

AGRICULTURAL SITUATION IN INDIA

JULY, 2014



**PUBLICATION DIVISION
DIRECTORATE OF ECONOMICS AND STATISTICS
DEPARTMENT OF AGRICULTURE AND CO-OPERATION
MINISTRY OF AGRICULTURE
GOVERNMENT OF INDIA**

Editorial Board

Chairman

DR. JOSEPH ABRAHAM

Members

P.C. BODH

PRATIYUSH KUMAR

Publication Division

DIRECTORATE OF ECONOMICS
AND STATISTICS
DEPARTMENT OF AGRICULTURE
AND CO-OPERATION
MINISTRY OF AGRICULTURE

GOVERNMENT OF INDIA
C-1, HUTMENTS, DALHOUSIE ROAD,
NEW DELHI-110001
PHONE : 23012669

Subscription

	Inland	Foreign
Single Copy	: ₹ 40.00	£ 2.9 or \$ 4.5
Annual	: ₹ 400.00	£ 29 or \$ 45

Available from :

The Controller of Publication,
Ministry of Urban Development,
Deptt. of Publications,
Publications Complex (Behind Old Secretariat),
Civil Lines, Delhi-110 054.
Phone : 23817823, 23819689, 23813761,
23813762, 23813764, 23813765

©Articles published in the Journal cannot be reproduced in any form without the permission of Economic and Statistical Adviser.

Agricultural Situation in India

Vol. LXXI

JULY, 2014

No. 4

CONTENTS

PART I

	PAGES
A. GENERAL SURVEY	1
B. ARTICLES	
1. Growth and Performance of Area, Production and Productivity of Jasmine flower in Madurai District, Tamil Nadu— <i>Karuthapandi Prakash and Dr. Bagavathi Muniyandi</i>	5
2. Inter-District Desparities in Agricultural Development in Amravati Division of Maharashtra— <i>A.S. Darekar, R.B. Hile, S.B. Datarkar and K.H. Parshuramkar</i>	11
C. AGRO-ECONOMIC RESEARCH	
Assessment of Marketed and Marketable Surplus of Major Foodgrains in Gujarat— <i>Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad</i>	19
D. COMMODITY REVIEWS	
(i) Foodgrains	23
(iii) COMMERCIAL CROPS :	
Oilseeds and Edible Oils	25
Fruits and Vegetables	25
Potato	25
Onion	25
Condiments and Spices	25
Raw Cotton	25
Raw Jute	25

Officials of the Publication Division, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, New Delhi associated in preparation of this publication :

D. K. Gaur—*Technical Asstt.*

S. K. Kaushal—*Technical Asstt. (Printing)*

UMA RANI—*Technical Asstt. (Printing)*

The Journal is brought out by the Directorate of Economics and Statistics, Ministry of Agriculture. It aims at presenting a factual and integrated picture of the Food and Agricultural Situation in India on month to month basis. The views expressed, if any, are not necessarily those of the Government of India.

NOTE TO CONTRIBUTORS

Articles on the State of Indian Agriculture and allied sectors are accepted for publication in the Directorate of Economics & Statistics, Department of Agriculture & Co-operation monthly Journal "Agricultural Situation in India". The Journal intends to provide a forum for scholarly work and also to promote technical competence for research in agricultural and allied subjects. The articles in Hard Copy as well as Soft Copy (email ID : agri.situation@gmail.com) in MS word, not exceeding five thousand words, may be sent in duplicate, typed in double space on one side of fullsize paper in Times New Roman font size 12, addressed to the Editor, Publication Division, Dte. of Economics and Statistics, M/o Agriculture, C-1, Hutments, Dalhousie Road New Delhi-11 0011, alongwith a declaration by the author(s) that the article has neither been published nor submitted for publication elsewhere. The author(s) should furnish their e-mail address, Phone No. and their permanent address only on the forwarding letter so as to maintain anonymity of the author while seeking comments of the referees on the suitability of the article for publication.

Although authors are solely responsible for the factual accuracy and the opinion expressed in their articles, the Editorial Board of the Journal, reserves the right to edit, amend and delete any portion of the article with a view to making it more presentable or to reject any article, if not found suitable. Articles which are not found suitable will not be returned unless accompanied by a self-addressed and stamped envelope. No correspondence will be entertained on the articles rejected by the Editorial Board.

An honorarium of ₹ 2000 per article of at least 2000 words for the regular issue and ₹ 2500 per article of at least 2500 words for the Special/Annual issue is paid by the Directorate of Economics & Statistics to the authors of the articles accepted for the Journal.

PART II

STATISTICAL TABLES

	PAGES
A. WAGES	
1. Daily Agricultural Wages in Some States— Category-wise.	26
1.1. Daily Agricultural Wages in Some States— Operation-wise.	26
B. PRICES	
2. Wholesale Prices of Certain Important Agricultural Commodities and Livestock Products at Selected Centres in India.	28
3. Month-end Wholesale Prices of Some Important Agricultural Commodities in International Market during the year, 2014.	30
C. CROP PRODUCTION	
4. Sowing and Harvesting Operations Normally in Progress during August, 2014.	32

Abbreviations used

N.A. —Not Available.

N.Q. —Not Quoted.

N.T. —No Transactions.

N.S. —No Supply/No Stock.

R. —Revised.

M.C. —Market Closed.

N.R. —Not Reported.

Neg. —Negligible.

Kg. —Kilogram.

Q. —Quintal.

(P) —Provisional.

Plus (+) indicates surplus or increase.

Minus (–) indicates deficit or decrease.

GENERAL SURVEY

AGRICULTURE

Rainfall

Rainfall situation in India is observed with respect to four seasons; winter season (January-February); pre monsoon (March-May); South West Monsoon (June-September) and post monsoon (October-December). South West Monsoon accounts for more than 75 per cent of annual rainfall. The actual rainfall received during the Monsoon period 01.06.2014—13.08.2014,

has been 470.2 mm as against the normal at 571.1 mm. Table 1 shows kharif area coverage as on August, 14 of 2012-13, 2013-14 as well as the current year. Since kharif sowing goes on till September/October, the acreage under kharif area is expected to improve further in the coming weeks.

TABLE 1: Kharif Area Coverage-as on 14 August

S.No.	Crops	Area Sown (in lakh hectares)			Percentage change in 2014-15 over	
		2014-15	2013-14	2012-13	2013-14	2012-13
1.	Rice	296.23	299.02	293.43	-0.93	0.95
2.	Total Pulses	87.41	95.47	86.18	-8.44	1.43
a.	Pigeon Pea (Tur/Arhar)	31.61	35.93	32.08	-12.02	-1.47
b.	Urdbean	21.64	21.79	18.98	-0.69	14.01
c.	Moongbean	18.68	21.88	20.21	-14.63	-7.57
3.	Total Coarse Cereals	157.77	181.67	177.78	-13.16	-11.26
a.	Jowar	16.58	20.34	25.83	-18.49	-35.81
b.	Bajra	59.55	68.81	69.12	-13.46	-13.85
c.	Maize	72.18	79.07	69.16	-8.71	4.37
4.	Total Oilseeds	163.09	182.32	158.26	-10.55	3.05
a.	Groundnut	33.99	40.47	40.72	-16.01	-16.53
b.	Soyabean	107.78	121.04	96.89	-10.96	11.24
5.	Sugarcane	47.17	50.32	46.50	-6.26	1.44
6.	Cotton	116.91	110.93	110.8	5.39	5.51
Total Kharif Area		876.70	928.03	881.16	-5.53	-0.51

Source: DAC.

All India Production of Foodgrains

As per the 4th advance estimates released by Ministry of Agriculture on 14.08.2014, production of total foodgrains

during 2013-14 is estimated at 264.77 million tonnes compared to 257.13 million tonnes in 2012-13.

TABLE 2. Production of Major Agricultural Crops (in Million Tonnes)

Crop	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (4th advance estimates)
Rice	99.18	89.09	95.98	105.30	105.24	106.54
Wheat	80.68	80.80	86.87	94.88	93.51	95.91
Total Pulses	14.57	14.66	18.24	17.09	18.34	19.27
Total Foodgrains	234.47	218.11	244.49	259.29	257.13	264.77
Total Oilseeds	27.72	24.88	32.48	29.79	30.94	32.88
Sugarcane	285.03	292.30	342.38	361.04	341.20	350.02

Procurement

During the Kharif Marketing Season 2013-14, (which spans from October 2013 to September, 2014), the procurement of rice stood at 31.28 million tonnes as on 14.08.2014. During

Rabi Marketing Season 2014-15 (which spans from April, 2015 to March, 2015), the procurement of wheat was 28.02 million tonnes as on 11.07.2014.

TABLE 3. PROCUREMENT IN MILLION TONNES

Crop	2010-11	2011-12	2012-13	2013-14	2014-15
Rice	34.20	35.04	34.04	31.28*	
Wheat	22.51	28.34	38.15	25.09	28.02**
Total	56.71	63.38	72.19	56.37	

*Position as on 14.08.2014 **Position as on 11.07.2014

Off-take

Off-take of rice during the month of May, 2014, was 23.22 lakh tonnes. This comprises 20.12 lakh tonnes under TPDS and 3.10 lakh tonnes under other schemes. In respect of wheat, the total off take was 20.17 lakh tonnes comprising of 18.32 lakh tonnes under TPDS and 1.85 lakh tonnes

under other schemes.

Stocks

Stocks of foodgrains (rice and wheat) held by FCI as on August 1, 2014 were 62.83 million tonnes, which is lower by 9.7 per cent compared to the level of 69.62 million tonnes as on August 1, 2013.

TABLE 4. OFF-TAKE AND STOCKS OF FOODGRAINS (MILLION TONNES)

Crop	Off-take				Stocks	
	2011-12	2012-13	2013-14	2014-15 (Till June)	Aug 1, 2013	Aug 1, 2014#
Rice	32.12	32.64	29.20		40.38	19.27
Unmilled Paddy in terms of Rice						5.45
Wheat	24.26	33.21	30.62		29.24	38.11
Total (Rice & Wheat)	56.38	65.85	59.82	11.09	69.62	62.83

Note: Buffer Norms for Rice & Wheat are 11.80 Million Tonnes & 20.10 Million Tonnes as on 1.7.2014 respectively.

Since September, 2013, FCI gives separate figures for rice and un-milled paddy lying with FCI & state agencies in terms of rice.

ECONOMIC GROWTH

As per the Provisional Estimates of the Central Statistics Office (CSO), the growth in Gross Domestic Product (GDP) at factor cost at constant (2004-05 prices) is estimated at 4.7 per cent in 2013-14 with agriculture, industry and

services registering growth rates of 4.7 per cent, 0.4 per cent and 6.8 per cent respectively. The GDP growth rate is placed at 4.7 per cent, 5.2 per cent in the first, second quarters respectively and 4.6 per cent each in the third and fourth quarters of 2013-14.

TABLE 5. GROWTH OF GDP AT FACTOR COST BY ECONOMIC ACTIVITY (AT 2004-05 PRICES)

Sector	Growth			Percentage Share in GDP		
	2011-12	2012-13 (1R)	2013-14 (PE)	2011-12	2012-13 (1R)	2013-14 (PE)
1. Agriculture, forestry & fishing	5.0	1.4	4.7	14.4	13.9	13.9
2. Industry	7.8	1.0	0.4	28.2	27.3	26.1
a Mining & quarrying	0.1	-2.2	-1.4	2.1	2.0	1.9
b Manufacturing	7.4	1.1	-0.7	16.3	15.8	14.9
c Electricity, gas & water supply	8.4	2.3	5.9	1.9	1.9	1.9
d Construction	10.8	1.1	1.6	7.9	7.7	7.4
3. Services	6.6	7.0	6.8	57.4	58.8	59.9
a Trade, hotels, transport & communication	4.3	5.1	3.0	26.7	26.9	26.4
b Financing, insurance, real estate & business services	11.3	10.9	12.9	18.0	19.1	20.6
c Community, social & personal services	4.9	5.3	5.6	12.7	12.8	12.9
4. GDP at factor cost	6.7	4.5	4.7	100	100	100

1R: 1st Revised Estimates; PE: Provisional Estimates. Source: CSO.

TABLE 6. Growth of Quarterly Estimates of GDP at Constant (2004-05) Prices

	2011-12				2012-13				2013-14			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1 Agriculture, forestry & fishing	6.5	4.0	5.9	3.4	1.8	1.8	0.8	1.6	4.0	5.0	3.7	6.3
2 Industry	10.1	8.2	6.9	6.3	0.3	-0.4	1.7	2.1	-0.4	2.6	-0.4	-0.2
a Mining & quarrying	0.3	-4.6	-1.9	5.8	-1.1	-0.1	-2.0	-4.8	-3.9	0.0	-1.2	-0.4
b Manufacturing	12.4	7.8	5.3	4.7	-1.1	0.0	2.5	3.0	-1.2	1.3	-1.5	-1.4
c Electricity, gas & water supply	8.5	10.3	9.6	5.4	4.2	1.3	2.6	0.9	3.8	7.8	5.0	7.2
d Construction	8.9	11.9	12.2	10.2	2.8	-1.9	1.0	2.4	1.1	4.4	0.6	0.7
3 Services	6.7	7.0	6.5	6.1	7.2	7.6	6.9	6.3	7.2	6.3	7.2	6.4
a Trade, hotels, transport & communication	5.5	4.7	4.0	3.3	4.0	5.6	5.9	4.8	1.6	3.6	2.9	3.9
b Financing, insurance, real estate and business services	11.3	12.0	11.1	11.0	11.7	10.6	10.2	11.2	12.9	12.1	14.1	12.4
c Community, social & personal services	2.4	5.4	5.7	5.7	7.6	7.4	4.0	2.8	10.6	3.6	5.7	3.3
4 GDP at factor cost	7.6	7.0	6.5	5.8	4.5	4.6	4.4	4.4	4.7	5.2	4.6	4.6

Source: CSO.

