



## CHAPTER-II

### COMMODITY- WISE STATUS

- **FRUIT CROPS**
  - **VEGETABLE CROPS**
  - **POTATO & TUBER CROPS**
  - **PLANTATION CROPS**
- 







## APPLE

- Origin** – Eastern Europe and Western Asia.
- Major Producing States** – Jammu & Kashmir, Himachal Pradesh & Uttranchal
- Latest Production** – 17.77 Lakh Tonnes

### Recommended varieties of apple in different states

Season	Himachal Pradesh	Jammu and Kashmir	Uttranchal
<b>Early season</b>	Tydemans Early(P)	Irish Peach	Early Shanburry(P)
	Michael Molies	Benoni	Fenny Benoni
<b>Mid season</b>	Delicious, Schlomit	Starkrimson	Chaubattia Princess
	Starking delicious	American Mother	Red Delicious
<b>Late season</b>	Red Delicious Richared	Razakwar	Starking Delicious
	Vance Delicious	Jonathan(P)	McIntosh(P)
	Top Red Lord Lam	Cox's Orange	Cortland
	bourne(P) Red Chief	Pippin(P) Red Gold(P)	Golden Delicious(P)
	Oregon Spor	Queen,s Apple	
	Redspur	Rome Beauty	
	Red Gold(P)	Scarlet Siberian	
	Golden Delicious(P)	King Pippin	Rymer
	Yellow Newton(P)	American Apirouge	Buckingham(P)
	Winter Banana	Kerry Pippin	
	Granny Smith(P)	Sunhari Chamure	
		Golden Delicious(P)	
		Red Delicious	
		Ambri Baldwin	
		Yellow Newton(P)	
		(P)= Pollinizer	

- Advance Technology** – High density planting
- Pre-cooling** – Forced air
- Storage Conditions** –
- Temperature : -1° to 0°C with exceptions
- Relative Humidity : 90-95%\*
- Storage Period : 2-8 Months (depends on variety)
- Freezing Point : -1.7°C aprox.
- Treatment for quality** – Pre storage treatment with Antioxidant within a week of harvesting.
- Sensibility to** – Odours
- Growing Belts**

The major apple producing belts are :

#### • North West Hill Region

Jammu & Kashmir (Srinagar, Budgam, Pulwama, Anantnag, Baramullah, Kupwara), Himachal Pradesh (Shimla, Kullu, Sirmour, Mandi, Chamba, Kinnaur, Kangra & Sirmour) and Uttrakhand (Almora, Nainital, Pithauragarh, Tehri, Pauri, Chamoli & Uttarkashi).

#### • North East Hill Region

Arunachal Pradesh (Tawang, West Kanneng, Lower Subansiri).

## HARVESTING SEASON OF APPLE

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

SOURCE : Director of Horticulture / Agriculture of respective State / UT's

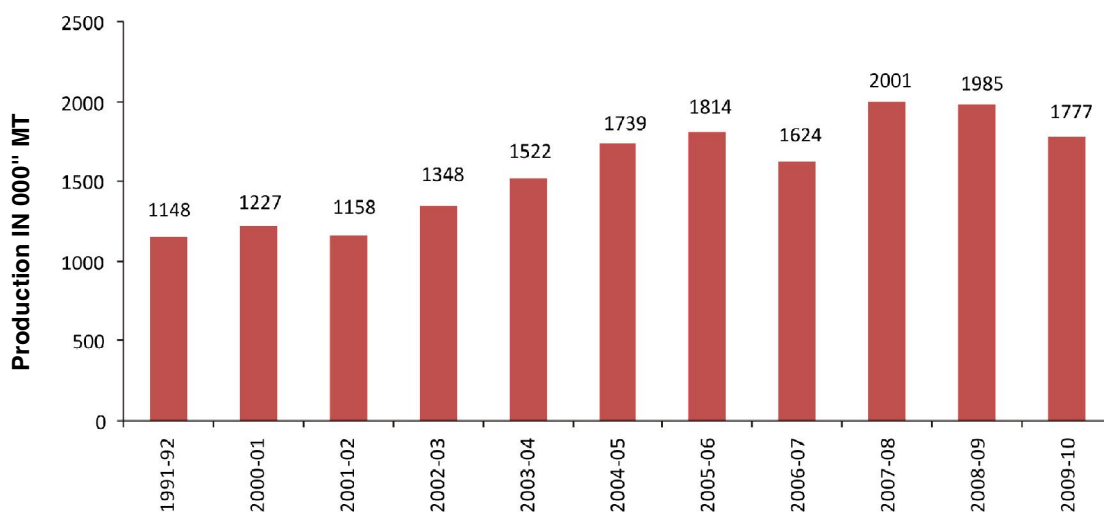




## AREA, PRODUCTION AND PRODUCTIVITY OF APPLE

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	194.5	6.8	1147.7	4.0	5.9
2000-01	239.8	6.2	1226.6	2.8	5.1
2001-02	241.6	6.0	1158.4	2.7	4.8
2002-03	193.1	5.1	1348.4	3.0	7.0
2003-04	201.2	4.3	1521.6	3.3	7.6
2004-05	230.7	4.6	1739.0	3.5	7.5
2005-06	226.6	4.3	1814.0	3.3	8.0
2006-07	252.0	4.5	1624.0	2.7	6.4
2007-08	264.0	4.5	2001.0	3.1	7.6
2008-09	274.0	4.5	1985.0	2.9	7.2
2009-10	282.9	4.5	1777.2	2.5	6.3

## Production Trends of Apple



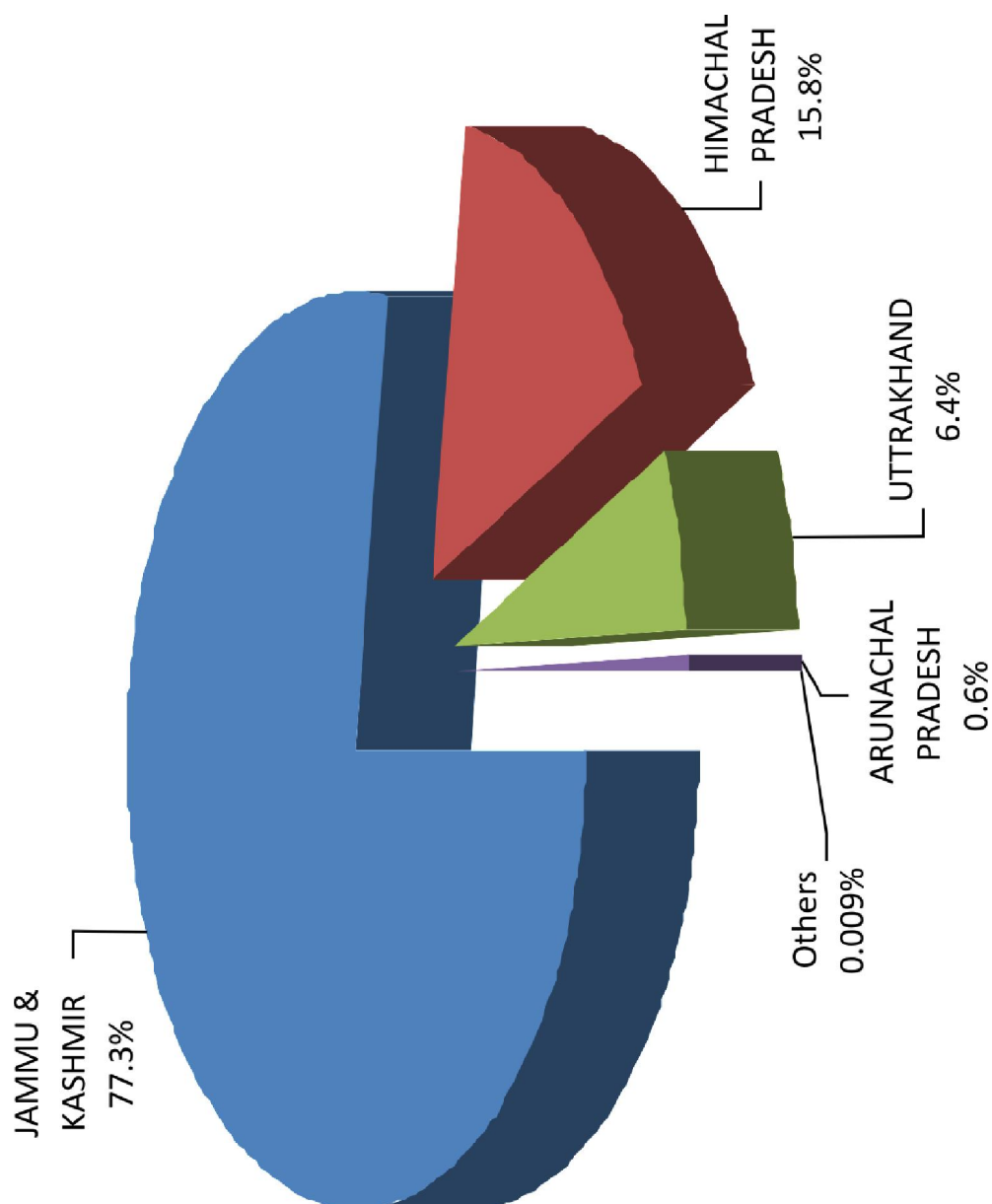
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF APPLE

**AREA (000 HA)** **PRODUCTION (000 MT)** **PRODUCTIVITY HAMT**

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
JAMMU & KASHMIR	126.4	1268.5	10.0	133.7	1332.8	10.0	138.1	1373.0	9.9
HIMACHAL PRADESH	94.5	592.6	6.3	97.2	510.2	5.2	99.6	280.1	2.8
UTTRAKHAND	32.2	130.5	4.1	32.7	132.3	4.1	32.4	114.0	3.5
ARUNACHAL PRADESH	10.8	9.8	0.9	10.8	9.8	0.9	12.8	10.0	0.8
Others	0.0	0.1	1.4	0.0	0.1	1.4	0.1	0.2	2.2
<b>TOTAL</b>	<b>263.9</b>	<b>2001.5</b>	<b>7.6</b>	<b>274.4</b>	<b>1985.1</b>	<b>7.2</b>	<b>282.9</b>	<b>1777.2</b>	<b>6.3</b>



### Leading Apple Producing States (2009-2010)



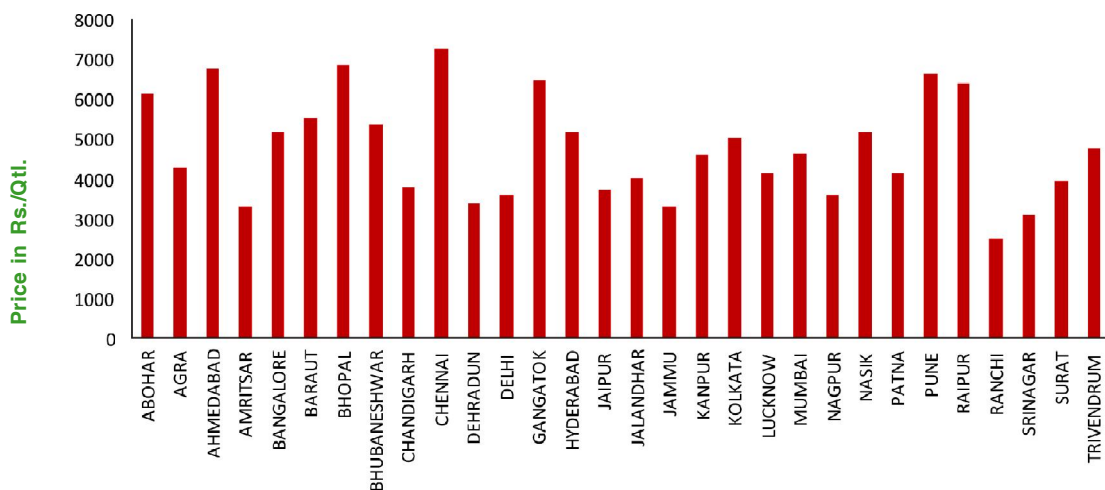
**MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF APPLE (KASHMIR DEL.)**  
**DURING THE PERIOD JANUARY TO DECEMBER, 2010**

