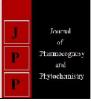


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# A study on the marketing of dry Chillies in Guntur district of Andhra Pradesh

## Patluri Deepthi and Paladugu Praveen Kumar

#### Abstract

The study was conducted in the year 2016 - 2017 to examine the "marketing cost, marketing margin and price spread of dry Chillies in Guntur district of Andhra Pradesh". The examination Revealed that the maximum percent of producers share in consumer price is observed in channel-I was 96.14 per cent. The price spread was highest in Channel-III (Rs. 1421.66). The Marketing efficiency was highest in channel-I (25.02 per cent) respectively, the Total Marketing Cost, Price spread and Marketing Margin was highest in the channel III (Rs. 311.36/qtl, Rs. 1421.66/qtl and Rs. 1110.30/qtl). The Producer share in consumer's rupee and marketing Efficiency was highest in the channel I (25.02 per cent).

Keywords: price spread, marketing channels and dry chilli.

### Introduction

Chilli is considered as one of the commercial spice crops. It is the most widely used universal spice, named as wonder spice. Different varieties are cultivated for various uses like vegetable, pickles, spice and condiments. In daily life, chillies are the most important ingredient in many different cuisines around the world as it adds pungency, taste, flavour and colour to the dishes. Indian chilli is considered to be world famous for two important commercial qualities namely, its colour and pungency levels. Some varieties are famous for the red colour because of the pigment and other quality parameters in chilli are length, width and skin thickness. The world production of chilli crop to around 7 MT, which is cultivated on 1.5 MH of land. India is the world leader in chilli production followed by China and Pakistan. This shows that the bulk share of chilli production is held by the Asian countries, though it is produced throughout the world. A large demand for chilli comes from several chilli consuming countries such as India, China, Mexico, Thailand, USA, UK, Germany and Sweden. Indian share in global production ranges between from 50 to 60 per cent. However, India is the only one source for hot chillies. Major chilli growing countries are - India, China, Indonesia, Korea, Pakistan, Turkey and Sri Lanka in Asia; Nigeria, Ghana, Tunisia and Egypt in Africa; Mexico, United States of America in North - Central America; Yugoslavia, Spain, Romania, Bulgaria, Italy and Hungary in Europe and Argentina and Peru in South America. India is the world leader in chilli production followed by China and Pakistan. This shows that the bulk share of chilli production is in Asian countries, though it is produced throughout the world. The top 5 chilli producing countries, India, China, Pakistan, Bangladesh and Peru accounted for more than 60 % of the world production in 2012-13, The lion's share is taken by India with 38 % share in global production, followed by China (7 per cent), Pakistan (5 per cent) Bangladesh (5 per cent) and Peru (5 per cent). India, the largest producer of chillies, is having annual chilli production of around 15.15 lakh MT, China with a production of around 4.5 lakh MT and Pakistan producing 3 lakh MT of chilli are other major producer of chillies. India is the largest exporter of chillies, meeting nearly half of the world's consumption demand. Apart from India, China also exports to an extent of about 19 per cent of total chilli exports in the world. Peru

contributes for nearly 9 per cent, while Spain in the fourth largest exporter in the world. Fert of exports is scattered across a number of countries each contributing in minor quantities. Major importers include the U.S. with about 24 % followed by Malaysia with 12 % and Sri Lanka with 9 % of total imports in the world. Interestingly, Spain is not only fourth largest exporter but also the fourth largest importers as well.

In India, chilli is grown in almost all states. In India, chilli was grown in an area 774.9 thousand hectare and production 1492.10 thousand tonnes and the productivity was 1.93 tonnes per hectare. Andhra Pradesh is having largest area of chilli in India and contributes about 131.3 (16.94 per cent) thousand hectare with a production of 602 (40.35 per cent) thousand tonnes and the productivity was 4.58 tonnes per hectare followed by Telangana, Karnataka, West Bengal, Gujarat and Maharashtra.

In Tamil Nadu, chilli was grown in an area of 50.7 (6.54 per cent) thousand hectares with a total production of 23.1 (1.55 per cent) thousand tonnes and the productivity was 0.46 tonnes per hectare followed by Punjab and Assam. In other state, the chilli was grown in an area of 59.0 (7.61 per cent) thousand hectare with a total production of 63.7 (4.27 per cent) thousand tonnes and the productivity was 1.08 tonnes per hectare.

