\$/Acre Best Practice	\$/Acre Average Practice
Land lease (to be paid in advance)	485.44	291.26
Land Preparation	155.34	77.67
Compost	58.25	
Seed Cost	74.56	116.50
Nursery cost	46.60	
Transplantation & Gap filling	58.25	77.67
Fertilizer (GAP-3000,complex -2700,urea – 2100, potash – 600)	163.11	388.35
Weeding charges	58.25	77.67
Pesticide	194.17	233.01
IPM practices (Material & labor)	97.09	
Irrigation charges(lifting & labor)	97.09	
Harvesting	582.52	776.70
Drying & grading charges(Rs.500 per quintal)	194.17	77.67
Total (adding misc. expenses)	2420.19	2116.50

An increase of 25 to 30 % over the last 3 years!

Source: Company database

Demand

Price Determinants

Supply

Speculation



Price of oil

Cost of cultivation

Quality expectations

Supply determinants - India

Farm Labor

- Short supply
- Costlier
- NREGA effect
- Urbanization

Competing Crops

- Maize, Cotton
- Less labor intensive
- Remunerative
- Easy market access

Premium for quality chillies

- Cultivation decision is dependant on this parameter
- Conforming to export quality translates to costs

- Yield
- Supply chain inefficiencies
- Holding (more storage opportunities)

Demand - Export figures for Indian Chilly (tons)

	2010-11	2009-10	2008-09	2007-08	2006-07
Malaysia	48248	45545	40615	51782	43625
Sri Lanka	34012	34788	37792	29505	21822
Bangladesh	32742	28173	1923	34679	28425
U.S.A	17362	17744	15793	19713	13058
Pakistan	25712	160	22376	11350	255
others	71111	73320	63000	57549	38712
Total	229187	199730	181445	204578	189522

Source: Spices board of India

Improvements in Agricultural Practices

1. Due to the commercial nature of the crop, farmers are ready to invest in new seeds more often when compared to other crops.
2. The international quality standards are percolating to the farm level
 - Use of Hybrid seeds
 - Nursery practices – soil solarization – reduces weed growth
 - Use of Pheromone traps to lower pest load – reduces the requirement of chemicals
 - Crop rotation with pulses and onions - improves soil health, reduces nematode density in the soil
 - Border crops / Trap crops – reduces pest load
 - Post Harvest handling & storage – proper sun drying on clean surfaces

New Developments

E.U amendment: Random aflatoxin testing on the group of "Indian spices" is lowered from 50% to 20%

Emergence of Japan as a buyer for Indian chillies. Indication of both quality improvement and consumer taste preferences

Malaysia – Rules pertaining to import of chillies were made stricter when the Govt. of Malaysia adopted the E.U norms for all quality related aspects.

Increasing FDI into spices processing and Chillies in India establishes the importance of India in world (hot) chilly markets

New Developments

- Spices Board of India has implemented several initiatives to encourage chilli farmers cultivate in conformance with international regulations
 - Formation of farmer co-operatives to impart technical & scientific information for sustainable chilli cultivation
 - Distribution of IPM kits in chilli growing areas
 - Training & awareness creation program amongst farmers to sensitize them on GAP
 - ISO 17025 accredited Testing labs in Guntur

Farmers across India are getting aligned to the need to cultivate chilli according to the quality expectations of the international customer.

Although supply may be under pressure on the short run, it is gearing up to meet the global demand.

Thank You!

Sushama Srikandath

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