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

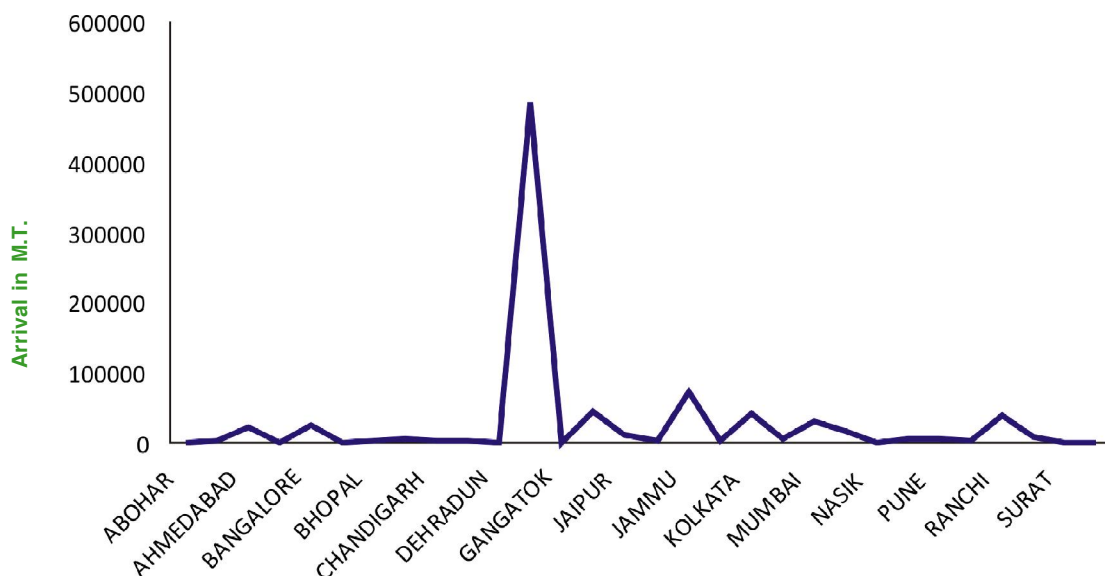
MARKET/CENTRE	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival		
ABO HAR	0	0	5200	31	5381	59	5592	35	7600	18	8339	38	6000	3	0	0	0	0	0	4700	2	0	0	0	0
	0	0	4532	123	4624	170	4938	196	5058	86	0	0	0	0	4417	190	3575	610	3778	450	3660	310	4038	210	
AGRA	3500	630	5500	2422	9205	3585	7269	654	0	0	8750	27	8174	1428	7500	61	0	0	5574	3699	6245	4650	6100	4115	
AHMEDABAD	3025	107	3605	370	3732	296	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2860	40	0	0	
AMRITSAR	0	0	4595	1740	4852	1385	5571	800	5948	480	6358	428	6500	200	0	0	0	0	4296	8570	4077	6447	4152	4978	
BANGALORE	3450	2	4631	87	5390	85	5688	57	6818	50	8258	27	8306	27	5910	77	4017	113	4282	114	4513	106	4678	91	
BARAUT	0	0	3775	613	5775	282	7017	238	8870	27	8979	1030	6757	113	0	0	0	0	0	0	0	0	0	0	
BHOPAL	0	0	4722	363	5433	422	5413	2225	6533	335	7232	90	5952	176	0	0	0	0	4277	438	4279	390	4537	416	
BHUBANESHWAR	0	0	3944	516	3910	452	4127	323	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3250	162	
CHANDIGARH	8950	110	8800	60	9050	110	0	0	0	0	9300	40	0	0	0	0	0	0	3757	480	5017	490	6000	510	
CHENNAI	4402	2	4813	19	0	0	0	0	0	0	0	0	0	0	2167	217	2583	278	0	0	2610	358	3580	106	
DEHRADUN	3782	11907	3804	18293	4172	10400	3866	4080	3688	4113	3394	3104	3125	1006	3281	10920	3380	121064	3431	116472	3388	103494	3725	80634	
DELHI	0	0	6698	25	7323	32	7127	14	7238	10	8482	4	7213	23	6957	26	6327	30	4505	34	4615	32	4519	21	
GANGATOK	5963	2972	5613	2473	5800	4108	6233	3698	6680	1625	0	0	0	0	0	0	3780	6815	4405	6466	3596	8409	4365	7026	
HYDERABAD	3276	557	3337	199	3660	2	0	0	0	0	0	0	0	0	0	0	0	0	3692	2878	3914	3774	4487	2464	
JAIPUR	0	0	0	0	4900	30	0	0	0	0	0	0	0	0	0	0	0	0	0	3250	210	3884	1284	0	
JALANDHAR	0	0	3933	268	0	0	0	0	0	0	0	0	0	0	0	0	2648	15546	2940	39985	3426	12395	3567	3707	
JAMMU	0	0	4614	149	4733	255	5127	132	5926	108	5797	21	4600	28	3850	269	3179	1272	3478	1427	0	0	0	0	
KANPUR	4895	3703	5617	2929	6008	1185	5916	786	6201	314	5766	210	0	0	3875	560	4601	960	3638	10387	3831	9021	5000	11467	
KOLKATA	0	0	4753	152	4666	186	5147	133	5841	100	0	0	0	0	0	0	3100	1439	2852	1959	3164	1547	3472	1405	
LUCKNOW	4826	5090	5057	8160	0	0	0	0	0	0	0	0	0	0	3299	1335	0	0	0	0	4813	6580	5152	8740	
MUMBAI	3050	660	3156	640	3640	325	4750	238	5100	240	4540	410	3491	1214	3850	2110	3414	5190	2964	2530	2673	2110	2331	1590	
NAGPUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5150	36	5185	470	0	0	0	0	
NASIK	4676	835	5190	290	0	0	0	0	0	0	0	0	0	0	0	0	4750	75	3389	810	3667	2910	3230	1605	
PATNA	4928	884	8116	710	6600	559	7095	139	0	0	0	0	0	0	9125	1037	8380	661	5100	984	5065	814	5248	1048	
PUNE	6850	376	6933	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6391	683	5928	537	5851	448	
RAIPUR	3126	483	2454	536	2759	605	3019	479	3080	25	0	0	0	0	2189	487	2048	30571	1993	891	1865	623	2424	4260	
RANCHI	0	0	3486	342	3800	229	0	0	0	0	0	0	0	0	0	0	2675	850	2777	2360	3073	2815	2904	1200	
SRINAGAR	3173	109	3765	166	4700	88	4823	94	0	0	0	0	0	0	6800	4	0	0	2800	12	2740	142	2802	301	
SURAT	0	0	0	0	0	0	0	0	0	0	0	0	5800	20	0	0	0	0	0	0	3861	432	4527	100	
TRIVENDRUM																									



## Annual Wholesale Average Price Trends of Apple (Kashmir Del.) - 2009-10



## Annual Total Arrival Trends of Apple (Kashmir Del.) - 2009-10



## BANANA

- Origin** – Asia.
- Major Producing States** – Tamil Nadu, Maharashtra, Karnataka, Gujarat, Andhra Pradesh, Assam and Madhya Pradesh.
- Latest Production** – 264.70 Lakh Tonnes

### Banana cultivars grown in different states

State	Cultivars
<b>Andhra Pradesh</b>	Dwarf Cavendish, Robusta, Rasthali, Amritpant, Thellachakrakeli, Karpoora Poovan, Chakrakeli, Monthan and Yenagu Bontha
<b>Assam</b>	Jahaji (Dwarf Cavendish), Borjahaji (Robusta), Honda, Manjahaji, Chinia (Manohar), Kanchkol, Chini Champa, Bhimkol, Attikol, Jatikol, Digjowa, Kulpait and Bharat Moni
<b>Bihar</b>	Dwarf Cavendish, Alpon, Chinia, Chini Champa, Malbhog, Muthia, Kothia and Gauria
<b>Gujarat</b>	Dwarf Cavendish, Lacatan, Harichal (Lokhandi) and Gandevi Selection Karnataka Dwarf Cavendish, Robusta, Poovan, Rasabale, (Rasthali), Monthan & Elakkibale
<b>Kerala</b>	Nendran (Plantain), Palayankodan (Poovan), Rasthali, Monthan & Red Banana
<b>Maharashtra</b>	Dwarf Cavendish, Basrai, Robusta, Lal Velchi, Safed Velchi, Rajeli Nendran
<b>Tamil Nadu</b>	Virupakshi, Robusta, Red Banana, Poovan, Rasthali, Nendran, Monthan, Karpuravalli, Sakkai, Peyan and Matti
<b>West Bengal &amp; Orissa</b>	Champa, Mortman Rasthali, Amrit Sagar, Giant Governor, Lacatan Orissa & Monthan

- Advance Technology** – Planting of tissue cultured plants & High Density Planting

- Pre-cooling** – Forced air

### Storage Conditions :

Holding room	: 13 <sup>0</sup> -14 <sup>0</sup> C
Ripening room	: 14 <sup>0</sup> -20 <sup>0</sup> C
Relative Humidity	: 90-95%
Storage period	: Mature-green bananas can be stored for up to 3 weeks in ethylene free air or up to 6 weeks in a controlled atmosphere at 14 <sup>0</sup> C
Freezing point	: -0.5 <sup>0</sup> C



### Treatment for Quality

Ethylene application is best method is best method to hasten ripening without loss in fruit quality or flavour. A prestorage dip in E-9267 emulsifiable mineral oil at 0.4% was found effective in reducing fruit decay and also prolonged storage life. Dipping of fruits in 1.5% or 2.5% talprolong solution delayed yellow colour development by 4-8 days.

**Sensitivity to :** Refrigeration, Freezing and Ethylene

### Growing Belts

The major banana producing belts, are as follows :

- Bihar (Hazipur & Bhagalpur)
- West Bengal (Hoogly, 24 Pargana North & Nadiya).
- Maharashtra (Jalgaon, Ahmednagar, Dhule, Nanded, Parbhani)
- Gujarat (Bharuch, Jhagadiya, Rajpipla, Surat, Narmada, Varodara & Balsad)
- Madhya Pradesh (Bhuranpur, Barwani & Dhar).
- Andhra Pradesh (East Godavari, West Godavari, Kurnool, Cuddapah)
- Karnataka (Chamrajnagar, Mysore, Ramnagar, Bangalore Rural, Tumkur, Belgaon, Bagalkot)
- Tamil Nadu (Coimbatore, Erode, Kanyakumari, Karur, Theni, Thiruvannamalai, Thoothukudi, Thiruchirapalli, Vellore and Thanjavur)
- Kerala (Nendrum).



## HARVESTING SEASON OF BANANA

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

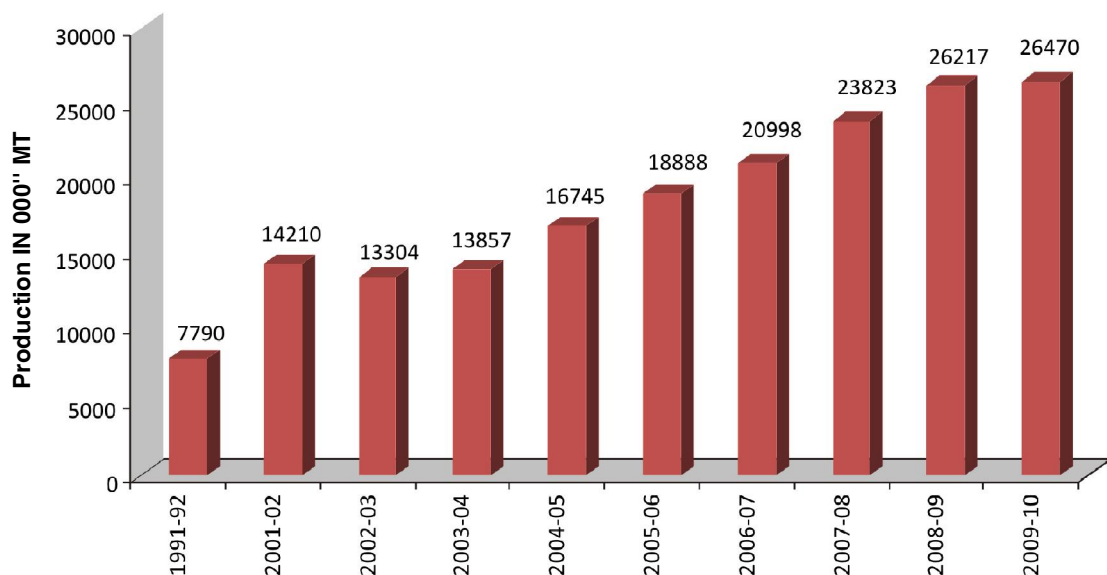
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## AREA, PRODUCTION AND PRODUCTIVITY OF BANANA