NOTE TO CONTRIBUTORS

Articles on the state of Indian Agriculture and allied sectors are accepted for publication in the Directorate of Economics & Statistics, Department of Agriculture & Cooperation's monthly Journal "Agricultural Situation in India". The Journal intends to provide a forum for scholarly work and also to promote technical competence for research in agricultural and allied subjects. Good The articles in Hard Copy, in MS Word not exceeding five thousand words, and Soft Copy (email ID: afri. situation@gmail.com may be sent in duplicate, typed in double space on one side of fullscap paper in Times New Roman font size 12, addressed to the Editor, Publication Division, Dte. of Economics & Statistics, M/o Agriculture, C-1, Hutments, Dalhouse Road, New Delhi-11 0011, alongwith a declaration by the author(s) that the article has neither been published nor submitted for publication elsewhere. The author(s) should furnish their e-mail address, Phone No. and their permanent address only on the forwarding letter so as to maintain anonymity of the author while seeking comments of the referees on the suitability of the article for publication.

Although authors are solely responsible for the factual accuracy and the opinion expressed in their articles, the Editorial Board of the Journal, reserves the right to edit, amend and delete any portion of the article with a view to making it more presentable or to reject any article, if not found suitable. Articles which are not found suitable will not be returned unless accompanied by a self-addressed and stamped envelope. No correspondence will be entertained on the articles rejected by the Editorial Board.

An honorarium of Rs. 2000/- per article of at least 2000 words for the regular issue and Rs. 2500/- per article of at least 2500 words for the Special/Annual issue is paid by the Directorate of Economics & Statistics to the authors of the article accepted for the Journal.

ARTICLES

Growth and Performance of Area, Production and Productivity of Jasmine Flower in Madurai District, Tamil Nadu

(KARUTHAPANDI PRAKASH* AND DR. BAGAVATHI MUNIYANDI**)

Abstract

Agriculture, known as the backbone of Indian economy, plays a very eulogistic role for development of economy. Around 70 per cent of the population gets livelihood directly or indirectly from the Agriculture and allied sectors. Horticulture development had not been a priority in India until recent years. It was only post 1993 period that a focused attention was given to horticulture development through an enhancement of plan allocation and knowledge-based technology. This decade is known as a "Golden Revolution" in horticulture production. Jasmine is one of the important species in India, more than 80 jasmine species are found here. Tamil Nadu is the leading producer of jasmine in the country with the annual production of 1.021 million tonnes from a cultivated area of 0.183 million hectares. The flowers produced in the state are exported to neighboring countries like Sri Lanka, Singapore, Malaysia and the Middle East. The major jasmine producing districts of Tamil Nadu are Madurai, Dindigul, Salem, Tirunelveli, Virudhunagar and Trichy. The findings of this study would be useful to understand various issues relating to growth performance and functioning of the production system.

Key words: Growth rate, Jasmine Flower, Export of Floriculture, Horticulture.

Introduction

Agriculture, taken as a whole, includes not only cultivation of food crops and vegetables, but also other plantation crops, horticulture, pisciculture, dairy farming, poultry farming, sericulture, floriculture, apiculture, etc. Floriculture is a very important occupation in India, and it means livelihood to millions of farmers, flower traders and vendors. The soil and climatic conditions of South India are ideally suited for floriculture (K.P. Shivkumar, 2009).

India has a long tradition of floriculture. References to flowers and gardens are found in ancient Sanskrit classics like the Rig Veda, the Ramayana, Mahabharata, Shudraka, Ashvagosha, Kalidasa and Sarangdhara. The social and economic aspects of flower growing were, however, recognized much later. The offering and exchange of flowers on all social occasions/in places of worship and their use for adornment of hair by women and for home decoration have become an integral part of human life and culture (R. Senthilkumar, 2013).

Netherland and Germany are the leading flower producing countries in the world and also the biggest importers of flowers. The major importers of flowers and Netherlands, Germany, France, Italy and Japan, while major exporters are Columbia, Israel, Spain and Kenya. Other leading floriculture countries are Japan, Italy, USA, Spain, Columbia and Israel. USA and Japan continue to be the highest consumer with more than \$10 bn and 7 bn per annum, respectively (Avinash Tripathi, 2012).

Flower cultivation is an important aspect of modern agriculture. It consists of cultivation of flowers and ornamental plants with intensive and scientific ways. Importance of flower cultivation is more on national level. Largest flower based industries in the world have developed in India. India government has already declared floriculture as "SUNRISE INDUSTRY (Nirmal Kumar Biswas, 2013).

With its heady fragrance, exclusive size and shape, the 'Madurai Malli's uniqueness has a distinct reputation universally. Farmers from Madurai, Theni, Dindigul, Sivaganga and Virudhunagar districts cultivating 'Madurai Malli' are enthused at its getting the Geographical Indication (GI) mark with its entry into Geographical Indications Registry. Application for GI was made in June 2000 and approval came on January 16 (M. Vandhana, 2013).

The popular species and *Jasminum Sambac* (Gundumalli or Madurai Malli), *Jasminum auriculatum* (Mullai) and *Jasminum grandiflorum* (Jathimalli/Pitchi). The first two species are mainly cultivated to sell as fresh flowers, whereas the third is cultivated for the perfumery industry's needs. Tamil Nadu is the leading producer of jasmine in the country with an annual production of 77,247 tonnes from a cultivated area of 9360 hectares. The flowers harvested in the state are exported to neighboring countries like Sri Lanka, Singapore, Malaysia and the Middle East. The major jasmine producing districts of Tamil Nadu are Madurai, Dindigul, Salem, Tirunelveli, Virudhunagar and Trichy. Jasmine flowers are native to India, China and Iran (T. Ambika, 2012).

* PhD Research Scholar, Unit of Agriculture Economics, Department of Economics, School of Economics, Bharathiar University, Coimbatore-641046, Tamil Nadu.

** Director, School of Economics, Bharathiar University, Coimbatore-641046 Tamil Nadu, India E. mail bagavathimuneesch@yahoo. com.

Scope of the Study

The results of this study would be useful in understanding various issues relating to growth performance, and functioning of the production system. It would also help the grower to enhance productivity. Further the finding could be used to design appropriate policy suggestions and measures to improve production and marketing for the benefit of the producers and the ultimate consumers. Industrialists and businessmen want to make a better planning for increasing the productivity in flower cultivation, to promote fragrance industry by making use of the availability of flowers in this area. This trend indicates clearly how jasmine flower is an essential commodity in the present era and hence, the study therefore aims to analyze the growth of the jasmine flower in India with the following specific objective:

1. To study the growth and performance of area, production and productivity of jasmine flower in Madurai District, Tamil Nadu and India.
2. To find out the export of Floriculture form in India.

Data Collection and Methodology

The data collected and analyzed to draw a meaningful interpretations and to assess the situation in jasmine flower economy in India. The secondary data have been used for the study purpose. In order to analyze the growth rate, the time series data of area, production, and yield or productivity of jasmine flower were collected from various publications, official records and web sources such as Hand Book of Statistics on the Indian Economy, Horticulture Statistics, Indian Institute of Horticulture Research, Bangalore, Office of the Assistant Director of Statistics, Madurai, Directorate of Horticulture and Plantation Crop, Chennai etc., have been referred for the collection of data from 1995-96 to 2012-13. For the present study, the statistical tools were employed to assess the growth performance of jasmine flower in India.

Compound Growth Rate Analysis

There are several methods to estimate the growth rates. In this study, exponential function was used to estimate compound growth rate by marking time as the independent variable and credit as dependent variable. This exponential trend equation gives constant rate of increase or decrease per unit of time and they are termed as 'Geometric' or Compound Growth Rate.

Compound growth rate were estimated by fitting exponential trend equation of the following type.

$$Y = ab^t \quad \dots(1)$$

Where,

Y = the area/production/productivity

t = time variable in years

a = constant

and $b = (1 + r)$

Where r = Compound Growth Rate

The equation (1) takes the linear form by taking logarithms of both sides of the equation,

$$\log y = \log a + \log b.$$

Copound growth rate is computed using the following formula.

Compound Growth Rate (CGR)=Antilog (log b-1) *100

Results and Discussions

CGR Estimation on Area, Production and Yield of Jasmine Flower in Madurai District, Tamil Nadu

The result of growth estimation of total area, production and productivity of jasmine flower in India and Madurai District during reference period is discussed below. In order to identify the significant role and the economical status of jasmine flower in the Indian economy.

TABLE 1: Area, Production and Productivity of Jasmine Flower in India (1995-96 to 2004-05)

Sl. No.	Year	Area (In hectors)	Production (In tonnes)	Productivity (In tonnes/hectors)
1.	1995-96	14843	93636	6.31
2.	1996-97	15856	98435	6.21
3.	1997-98	16788	102196	6.09
4.	1998-99	17315	114415	6.61
5.	1999-00	17620	113646	6.45
6.	2000-01	15718	154319	8.24
7.	2001-02	18084	163436	8.56
8.	2002-03	17676	103316	5.85
9.	2003-04	20274	143343	7.07
10.	2004-05	23233	181279	7.8
CGR		3.72	6.25	2.23

Source: Horticulture Statistics, Indian Institute of Horticulture Research, Bangalore.

Various Issues

The area production and yield of jasmine flower in India during 1995-96 to 2004-05 has been provided in table 1. The area under jasmine in India had increased to 23,233 hectares in 2004-05 from 14,843 hectares in 1995-96. The production of jasmine flower had increased from 93636 tonnes during the year 1995-96 to 181279 tonnes in the year 2004-05. The yield was maximum in the year 2001-02 with 8.56 tonnes per hectare and it was minimum in the year 2002-03 with 5.85 tonnes per hectare. The estimated Compound Growth Rate for the reference period was 3.72, 6.25 and 2.23 per cent per annum for area, production and productivity respectively.

TABLE 2: AREA, PRODUCTION AND PRODUCTIVITY OF JASMINE FLOWER IN TAMIL NADU (1995-96 to 2011-12)

Sl. No.	Year	Area (In hectares)	Production (In tonnes)	Productivity (In tonnes/hectares)
1.	1997-98	5732	43713	7.62
2.	1998-99	6021	50113	8.32
3.	1999-00	6621	59813	9.93
4.	2000-01	6656	57413	8.62
5.	2001-02	7144	67114	9.93
6.	2002-03	7150	69003	9.65
7.	2003-04	7761	73663	9.49
8.	2004-05	10682	83348	7.8
9.	2005-06	10221	79212	7.75
10.	2006-07	10173	78841	7.75
11.	2007-08	11038	85542	7.75
12.	2008-09	12031	93241	7.75
13.	2009-10	13114	101633	7.75
14.	2010-11	14294	110780	7.75
15.	2011-12	15581	120750	7.75
CGR		7.50	6.46	-1.19

Source: Office of the Assistant Director of Statistics, Madurai.

Table 2 pertains the data on area, production and yield of jasmine flower in Tamil Nadu during 1997-98 to 2011-12. The area under jasmine cultivation has been increasing during the reference period, which has increased from 5732 hectares in 1997-98 to 15581 hectares in 2011-12. The production of jasmine has increased from 43713 tonnes in 1997-98 to 120750 tonnes in 2011-12. The yield of jasmine flower has increased from 7.62 tonnes per hectare in 1997-98 to 9.93 tonnes per hectare in 1999-00. While after that it having fluctuating trend and from 2005-06 onwards the productivity remained stagnant with 7.75 hectares. The estimated Compound Growth Rate for the reference period was 7.50 per cent of area, 6.46 for production and -1.19 per cent of productivity per annum.

CHART 1: Area, Production and Productivity of Jasmine Flower in Madurai District (2000-01 to 2012-13)

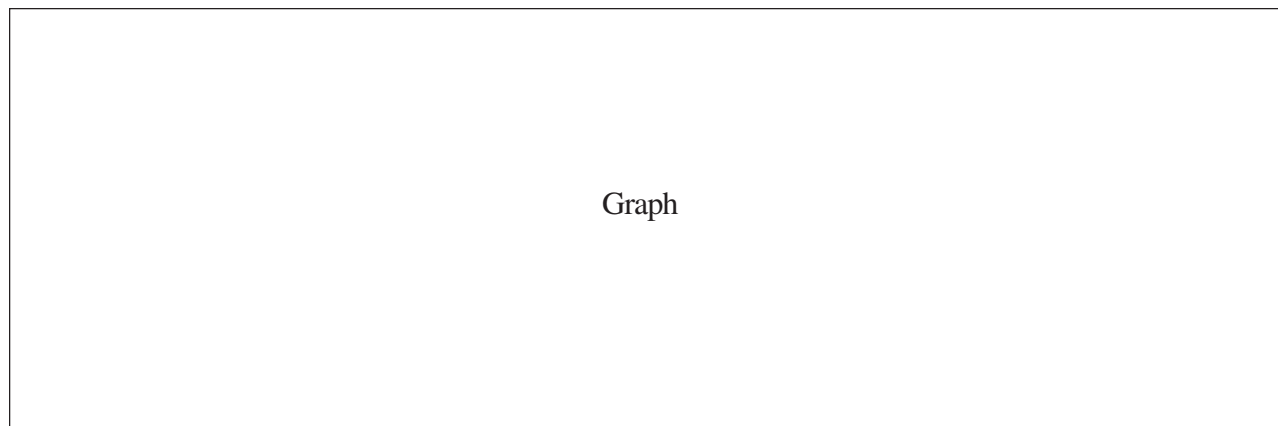


TABLE 3: AREA, PRODUCTION AND PRODUCTIVITY OF JASMINE FLOWER in MADURAI DISTRICT (2000-01 to 2012-13)

Sl. No.	Year	Area (In hectares)	Production (In tonnes)	Productivity (In tonnes/hectares)
1.	2000-01	551	4270	7.75
2.	2001-02	589	4564	7.75
3.	2002-03	794	6154	7.75
4.	2003-04	843	6534	7.75
5.	2004-05	910	7052	7.75
6.	2005-06	984	7626	7.75
7.	2006-07	1057	8350	7.9
8.	2007-08	1088	8432	7.75
9.	2008-09	1142	8851	7.75
10.	2009-10	1220	9577	7.85
11.	2010-11	1103	10070	9.13
12.	2011-12	1393	12718	9.13
13.	2012-13	1429	13047	9.13
CGR		7.40	8.89	1.38

Source: Directorate of Horticulture and Plantation Crop, Chennai-600005.