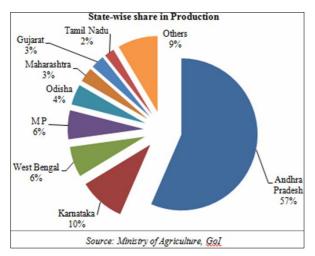


Fig 1: State wise share in production of chilli

**Table 1:** Area, Production and Productivity of Chilies In India(2004-2017) The details of area under chilli cultivation and yield of<br/>chillies in India are given in Table 1.

Year	Area (' 000 ha)	Production (* 000 tonnes)	Productivity (tons/ha)
2004-05	737.50	1185.50	1.61
2005-06	654.00	1014.60	1.55
2006-07	763.20	1242.10	1.63
2007-08	805.80	1297.90	1.61
2008-09	779.10	1269.90	1.63
2009-10	767.20	1202.90	1.57
2010-11	792.10	1223.40	1.54
2011-12	804.80	1276.30	1.59
2012-13	794.10	1304.40	1.64
2013-14	774.87	1492.14	1.93
2014-15	743.64	1453.13	1.95
2015-16	811	1520.00	1.87
2016-17	845	2126.00	2.51
Average	765.12	1269.30	1.65

*Sources:* Directorate of Areca nut and Spices development (DASD)2. Objective

To find out the marketing cost, marketing margin and price spread of different channels and marketing in study area.

### 3. Methodology

Guntur district is the major Dry Chilli growing district in Andhra Pradesh, Guntur district alone contributes an area of 63218 hectares of dry chilli with production of 408521 million tonnes and yield of 6462 kg per ha (2016-2017). District is specialized in the cultivation of dry chilli on commercial scale and it is a major dry chilli growing district. Thus, Guntur district was selected purposively for the study.

A list of Dry Chilli growers and villages in Guntur district was obtained from joint director's office of agricultural and district statistical office Guntur. A cluster of 10 villages were selected in major of dry chilli growers from Prathipadu block selected deliberately, because more number of villages represent higher area under Dry Chilli production, among them the 7 villages were selected randomly. They are given in the following table 2.

**Table 2:** Selection of sample villages

Sl.no	Taluka/Block	Name of the village	Random numbers
1		Edulapalem	19
2		Enamadala	17
3		Kondajagarlamudi	16
4	Prathipadu	Nadimpalem	18
5		Vangipuram	16
6		Mallayapalem	15
7		Prathipadu	19
	Total		120

A complete list of all the respondents were growing dry chilli was obtained from the Gram Panchayat in all selected villages. The study confined in the year 2017-2018. Therefore the respondents were arranged in ascending order of area under chilli cultivation and then respondents were classified into three groups on the basis of area under dry chilli cultivation in all the selected villages *viz*.

- 1. First farms group Small having the cultivated area less than 1 ha,
- 2. Second farms group Medium having the cultivated area 1 ha to 2 ha, and
- 3. Third farms group Large having the cultivated area 2 ha to more than 2 ha

Then ten percent of respondents / households were selected randomly from the selected villages. Thus all together 120 respondents' households were selected *viz.*, small medium large respondents respectively.

### **Primary data**

The primary data with respect to input use pattern, economics of production of Dry Chilli, constraints in production and marketing of Dry Chilli were collected from the sample respondents by personal interview method with the help of well- structured pre-tested schedule.

## Secondary data

The secondary data with respect to area, production and productivity of Dry Chilli were collected from the District Statistical Office of Guntur district. Cropping pattern, Land use pattern and rainfall pattern in Guntur district and also secondary data was obtained from the published sources like Journals, Research papers, Bulletins, News papers, Internet, etc..,

### Marketing Analytics tools Cost of marketing

The total cost incurred on marketing by various intermediaries involved in the sale and purchase of the commodity till it reaches the ultimate consumer was computed as follow.

 $C=Cf+Cm1+Cm2+Cm3+\ldots\ldots+Cmn$ 

#### Where,

C= Total cost of marketing

Cf= Cost borne by the producer farmer from the produce leaves the farm till the sale of the produce, and

Cmn= Cost incurred by the i<sup>th</sup> middlemen in the process of buying and selling.

#### **Marketing Margin of Middlemen**

Absolute margin =  $P_{Ri} - (P_{pi} + C_{mi})$ 

Per cent margin = 
$$\frac{P_{Ri} - (P_{pi} + C_{mi})}{P_{Ri}} X 100$$

Where,

P<sub>Ri=</sub>Total value of receipts

 $P_{\text{pi=}} Total \mbox{ purchase value of goods (purchase price) and $C_{\text{mi=}} Cost incurred in Marketing}$ 

3. Producer's share in Consumer's Rupee:

 $FS_{=}$  (RP-MC)100/PF

Where,

FS = Farmer's share in Consumer's price expressed as a percentage.