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	383.9	13.4	7790.0	27.2	20.3
2001-02	466.2	11.6	14209.9	33.0	30.5
2002-03	475.3	12.5	13304.4	29.4	28.0
2003-04	498.6	10.7	13856.6	30.4	27.8
2004-05	589.6	11.9	16744.5	34.0	28.4
2005-06	569.5	10.7	18887.8	34.1	33.2
2006-07	604.0	10.9	20998.0	35.3	34.8
2007-08	658.0	11.2	23823.0	36.3	36.2
2008-09	709.0	11.6	26217.0	38.3	37.0
2009-10	770.3	12.2	26469.5	37.0	34.4

## Production Trends of Banana

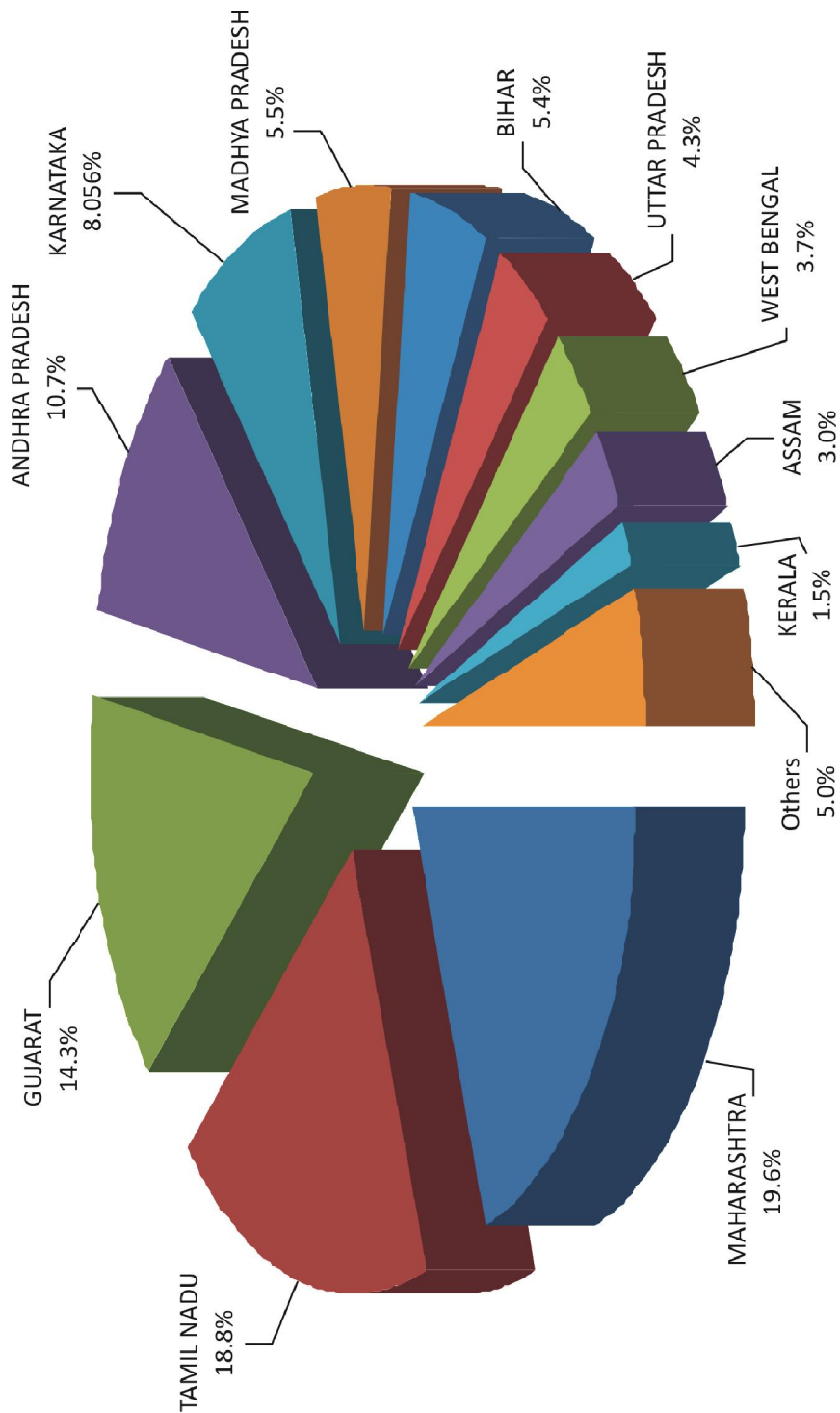


## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF BANANA

State	AREA (000 HA)			PRODUCTION (000 HAMT)			PRODUCTIVITY HAM/T		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
MAHARASHTRA	80.0	4962.9	62.0	80.0	4960.0	62.0	85.0	5200.0	61.2
TAMILNADU	114.1	6116.5	53.6	124.4	6667.0	53.6	113.7	4980.9	43.8
GUJARAT	57.7	3157.7	54.7	60.9	3571.6	58.7	61.9	3779.8	61.0
ANDHRA PRADESH	75.2	2631.2	35.0	80.1	2804.0	35.0	80.6	2819.6	35
KARNATAKA	70.5	1793.3	25.4	75.4	1918.8	25.4	104.4	2132.3	20.4
MADHYA PRADESH	15.2	788.2	51.9	28.8	1498.0	51.9	33.0	1459.8	44.2
BIHAR	30.5	1329.4	43.6	31.3	1373.6	43.9	31.5	1435.3	45.6
UTTAR PRADESH	#	#	#	#	#	#	30.4	1138.6	37.41
WEST BENGAL	37.4	892.2	23.9	39.8	954.1	23.9	41.0	982.2	23.96
ASSAM	44.1	610.9	13.9	47.9	852.6	17.8	53.4	805.2	15.1
KERALA	61.5	493.9	8.0	59.8	472.9	7.9	51.3	406.2	7.92
Others	71.7	1046.8	14.6	80.4	1144.5	14.2	84.2	1329.5	15.79
<b>TOTAL</b>	<b>658.0</b>	<b>23823.0</b>	<b>36.2</b>	<b>709.0</b>	<b>26217.0</b>	<b>34.4</b>	<b>770.3</b>	<b>26469.5</b>	<b>34.36</b>



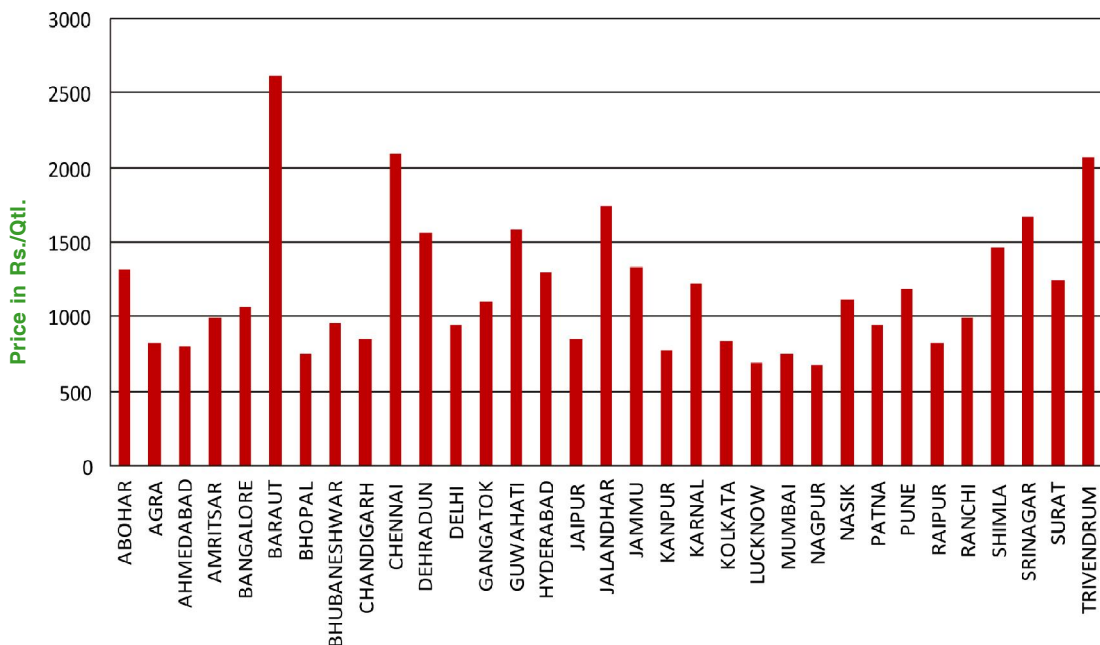
## Leading Banana Producing States (2009-10)



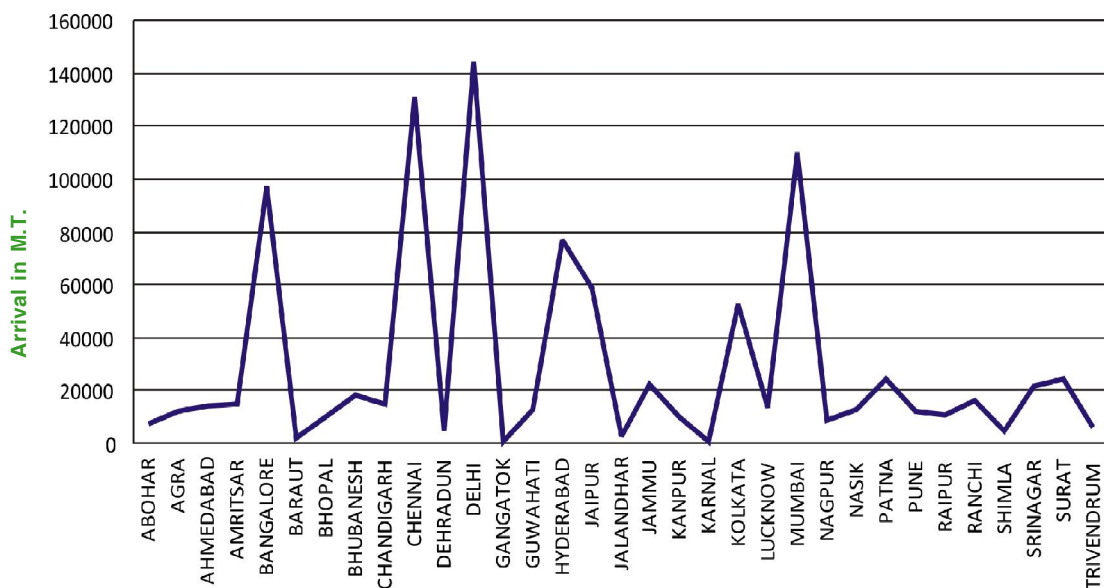
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## Annual Wholesale Average Price Trends of Banana - 2010



## Annual Total Arrival Trends of Banana - 2010



## CITRUS

<b>Latest Production</b>	– 96.38 Lakh Tonnes
<b>Main fruits of this groups</b>	– Lime/Lemon Mosambi Orange (Mandarin)
<b>Advanced Technology</b>	– Tissue Culture & Micro-propagation and High Density Planting
<b>Pre-cooling</b>	– Forced air
<b>Transport and storage Life</b>	– 8-10 weeks
<b>Transport for Quality</b>	– Waxing
<b>Sensibility to</b>	– Refrigeration, Ethylene and Odours
<b>Growing Belts</b>	

The major citrus n producing belts are as follows :

- Jammu & Kashmir (Jammu, Kathua, Udhampur, Rajauri)
- Himachal Pradesh (Kangra & Sirmaur)
- Punjab (Abohar & Fazilka)
- Haryana (Sirsa, Fatehabad, Hisar & Bhiwani)
- Rajasthan (Shriganganagar, Bharatpur, Dholpur & Sawai Madhopur)
- West Bengal (Darjeeling, Jalpaiguri, Midnapur, 24 Pargana (N)), Sikkim, Arunachal Pradesh and Assam
- Madhya Pradesh (Mandsaur, Shajapur, Chhindwara, Khandwa, Hosangabad)
- Maharashtra (Amravati, Nagpur, Akola, Aurangabad)
- Orissa (Ganjam)
- Andhra Pradesh (Nellore, Prakasam, West Godavari, Guntur, Kuddapa, Anantpur, Nalgonda & Karimnagar)
- Tamil Nadu (Dindigul Anna, Trichy, Tirunelveli, Kattabomman)
- Karnataka (Bijapur, Bagalkot, Chitradurga, Raichur, Bellari, Koppal, Korlugu, Chikmanglure, Hassan).