Table 3 depicts the data related to area production and productivity of jasmine flower in Madurai district of Tamil Nadu during 2000-01 to 2012-13. The area under jasmine in Madurai has increased from 551 hectares in 2000-01 to 1429 hectares in 2012-13. The estimated Compound Growth Rate for the reference period was 7.40 per cent. The production of jasmine had increased from 4270 (tonnes) in 2000-01 to 13047 (tonnes) in 2012-13. The estimated Compound Growth Rate for the reference period was 8.89 per cent per annum. The productivity had increased from 7.75 tonnes per hectare in 2000-01 to 9.13 tonnes per hectare in 2012-13. The productivity was stagnant during first nine years of the study period with 7.75 tonnes per hectare. The estimated Compound Growth Rate for the reference period was -3.6 per cent per annum.

TABLE 4: Export Performance of Floriculture from India.

YEAR		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	CGR
USA	Q	11922	7897	13177	9677	9372	7111	5871	7430	7559	6697	-5.96
	V	7314	5169	7597	7521	7068	7214	5306	5799	7129	8381	0.67
NETHERLAND	Q	2514	2526	2233	4334	4746	4640	3147	3149	3924	3099	3.52
	V	2698	2894	2741	4472	4514	5987	4218	4527	5413	5970	8.95
GERMANY	Q	2668	2437	2987	3850	4201	3590	3688	4474	5257	3715	6.31
	V	2136	2200	2437	3102	3505	3966	4065	4332	5752	5675	12.43
UK	Q	3811	3379	3797	4300	4215	4370	3707	4299	3456	3192	-0.74
	V	2802	2657	3100	3604	4045	4284	3788	3530	3856	4568	4.88
CANADA	Q	238	238	135	385	547	782	534	524	868	986	19.92
	V	235	226	128	315	559	1135	769	811	1203	1619	28.75
JAPAN	Q	1494	1739	3385	8323	1835	965	971	640	737	801	-15.11
	V	2548	1585	5644	32554	3277	1791	1559	1234	1472	1567	-12.6
UARABEMTS	Q	369	516	659	1075	660	763	972	823	817	1029	8.46
	V	349	525	639	927	685	992	1071	996	1126	1545	14.09
ITALY	Q	1802	1345	1241	1766	1228	1268	1454	1255	1267	821	-4.73
	V	1155	945	918	1116	959	1373	814	893	1119	1350	1.13
FRANCE	Q	876	613	603	625	581	400	386	520	370	282	-9.4
	V	814	558	617	591	543	465	415	498	406	457	-5.71
AUSTRALIA	Q	374	234	345	257	513	312	345	336	356	353	1.63
	V	516	461	399	664	637	827	757	679	991	1074	9.69
OTHERS	Q	4591	6842	6898	7951	8337	6597	5737	5456	6315	6143	-0.2
	V	4384	4886	5921	10402	8223	8846	6688	6306	8062	10140	6.32

Source: www.Agriexchange.apeda.gov.in Q-Denoted (Quantity in M.T.)V-Denoted (Value in Rs. Lakhs)

Table 4 indicates the data related to export of floriculture in terms of production and value from India to rest of the world during 2003-04 to 2012-13. Canada which shows the highest growth rate in terms of floriculture import from last few years and showing that highest increasing trend which has increased from 238 metric tonnes in 2003-04 to 986 metric tonnes in 2012-13, with the compound growth rate of 19.92 which is highest in terms of quantity exported and in terms of foreign exchange earned it increased from Rs. 235 lakhs in 2003-04 to Rs. 1619 lakhs in 2012-13 with the compound growth rate of 28.75 per annum. The other countries which showed the positive growth rate are Netherland, Germany, United Arab Emirates and Australia. In terms of negative growth rate it was highest in Japan with 15.11 and 12.6 in terms of quantity

and value respectively followed by France. The other countries which showed the mixed positive and negative growth rate are Italy, UK and USA.

Conclusion

The overall performance of growth in tapped area, production and yield in India has been satisfactory during the last ten years and the progress was slow during the recent time, *i.e.* 2003-04 to 2004-05. Further, it could be concluded that the growth in area, production and yield of jasmine flower in India has registered a significant and positive signs during the reference period. The growth in area and production of jasmine flower in Tamil Nadu has been decreasing. The productivity of jasmine flower in Tamil Nadu states has decreased from 9.39 tonnes per hectore to

7.75 tonnes per hectore during 2001-02 to 2011-12. Even though there are some ups and downs, the overall productivity shows decreasing trend. Canada which shows the highest growth rate in terms of floriculture import from last few years and in terms of foreign exchange earned it increased from Rs. 235 lakhs in 2003-04 to Rs. 1619 lakhs in 2012-13.

Suggestions and Recommendations

The main policy suggestions include provision of training facilities for the farmers by Govt. and Panchayat to update the knowledge of the farmers on modern techniques of Floriculture.

Secondly, sufficient communication, transport facilities should be provided because flower grown in the area needs to be transported to larger markets as fast as possible due to their perishable nature.

REFERENCES

1. Chakarabarty K.C., "Indian Agriculture Emerging Scenario, Issues and Challenges" Agriculture Today, Vol.X., No. 1, January 2007, pp.22.
2. Vandhana M., "Geographical indication tag for Madurai Malli" The Hindu January 18, 2013.
3. Shivkumar K.P., "Flower Show in Chennai" Kisan World June 2009 pp. 61-62.
4. Nirmal Kumar Biswas, "Floriculture in Chapra village in Ranaghat-II Block, Nadia District, West Bengal" Journal of Humanities and Social Science, January 2013 pp. 17-23.
5. Senthil Kumar R., "Marketing of Cut flowers in India" Kisan World August 2013 pp. 23-26.
6. Avinash Tripathi, "Indian Floriculture Industry: An overview" Kurukshetra, July 2012 pp. 37-45.
7. Ambika T., "Jasmine: Fit for Small Growers" Market Survey, June 2012 vol. 32 No. 9 pp. 19-20.

AGRICULTURAL PRICES IN INDIA

It is an old adage that Agricultural prices mirror the economy of a country. It is more true in the case of an agricultural country like India. Viewed from this angle, it is quite an important publication. It gives information on index numbers, farm (Harvest) prices, wholesale and retail prices of various agricultural commodities, etc.

Inter-District Desparities in Agricultural Development in Amravati Division of Maharashtra

A.S. DAREKAR¹, R.B. HILE², S.B. DATARKAR³ AND K.H. PARSHURAMKAR⁴

Abstract

Agriculture is backbone of Indian economy. The present study was conducted in Amravati division. The data were collected from different public records of State Governments, cooperatives and private institutions. The compound growth rates of area, production and productivity of major crops were calculated and also the composite index of agricultural development suggested by Prem Narain was calculated at different periods. Therefore present study will indicate whether the rate of development has been uniform or whether there is any imbalance in Amravati division.

There was reduction in area and production under total cereals and cotton in Amravati district. Reduction in area under total cereals was also observed in Buldhana, Akola and Yavatmal district. Area under total food grain was found significantly increasing in Buldhana, Akola and Yavatmal district. It was prominent to note that there was an increase in area over a period of 26 years under total oilseeds in all districts. There was a positive growth in productivity of cereals, pulses oilseeds food grain and cotton. Area and production of cotton was observed more in Yavatmal district. The production of total food grain was observed more stable in Amravati districts.

There was good agricultural development in Amravati and Akola district while decrease in Yavatmal and Buldhana district. Amravati was identified as model district over a period of time. The rank of Amravati was first and remains constant. The rank of Akola district came down from second in 1996-97 to 2001-02. The rank of Buldhana district came down from third in 2001-02 to fourth in 2006-07. The rank of Yavatmal district improved from third to second but came down from third in 2006-07 to second in 2010-11.

Amravati district was classified as 'most developed' in 1989-90 and 1996-97 and 'developed' in 2001-02, 2006-07 and 2010-11. Akola, Yavatmal and Buldhana districts were classified as 'moderately developed' in 1989-90 and 1996-97. In 2010-11 Akola and Yavatmal district were classified as 'under developed' and Buldhana district was classified as 'Backward'.

Agricultural development of model districts (Amravati) was significantly superior, over all other district in all five time periods. Agricultural development of district significantly differed from each other over a period of time (26 years).

Keywords: Agricultural development, CGR.

Introduction

Agriculture is the backbone of Indian economy contributing 28 per cent of the Gross Domestic Product, engaging 67 per cent of our human forces. Agriculture, being the predominant sector of economy, the pace of economic development of the country has been and still continues to be significantly influenced by the pace of its agricultural development. Agricultural growth with stability has been matter of concern in the strategy of agricultural development in the country in recent years. Agricultural socio-economic and infrastructural development has become an extremely sensitive issue in recent times with serious social and political ramifications.

Steady globalization of trade has profound implications for future agricultural development. The diversity of India's agro-ecological setting, high bio-diversity and relatively low cost of labour provide potential for agricultural competitiveness in a globalized economy. It is expected that with increasing globalization of markets over the years there was demands for agricultural intensification. This will also be favoured because of greater backward and forward linkages between agriculture and food industry. Therefore, increase in production and productivity is bound to be strategically important to economy. Intensification will not only favour alleviation of rural poverty but will also improve resource conservation particularly in the small farming sector where farmers can be encouraged to take up organized production of high value crops such as fruits, specialty vegetables, flowers, medicinal and aromatic herbs etc. Stronger demands for crops of the small farmers' will not only improve incomes and welfare but will also make investments in technology and resource conservation more attractive.

¹& ²Ph.D. Students.

³Associate Professor, Department of Agril. Economics, Mahatma Phule Krishi Vidyapeeth, (MPKV), Rahuri, Maharashtra.

⁴M.Sc. Student, Agricultural Economics and Statistics Section, College of Agriculture, Nagpur, Maharashtra.

Maharashtra is basically agricultural state. Though, the industrial development is very fast in Maharashtra, but large population engaged in agriculture. From last two decades, farmers in Maharashtra adopt new technologies like improved seeds, fertilizers, irrigation systems etc. The traditional agricultural practices are gradually being replaced by new technologies.

Agriculture continues to be the most important sector of economy as it has the largest economic activities, services as per the index of country economic development. The present study will indicate whether the rate of development has been uniform or whether their area any imbalances in Amravati division.

Methodology

The Amravati division of Vidarbha region was purposively selected for the study. Amravati division covers Western Vidarbha region includes Amravati, Yavatmal, Buldhana and Akola (including Washim) districts. Study of agriculture development was proposed by two methods. In first method, compound growth rates of area, production and productivity of major crops *i.e.* total cereals, total pulses, total oilseeds, cotton, sugarcane were calculated. In second method, composite index of agricultural development suggested by Prem Narain was calculated at different time points, 1989-1990 (End year of VIIth Five year plan), 1996-1997 (End year of VIIIth Five year Plan), 2001-2002 (End of IXth Five year plan), 2006-2007 (End of Xth Five year plan), 2008-2009, 2009-2010 or 2010-2011 (depend on availability of data) was studied.

Time series data of various selected indicators *i.e.* area, production and productivity of selected crops of various districts in Amravati division was collected from secondary sources *i.e.* different published records of State Governments, Co-operatives and Private institutions.

The data thus collected was analyzed for simple arithmetic averages and index number of indicators of development. Further the standard deviation (S.D.), coefficient of variation (C.V.) was calculated.

Compound Growth Rate

$$y = a.bt$$

Where, y = area/production/productivity of major crop, a = intercept, b = regression coefficient, t = time period

Composite Index of Development

$$\text{STANDARD LEVEL} = \frac{\text{Actual level of indicator} - \text{Mean}}{\text{Standard deviation}} \quad i.e.,$$

$$Z_{ij} = \frac{X_{ij} - \bar{X}_j}{S_j}$$

Where x_j = mean level of the indicator and

$$\bar{S}_j^2 = \sum_{i=1}^n \frac{(X_{ij} - \bar{X}_j)^2}{n} \quad \bar{X}_j = \sum_{i=1}^n \frac{\bar{X}_{ij}}{n}$$

With $i = 1, 2, 3, n$ and $j = 1, 2, 3, \dots, k$

[Z_{ij}] denotes the matrix of standardized indicators.

for each indicator, the ideal level of development will be identified from the level of different districts and its normalized value will be taken as "standardized level Z_{oj} ".

The value of composite index is non-negative and it lies between 0 and 1. The value of new composite index closer to zero indicates the higher level of development, while the value of index closer to 1 indicates the lower level of development of the respective district.

Criteria for classification of district on the basis of the composite index:

Sr. no.	Level of development	Range of composite index
1.	Most developed	Below (Mean - 2 SD)
2.	Developed	(Mean - 2SD) to (Mean - SD)
3.	Moderately developed	(Mean - SD) to (Mean)
4.	Under developed	(Mean) to (Mean + SD)
5.	Back ward	(Mean + SD) to (Mean + 2 SD)
6.	Most backward	Above (Mean + 2 SD)

Identification of Model District

The model districts will be identified on the basis of composite index of development. District having Composite Index lower than that of other district will serve as model district for district.

Statistical Comparison of Model Districts with other District

$$CD = d \pm 2SD$$

Where, $d = \frac{2 \text{ mean } \bar{S}_j}{\sqrt{3n(p+1)}}$ $\bar{S}_j = \text{Standard Deviation}$

Change in Development Levels

where, n =number of years under study, p =number of districts under study, C_j =total of ranks in the j th column, $j = 1, 2, p$, x_f is approximately distributed as x^2 with $(p-1)$ d.f. If x^2_f (calculated) $\geq x^2$ (tabulated) with $(p-1)$ d.f. at chosen level of significance then the null hypothesis will be rejected, otherwise it will be accepted.