RP = Retail price of commodity.

MC= Price received by the farmers/ collectors.

PF = Price received by the farmers /collectors.

## **Marketing Efficiency**

Marketing efficiency  $=\frac{\text{Consumer price}}{\text{Total marketing cost} + \text{marketing margin}}$ 

#### 4. Results and Discussions

Table 3: Marketing Cost, Marketing Margin and Price Spread indifferent Size of Farms Group Number of Respondents=120 SML=48+ 52+ 20 =120 Channel-I=Producer-Consume (Value in

Rupees/	quintal)

Sl. No	Particulars	Sample Average
1	Producer sale price to Consumer	8171.33
2	Cost incurred by the producer	
i	Packing cost	9.13 (0.11)
ii	Packing material cost	35.53 (0.43)
iii	Transportation cost	51.53 (0.63)
iv	Market cost	47.53 (0.58)
v	Labour cost	41.53 (0.50)
vi	Loading and unloading charges	52.30 (0.64)
vii	Weighing charges	32.30 (0.39)
viii	Miscellaneous charges	44.53 (0.54)
3	Total cost (i-viii)	314.40 (3.84)
4	Net price received by producer	7856.93 (96.14)
5	Producer share in Consumers Rupee (%)	96.14
6	Price spread	314.40
7	Consumers paid price	8171.33
8	Marketing Efficiency	25.02

**Note:** Figure in the parenthesis indicate percentage to the total consumer price

Table 3 reveals that average marketing cost when producers sold their product directly to consumers in the local market was Rs. 314.40/qtl. Among these costs packing material cost was Rs. 35.53/qtl, transportation Rs. 51.53/qtl, packing cost was Rs. 9.13/qtl, market cost was Rs. 47.53/qtl, labour cost was for Rs. 41.53/qtl, loading and unloading cost was Rs. 52.30/qtl and miscellaneous charges was Rs. 44.53/qtl, followed by weighing charges Rs.32.30/qtl respectively. The producer net share was 96.14 percent in consumer price. The average producer sale price to consumer in different farms size groups was Rs.8171.33/ha and the average price spread

was Rs. 314.40/ha. Marketing efficiency was worked out to know the efficiency of different channels. Market efficiency in channel I was 25.02 per cent respectively.

 Table 4: Marketing Cost, Marketing Margin and Price Spread in

 different Size of Farms Group Number of Respondents=120 S M L=

 48+ 52+ 20 =120 Channel-II = Producer –Village Merchant/Retailer

 - Consume (Value in Rupees/quintal)

Sl. No		Sample Average
1	Producer sale price to Village Merchants	9213.33 (100)
2	Cost incurred by the producer	
i	Packing cost	7.13 (0.07)
ii	Packing material cost	21.86 (0.21)
iii	Transportation cost	26.36 (0.26)
iv	Market cost	14.13 (0.13)
v	Labour cost	9.53 (0.09)
vi	Loading and unloading charges	9.53 (0.09)
vii	Weighing charges	5.53 (0.05)
viii	Miscellaneous charges	5.53 (0.05)
3	Total cost (i-viii)	99.63 (0.98)
4	Net price received by producer	9113.70 (90.09)
5	Sale price of producer to Village Merchant /Retailers	9213.33 (91.07)
6	Cost incurred by the Village Merchant/Retailers	
i	Loading & unloading charges	28.16 (0.27)
ii	Carriage up to shop	18.93 (0.18)
iii	Weighing charges	18.93 (0.18)
iv	Town charges	14.53 (0.14)
V	Transportation	28.16 (0.27)
Vi	Losses & Miscellaneous charges	24.53 (0.24)
Vii	Village Merchant/Retailers Margin	730.06 (7.21)
7	Total cost (i-vii)	133.26 (1.31)
8	Sale price of village Merchant/ Retailer	10116
9	Total cost	232.89 (2.30)
10	Total margin	730.06 (7.21)
11	Price Spread	1002.30
12	Consumer paid price	10116
13	Producer share in consumer rupee	90.44
14	Marketing Efficiency	9.46

Table 4. Reveals that the average marketing cost when producers sold their product to village merchants/Retailers in the market was Rs. 99.63/qtl. Among these packing material cost was most important which accounted Rs. 21.86/qtl, transportation cost was Rs. 26.36/ha, and packing cost was Rs. 7.13/qtl, market cost was Rs. 14.13/qtl, loading and unloading cost was Rs. 9.53/qtl and labour cost was for Rs. 9.53/qtl, miscellaneous charges was Rs. 5.53/qtl, weighing charges Rs.5.53/qtl, respectively. The average marketing cost sold to their produce through village merchants/ retailers to the consumers, was observed Rs.133.26/qtl, among these losses and miscellaneous was most important (24.53%), loading and unloading charges and transportation (28.16 %), carriage up to shop and weighing cost (18.93 %) costs town charges was (14.53 %), followed by of the total marketing cost respectively. Price spread was Rs. 1002.30/qtl on different size of farms groups. Market efficiency in channel II was 9.46 per cent.