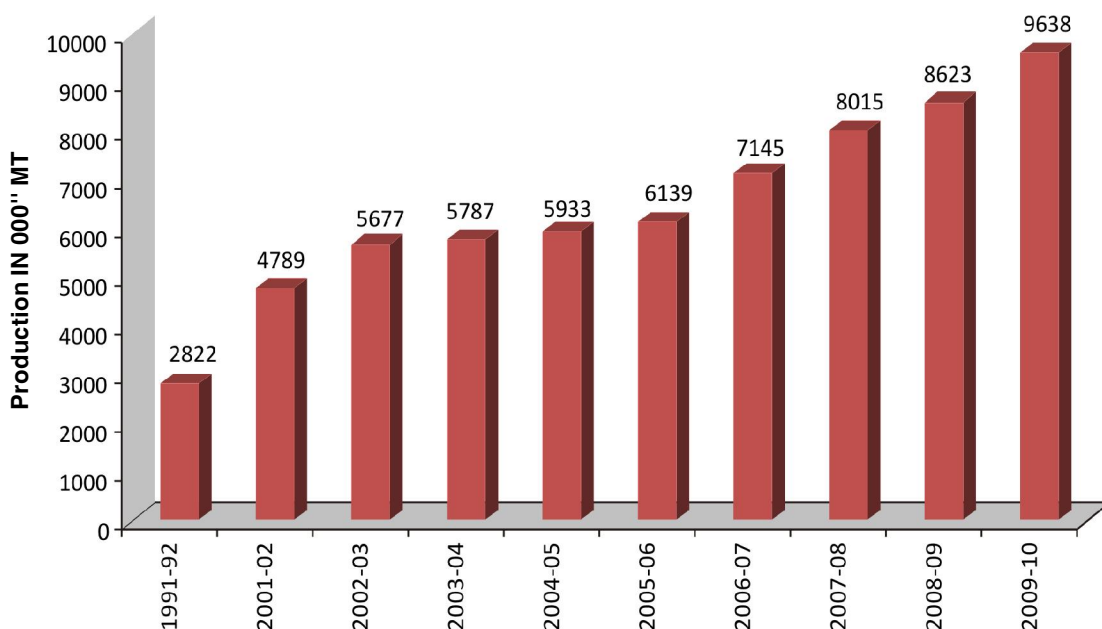




## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF CITRUS

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT. AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT. PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	386.9	13.5	2821.7	9.9	7.3
2001-02	618.5	15.4	4789.1	11.1	7.7
2002-03	562.6	14.9	5677.2	12.6	10.1
2003-04	683.3	14.6	5786.9	12.7	8.5
2004-05	708.2	14.3	5932.9	12.0	8.4
2005-06	742.3	13.9	6139.0	11.1	8.3
2006-07	798.0	14.4	7145.0	12.0	9.0
2007-08	867.0	14.8	8015.0	12.2	9.2
2008-09	924.0	15.1	8623.0	12.6	9.3
2009-10	987.3	15.6	9638.0	13.5	9.8

### Production Trends of Citrus



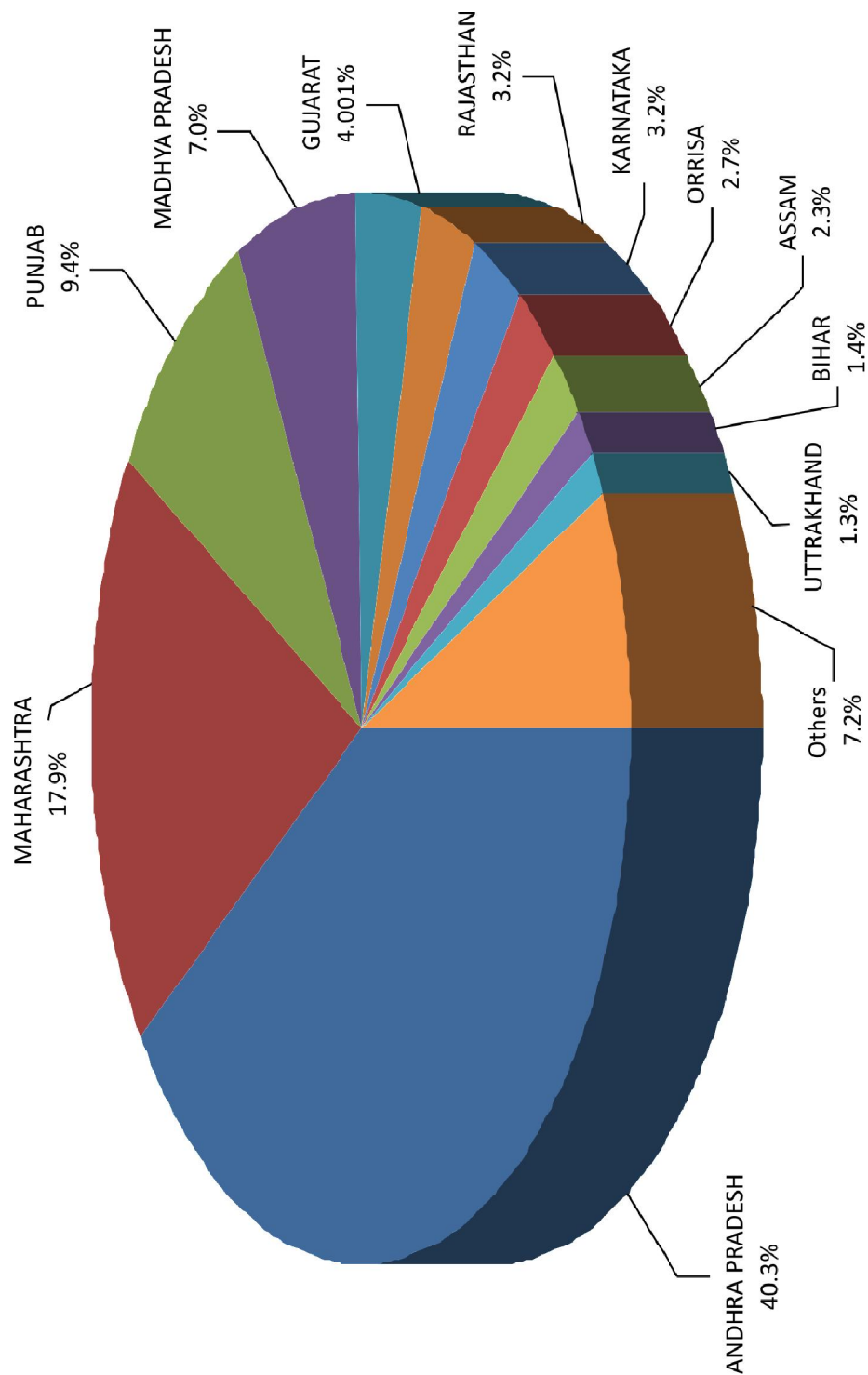
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF CITRUS

AREA (000 HA/HA)      PRODUCTION (000 HAMT)      PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ANDHRA PRADESH	253.3	3507.3	13.8	271.3	3752.6	13.8	281.3	3883.7	13.8
MAHARASHTRA	261.3	1627.7	6.2	262.7	1408.0	5.4	287.6	1725.1	6.0
PUNJAB	35.4	618.2	17.5	40.0	750.1	18.8	42.4	905.1	21.3
MADHYAPRADESH	17.9	286.4	16.0	34.0	544.4	16.0	38.3	677.8	17.7
GUJARAT	34.6	360.2	10.4	35.3	350.5	9.9	37.1	385.6	10.4
RAJASTHAN	18.7	162.6	8.7	17.0	306.7	21.9	18.6	312.7	16.8
KARNATAKA	13.5	295.7	21.9	14.2	309.8	18.1	15.1	312.5	20.7
ORRISA	26.8	211.7	7.9	27.1	223.0	8.2	27.4	258.8	9.4
ASSAM	19.0	163.4	8.6	19.3	191.5	9.9	24.2	225.9	9.3
BIHAR	17.6	125.8	7.1	17.7	128.1	7.2	17.9	131.2	7.3
UTTRAKHAND	26.8	127.4	4.8	26.7	129.5	4.9	26.7	126.6	4.7
Others	142.2	528.5	3.7	158.7	529.0	3.3	170.8	692.8	4.1
<b>TOTAL</b>	<b>867.1</b>	<b>8014.9</b>	<b>9.2</b>	<b>924.0</b>	<b>8623.1</b>	<b>9.3</b>	<b>987.3</b>	<b>9637.8</b>	<b>9.8</b>



## Leading Citrus Producing States (2009-10)



## LIME / LEMON

<b>Origin</b>	– Asia.
<b>Major Producing States</b>	– Andhra Pradesh, Gujarat, Tamil Nadu, Karnataka, Maharashtra, Assam & Rajasthan.
<b>Latest Production</b>	– 26.29 Lakh Tonnes
<b>Main Varieties</b>	– Acidlime (sour lime, Maxican lime, keylime, west Indian lime). The improved varieties are: Pramalini, Vikram, Chakradhari, PKM 1, Selection 49, Seed less lime, Tahiti (Persian) lime
Sweet lime	– Mithachikna and Mithotra
Lemon varieties	– Eureka, Lisbon, Villafranca, Lucknow Seedless, Kagzi Kalan Nepali Oblong (Assam lemon), Nepali Round and Pant Lemon 1.
<b>Pre-cooling</b>	– Forced air
<b>Storage Conditions</b>	
Temperature	: 9 - 10°C
Relative Humidity	: 85-90%
Storage period	: 6-8 weeks
Freezing point	: - 3 to -1°C
<b>Sensibility to</b>	– Refrigeration, Freezing, Ethylene and Odours

### Growing Belts

The major lime/lemon producing belts are as follows :

- Gujarat (Ahmedabad, Kheda, Mehsana, Bhavnager)
- Maharashtra (Pune, Satara, Wardha, Sholapur, Akola, Nagpur, Beed, Aurangabad)
- Karnataka (Kodagu, Hassan, Bijapur)
- Tamil Nadu (Dindigul, Trichy)
- Rajasthan (Jaipur, Alwar, Bharatpur)



## HARVESTING SEASON OF LIME/LEMON

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH	LEAN							PEAK	PEAK	PEAK	PEAK	PEAK
ARUNACHAL PRADESH	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND
ASSAM	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK	PEAK	PEAK	PEAK	LEAN	LEAN	LEAN
BIHAR												
CHHATTISGARH			PEAK	PEAK	LEAN	LEAN	PEAK	PEAK				
DELHI												
GOA												
GUJARAT								PEAK	PEAK	PEAK	LEAN	
HARYANA	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK
HIMACHAL PRADESH	PEAK	LEAN							LEAN	LEAN	PEAK	PEAK
JAMMU & KASHMIR								LEAN	LEAN		PEAK	PEAK
JHARKHAND						LEAN			PEAK	PEAK	PEAK	PEAK
KARNATAKA	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK	PEAK	PEAK	LEAN	LEAN	LEAN
KERALA												
MADHYA PRADESH		LEAN	LEAN	LEAN	LEAN		PEAK	PEAK	PEAK			
MAHARASHTRA	LEAN	LEAN	PEAK	PEAK	LEAN	LEAN						
MANIPUR										LEAN		PEAK
MEGHALAYA												
MIZORAM							LEAN	PEAK				
NAGALAND												
ORISSA								PEAK	PEAK	LEAN	LEAN	
PUNJAB	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND
RAJASTHAN								PEAK	LEAN			
SIKKIM												
TAMIL NADU	LEAN	PEAK	PEAK			LEAN						
TRIPURA				LEAN	LEAN	PEAK	PEAK	LEAN	LEAN	LEAN		
UTTAR PRADESH							LEAN					PEAK
UTTARAKHAND					PEAK	PEAK	PEAK	LEAN	LEAN		PEAK	PEAK
WEST BENGAL							LEAN	LEAN	PEAK	LEAN		
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY	PEAK	LEAN									LEAN	LEAN