Results and Discussion

1. Compound Growth Rates of Area, Production, Productivity

The compound growth rates of area, production, productivity of total cereals, total pulses, total food-grains, sugarcane, cotton and total oil seeds were calculated for the period of 26 years (1985-86 to 2010-2011) for the four districts of Amravati division *viz.* Amravati, akola, Buldhana and Yavatmal presented in table 1. It has been seen from the table 1, that in Amravati district, growth rate of area under total pulses (4.4963) and sugarcane (9.44501) were positively significant at 1 percent level. Growth rate of area under total food-grains was positively (0.9869) significant at 1 percent level. Growth rates of area under total oilseeds was positively

(21.143) significant at 1 percent level. Compound growth rate of production of total pulses was positively (4.3139) significant at 1 per cent of level. Compound growth rate of production for sugarcane was positively (10.444) significant at 1 percent level. Compound growth rate for production of total oilseeds was positively (15.520) significant at 1 percent level. It is observed that

compound growth rate of productivity for total cereals was positive (5.0727) and for total pulses it was also found positive (2.9049) and both were significant at 1 percent level. Compound growth rate of productivity for total foodgrains was positively (3.5848) significant at 1 per cent level and for cotton it was positively (3.7936) significant at 1 percent level.

Table 1: Compound Growth Rates of Area, Production and Productivity for Amravati Division.

CGR value	District	Amravati	Akola	Buldhana	Yavatmal
Total cereals	Total Area	1.4952 ^{NS}	-3.9588**	-1.2293**	-2.3969**
	Total Production	-1.1935 ^{NS}	2.6392**	0.1144 ^{NS}	-2.3710*
	Productivity	5.0727**	4.1786**	0.4967 ^{NS}	1.6702 ^{NS}
Total Pulses	Total Area	4.4963**	-0.1501 ^{NS}	1.7756*	-10.663 ^{NS}
	Total Production	4.3139**	4.2921**	2.7580*	3.0934**
	Productivity	2.9049**	2.5063**	1.7254 ^{NS}	0.88399 ^{NS}
Total Oil seeds	Total Area	21.143**	14.691**	14.873**	23.0863**
	Total Production	14.520**	7.7458**	7.7640**	15.2990**
	Productivity	16.883**	15.350**	15.147**	16.9924**
Total Foodgrains	Total Area	0.9869**	-2.3042**	-0.7648**	-1.6021**
	Total Production	1.3752 ^{NS}	-1.4425 ^{NS}	-1.913 ^{NS}	-0.48772 ^{NS}
	Productivity	3.5848**	2.5538**	-0.1220 ^{NS}	0.936424 ^{NS}
Total Cotton	Total Area	-1.4308 ^{NS}	-2.7983**	1.2621 ^{NS}	0.206255 ^{NS}
	Total Production	1.3152 ^{NS}	-0.6540 ^{NS}	5.1541**	4.70132**
	Productivity	3.7936**	8.7759**	6.1139**	4.6549**
Total Sugarcane	Total Area	9.44518**	19.7711**	7.4238*	2.23387 ^{NS}
	Total Production	10.444**	-2.7054**	4.7730 ^{NS}	6.2795 ^{NS}
	Productivity	-2.4664 ^{NS}	0.93845**	-3.9832 ^{NS}	-24.8272**

Note: ** = Significant at 1% level, * = Significant at 5% level, NS = Non-significant

Compound growth rates for productivity of total oilseeds were positive (16.883) and significant at 1 percent level. It is observed that, in Akola district, area under sugarcane was positive (19.7711) but significant at 1 percent level. Growth rates of area under total oilseeds was positive (14.691) and significant at 1 percent level. It is observed that, compound growth rate of production for total cereals were positive (2.6392) and compound growth rate of production of total pulses was positive (4.2921) which was significant at 1 percent of level. It is observed that compound growth rate of productivity for total cereals was positive (4.1786) and for total pulses it was also positive (2.5063) and both were significant at 1 percent level. Compound growth rate of productivity for total foodgrains was positive (2.5538) and significant at 1 percent level. Compound growth rate of production for sugarcane was positive (0.93845) and for cotton it was positive (8.7759) and both were significant at 1 percent level.

Compound growth rates for productivity of total oilseeds were positive (15.350) and significant at 1 percent level. It is observed that, in Buldhana district, growth rate of area under total pulses was positive (1.7756) and significant at 5 percent level. Growth rate of area under sugarcane was positive (7.4238) which was significant at 5 percent of level. Growth rates of area under total oilseeds was positive (14.873) and significant at 1 percent level.

It is observed that, compound growth rate of production for total cereals were positive (0.1144). Compound growth rate of production of total pulses was positive (2.7580) which was significant at 5 per cent of level. Compound growth rate of production for sugarcane was positive (4.7730) and for cotton production compound growth rate was positive (5.1541) and significant at 1 percent level. Compound growth rate for production of total oilseeds was positive (7.7640) and significant at 1 percent level. The compound growth rate of productivity for total cereals

(0.4967) and pulses (1.7254) was found positive. The Compound growth rate of production for cotton was positive (6.1139) and significant at 1 percent level. Compound growth rates for productivity of total oilseeds were positive (15.147) and significant at 1 percent level. In Yavatmal district the growth rate of total area under total oilseeds (23.086) was positive and significant at 1 percent level of significance. The growth rate of total area under total sugarcane and cotton (2.2338) and (0.20625) were positive but non-significant.

The growth rate of production of total pulses, oilseeds and cotton were (3.0943) (15.2990) (4.7013) respectively and positive and significant at 1 percent level of significance. The growth rate of production of total sugarcane (6.2795) was positive but non-significant. The growth rate of total productivity of foodgrains (0.93642) was positive. Growth rate of total production of total cereals (1.6702) and total pulses (0.8839) was positive. The growth rate of total productivity of cotton (4.6549) and total oil seeds (19.9924) were positive and significant at 1 percent level of significance.

It is concluded from the above discussion that, there was a reduction in area and production under total cereals and cotton in Amravati district over a period of 26 years. Reduction in the area under total cereals was observed in Buldhana, Akola and Yavatmal district. Area under total food-grain was found significant in Buldhana, Akola and Yavatmal district. It was prominent to note that there was an increase in area over a period of 26 years under, total oilseeds in all the districts. There was a positive growth in the productivity of total cereals pulses oil seeds cotton and foodgrains.

District-wise agricultural development in Amravati division was studied with the help of methodology suggested by Prem Narain (1991). The composite index was calculated for four districts of Amravati division. To calculate the composite index, data were collected on 66 indicators responsible for agricultural development for the year 1989-1990 (end year of VII Five year Plan), 1996-1997 (end year of VIII Five Year Plan), 2001-2002 (end year of IX Five Year Plan) 2006-2007 (end year of X Five Year Plan) and 2010-2011 were analyzed. It will also help full to analyze the agricultural development of Amravati division during above mentioned Five Year Plan.

TABLE 2: COMPOSITE INDEX, RANKS AND LEVEL OF DEVELOPMENT OF AMRAVATI DIVISION

Year	District	Amravati	Akola	Buldhana	Yavatmal
1989-1990	CI	0.532986	0.693933	0.810029	0.685635
	Rank	1	3	4	2
	Category	Most developed	Moderately developed	Moderately developed	Moderately developed
1996-1997	CI	0.438492	0.570801	0.63722	0.60262
	Rank	1	2	4	3
	Category	Most developed	Moderately developed	Moderately developed	Moderately developed
2001-2002	CI	0.443654	0.721264	0.61615	0.549863
	Rank	1	4	3	2
	Category	Developed	Backward	Under developed	Moderately developed
2006-2007	CI	0.372885	0.626462	0.648123	0.541346
	Rank	1	3	4	2
	Category	Developed	Under developed	Under developed	Moderately developed
2010-2011	CI	0.31776	0.538475	0.639614	0.545584
	Rank	1	2	4	3
	Category	Developed	Under developed	Backward	Under developed

2 Varius Categories, Ranks and Di Values of Various Districts in Amravati Division

It is observed from table 2 that in the year 1989-1990, the di values for Amravati district was 0.532986 and ranked 1st which came under category "Most developed." The di values of Yavatmal district was 0.685635 and ranked 2nd which came under category "Moderately developed." The Akola district was ranked 3rd under the category of "Moderately developed" with di value 0.693933. The Buldhana district was ranked 4th with di value 0.810029 under the category of "Moderately developed." All three districts (Akola, Yavatmal and Buldhana) came under the category 'Moderately developed' except Amravati, which

was categorized as "Most developed".

It is observed that in the end year 1996-1997, the di values for Amravati district was 0.438492 and ranked 1st which came under category "Most developed". The di values of Akola district was 0.570801 and ranked 2nd which came under category "Moderately developed." The Buldhana district was ranked 3rd under the category of "Moderately developed" with di value 0.60262. The Yavatmal district was ranked 4th with di value 0.810029 under the category of "Moderately developed." All three districts (Akola, Yavatmal and Buldhana) came under the category 'Moderately developed' except Amravati, which was categorized as "Most developed."

In the end year 2001-2002, the di values for Amravati district was 0.443654 and ranked 1st which came under category "Developed". The di values of Yavatmal district was 0.549863 and ranked 2nd which came under category "Moderately developed". The Buldhana district was ranked 3rd under the category of "Under developed" with di value 0.61615. The Akola district was ranked 4th with di value 0.721264 under the category of "Backward".

It is observed that in the end year 2006-2007, the di values 0.3782885 for Amravati district was and ranked 1st which came under category "Developed." The di values of district Yavatmal was 0.626462 and ranked 2nd which came under category "Moderately developed." The Akola district was ranked 3rd under the category of "Under developed" with di value 0.626462. The Buldhana district was ranked 4th with di value 0.648123 under the category of "Under developed."

TABLE 3: CLASSIFICATION OF FOUR DISTRICTS OF AMRAVATI DIVISION ON THE BASIS OF COMPOSITE INDEX (*i.e.* DI VALUES)

1989-1990		
Range of Di	Category	Districts
0 - 0.483808895	Most developed	Amravati
0.483808895 - 0.58222736	Developed	
0.58222736 - 0.680645825	Moderately developed	Akola, Yavatmal, Buldhana
0.680645825 - 0.77906429	Under developed	
0.77906429 - 0.877482755	Backward	
0.877482755 - 0.999989	Most Backward	
1996-1997		
Range of Di	Category	Districts
0 - 0.411818951	Most developed	Amravati
0.411818951 - 0.48705095	Developed	
0.48705095 - 0.56228295	Moderately developed	Akola, Buldhana, Yavatmal
0.56228295 - 0.63751495	under developed	
0.63751495 - 0.712746949	Backward	
0.712746949 - 0.999989	Most Backward	
2001-2002		
Range of Di	Category	Districts
0 - 0.380913	Most developed	
0.380913 - 0.481823	Developed	Amravati
0.481823 - 0.582732	Moderately developed	Yavatmal
0.582732 - 0.683642	Under developed	Buldhana,
0.683642 - 0.784551	Backward	Akola,
0.784551 - 0.999989	Most Backward	
2006-2007		
Range of Di	Category	Districts
0 - 0.330667	Most developed	
0.330667 - 0.438935	Developed	Amravati
0.438935 - 0.547203	Moderately developed	Yavatmal
0.547203 - 0.655471	Under developed	Akola, Buldhana
0.655471 - 0.763739	Backward	
0.763739 - 0.999989	Most Backward	
2010-2011		
Range of Di	Category	Districts
0 - 0.274068	Most developed	
0.274068 - 0.392213	Developed	Amravati
0.392213 - 0.510358	Moderately developed	
0.510358 - 0.628502	Under developed	Akola, Yavatmal
0.628502 - 0.766647	Backward	Buldhana
0.766647 - 0.999989	Most Backward	

3 Classification of Four Districts of Amravati Division on the Basis of Composite Index (*i.e.* Di values).

It was observed that in the end year 2010-2011, the di values for Amravati district was 0.31776 and ranked 1st which came under category "Developed". The di values of district Akola was 0.538475 and ranked 2nd which came under category "Under developed." The Yavatmal district was ranked 3rd under the category of "Under developed" with di value 0.545584. The Buldhana district was ranked 4th with di value 0.639614 under the category of "Under developed."

From the above discussion it has been concluded that there was a good agricultural development in Amravati district followed by Buldhana district while Yavatmal district remains at constant level and decreased agricultural development was found in Akola district from moderately developed to under developed over a period.

All four districts (Amravati, Akola, Buldhana, and Yavatmal) of Amravati division were classified in to various categories on the basis of agricultural development *i.e.* Most developed, Developed, Moderately developed, Under developed. Backward and Most backward. This classification was based on the range of Di value. This classification was done for five year *i.e.* VIIth IIIth IXth and XIth five year plans ending years *i.e.* 1989-1990, 1996-1997, 2001-2002, 2006-2007 and 2010-2011 respectively.

From the table 3 it is observed that the Di values on the basis of agricultural development ranges from 0.483808895 to 0.9999999, for the year 1989-90 (end year of VIIth five year plan), 0.411818951 to 0.9999999 for the year 1996-97 (end year of VIIIth five year plan), 0.380913 to 0.9999999 for the year 2001-2002 (end year of IXth five year plan), 0.330667 to 0.9999999 for the year 2006-2007 (end year of Xth five year plan) and 0.274068 to 0.9999999 for the year 2010-2011 (end year of XIth five year plan).

For Amravati district, it is seen from the table that, for the end year 1989-1990 and 1996-1997, it was under the category of "most developed", but it came down to "developed" category in the year 2001-2002 and remained in the same category for the end year 2006-2007 and 2010-2011. Amravati district showed good agricultural development in this year.

For Akola district, it is concluded that it came under category of "moderately developed" in the end year 1989-1990 and 1996-1997. But in the year 2001-2002 it goes down in to "backward" category. For the year 2006-2007 and 2010-2011 it came in the category of "under developed".

For Buldhana district, it is observed that, in end year 1989-1990 and 1996-1997 it came in the category of "moderately developed". For the end year 2001-2002 and 2006-2007 it came in the category of "under developed". In the end year 2010-2011, Buldhana included in the category of "backward" indicated low agricultural development.