Table 5: Marketing Cost, Marketing Margin and Price Spread in different Size of Farms Group Number of Respondents=120 S M L= 48+ 52+
20 =120 Channel-III = Producer–Commission agent/Wholesaler-Retailer – Consumer (Value in Rupees/qtl)

Sl. No	Particulars	Sample Average
1	Producer sale price to Commission agent	9500 (100.00)
2	Cost incurred by the producer	
i	Packing cost	7.13 (0.06)
ii	Packing material cost	30.73 (0.28)
iii	Transportation cost	39.53 (0.36)
iv	Market cost	14.13 (0.13)
V	Labour cost	9.53 (0.08)
vi	Loading and unloading charges	9.53 (0.08)
vii	Weighing charges	5.53 (0.05)
viii	Miscellaneous charges	5.53 (0.05)
3	Total cost (i-viii)	121.66 (1.12)
4	Net price received by producer	9378.33 (86.83)
5	Sale price of producer to Commission agent/ Wholesaler	9500 (87.96)
6	Cost incurred by the Commission agent/ Wholesaler	
Ι	Loading and unloading charges	24.53 (0.22)
Ii	Grading	14.53 (0.13)
Iii	Packing	14.53 (0.13)
Iv	Market fee	14.53 (0.13)
V	Commission of Commission agent/ Wholesaler	3.36 (0.03)
vi	Losses & Miscellaneous charges	9.53 (0.08)
Vii	Commission agent/ Wholesaler Margin	418.96 (3.87)
7	Total cost (i-vii)	81.03 (0.75)
8	Sale price of /Commission agent wholesalers to Retailers	10,000 (92.59)
9	Cost incurred by the Retailers	
Ι	Weighing charges	19.70 (0.18)
Ii	Loading and unloading charges	30.36 (0.28)
Iii	Town charges	14.53 (0.13)
Iv	Carriage up to shop	19.36 (0.17)
V	Miscellaneous charges	24.70 (0.22)
Vi	Retailers Margin	691.33 (6.44)
10	Total cost (i-vi)	108.66 (1.00)
11	Sale price of Retailers to consumers	10800
12	Total costs	311.36 (2.88)
13	Total Margins	1110.30 (10.28)
14	Producer share in consumer rupee	86.83
15	Price spread	1421.66
16	Consumers paid price	10800
17	Marketing Efficiency	6.59

Note: Figure in the parenthesis indicate percentage to the total consumer price

Table 4.3 reveals that marketing cost, marketing margin, and price spread for channel-III was not important because very less farms i.e. 42.97 per cent of growers preferring sale of their produce through this channel. Three intermediaries were identified through

In which Dry Chilli reaches to the consumer's i.e. commission agents/ wholesalers and retailers. This is the longest channel among three identified channels. The producer sells his produce to the commission agent/wholesalers, who in turn sell it to retailers in the market. Finally the produce reaches to consumers after collecting margin. Average marketing cost when producers sold their produce to commission agents/wholesalers in the market was Rs. 121.66/qtl. Among these costs transportation was most important was Rs. 39.53/qtl, packing material cost Rs. 30.73/qtl, loading and unloading cost Rs. 9.53/qtl, packing cost was Rs. 7.13/qtl market fee Rs. 14.13/qtl, labour cost was Rs.9.53, miscellaneous charges was Rs.5.53/qtl followed by weighing charges Rs.5.53/qtl, respectively. Sale price of the producer to commission agents/ retailers was Rs. 9500/qtl in different farms size group.

The commission agent/ wholesalers margin was estimated to be 3.87 per cent and the retailr's margin was 6.44 per cent of the consumer paid price. Producer share in consumer price was (86.83%). Price spread was Rs. 1421.66/qtl of consumer paid price. Market efficiency in channel III was 6.59 per cent in different size of farms groups.

## 5. Conclusion

The study indicates that there is scope to increase the producer's share in consumer's rupee by making the market more effective so that the number of intermediaries is to be restricted and the marketing costs and marketing margins to be reduced. This will be the way for making Dry Chilli cultivation more profitable.

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