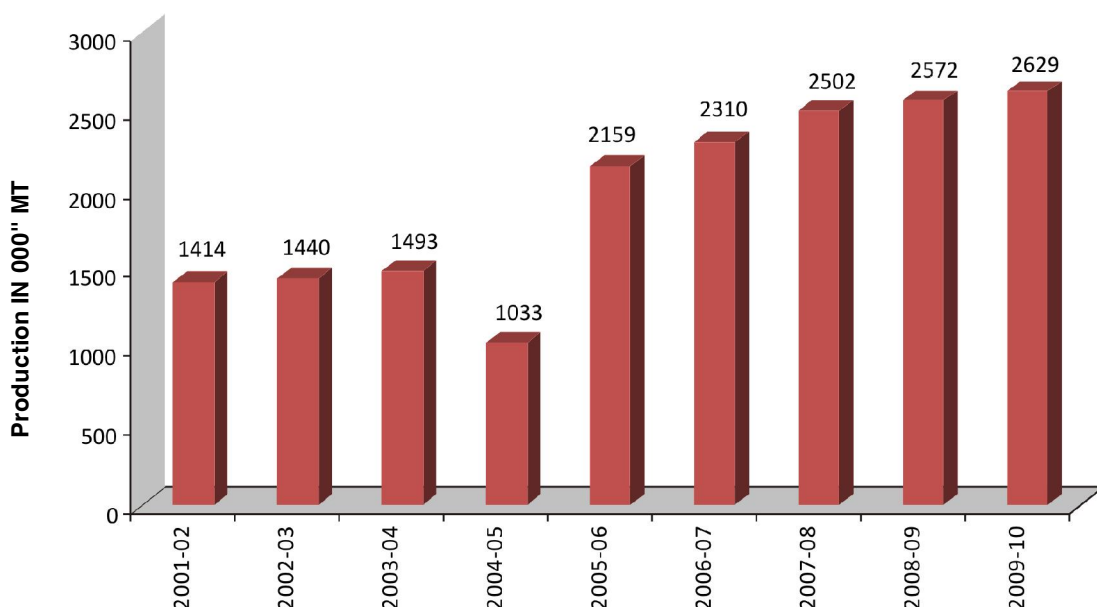
■ PEAK SEASON      ■ LEAN SEASON      ■ ROUND THE YEAR

SOURCE : Director of Horticulture / Agriculture of respective State / UT's

## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF LIME/LEMON

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1993-94	91.4	2.9	923.7	2.5	10.1
1994-95	95.9	2.2	970.1	2.5	10.1
1995-96	106.0	3.2	920.0	2.2	8.7
1996-97	123.7	3.5	1048.4	2.6	8.5
1997-98	129.8	3.5	1101.3	2.5	8.5
1998-99	139.5	3.7	1259.8	2.9	9.0
1999-00	169.3	4.5	1491.5	3.3	8.8
2000-01	164.2	4.2	1377.2	3.2	8.4
2001-02	161.3	4.0	1413.7	3.3	8.8
2002-03	146.2	3.9	1439.6	3.2	9.8
2003-04	167.8	3.6	1493.3	3.3	8.9
2004-05	78.9	1.7	1033.1	2.3	13.1
2005-06	268.7	5.0	2159.0	3.9	8.0
2006-07	294.9	5.3	2310.2	3.9	7.8
2007-08	302.8	5.2	2501.7	3.8	8.3
2008-09	316.0	5.2	2571.5	3.8	8.1
2009-10	295.6	4.7	2629.2	3.7	8.9

### Production Trend of Lime/Lemon

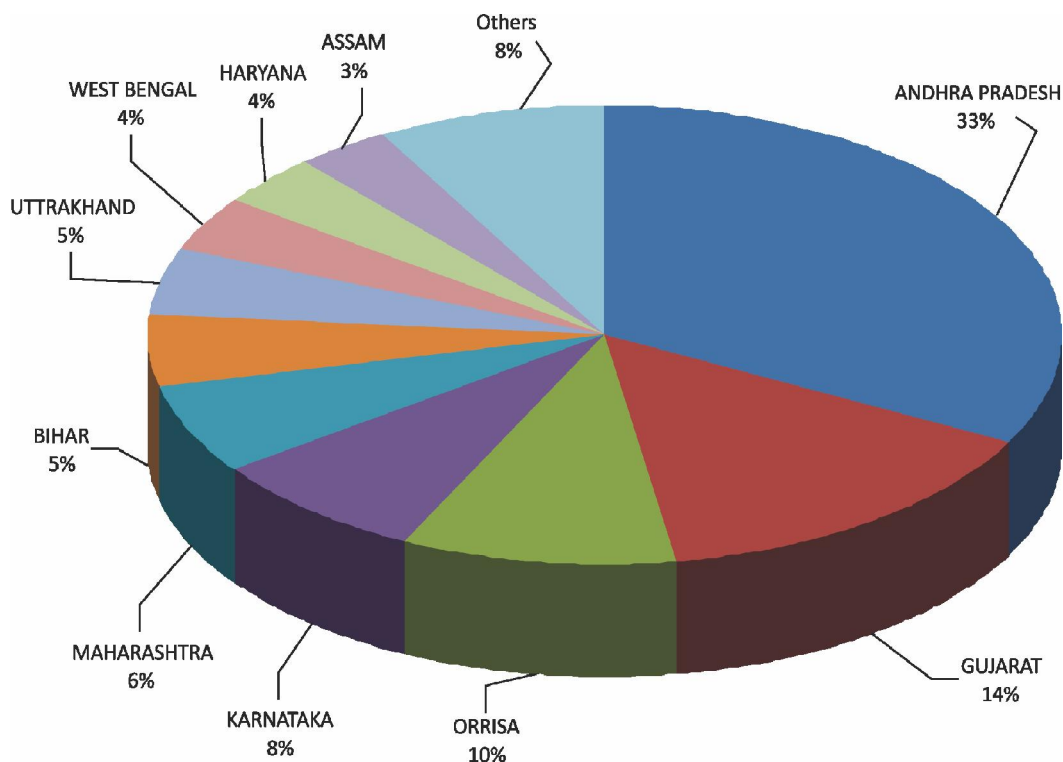




## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF LIME/LEMON

State	AREA IN 000 HA			PRODUCTION IN 000 MT			PRODUCTIVITY HA/MT		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ANDHRA PRADESH	58.9	883.0	15.0	60.0	899.5	15.0	57.5	862.3	15.0
GUJARAT	8.2	66.8	8.1	35.3	350.5	9.9	37.1	385.6	10.4
ORRISA	26.8	211.7	7.9	27.1	223.0	8.2	27.4	258.8	9.4
KARNATAKA	8.2	192.1	23.5	8.6	201.7	23.5	9.0	201.8	22.4
MAHARASHTRA	37.3	153.0	4.1	37.7	156.0	4.1	41.5	166.6	4.0
BIHAR	17.6	125.8	7.2	17.7	128.1	7.2	17.9	131.2	7.3
UTTRAKHAND	26.8	127.4	4.8	26.7	129.5	4.9	26.7	126.6	4.7
WESTBENGAL	21.4	24.7	1.2	11.2	63.2	5.6	11.3	100.9	8.9
HARYANA	7.2	62.0	8.6	7.4	63.0	8.6	13.8	98.3	7.1
ASSAM	10.8	73.5	6.8	10.8	98.1	9.1	11.4	84.1	7.4
Others	79.7	581.6	7.3	73.6	259.0	3.5	42.1	213.0	5.1
TOTAL	302.8	2501.7	8.3	316.0	2571.5	8.1	295.6	2629.2	8.9

### Leading Lime/Lemon Producing States (2009-10)

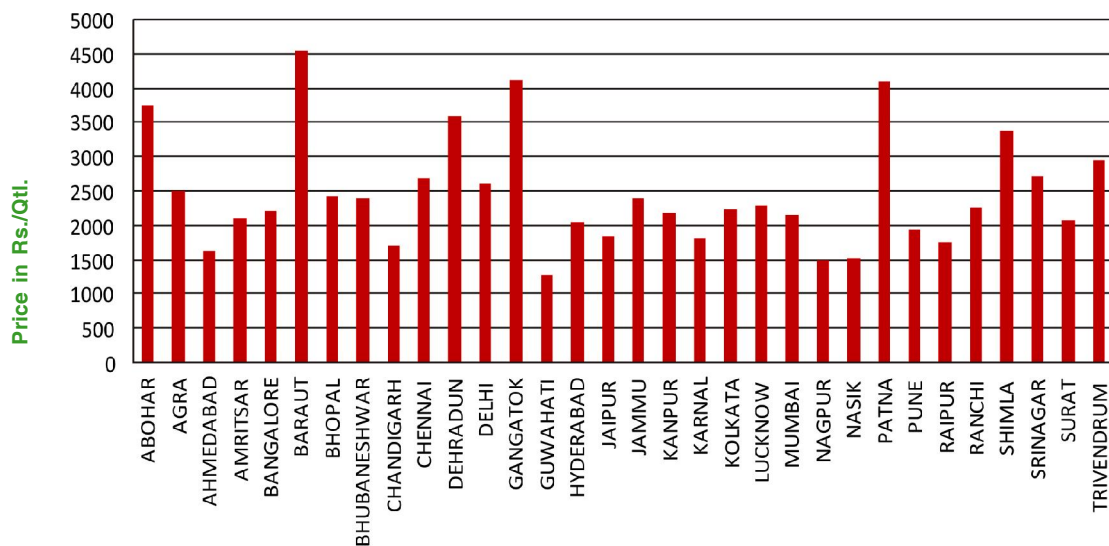




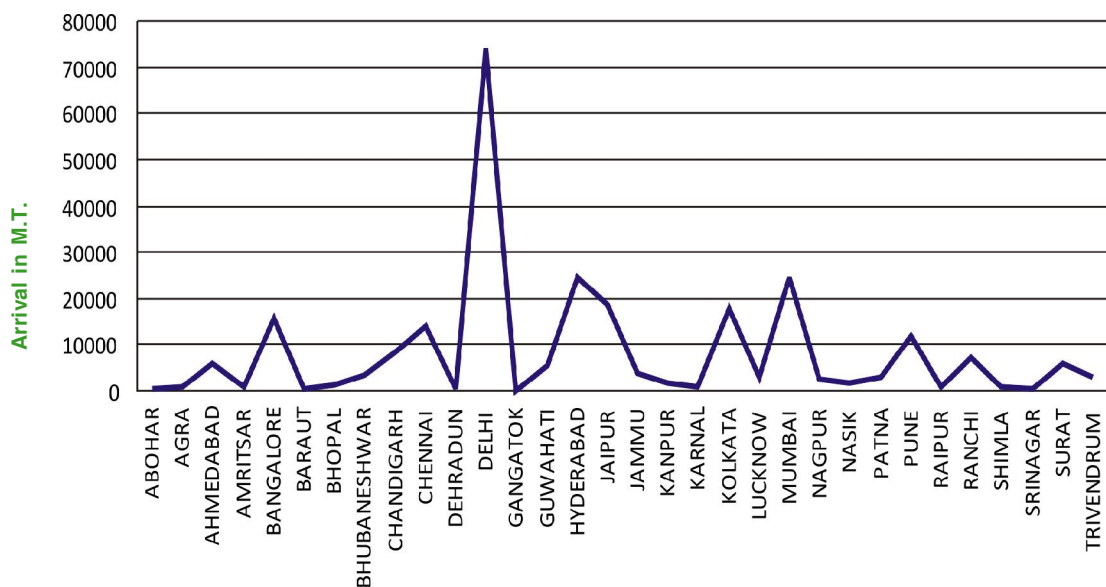




## Annual Wholesale Average Price Trends of Lime - 2009-10



## Annual Total Arrival Trends of Lime - 2009-10



## MOSAMBI

- Origin** – Asia.
- Major Producing States** – Andhra Pradesh, Karnataka, Maharashtra, Punjab and Rajasthan
- Latest Production** – 38.82 Lakh Tonnes
- Main varieties** – Main varieties of sweet orange in India being cultivated on commercial scale are Blood Red, Mosambi and Satgudi. Blood Red is the most important variety in Haryana, Punjab and Rajasthan; Mosambi is most popular in Maharashtra whereas Satgudi is extensively grown in Andhra Pradesh. Currently, exotic varieties like Jaffa, Hamlin and Pineapple are performing well in Punjab, Haryana and Rajasthan, Valencia, has also shown good adaptability.
- Pre-cooling** – Forced air
- Storage Conditions**
- |                   |             |
|-------------------|-------------|
| Temperature       | : 3 - 4°C   |
| Relative Humidity | : 85-95%    |
| Storage period    | : 2-4 weeks |
- Sensibility to** – Odours
- Growing Belts**