It has been seen that, Yavatmal district came under category of "moderately developed" in the year 1989-1990, 1996-1997, 2001-2002 and 2006-2007. But it came under category of "under developed" in the year 2010-2011.

From the above discussion, it is concluded that Amravati district has shown good agricultural development over a period of time and classified as developed district in terms of agricultural development, as compared to other district (Yavatmal, Akola and Buldhana) in Amravati division.

Yavatmal district was classified as 'developed' by achieving first position in 19 indicators out of 66 indicators under study. Buldhana and Akola district was achieve first position in 11 and 12 indicators each and the districts were classified as backward". While Amravati district was first position in 19 indicators and district was classified as 'moderately developed' for the year 1989-90.

TABLE 4: COMPARISON OF MODEL DISTRICT WITH OTHER DISTRICTS IN AMRAVATI DIVISION

Year	Amravati	Akola	Buldhana	Yavatmal
1989-90	0.5329(1)	0.6936(2)	0.8100(4)	0.6856(3)
1996-97	0.4384(1)	0.5708(2)	0.6372(4)	0.6026(3)
2001-02	0.4436(1)	0.7212(4)	0.6161(3)	0.5498(2)
2006-07	0.3728(1)	0.6264(3)	0.6481(4)	0.5413(2)
2010-11	0.3177(1)	0.5384(2)	0.6396(4)	0.5455(3)

It is observed that in the year 1989-90, Amravati district was served as model district as the Di value (0.5329) was small as compared to other district. While Akola, Yavatmal, and Buldhana district ranks second, third and fourth with Di values (0.6936) (0.6856) (0.8100) respectively.

In the year 1996-97, also Amravati district was served as model district as the Di value (0.4384) was small as compared to other district. While Akola, Buldhana, and

Yavatmal districts were also in similar ranks *i.e.* second, third and fourth with Di values (0.5708) (0.6372) (0.6026) respectively.

For the time period 2001-02, Amravati district was served as model district as the Di value (0.4436) was small as compared to other district. While Yavatmal, Buldhana and Akola districts were ranks second, third and fourth with Di values (0.5498) (0.6161) (0.7212) respectively.

In the year 2006-07, Amravati district was served as model district as the Di value (0.3728) was small as compared to other district. While Yavatmal, Akola and Buldhana districts were ranks second, third and fourth with Di values (0.5413) (0.6264) (0.6481) respectively.

During the time period 2010-11, again Amravati district was served as model district as the Di value (0.3177)

was small as compared to other district. While Akola, Yavatmal and Buldhana districts were ranks second, third and fourth with Di values (0.5384) (0.5455) (0.6396) respectively.

It has been concluded from the above discussion that, Amravati district was served as model district with consistent growth over the 26 years of time period.

TABLE 5: STATISTICAL SIGNIFICANCE BETWEEN DIFFERENT TIME POINTS FOR EACH DISTRICT

Year	Amravati	Rank	Akola	Rank	Buldhana	Rank	Yavatmal	Rank
1989-90	0.5329	1	0.6939	2	0.8100	4	0.6856	3
1996-97	0.4384	1	0.5708	2	0.6372	4	0.6026	3
2001-02	0.4436	1	0.7212	4	0.6161	3	0.5498	2
2006-07	0.3728	1	0.6264	3	0.6481	4	0.5413	2
2010-11	0.3177	1	0.5384	2	0.6396	4	0.5455	3
\bar{C}_i		5		13		19		13

After calculating composite index of development at a given point of time, *i.e.* 1985-2011, the statistical significance of development was tested by non-parametric Friedman's test. The test is given below. The years were arranged in row and districts were arranged in column. The ranks of district of each year were arranged in table.

where, n=number of years under study, p=number of districts under study C_j =total of ranks in the jth column and $j=1,2,3$, p is approximately distributed as with (p-1) d.f.

The value of $t^{(calculated)}$ was obtained 77.88

Hence $t^{(calculated)} > t^{(calculated)}$ and null hypothesis is rejected.

Thus, results shows that development of different district of Amravati division was significantly differ from each other.

Conclusion

First, there was a reduction in area and production under total cereals in Amravati, Buldhana, Akola and Yavatmal districts. In addition, in case of cotton in Amravati district over a period of 26 years.

Second, it was prominent to note that there was an increase in areas over a period of 26 years under, total oilseeds in all the districts. There was a positive growth in the productivity of total cereals, pulses, oil seeds, cotton and foodgrains.

Third, agricultural development was observed more in Amravati district. There was good agricultural development in Amravati and Akola district. There was decrease in agriculture development in Yavatmal and Buldhana district.

Fourth, Amravati district had achieved first position in 30 indicators, out of 66 indicators under the study and classified as 'developed' and ranked 1st for the year 2001-2002. Amravati was identified as model district for the year 1989-90, 1996-97, 2001-2002, 2006-2007 and 2010-2011. The rank of Amravati district was 1st and remains constant over the period of time. Agricultural development of district significantly differed from each other over a period of time (26 years).

Finally, the results of statistical comparison of model district with other districts in each time period show that there was a significant difference in agricultural development in each district with model district. The non-parametric. Friedman's test was applied to test the significance of development over a time period of 18 years (1984-1985 to 2001-2002) and it was found significant. It has been concluded that, Amravati district was served as model district with consistent growth over the 26 years of time period.

REFERENCES

1. Arya, S.L. and B.S. Rawat (1990). Agricultural growth in Haryana - A district-wise analysis. Agri. Situation in India., Vol. 45(7). pp. 121-125.
2. Barmah and Pandey (1998). Trends in area, production and productivity of rice in Assam. Indian J. of agric. Econ., Vo., 53 (3). pp. 156-170.
3. Jahangirdar, S.W. and Ratnalikar (1996). Growth rate of kharif jowar in Maharashtra, Bihar J. of Agric. Marketing Vol. 4 (3). pp. 274-280.
4. Kale, V.C. K.D. Rajmane and P.R. Waghmare (1987). Trends in Agricultural growth in Parbhani district of

- Maharashtra state. *Journal of Maharashtra Agricultural University*. Vol. XII (3), pp. 361-363.
5. Kalyankar, S.P. and J.N. Ghulghule (1997). Regional variation in the productivity of agricultural in Maharashtra State. *Maharashtra J. of Agric. Econ.*, Vol. 8(1), pp. 01.
 6. Narain, P., S.C. Rai and V.K. Bhatiya (1997). Regional Pattern of socio-economic development in Karnataka. *Journal of Indian Society of Agricultural Statistics*, Vol. 50(4), pp. 380-391.
 7. Narain, P., S.C. Rai and V.K. Bhatiya (1999). Inter district variation of development in southern region. *Journal of Indian society of Agricultural Statistics*, Vol. 52(1), pp. 106-120.
 8. Narian. P.; S.D. Sharma, S.C. Rai and V.K. Bhatiya (2000). Regional disparities in socio-economic development in Tamilnadu. *Journal of Indian Society of Agricultural Statistics*, Vol. 53(1), pp. 35-46.
 9. Narain, P.; S.D. Sharma, S.C. Rai and V.K. Bhatiya (2002). Dimensions of Regional Disparities in Socio-economic development in Madhya Pradesh. *Journal of Indian Society of Agricultural Statistics*, Vo. 55(1), pp. 88-107.

AGRO-ECONOMIC RESEARCH

Assessment of Marketed and Marketable Surplus of Major Foodgrains in Gujarat*

Introduction

The available data on Marketable and Marketed Surplus based on surveys conducted by the Directorate of Marketing and Inspection during earlier decades has become obsolete. There have been persistent demands from the users for revision and updating of the data not only on Marketable Surplus ratios but also on variety of other crucial items like-farm retention for family consumption, seed, feed and wastages etc. This information is extensively used by Government Departments, Ministries and Organisations like the Department of Statistics, Ministry of Planning and Department of Agriculture and Cooperation (DAC) in framing estimates of 'Net National Product' of agricultural sector, consumption, expenditure, savings capital formation etc., which are published in "National Accounts Statistics". This information is also used in long and short-term supply and demand projections as well as for estimating availability of important commodities for consumption. The Ministry of Commerce and Industry uses the Marketable Surplus Ratios for assigning weights to different agricultural commodities in compilation of "All India Index Numbers of Wholesale Price". The marketable surplus ratios are also very useful for planning the procurement operations and market development programs. Besides, it is of immense help to researchers of various agricultural universities/institutions at National level, Food and Agriculture Organization of the United Nations (FAO) and other international organizations.

Gujarat being a highly commercial agro economy, the marketed surplus is an important issue. Farmers in general keep a certain amount of grain for self-consumption, around thirty percent at all times in Gujarat. There are certain basic features of the system and environment which affect this propensity of self-consumption: storage facilities are limited, irrigation till recently was by digging borewells and electric tubewells.

Objectives of Study

The main objectives of the study were to estimate marketable and marketed surplus of selected foodgrains in Gujarat and to examine the role of institutional, infrastructural, and socio economic factors in influencing household marketed surplus decisions.

Thus, the specific objectives of the study are:

1. To estimate marketable and marketed surplus of selected foodgrains in Gujarat.

2. To understand farm, retention for consumption, seed, feed, wages and other payments in kind, etc.

3. To examine the role of various institutional, infrastructural, socioeconomic factors that influence households decision on marketed surplus.

Methodology

The state of Gujarat is with reason considered one of the fastest growing states in India. During the 10th five year plan the state grew annually at a rate of 10.4%, official statistics reveal a high rate of agricultural growth since the early years of the new millennium averaging at 8.6% per annum. In the nineties and early part of the new millennium, Gujarat witnessed overall improvements in yields of important food crops even though the cropping pattern gave way to commercial crops which are more remunerative to the farmer.

Gujarat is significant state in India in terms of area sown in bajra, maize, tur, onion, cabbage, brinjal, okra, banana, papaya, chiku, groundnut, castor, til, cotton seed, fennel, cumin, fenugreek, ajwain, garlic, cotton and tobacco.

The following crops are dominant in terms of area: rice, wheat, bajra, maize, potato, groundnut, cottonseed and cotton.

And in terms of Production, are including the production of the following crops in Gujarat is significant: bajra, tur, onion, brinjal, okra, banana, papaya, Chiku, groundnut, castor, til, cottonseed, fennel, cumin, fenugreek, ajwain, garlic, cotton, tobacco.

Sample Details

Wheat, bajra and tur are the largest foodgrain crops in Gujarat. The study covered five districts Vadodara, Panchmahals, Kheda, Junagadh and Banaskantha. The crops covered were tur in Vadodara and Panchmahals, wheat and bajra in Kheda, wheat in Junagadh and bajra in Banaskantha. The production of these crops specially in these districts were dominant in Gujarat. Totally 359 farmers were surveyed. 50 each in Vadodara and Panchmahals and 101 in Kheda, 80 in Junagadh and 78 in Banaskantha. Village level detailed farming information relevant for estimating marketed surplus was obtained from the field survey at the village level. This included—sale price, productivity, machinery used, cropping pattern, irrigation mechanisms etc.

*Centre for Management in Agriculture Indian Institute of Management, Ahmedabad.

Major Findings

Characteristics of Sampled Population

Average age of the decision makers of the sample household is near 50 years. Possibly younger members are migrating out. Farm households have larger family size as compared to Census results. The main occupation is crop farming in all farm sizes and dairying dominates as a subsidiary occupation. Dairying is a subsidiary and important occupation in rural India now and this is particularly true for Gujarat. In terms of caste composition general category predominates, followed by OBC and then SC.

Area

In terms of percentage of gross cropped area, cotton is a major crop, so is wheat. Kharif paddy and finally vegetables are grown in kharif. Area is also being allocated to other crops like tobacco and potato, this proportion is greater than cotton. As far as rabi season is concerned wheat is grown on 25% of the land. This is traditionally an area where paddy and wheat farming was giving way to oilseeds and commercial crops.

Production

Output outcomes follow from area allocations, particularly of irrigated area. Major output consequences are in medium and large farms, taking the agricultural year as a whole, wheat emerges in quantity terms as the largest crop. This is noteworthy, because cereals were falling as a proportion of Gujarat agriculture in earlier decades.

Yield

In kharif paddy yields is high followed by cotton and oilseeds in that order, other crops like potato and tobacco also have high yield in fact even higher than cotton. Rabi wheat and summer bajra also have significant yield. It is interesting that the relation between farm size and productivity still shows that in some crops small farms hold out in their performance.

Source of Irrigation

Electric tubewells are the major source of irrigation, in some areas there is irrigation with diesel tubewells and borewells as well.

Farm Machinery

Use of farm machines is determined by considerations of profitability, a large amount of expenditure on tractors, tubewells and threshing machines was seen by farmers in these areas, indicating prosperity. High Expense at an average on tractors and tubewells is seen, indicating sufficient purchase and use by medium and large farmers.

Livestock

Maintaining cattle/buffalo is not a viable proposition for the smaller farms, as their use has become extremely confined in the face of competition from tractors under modern cultivation practices. Livestock and fodder prices are also inflating. Across all size classes, livestock other than cattle/buffalo is not kept, as the average number of ruminants is quite low which confirm their prohibitive costs.

Production and Availability of Crop by Farm Size

For all crops there is hardly any beginning stock per household at an average, the larger two farm sizes have higher average production in the season, *i.e.* large farmers produce more. Production clearly rises with farm size. In tur medium farmers grow 9.41 qtl per household and large farmer household grow 16.73 qtl. In wheat these figures are 24.04 qtl and 76.12 qtl respectively. Bajra is grown by marginal farms but only 9.46 qtl per household. The numbers for small households are slightly higher at 11.76 qtl but those of medium farms are 27.78 qtl and of large farm households 81.41 qtl.

Sale Pattern of Selected Crops

Average sale is approximately 12 quintals for tur, 46 quintals for wheat and 40 quintals for bajra (Cumulative average of all farms).

Sales are generally to private trader/money lender and increase monotonically by size. Average price received per quintal by private trader is Rs. 2500-3500 in tur, Rs. 1100 in wheat and Rs. 800-980 in bajra.

Credit

Generally larger farmers are aware about credit. The institutional sources of credit are more dominant like banks and cooperative societies. Half of the medium farms and three quarters of large farms have access to credit. In our sample cooperative credit is largely taken advantage of by medium and large farms. The average amount of loan is around a lakh and a half rupees. Getting a loan from bank is not difficult.

Contract farming is rarely used (2% to 5% of farms, generally medium and large farms only).

Crop Retention Pattern

Generally retention rises with farm size. In the case of tur retention of marginal and small farmers is around a third of large farmer households. Medium farmers also have a slightly higher retention than marginal and small farms.

Factor Influencing Marketed Surplus

Distance and Type of Market

A greater Proportion (60%) of Sale is in Local Market across farm sizes. However, around 40% of Households

sell in Distant Markets. A farmer generally prefers local market. Also the average transport cost per quintal is highest for large farms. The average distance to market is around 10 kms.

Policy Awareness

Generally, less than a quarter are aware about MSP as a policy variable. One sixth feel that sale possibilities can be availed, and farmers feel that this is possible by retaining less for feed and around a tenth are aware of the possibilities of futures trading.

Sources of Price Information

The medium and large farmers are more networked, communication helps them more. By and large the trader acts as a source of information though media is also availed.

Estimation of Marketed and Marketable Surplus

Surplus tends to be the highest for wheat followed by bajra, then tur, this seems to result from the fact that wheat and bajra has more significant production. For wheat around 73% of the availability is Marketed (Marketed Surplus Ratio) and our estimate is that around same is Marketable (Marketable Surplus Ratio). For bajra these ratios are 71% and 64% and for tur the number is a little less than seventy.

Marketed and Marketable Surplus Ratio Estimates for Crops District-wise

The exceptional values are seen in wheat, Junagadh (high proportion marketed) and Banaskantha (low proportion marketed). It cannot be concluded that surplus increases with size. A clear relationship is not seen. For small farms a low value is seen. Quantitatively wheat and bajra have a larger marketed surplus. Quantitatively since more than a fifth of the area (GCA) is allocated to wheat its predominance in quantities is obvious. Of course given the size and purposive nature of the sample these estimates are of an indicative nature.

Regression Relating Factors Affecting Marketed Surplus with Marketed Surplus Value

Regression exercises reveal that factors representing developed agriculture have a significant positive effect on marketed surplus ratio, which means that more modern the agriculture more it induces them to sell proportionate higher amounts of crop in the market. Investments in tubewells and farm machinery are significant variables determining surplus. These would be farms taking advantage of modern technology in agriculture and have larger surpluses to sell. Larger farms have more surplus. Self consumption is

important in tur and wheat as shown in a relation with family size. Interestingly bajra shows the character of a commercial crop with the surplus related with price, distance to market and non farm income.

Policy Implications

Development of efficient agricultural marketing is crucial for accelerating the growth of agricultural production and marketed surplus. An efficient marketing system must ensure best possible return for sale of produce. The investigation reveals that foodgrains market is highly dominated by private sector and traders were observed to exploit producers in the absence of an organized dissemination of market information.

The study reveals that majority households were lacking marketing intelligence. Majority of households were receiving information from traders regarding the market.

The study illustrated that total production losses at different stages of handling were high. By minimizing the losses at different stages, marketed surplus and financial benefits to producers can be enhanced. For minimization of losses, technical backup and support with regard to scientific storage, use of mechanical operations at harvesting stages, mode of packing and transportation should be disseminated. Moreover, creation of proper and adequate storage facilities at producers' level with reduce the storage losses and enhanced the bargaining power of producers in the marketing of produce, which will create positive impact on their net profitability.

The study revealed that marketed surplus output ratio was found on the lower side because the farmer always insures minimum amount of (approximately 30%) output for self-consumption. The study revealed marketed surplus of all four crops lower than marketable surplus. In Gujarat distress sales in anyway not seen.

The study gives clear message that if storage, seeds and pest removal is stepped up and the farmer given even greater support by more enthusiastic government machinery and officers, the food security of the farmers can increase. This is the only way the retention proportion of Gujarati farmers can be reduced, but this is a slow process, it will take decades not years.

Earlier studies had different results *i.e.*, a lower marketed surplus ratio for foodgrains like Wheat and Bajra. The onset of liberalization may not have led to greater emphasis on agriculture but has definitely led to a greater emphasis on the market as our results show.

COMMODITY REVIEWS

(i) Foodgrains

During the month of June, 2014 the Wholesale Price Index (Base 2004-05=100) of pulses increased by 0.17%,

Cereals increased by 0.52% and foodgrains increased by 0.48% respectively over the previous month.

ALL INDIA INDEX NUMBERS OF WHOLESALE PRICES

(Base: 2004-2005=100)

Commodity	Weight (%)	WPI for the Month of June 2014	WPI for the Month of May 2014	WPI A year ago	Percentage change during	
					A month	A year
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rice	1.793	241.1	237.8	218.7	1.39	10.24
Wheat	1.116	206.7	208.1	205.2	-0.67	0.73
Jowar	0.096	280.9	282.6	246.9	-0.60	13.77
Bajra	0.115	257.1	258.7	265.4	-0.62	-3.13
Maize	0.217	235.0	234.3	254.5	0.30	-7.66
Barley	0.017	213.7	217.1	208.1	-1.57	2.69
Ragi	0.019	323.5	329.1	346.3	-1.70	-6.58
Cereals	3.373	231.3	230.1	219.6	0.52	5.33
Pulses	0.717	233.8	233.4	229.7	0.17	1.78
Foodgrains	4.09	231.8	230.7	221.4	0.48	4.70

Source: Office of the Economic Adviser, M/O Commerce and Industry.

Behaviour of Wholesale Prices

The following Table indicates the State-wise trend of

Wholesale Prices of Cereals during the month of June, 2014.

Commodity	Main Trend	Rising	Falling	Mixed	Steady
Rice	Rising	Jharkhand Tamilnadu U.P.	Gujarat Kerala		Haryana
Wheat	Rising	Haryana Jharkhand M.P. Punjab	Gujarat Maharashtra U.P.	Rajasthan	Karnataka
Jowar	Mixed	A.P.	Maharashtra	Gujarat Karnataka Rajasthan	
Bajra	Rising	A.P. Karnataka Maharashtra	Haryana Rajasthan	Gujarat	
Maize	Rising & Falling	Gujarat Karnataka	A.P. Jharkhand	Rajasthan	

Procurement of Rice

1.893 million tones of Rice (including paddy converted into rice) was procured during June 2014 as against 0.709 million tones of rice (including paddy converted into rice) procured during June 2013. The total procurement of Rice

in the current marketing season *i.e.* 2013-2014, up to 30.06.2014 stood at 30.37 million tones, as against 33.03 million tones of rice procured, during the corresponding period of last year. The details are given in the following table.

State	PROCUREMENT OF RICE							
	Marketing Season 2013-14 (upto 30.6.2014)		Corresponding Period of last year 2012-13		Marketing Year (Oct.-Sept.)			
	Procure- ment	Percen- tage to total	Procure- ment	Percen- tage to total	Procure- ment	Percen- tage to total	Procure- ment	Percen- tage to total
Andhra Pradesh	7431	24.47	6273	18.99	6464	19.00	7548	21.53
Chhatisgarh	4286	14.11	4803	14.54	4804	14.12	4115	11.74
Haryana	2406	7.92	2608	7.89	2609	7.67	2007	5.72
Maharashtra	152	0.50	189	0.57	192	0.56	190	0.54
Punjab	8106	26.69	8558	25.90	8558	25.16	7731	22.05
Tamil Nadu	618	2.03	478	1.45	481	1.41	1596	4.55
Uttar Pradesh	1125	3.70	2283	6.91	2286	6.72	3357	9.58
Uttarakhand	442	1.46	491	1.49	497	1.46	378	1.08
Others	5804	19.11	7353	22.26	8129	23.89	8138	23.21
Total	30370	100.00	33036	100.00	34020	100.00	35060	100.00

Source: Department of Food & Public Distribution.

Procurement of Wheat

The total procurement of Wheat in the current marketing Session *i.e.* 2014-15 upto June, 2014 is 27.99 Million tonnes

as against a total of 25.04 Million tonnes of Wheat Procured during last year. The details are given in the following table.

State	PROCUREMENT OF WHEAT							
	Marketing Season 2014-15 (upto 30.6.2014)		Corresponding Period of last year 2013-14		Marketing Year (April-March)			
	Procure- ment	Percen- tage to total	Procure- ment	Percen- tage to total	Procure- ment	Percen- tage to total	Procure- ment	Percen- tage to total
Haryana	6495	23.20	5873	23.45	5873	23.41	8665	22.71
Madhya Pradesh	7094	25.34	6325	25.26	6355	25.33	8493	22.26
Punjab	11641	41.58	10878	43.44	10897	43.43	12834	33.64
Rajasthan	2159	7.71	1268	5.06	1268	5.06	1964	5.15
Uttar Pradesh	599	2.14	683	2.73	683	2.72	5063	13.27
Others	6	0.02	13	0.05	16	0.06	1129	2.96
Total	27994	100.00	25040	100.00	25092	100.00	38148	100.00

Source: Department of Food & Publication Distribution.

(ii) Commercial Crops

Oilseeds and Edible Oils:

The Wholesale Price Index (WPI) of nine major oilseeds as a group stood at 212.2 in June, 2014 showing a fall of 2.3 percent over the previous month. However, it is higher by 4.8 percent over the previous year. The Wholesale Price Index (WPI) of all individual oilseeds showed a mixed trend. The WPI of Niger Seed (2.3 percent), Cotton Seed (2.3 percent), Groundnut Seed (1.9 percent), Sunflower Seed (1.6 percent) and Rape & Mustard Seed (0.8 percent) increased over the previous month. However, the WPI of Soyabean (8.9 percent), Gingelly seed (7.0 percent) and Copra (3.0 percent) decreased over the previous month. However, the WPI of Sunflower Seed remained unchanged over the previous month.

The Wholesale Price Index (WPI) of Edible Oils as a group stood 145.1 in June, 2014 showing a fall of 0.5 percent and 0.8 percent over the previous month and over the previous year. The WPI of Copra Oil (5.4 percent) increased over the previous month. However, the WPI of Gingelly Oil (4.3 percent), Cotton Seed Oil (1.2 percent), Groundnut Oil (0.9 percent), Sunflower Oil (0.6 percent), Mustard Oil (0.3 percent) and Soyabean Oil (0.3 percent) decreased over the previous month.

Fruits & Vegetable :

The Wholesale Price Index (WPI) of Fruits & Vegetables as a group stood at 247.1 in June, 2014 showing an increase of 5.5 percent and 6.1 percent over the previous month and over the previous year.

Potato :

The Wholesale Price Index (WPI) of Potato stood at

304.0 in June, 2014 showing an increase of 12.2 percent and 42.5 percent over the previous month and year respectively.

Onion :

The Wholesale Price Index (WPI) of Onion stood 302.8 in June, 2014 showing an increase of 16.1 percent over the previous month. However, it is lesser by 10.7 percent over the previous year.

Condiments & Spices :

The Wholesale Price Index (WPI) of Condiments & Spices (Group) stood at 279.3 in June, 2014 showing an increase of 1.6 percent and 21.6 percent over the previous month and over the previous year. The WPI of Chillies (Dry), Black Pepper and Turmeric increased by 3.5 percent, 1.5 percent and 0.7 percent over the previous month.

Raw Cotton :

The Whole Price Index (WPI) of Raw Cotton stood at 228.6 in June, 2014 showing a fall of 0.8 percent over the previous month. However, it is higher by 1.5 percent over the previous year.

Raw Jute :

The Wholesale Price Index (WPI) of Raw Jute stood at 293.3 in June, 2014 showing an increase of 1.2 percent and 13.6 percent over the previous month and over the previous year.

WHOLESALE PRICE INDEX OF COMMERCIAL CROPS FOR THE MONTH OF JUNE, 2014

(Base Year: 2004-05=100)

Commodity	Latest	Month	Year	%Variation over	
	June, 14	May,14	June, 13	Month	Year
1	2	3	4	5	6
Oil Seeds	212.2	217.3	202.4	-2.3	4.8
Groundnut Seed	206.4	202.6	243.1	1.9	-15.1
Rape & Mustard Seed	188.2	186.7	188.0	0.8	0.1
Cotton Seed	180.9	176.9	173.0	2.3	4.6
Copra (Coconut)	180.3	185.8	94.9	-3.0	90.0
Gingelly Seed (Sesamum)	408.3	438.9	366.1	-7.0	11.5
Niger Seed	181.1	177.1	170.6	2.3	6.2
Sunflower (Kardi Seed)	150.4	150.4	163.6	0.0	-8.1
Sunflower	187.9	185.0	191.7	1.6	-2.0
Soyabean	244.4	268.2	231.1	-8.9	5.8
Edible Oils	145.1	145.8	146.2	-0.5	-0.8
Groundnut Oil	160.6	162.0	193.3	-0.9	-16.9
Cotton Seed Oil	179.3	181.4	165.9	-1.2	8.1
Mustard & Rapeseed Oil	154.2	154.7	152.2	-0.3	1.3
Soyabean Oil	155.3	155.8	159.4	-0.3	-2.6
Copra Oil	131.8	125.0	117.0	5.4	12.6
Sunflower Oil	125.8	126.5	132.4	-0.6	-5.0
Gingelly Oil	182.6	190.9	178.7	-4.3	2.2
Fruits & Vegetable	247.1	234.3	232.8	5.5	6.1
Potato	304.0	270.9	213.3	12.2	42.5
Onion	302.8	260.9	339.1	16.1	-10.7
Condiments & Spices	279.3	275.0	229.7	1.6	21.6
Black Pepper	728.6	717.8	497.2	1.5	46.5
Chillies(Dry)	277.4	268.0	244.9	3.5	13.3
Turmeric	215.8	214.2	220.1	0.7	-2.0
Raw Cotton	228.6	230.4	225.3	-0.8	1.5
Raw Jute	293.3	289.9	258.3	1.2	13.6

PART-II-STATISTICAL TABLES

Wages

1. DAILY AGRICULTURAL WAGES IN SOME STATES (CATEGORY-WISE)

(In Rs.)