The major mosambi producing belts are as follows :

- Maharashtra (Ahmednagar, Aurangabad, Jalgaon, Amravati, Pune)
- Karnataka (Kodagu, Bijapur, Chikmagalore)
- Andhra Pradesh (Vijayawada, Ananathapur, Nalgonda, Rangareddy)
- Rajasthan (Sriganganagar, Jhalawada, Kota)
- Punjab (Firozpur, Faridkot, Hoshiarpur)



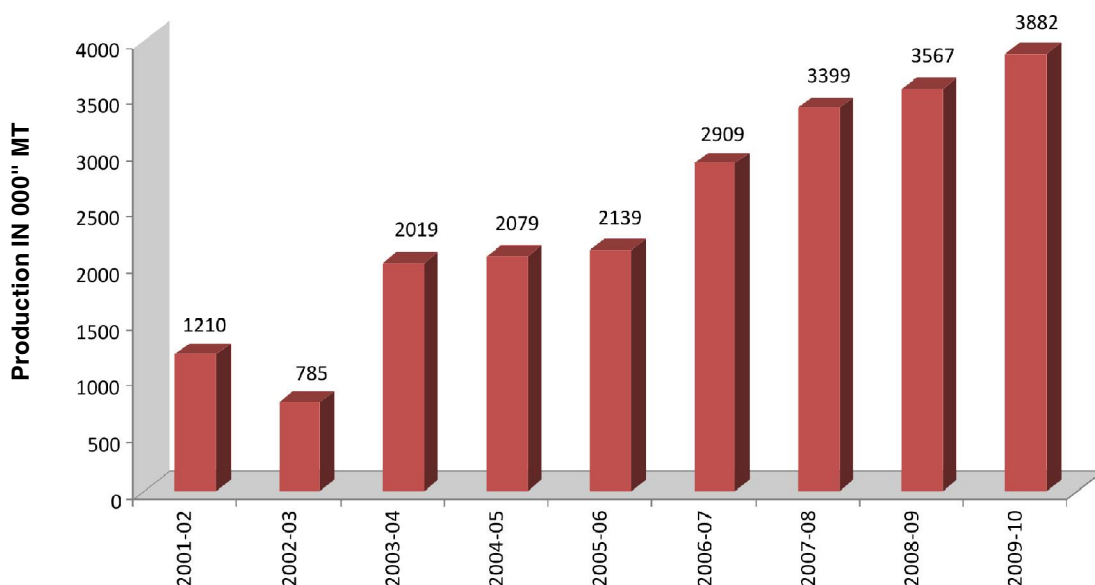
## HARVESTING SEASON OF MOSAMBI

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												
<div> <div></div> PEAK SEASON           <div></div> LEAN SEASON           <div></div> ROUND THE YEAR         </div>												
SOURCE : Director of Horticulture / Agriculture of respective State / UT's												

## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF MOSAMBI

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1993-94	71.5	2.2	825.4	2.2	11.5
1994-95	77.7	1.8	886.7	2.3	11.4
1995-96	83.0	2.5	879.6	2.1	10.6
1996-97	65.6	1.8	843.9	2.1	12.9
1997-98	67.4	1.8	881.8	2.0	13.1
1998-99	62.2	1.7	772.8	1.8	12.4
1999-00	75.2	2.0	1017.0	2.2	13.5
2000-01	80.6	2.1	1160.4	2.7	14.4
2001-02	126.4	3.2	1210.4	2.8	9.6
2002-03	146.1	3.9	785.3	1.7	5.4
2003-04	194.5	4.2	2019.1	4.4	10.4
2004-05	194.4	3.9	2078.7	4.2	10.7
2005-06	230.3	4.3	2138.6	3.9	9.3
2006-07	268.8	4.8	2909.4	4.9	10.8
2007-08	300.2	5.1	3398.6	5.2	11.3
2008-09	317.8	5.2	3567.3	5.2	11.2
2009-10	346.3	5.5	3882.4	5.4	11.2

### Production Trends of Mosambi

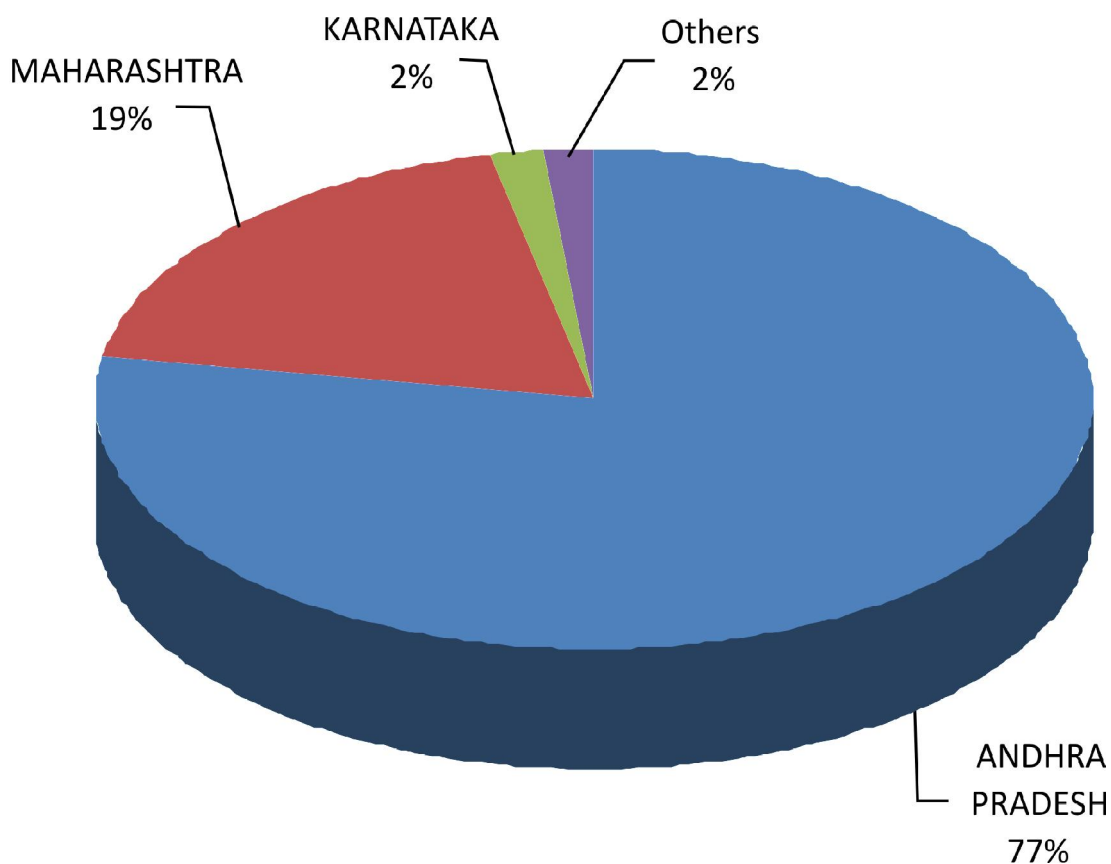




## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF MOSAMBI

State	AREA IN 000 HA			PRODUCTION IN 000 MT			PRODUCTIVITY HA/MT		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ANDHRAPRADESH	194.40	2624.33	13.5	211.34	2853.10	13.5	223.8	3021.3	13.5
MAHARASHTRA	98.39	678.66	6.9	99.00	608.00	6.1	108.1	732.0	6.8
KARNATAKA	3.32	64.77	19.5	3.49	68.01	19.5	3.7	68.0	18.6
Others	4.12	30.79	7.5	4.00	38.24	9.6	10.788	60.982	5.7
TOTAL	300.2	3398.6	11.3	317.83	3567.35	11.2	346.3	3882.4	11.2

### Leading Mosambi Producing States (2009-10)



**MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF MOSAMBI DURING THE PERIOD JANUARY TO DECEMBER, 2010**

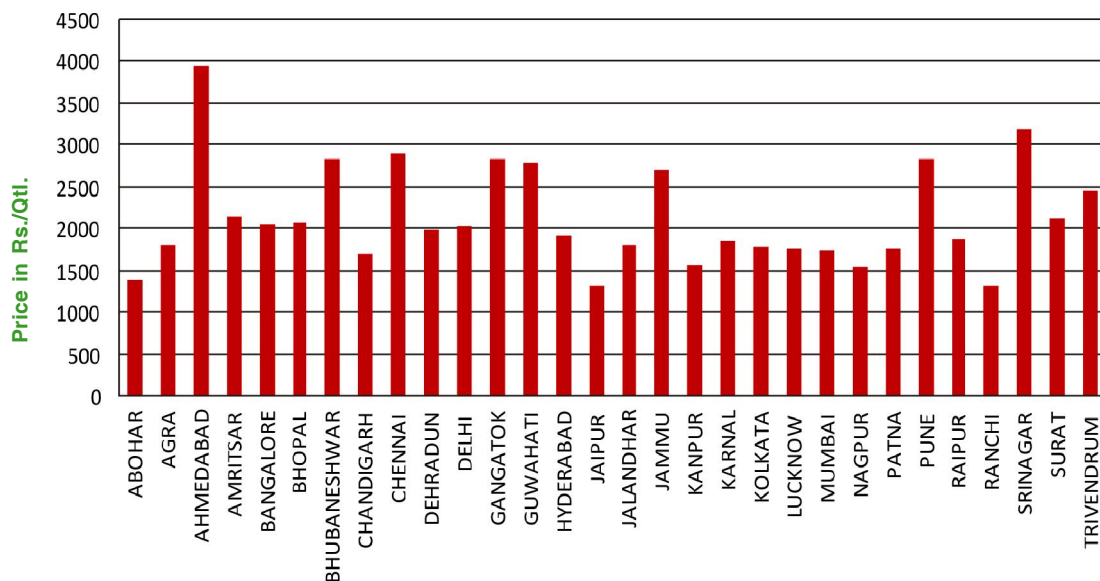
DURING THE PERIOD JANUARY TO DECEMBER, 2019.