State	District	Centre	Month & Year	Daily Normal Working Hours	Field Labour		Other Agri. Labour		Herdsman Carpenter		Skilled Labour		
					M	W	M	W	M	W	M	M	M
Andhra Pradesh	Krishna	Ghantasala	Dec, 13	8	300	200	250	NA	140	NA	NA	NA	NA
	Guntur	Tadikonda	Dec, 13	8	300	245	300	NA	250	NA	NA	NA	
	Rangareddy	Arutala	Dec, 13	8	220	170	250	NA	NA	NA	275	250	NA
Karnataka	Bangalore	Harisandra	Sep, 13	8	250	200	200	175	200	180	300	250	NA
	Tumkur	Gidlahali	Nov & Dec, 13	8	175	165	180	170	180	170	200	180	NA
Maharashtra	Nagpur	Mauda	Feb, 12	8	100	100	NA	NA	NA	NA	NA	NA	NA
	Ahmednagar	Akole	Feb, 12	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jharkhand	Ranchi	Gaitalood	April, 12	8	100	100	NA	90	90	NA	58	58	NA

1.1 DAILY AGRICULTUREAL WAGES IN SOME STATES (OPERATION-WISE)

(In Rs.)

State Labours	District	Centre	Month & year	Type of Labour	Normal Daily Working Hours	Plou-ghing	Sow-ing	Weed-ing	Har-vest-ing	Other Agri-Labour	Herd-sman	Skilled		
												Car-penter	Black Smith	Cob-ble
Assam	Barpeta	Loharapara	March, 12	M	8	180	180	180	180	180		180	180	180
				W	8	NA	NA	160	160	160	NA	NA	NA	NA
Bihar	Muzaffarpur	Bhalui Rasul	April to June, 12	M	8	130	120	80	130	150	120	200	180	250
				W	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Shekhpura	Kutaut	May & June, 12	M	8	NA	NA	185	NA	185	NA	245	NA	NA
				W	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chhattisgarh	Dhamtari	Sihaba	April, 14	M	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
				W	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	Rajkot	Rajkot	Jan, 13	M	8	209	225	150	170	147	150	360	360	240
				W	8	NA	169	150	179	145	142	NA	NA	NA
	Dahod	Dahod	Jan, 13	M	8	100	100	100	100	100	NA	200	144	150
				W	8	NA	100	100	100	100	NA	NA	NA	NA
Haryana	Panipat	Ugarakheri	March, 14	M	8	300	300	300	300	300	NA	NA	NA	NA
				W	8	NA	250	200	250	250	NA	NA	NA	NA
Himachal Pradesh	Mandi	Mandi	Dec, 13	M	8	NA	162	162	162	162	NA	260	240	240
				W	8	NA	162	162	162	162	NA	NA	NA	NA
Kerala	Kozhikode	Koduvally	Jan, 14	M	4-8	NA	NA	NA	NA	NA	NA	NA	NA	NA
				W	4-8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Palakkad	Elappally	Jan, 14	M	4-8	400	350	NA	450	433	NA	550	NA	NA
				W	4-8	NA	NA	300	450	250	NA	NA	NA	NA

1.1 DAILY AGRICULTURAL WAGES IN SOME STATES (OPERATION-WISE)—*CONTD.*

(In Rs.)

State	District	Centre	Month & year	Type of Labour	Normal Daily Working Hours	Ploughing	Sowing	Weeding	Harvesting	Other Agri-Labour	Herdsmen	Skilled Carpenter	Black Smith	Labourers Cobblers	
Madhya Pradesh	Hosangabad	Sangarkhera	Jan, 14	M	8	150	130	150	150	125	100	NA	NA	NA	
				W	8	NA	130	150	150	125	100	350	350	350	
	Santa	Kotar	Jan, 14	M	8	250	NA	150	150	250	150	NA	NA	NA	
				W	8	NA	NA	150	150	250	150	NA	NA	NA	
	Shyopurkala	Vijaypur	Jan, 14	M	8	NA	200	200	NA	NA	NA	NA	250	250	NA
				W	8	NA	200	200	NA	NA	NA	NA	NA	NA	NA
Odisha	Bhadrak	Chandbali	Apr, 14	M	8	200	NA	NA	200	230	200	300	300	NA	
				W	8	NA	NA	NA	180	180	180	NA	NA	NA	
	Ganjam	Aska	Apr, 14	M	8	250	200	200	250	225	200	400	400	400	
				W	8	NA	100	100	150	183	100	NA	NA	NA	
Punjab	Ludhiyana	Pakhawal	June, 08	M	8	NA	NA	90	95	NA	99.44	NA	NA	NA	
				W	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rajasthan	Barmer	Vishala	Mar, 14	M	8	310	310	NA	NA	NA	100	400	300	300	
				W	8	310	310	NA	NA	NA	100	400	300	300	
	Jalore	Panwa	Mar, 14	M	8	NA	NA	NA	NA	NA	200	350	300	NA	
				W	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Tamil Nadu*	Thanjavur	Pulvarnatham	Dec, 13	M	8	331	278.5	NA	300	299.7	NA	NA	NA	NA	
Tamil Nadu*	Thanjavur	Pulvarnatham	Dec, 13	M	8	331	278.5	NA	300	299.7	NA	NA	NA	NA	
				W	8	NA	112.51	10.45	125	130	NA	NA	NA	NA	
		Tirunelveli	Malayakulam	Dec, 13	M	8	NA	NA	NA	NA	378.41	NA	NA	NA	
					W	8	NA	NA	140	120	300	NA	NA	NA	NA
Tripura	State	Average	Mar, 12	M	8	238	201	203	209	207	199	253	235	240	
				W	8	NA	154	152	154	154	149	NA	NA	NA	
Uttar Pradesh*	Meerut	Ganeshpur	Mar, 14	M	8	231	228	228	288	232	NA	348	NA	NA	
				W	8	NA	187	187	187	192	NA	NA	NA	NA	
	Auraiya	Auraiya	Mar, 14	M	8	NA	150	NA	150	150	NA	300	NA	NA	
				W	8	NA	NA	150	150	150	NA	NA	NA	NA	
Chandauli	Chandauli	Mar, 14	M	8	NA	NA	142	NA	142	NA	300	NA	NA		
			W	8	NA	NA	142	NA	142	NA	NA	NA	NA		

M-Man
W-Woman
NA-Not Available

NR-Not Reported
*States reported district average daily wages

PRICES

2. WHOLESALE PRICES OF CERTAIN AGRICULTURAL COMMODITIES AND ANIMAL HUSBANDRY PRODUCTS AT SELECTED CENTRES IN INDIA

(In Rupees)

Commodity	Variety	Unit	State	Centre	June-14	May-14	June-13
Wheat	PBW 343	Quintal	Punjab	Amritsar	1405	1405	1450
Wheat	Dara	Quintal	Uttar Pradesh	Chandausi	1410	1450	1475
Wheat	Lokvan	Quintal	Madhya Pradesh	Bhopal	1500	1520	1570
Jowar	-	Quintal	Maharashtra	Mumbai	2600	2600	2600
Gram	No III	Quintal	Madhya Pradesh	Sehore	2470	2537	-
Maize	Yellow	Quintal	Uttar Pradesh	Kanpur	1160	-	1380
Gram Split	-	Quintal	Bihar	Patna	4560	4500	5220
Gram Split	-	Quintal	Maharashtra	Mumbai	4200	4550	6000
Arhar Split	-	Quintal	Bihar	Patna	6850	6765	6150
Arhar Split	-	Quintal	Maharashtra	Mumbai	7100	7400	6500
Arhar Split	-	Quintal	NCT of Delhi	Delhi	6150	6345	6350
Arhar Split	Sort II	Quintal	Tamil Nadu	Chennai	6400	6500	6300
Gur	-	Quintal	Maharashtra	Mumbai	3400	3600	3450
Gur	Sort II	Quintal	Tamil Nadu	Coimbatore	4000	-	3400
Gur	Balti	Quintal	Uttar Pradesh	Hapur	3170	2600	2970
Mustard Seed	Black (S)	Quintal	Uttar Pradesh	Kanpur	3225	3200	3250
Mustard Seed	Black	Quintal	West Bengal	Raniganj	3400	3500	3550
Mustard Seed	-	Quintal	West Bengal	Kolkata	3750	3500	3750
Linseed	Bada Dana	Quintal	Uttar Pradesh	Kanpur	4125	4160	4175
Linseed	Small	Quintal	Uttar Pradesh	Varanasi	3810	3785	3480
Cotton Seed	Mixed	Quintal	Tamil Nadu	Virudhunagar	1750	1700	1600
Cotton Seed	MCU 5	Quintal	Tamil Nadu	Coimbatore	1550	-	1550
Castor Seed	-	Quintal	Andhra Pradesh	Hyderabad	3800	3550	3100
Sesamum Seed	White	Quintal	Uttar Pradesh	Varanasi	6350	6310	6380
Copra	FAQ	Quintal	Kerala	Alleppey	9800	10500	4800
Groundnut	Pods	Quintal	Tamil Nadu	Coimbatore	4800	-	4000
Groundnut	-	Quintal	Maharashtra	Mumbai	5700	5800	7400
Mustard Oil	-	15 Kg.	Uttar Pradesh	Kanpur	1224	1215	1170
Mustard Oil	Ordinary	15 Kg.	West Bengal	Kolkata	1185	1185	1155
Groundnut Oil	-	15 Kg.	Maharashtra	Mumbai	1125	1125	1575
Groundnut Oil	Ordinary	15 Kg.	Tamil Nadu	Chennai	1275	1275	1485
Linseed Oil	-	15 Kg.	Uttar Pradesh	Kanpur	1470	1515	1335
Castor Oil	-	15 Kg.	Andhra Pradesh	Hyderabad	1290	1208	1073
Sesamum Oil	-	15 Kg.	NCT of Delhi	Delhi	1855	1245	1650
Sesamum Oil	Ordinary	15 Kg.	Tamil Nadu	Chennai	2175	2250	2400
Coconut Oil	-	15 Kg.	Kerala	Cochin	2235	2295	1043
Mustard Cake	-	Quintal	Uttar Pradesh	Kanpur	1800	1800	1625
Groundnut Cake	-	Quintal	Andhra Pradesh	Hyderabad	3000	3071	3357
Cotton/Kapas	NH44	Quintal	Andhra Pradesh	Nandyal	4700	4500	4350

Commodity	Variety	Unit	State	Centre	June-14	May-14	June-13
Cotton/Kapas	LRA	Quintal	Tamil Nadu	Virudhunagar	3800	3806	3800
Jute Raw	TD 5	Quintal	West Bengal	Kolkata	2985	2120	2630
Jute Raw	W 5	Quintal	West Bengal	Kolkata	2935	3050	2630
Oranges	-	100 No.	NCT of Delhi	Delhi	NA	NA	NA
Oranges	Big	100 No.	Tamil Nadu	Chennai	650	650	630
Oranges	Nagpuri	100 No.	West Bengal	Kolkata	-	NA	-
Banana	-	100 No.	NCT of Delhi	Delhi	375	375	183
Banana	Medium	100 No.	Tamil Nadu	Kodaikkanal	463	459	396
Cashewnuts	Raw	Quintal	Maharashtra	Mumbai	55000	56000	49000
Almonds	-	Quintal	Maharashtra	Mumbai	62000	61000	46000
Walnuts	-	Quintal	Maharashtra	Mumbai	65000	64000	57000
Kishmish	-	Quintal	Maharashtra	Mumbai	15000	14500	13000
Peas Green	-	Quintal	Maharashtra	Mumbai	4600	4700	4000
Tomatoes	Ripe	Quintal	Uttar Pradesh	Kanpur	910	550	1590
Ladyfinger	-	Quintal	Tamil Nadu	Chennai	2400	1500	1700
Cauliflower	-	100 No.	Tamil Nadu	Chennai	2050	1900	1920
Potatoes	Red	Quintal	Bihar	Patna	1580	1460	900
Potatoes	Desi	Quintal	West Bengal	Kolkata	1450	1340	800
Potatoes	Sort I	Quintal	Tamil Nadu	Mettupalaya	3457	3389	2993
Onions	Pole	Quintal	Maharashtra	Nashik	1400	900	1450
Turmeric	Nadan	Quintal	Kerala	Cochin	9500	10000	10500
Turmeric	Salam	Quintal	Tamil Nadu	Chennai	9800	9800	9850
Chillies	-	Quintal	Bihar	Patna	8580	8540	7970
Black Pepper	Nadan	Quintal	Kerala	Kozhikode	70000	66000	36500
Ginger	Dry	Quintal	Kerala	Cochin	31000	35000	17000
Cardamom	Major	Quintal	NCT of Delhi	Delhi	135000	125000	115000
Cardamom	Small	Quintal	West Bengal	Kolkata	115000	115000	90000
Milk	Cow	100 Liters	NCT of Delhi	Delhi	NA	NA	3800
Milk	Buffalo	100 Liters	West Bengal	Kolkata	3600	3600	3200
Ghee Deshi	Deshi No. 1	Quintal	NCT of Delhi	Delhi	30682	30015	29015
Ghee Deshi	-	Quintal	Maharashtra	Mumbai	35000	35000	25708
Ghee Deshi	Desi	Quintal	Uttar Pradesh	Kanpur	33200	32000	29350
Fish	Rohu	Quintal	NCT of Delhi	Delhi	9800	9500	9000
Fish	Pomphrets	Quintal	Tamil Nadu	Chennai	36500	36500	31500
Eggs	Madras	1000 No.	West Bengal	Kolkata	3500	3500	4000
Tea	-	Quintal	Bihar	Patna	21300	20250	19900
Tea	Atti Kunna	Quintal	Tamil.Nadu	Coimbatore	13000	-	9000
Coffee	Plant-A	Quintal	Tamil Nadu	Coimbatore	26000	-	26000
Coffee	Rubusta	Quintal	Tamil Nadu	Coimbatore	14000	-	14000
Tobacco	Kampila	Quintal	Uttar Pradesh	Farukhabad	4870	4850	2650
Tobacco	Raisa	Quintal	Uttar Pradesh	Farukhabad	3815	3800	2550
Tobacco	Bidi Tobacco	Quintal	West Bengal	Kolkata	3900	3900	3600
Rubber	-	Quintal	Kerala	Kottayam	13600	14000	16300
Arecanut	Pheton	Quintal	Tamil Nadu	Chennai	29700	29700	28500