MARKET/CENTRE	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival
BOHAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1711	52	1486	61	1200	38	1138	43
	3647	2712	1520	350	1203	505	1406	370	1804	380	1935	540	1560	641	1244	555	1354	495	1523	442	2009	239	2333	222
AHMEDABAD	3783	6332	4265	1046	3886	1801	4274	712	5233	475	4644	421	3762	1038	1041	4863	1039	3063	1239	2013	2224	799	3230	1128
	0	0	0	0	0	0	1672	90	2073	100	2820	57	2431	74	2110	74	2052	111	2052	96	1994	31	0	0
AMRITSAR	0	0	0	0	0	0	1672	90	2073	100	2820	57	2431	74	2110	74	2052	111	2052	96	1994	31	0	0
BANGALORE	3021	5625	1685	5832	1429	6163	1375	6255	1481	8937	2138	8354	2468	6453	2315	14877	1655	9211	1892	6675	2483	7649	2577	5707
BHOPAL	2042	297	1891	346	1619	2960	1371	618	2006	456	2477	265	2452	258	2183	558	2048	354	2340	536	2179	510	2230	500
BHUBANESHWAR	0	0	0	0	0	0	0	0	3025	35	3499	42	3059	117	2594	132	2481	117	2436	77	2727	82	2873	66
CHANDIGARH	1500	27	0	0	0	0	0	0	2092	510	1681	602	1626	912	1587	1243	1620	1100	1625	1114	1745	319	0	0
CHENNAI	3868	2810	3287	3480	2564	4920	2269	5280	2819	4010	3100	3680	3641	4880	2822	4980	2328	5060	2473	3660	2661	2560	2917	1768
DEHRADUN	1183	128	1130	2096	1706	180	2209	83	2559	212	2516	241	1827	283	1248	241	1668	143	2168	184	2643	54	2963	65
DELHI	2210	424	1420	4507	1313	22978	1513	34269	2376	27238	2612	21607	2057	25476	1550	23485	1857	21112	2196	17685	3026	1974	2252	1608
SANGATOK	3059	5	2508	5	2265	17	2157	13	2400	11	2974	9	2554	19	2489	22	2466	21	3007	25	3896	14	4298	12
GUWAHATI	4293	327	3148	326	2482	476	2237	541	1927	818	2271	726	2352	682	2642	631	2467	385	3056	323	3246	318	3306	337
HYDERABAD	1769	5307	1635	6413	2344	5944	2822	4845	2063	9534	2046	8188	2019	7638	1239	13540	1640	10490	1882	8270	1533	11209	2115	8945
JAIPUR	1315	303	1210	1169	1146	2688	1162	7232	1431	3976	1299	2727	1240	2304	1284	2324	1148	4023	1202	3634	1538	1551	1674	757
JALANDHAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1456	741	2167	423	0	0	0
JAMMU	3323	77	2282	136	2038	172	1848	240	2610	212	3223	184	2748	3001	2117	186	2340	226	2692	176	3243	89	3763	10
KANPUR	3200	81	1189	1503	1179	2846	1040	1806	1513	1576	2514	574	1250	1865	1057	1296	1274	1235	1318	910	0	0	0	0
KARNAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1556	290	1684	384	2338	225	0
KOLKATA	2099	2880	1498	5616	1290	9392	1295	10656	1935	6608	2156	8092	1620	9148	1408	12292	1401	11290	1505	10720	2484	4972	2710	6422
LUCKNOW	0	0	2215	32	1857	297	1392	570	1524	331	2116	302	1777	748	1420	710	1363	418	1715	422	2312	140	0	0
MUMBAI	2393	1362	1462	3050	1334	5074	1405	2588	1424	3378	1708	1332	1773	1610	1484	3272	1402	2471	1781	12135	2280	4156	2300	5800
NAGPUR	1383	3170	1011	7030	1011	7040	1080	6420	1719	3760	2190	6100	1654	3350	1256	5530	1095	10040	1663	11010	2248	5870	2242	2009
PATNA	1531	30	1234	555	1224	1190	1309	2195	2166	1140	1908	1662	1639	1770	1409	2070	1527	2010	1841	1815	3036	330	2424	300
PUNE	3915	699	2653	827	2088	874	2425	500	2828	293	3536	751	3356	907	2190	1095	2193	976	2439	1055	2997	732	3245	839
RAIPUR	1813	309	1543	190	1502	237	1588	270	1720	181	2112	261	2072	276	1783	295	1740	257	2008	273	2290	204	2406	263
RANCHI	1107	725	1078	470	1203	556	1212	490	1229	539	1543	517	1646	581	1443	516	1281	1221	1337	658	1360	518	1294	667
SRINAGAR	0	0	4500	10	2914	226	3052	165	3296	106	3353	59	3422	54	2786	21	2513	27	0	2800	9	0	0	0
SURAT	2217	3033	1988	464	1907	453	1621	698	2095	386	2623	346	2330	461	2152	679	2185	387	1325	656	2290	296	2548	429
TRIVENDRIM	3391	25	3143	32	3061	34	2821	49	2383	90	2490	48	2106	60	1778	63	1763	54	1778	59	2408	45	2466	50

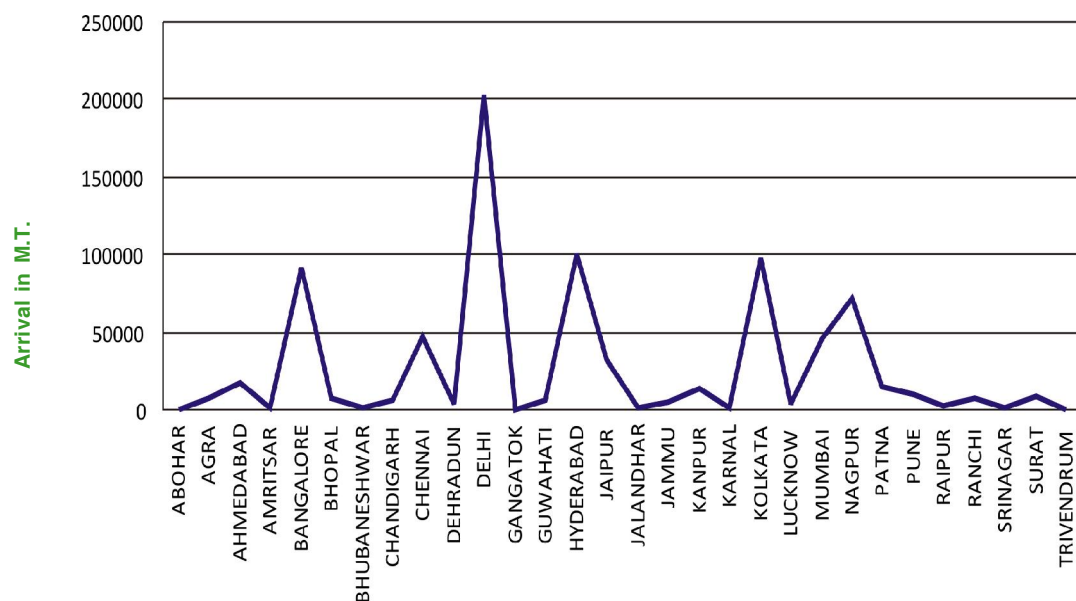




## Annual Wholesale Average Price Trends of Mosambi - 2010



## Annual Total Arrival Trends of Mosambi - 2010



## ORANGE (MANDARIN)

**Major Producing States** – Maharashtra, Madhya Pradesh, Tamil Nadu, Rajasthan, Assam & Tripura.

**Latest Production** – 20.84 Lakh Tonnes

**Main Varieties** – In India, specific cultivars of mandarins are cultivated in different regions. For example, Coorg manadarin is typical to Coorg and Wynad regions of Karnataka, whereas Nagpur mandarin is ideally-suited to Vidarbha region. Similarly, Darjeeling mandarin, Khasi and Sumithra mandarins are basically adapted to Darjeeling, Khasi hills and Assam respectively. Of many exotic introductions, Kinnow mandarin has acclimatized very well in semi-arid irrigated zones of Punjab and its adjoining states, and in Nagpur and Akola regions of Maharashtra.

**Pre-cooling** – Forced air

### Storage Conditions

Temperature	: 5 - 7°C
Relative Humidity	: 85-90%
Storage period	: 4-8 weeks
Freezing point	: - 3 to -2°C

**Sensibility to** – Refrigeration and Freezing

### Growing Belts

- Maharashtra (Nagpur, Akola, Amravati, Wardha)
- Rajasthan (Jhalawad, Kota)
- Karnataka (Chikmagalur, Kodagu, Hassan)
- Madhya Pradesh (Chhindwada, Mandsaur, Betul, Ujjain, Shajapur)
- Nagaland (Wokha, Tuensang) and Mizoram (Aizawl)
- Tamil Nadu (Dindigul, Salem, Nilgiris) and West Bengal (Darzeeling)
- Assam (Tinsukia, NC Hills, Karbi Anglong)
- Meghalaya ( East & West Khasi, Ri-Bhoi, Garo Hills, Jointia Hills)



## HARVESTING SEASON OF ORANGE (MANDARIN)

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

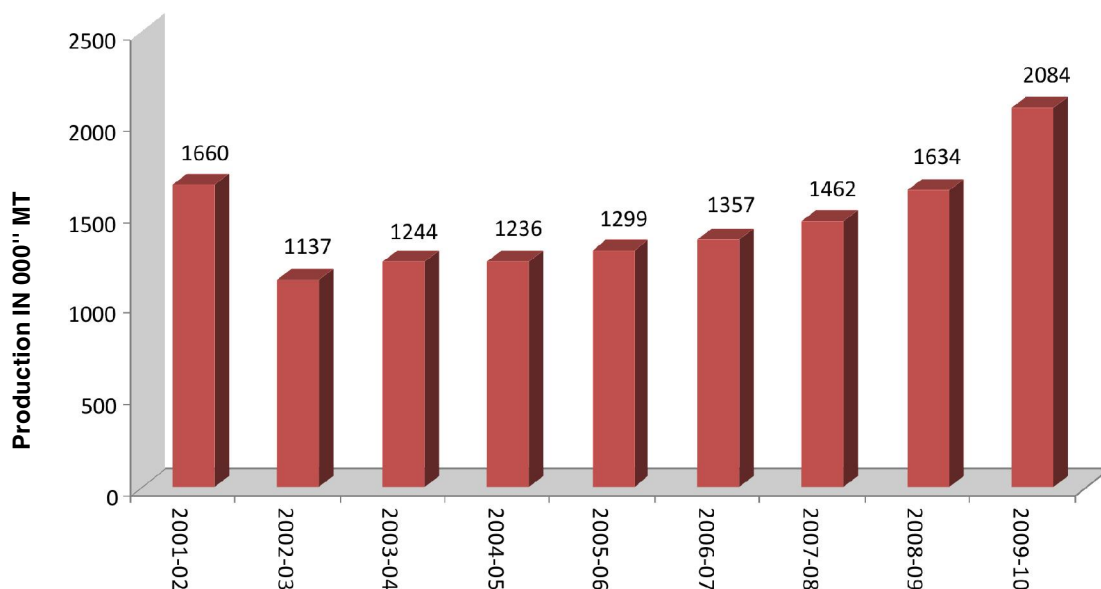
PEAK SEASON
LEAN SEASON
ROUND THE YEAR

SOURCE : Director of Horticulture / Agriculture of respective State / UT's

## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF ORANGE

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT. AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT. PRODUCTION	PRODUCTIVITY (IN MT/HA)
1993-94	119.1	3.7	1057.8	2.8	8.9
1994-95	130.7	3.0	708.5	1.8	5.4
1995-96	133.8	4.0	1161.7	2.8	8.7
1996-97	163.4	4.6	1720.1	4.3	10.5
1997-98	165.4	4.5	1472.4	3.4	8.9
1998-99	165.1	4.4	1674.0	3.8	10.1
1999-00	198.9	5.2	1657.7	3.6	8.3
2000-01	168.9	4.4	1414.3	3.3	8.4
2001-02	198.9	5.0	1660.1	3.9	8.3
2002-03	142.8	3.8	1136.6	2.5	8.0
2003-04	183.4	3.9	1244.1	2.7	6.8
2004-05	183.6	3.7	1235.7	2.5	6.7
2005-06	210.8	4.0	1298.8	2.3	6.2
2006-07	198.4	3.6	1357.5	2.3	6.8
2007-08	218.1	3.7	1461.7	2.2	6.7
2008-09	245.5	4.0	1634.0	2.4	6.7
2009-10	285.0	4.5	2084.0	2.9	7.3

## Production Trends of Orange

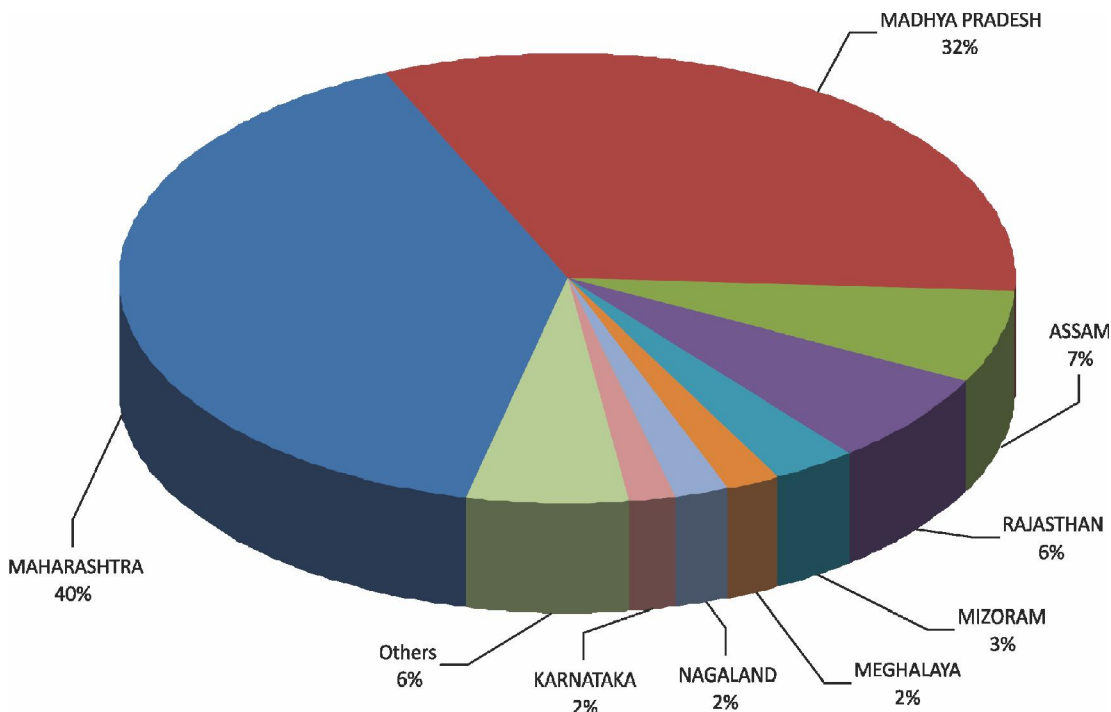




## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF ORANGE

State	AREA IN 000 HA			PRODUCTION IN 000 MT			PRODUCTIVITY HA/MT		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
MAHARASHTRA	125.65	796.06	6.3	126.00	644.00	5.1	138.0	826.5	6.0
MADHYAPRADESH	16.56	264.94	16.0	31.47	503.58	16.0	38.3	677.8	17.7
ASSAM	8.20	89.92	11.0	8.50	93.39	11.0	12.8	141.8	11.0
RAJASTHAN	7.60	96.00	12.6	8.29	157.46	19.0	8.9	135.0	15.1
MIZORAM	9.2	11.6	1.3	10.61	10.76	1.0	10.6	64.7	6.1
MEGHALAYA	8.31	34.85	4.2	10.06	43.10	4.3	10.1	43.1	4.3
NAGALAND	2.70	15.00	5.6	3.90	28.00	7.2	4.3	36.6	8.5
KARNATAKA	1.79	35.48	19.8	1.84	36.55	19.8	1.9	36.6	19.2
Others	42.44	79.65	1.9	51.45	87.45	1.7	60.1	122.0	2.0
TOTAL	218.13	1461.74	6.7	245.49	1633.95	6.7	285.0	2084.0	7.3