**3. MONTH-END WHOLESALE PRICES OF SOME IMPORTANT AGRICULTURAL COMMODITIES IN INTERNATIONAL
MARKETS DURING YEAR 2014**

Commodity	Variety	Country	Centre	Unit	Jan	Feb	Mar	Apr	May	Jun
CARDAMOM	Guatemala Bold Green	U.K.	-	Dollar/M.T.	9000.00	9000.00	9000.00	9000.00	9000.00	9000.00
				Rs./Qtl	56079.00	55818.00	54216.00	55008.00	53010.00	54072.00
CASHEW KERNELS	Spot U.K. 320s	U.K.	-	Dollar/lbs	3.46	3.44	3.46	3.40	3.48	3.55
				Rs./Qtl	47516.61	47022.08	45938.06	45800.88	45175.83	47007.79
	Spot U.K. 320s	U.K.	-	Dollar/M.T.	7648.65	7614.88	7623.07	7497.06	7673.14	7837.34
				Rs./Qtl	47658.74	47227.49	45921.37	45822.03	45194.79	47086.74
CASTOR OIL	Any Origin ex Rotterdam	Netherlands	-	Dollar/M.T.	1600.00	1700.00	1675.00	1650.00	1655.00	
				Rs./Qtl	9969.60	-	10240.80	10237.60	9718.50	9943.24
CELERY SEED	ASTA cif	India	-	Dollar/M.T.	1500.00	1500.00	1500.00	1500.00	1500.00	1500.00
				Rs./Qtl	9346.50	9303.00	9036.00	9168.00	8835.00	9012.00
CHILLIES	Birds eye 2005	Africa	-	Dollar/M.T.	4100.00	4100.00	4100.00	4100.00	4100.00	4100.00
				Rs./Qtl	25547.10	25428.20	24698.40	25059.20	24149.00	24632.80
CINNAMON BARK		Madagascar	-	Dollar/M.T.	1100.00	1100.00	1100.00	1276.00	1276.00	1276.00
				Rs./Qtl	6854.10	6822.20	6626.40	7798.91	7515.64	7666.21
CLOVES	Singapore	Madagascar	-	Dollar/M.T.	13250.00	13250.00	12600.00	12600.00	12600.00	12800.00
				Rs./Qtl	82560.75	82176.50	75902.40	77011.20	74214.00	76902.40
COCONUT OIL	Crude	Netherlands	-	Dollar/M.T.	1280.00	1420.00	1355.00	1375.00	1385.00	1360.00
				Rs./Qtl	7975.68	8806.84	8162.52	8404.00	8157.65	8170.88
COPRA	Phillipines cif Rotterdam	Phillipine	-	Dollar/M.T.	806.50	895.50	851.00	867.00	873.00	854.00
				Rs./Qtl	5025.30	5533.89	5126.42	5299.10	5141.97	5130.83
CORRIANDER		India	-	Dollar/M.T.	1500.00	1500.00	1500.00	1500.00	1500.00	1500.00
				Rs./Qtl	9346.50	9303.00	9036.00	9168.00	8835.00	9012.00
CUMMIN SEED		India	-	Dollar/M.T.	2250.00	2250.00	2250.00	2250.00	2250.00	2250.00
				Rs./Qtl	14019.75	13954.50	13554.00	13752.00	13252.00	13518.00
Fennel seed		India	-	Dollar/M.T.	2600.00	2600.00	2600.00	2600.00	2600.00	2600.00
				Rs./Qtl	16200.60	16125.20	15662.40	15891.20	15314.00	15620.80
GINGER	Split	Nigeria	-	Dollar/M.T.	1800.00	1800.00	2300.00	2300.00	2300.00	2300.00
				Rs./Qtl	11215.80	11163.60	13855.20	14057.60	13547.00	13818.40
GROUNDNUT kernels	US 2005, 40/50	European	-	Dollar/M.T.	1250.00	1250.00	1220.00	1200.00	1180.00	1180.00
				Rs./Qtl	7788.75	7752.50	7349.28	7334.40	6950.20	7089.44
GROUNDNUT OIL	Crude Any Origin cif Rotterdam	U.K.	-	Dollar/M.T.	1500.00	1500.00	1500.00	1180.00	1180.00	1180.00
				Rs./Qtl	9346.50	9303.00	9036.00	7212.16	6950.20	7089.44
LENTILS	Turkish Red Split Crop 1 + 1 water	U.K.	-	Pound/M.T.	606.12	599.09	602.12	594.90	597.93	588.72
				Rs./Qtl	6230.91	6201.78	6023.61	6112.00	5890.21	6022.02
MAIZE		U.S.A.	Chicago	C/56/lbs	427.50	455.50	484.50	503.50	472.50	441.00

3. MONTH-END WHOLESALE PRICES OF SOME IMPORTANT AGRICULTURAL COMMODITIES IN INTERNATIONAL
MARKETS DURING YEAR 2014—*CONTD.*

Commodity	Variety	Country	Centre	Unit	Jan	Feb	Mar	Apr	May	Jun
				Rs./Qtl	1046.85	1110.23	1147.02	1209.42	1093.73	1041.26
OATS		CANADA	Winni- peg	Dollar/M.T. Rs./Qtl	465.48 2900.41	569.22 3530.30	445.04 2680.92	446.35 2728.09	368.48 2170.35	362.40 2177.30
PALM KERNAL OIL	Crude		Netherland	Dollar/M.T.	1170.00	1375.00	1350.00	1300.00	1245.00	1235.00
	Malaysia/Indonesia,			Rs./Qtl	7290.27	8527.75	8132.40	7945.60	7333.05	7419.88
PALM OIL	Crude	Netherlands	-	Dollar/M.T.	855.00	950.00	923.00	903.00	875.00	873.00
	Malaysia/Sumatra,			Rs./Qtl	5327.51	5891.90	5560.15	5519.14	5153.75	5244.98
RAPESEED	Canola	CANADA	Winni- peg	Can Dollar/M.T.	423.80 2366.92	415.50 2316.83	458.20 2502.23	445.80 2472.41	466.50 2435.43	483.30 2715.66
	UK delivered rapeseed, delivered	U.K.	-	Pound/M.T. Rs./Qtl	278.00 2857.84	304.00 3147.01	325.00 3251.30	330.00 3390.42	273.00 2689.32	269.00 2751.60
RAPESEED OIL	Refined bleached and deodorised	U.K.	-	Pound/M.T. Rs./Qtl	668.00 6867.04	681.00 7049.71	706.00 7062.82	711.00 7304.81	675.00 6649.43	657.00 6720.45
SOYABEAN MEAL	UK produced 49% oil & protein	U.K.	-	Pound/M.T. Rs./Qtl	366.00 3762.48	410.00 4244.32	412.00 4121.65	384.00 3945.22	371.00 3654.72	343.00 3508.55
SOYABEAN OIL		U.S.A.	-	C/lbs Rs./Qtl	37.10 5094.99	41.20 5631.71	40.73 5407.68	42.50 5725.11	39.63 5144.59	40.65 5382.72
	Refined bleached and deodorised	U.K.	-	Pound/M.T. Rs./Qtl	652.00 6702.56	695.00 7194.64	683.00 6832.73	686.00 7047.96	645.00 6353.90	646.00 6607.93
SOYABEANS	US NO.2 yellow	Netherlands	Chicago	Dollar/M.T.	563.90	492.20	504.70	517.30	523.00	512.30
				Rs./Qtl	3513.66	3052.62	3040.31	3161.74	3080.47	3077.90
		U.S.A.	-	C/60 lbs Rs./Qtl	1269.25 2902.49	1407.25 3203.09	1440.00 3183.56	1468.50 3294.00	1497.75 3237.58	1415.75 3121.64
SUNFLOWER SEED OIL	Refined bleached and deodorised			UK/Pound/M.T. Rs./Qtl	710.00 7298.80	732.00 7577.66	696.00 6962.78	720.00 7397.28	693.00 6826.74	680.00 6955.72
TALLOW	High grade delivered	U.K.	London	Pound/M.T.	465.00	445.00	445.00	445.00	420.00	405.00
				Rs./Qtl	4780.20	4606.64	4451.78	4571.93	4137.42	4142.75
TURMERIC	Madras finger spot/cif	India	-	Dollar/M.T. Rs./Qtl	850.00 5296.35	850.00 5271.70	850.00 5120.40	850.00 5195.20	850.00 5006.50	850.00 5106.80
WALNUTS	Indian light halves	U.K.	-	Pound/M.T. Rs./Qtl	8130.00 83576.40	8130.00 84161.76	8130.00 81332.52	8130.00 83527.62	8130.00 80088.63	8130.00 83161.77
WHEAT		U.S.A.	Chicago	C/60 lbs Rs./Qtl	551.50 1261.16	600.00 1365.68	696.75 1540.38	676.50 1517.46	638.75 1380.74	575.50 1268.94
<i>Source:</i> Public Ledger		Exchange Rate		Jan	Feb	Mar	Apr	May	Jun	
		US Dollar		62.31	62.02	60.24	61.12	58.90	60.08	
		CAN Dollar		55.85	55.76	54.61	55.46	54.35	56.19	
		UK Pound		102.80	103.52	100.04	102.74	98.51	102.29	

Crop Production

4. SOWING AND HARVESTING OPERATIONS NORMALLY IN PROGRESS DURING AUGUST, 2014

State	Sowing	Harvesting
(1)	(2)	(3)
Andhra Pradesh	Winter Rice, Jowar (K), Bajra, Maize (K), Ragi (K), Small Millets (K), Urad (K), Tur (K), Mung (K), Other Kharif Pulses, Chillies (Dry) Groundnut, Castor Seed, Cotton, Mesta, Sweet Potato, Nigerseed.	Autumn Rice, Small Millets (K), Mung (K), Other Kharif pulses, Sesamum
Assam	—	Autumn Rice, Maize, Jute, Mesta
Bihar	Winter Rice, Jowar (K), Bajra, Small Millets (K), Tur (K), Groundnut, Castor Seed	Jute, Mesta
Gujarat	Winter Rice, Chillies (Dry), Tobacco, Castor Seed, Sesamum, Cotton	—
Himachal Pradesh	Bajra	Sesamum
Jammu & Kashmir	Small Millets (K), (Late)	Maize, Small Millets (K), Sannhemp
Karnataka	Autumn Rice, Winter Rice, Bajra, Ragi, Small Millets (K), Urad (K), Mung (K), Other Kharif Pulses, Potato (Plains), Chillies (Dry), Tobacco, Castor Seed, Groundnut, Cotton, Sweet Potato, Nigerseed	Maize (K), Urad (K), Mung (K), Summer Potato (Hills), Tobacco, Sesamum, Sweet Potato, Sannhemp, Onion, (1st crop).
Kerala	Winter Rice, Tur (K), Other Kharif Pulses (Kulthi), Sesamum (2nd crop), Cotton, Tapioca, (3rd Crop)	Autumn Rice, Ragi, Small Millets (K), Tur (K), Urad (K), Mung (K), Other Kharif Pulses, Lemon Grass, Tapioca (1st crop)
Madhya Pradesh	Autumn Rice, Jowar (K), Bajra, Small Millets (K), Urad (K), Mung (K), Other Kharif Pulses, Summer Potato, Ginger, Chillies (Dry), Tobacco, Castor Seed, Sesamum, Sweet Potato, Nigerseed	Maize
Maharashtra	Tobacco, Castor Seed, Cotton	Maize (K)
Manipur	Sweet Potato	Autumn Rice, Maize, Jute
Orissa	Winter Rice, Summer Potato (Plains), Chillies (Dry)	Chillies (Dry), Jute
Punjab and Haryana	Autumn Rice, Bajra, Ragi, Castor Seed	Small Millets (K), Winter Potato (Hills)
Rajasthan	Autumn Rice, Jowar (K), Small Millets (K), Urad (K), Mung (K), Other Kharif Pulses, Winter Potato (Plains), Chillies (Dry), Tobacco (2nd crop), Groundnut, Castor Seed, Sesamum, Sannhemp	—
Tamil Nadu	Autumn Rice, Jowar (K), Bajra, Ragi, Small Millets (K), Tur (K), Mung (K), Sugarcane, Chillies (Dry) (Early), Groundnut (Late), Castor Seed, Sesamum (Late), Cotton, Sannhemp, Tapioca.	Summer Potato, Sugarcane, Chillies (Dry), Sesamum (Early), Cotton (Early), Sannhemp Onion.
Tripura	Winter Rice	Autumn Rice, Sesamum, Jute
Uttar Pradesh	Winter Rice, Bajra, Chillies (Dry), Sesamum, Sweet Potato, Turmeric, Tapioca (1st crop)	Maize, Chillies (Dry), Jute
West Bengal	Winter Rice, Tur (K), Ginger, Chillies (Dry), Sesamum (Early)	Autumn Rice, Maize, Chillies (Dry), Jute
Delhi	Tur (K)	—
Andaman and Nicobar Islands	—	Autumn Rice
(K) Kharif	(R) - Rabi	

LIST OF PUBLICATIONS

Periodicals

Agricultural Prices in India

Agricultural Wages in India

Cost of Cultivation of Principal Crops

District-wise Area and Production of Principal Crops in India

Land Use Statistics at a Glance

Year Book of Agro-Economic Research Studies

Farm Harvest Prices in Principal Crops in India

Agricultural Statistics at a Glance

Copies are available from : The Controller of Publications, Civil Lines, Delhi-110054. (Phone 23817640)