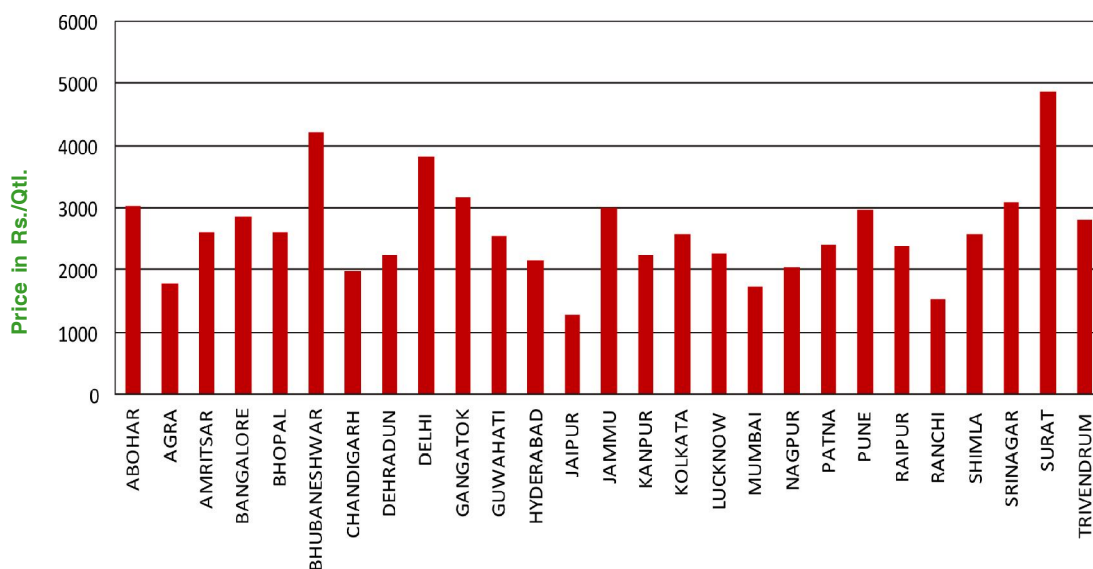
Leading Orange Producing States (2009-10)



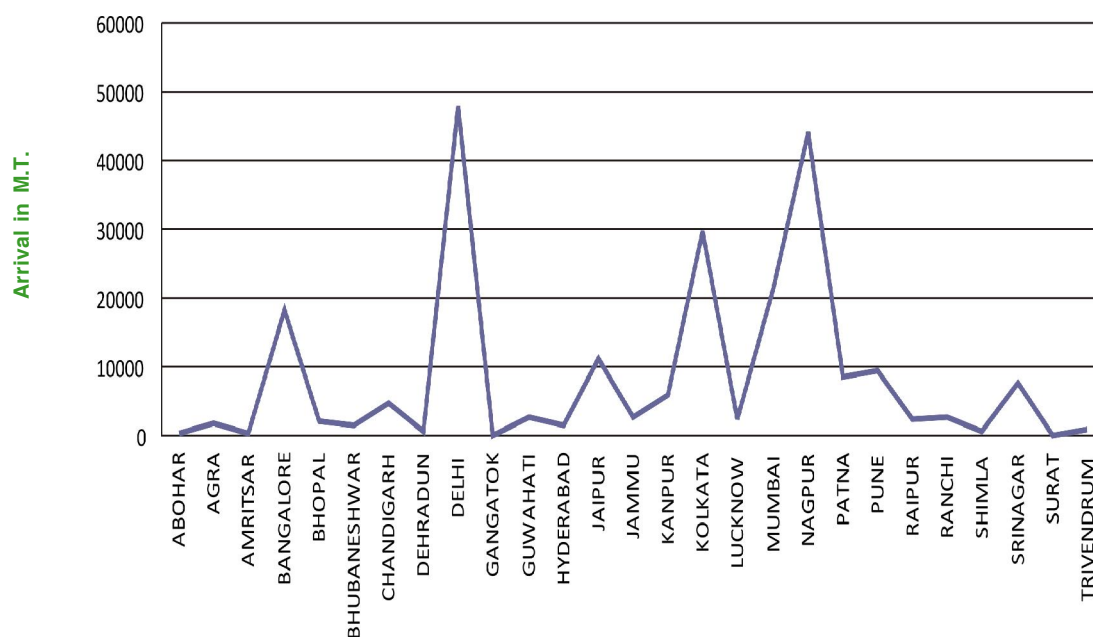




## Annual Wholesale Average Price Trends of Orange - 2009-10



## Annual Total Arrival Trends of Orange - 2009-10



## GRAPES

- Origin** – Western Asia and Europe
- Major Producing States** – Maharastra, Karnataka, Punjab, Andhra Pradesh and Tamil Nadu
- Latest Production** – 8.81 Lakh Tonnes
- Main Varieties** – Thomson Seedless, Sonaka, Anab-e-shahi, Perlette, Bangalore Blue, Pusa Seedless, Beauty Seedless, Arkavati, Arkahans, Arkakanchan, Arkaneelmani, Tas-e-Ganesh, Sharad Seedless, Dilkush etc.

**Commercial varieties can be grouped under four categories based on colour & seeds:**

- |                   |  |
|-------------------|--|
| Coloured seeded   | Bangalore Blue, Gulabi (Muscat)  |
| Coloured seedless | Beauty Seedless and Sharad Seedless  |
| White seeded      | Anab-e-Shahi, Dilkhush (clone of Anab-e-Shahi)   |
| White seedless    | Perlette, Pusa Seedless, Thompson Seedless, and its clones Tas-A-Ganesh, Sonaka and Manik Chaman |

Currently, the approximately area under Thompson Seedless is 55% , Bangalore Blue- 15% , Anab-e-Shahi and Dilkhush-15%, Sharad Seedless- 5%, Perlette-5% and Gulabi & Bhokri together-5% of the total area under grapes in the country.

- Advanced Technology** – Hard wood cutting and Budwood grafting with machine.
- Pre-cooling** – Forced air





### Storage Conditions

Temperature :  $-5^{\circ}$  to  $1^{\circ}\text{C}_{\pm}$

Relative Humidity : 85-90%

Storage period : 3-8 weeks

Freezing point :  $-1^{\circ}\text{C}$

**Sensitivity to** – Freezing, Ethylene and Odours

### Growing Belts

The major grapes production belts are as follows :

- Andhra Pradesh (Rangareddy, Medak, Ananthapur)
- Karnataka (Bangalore (R&U), Kolar, Bijapur).
- Maharashtra (Sangli, Satara, Nasik, Sholapur, Pune, Ahmed Nagar).

## HARVESTING SEASON OF GRAPES

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH	PEAK SEASON	PEAK SEASON	PEAK SEASON	PEAK SEASON								
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA					PEAK SEASON	PEAK SEASON	PEAK SEASON					
HIMACHAL PRADESH						PEAK SEASON	PEAK SEASON					
JAMMU & KASHMIR						PEAK SEASON	PEAK SEASON					
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH		PEAK SEASON	PEAK SEASON	PEAK SEASON	PEAK SEASON							
MAHARASHTRA		PEAK SEASON	PEAK SEASON	PEAK SEASON	PEAK SEASON							
MANIPUR												
MEGHALAYA												
MIZORAM									PEAK SEASON	PEAK SEASON		
NAGALAND								PEAK SEASON	PEAK SEASON			
ORRISA												
PUNJAB					PEAK SEASON	PEAK SEASON	PEAK SEASON					
RAJASTHAN						PEAK SEASON	PEAK SEASON					
SIKKIM												
TAMIL NADU				PEAK SEASON	PEAK SEASON			PEAK SEASON	PEAK SEASON	PEAK SEASON	PEAK SEASON	
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND			PEAK SEASON	PEAK SEASON		PEAK SEASON	PEAK SEASON					
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

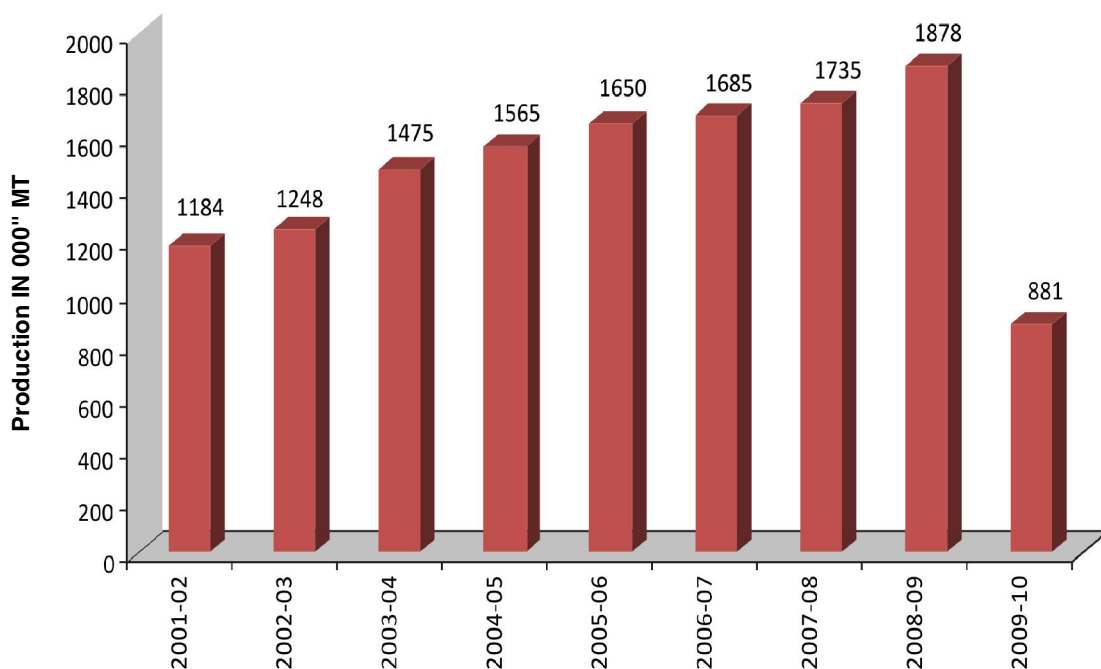
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF GRAPES

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	32.4	1.1	668.2	2.3	20.6
2001-02	47.5	1.2	1184.2	2.8	24.9
2002-03	52.1	1.4	1247.8	2.8	24.0
2003-04	57.8	1.2	1474.8	3.2	25.5
2004-05	60.5	1.2	1564.7	3.2	25.9
2005-06	66.0	1.2	1649.6	3.0	25.0
2006-07	65.0	1.2	1685.0	2.8	25.9
2007-08	68.0	1.2	1735.0	2.6	25.5
2008-09	80.0	1.3	1878.0	2.7	23.5
2009-10	106.4	1.7	880.7	1.2	8.3

### Production Trends of Grapes

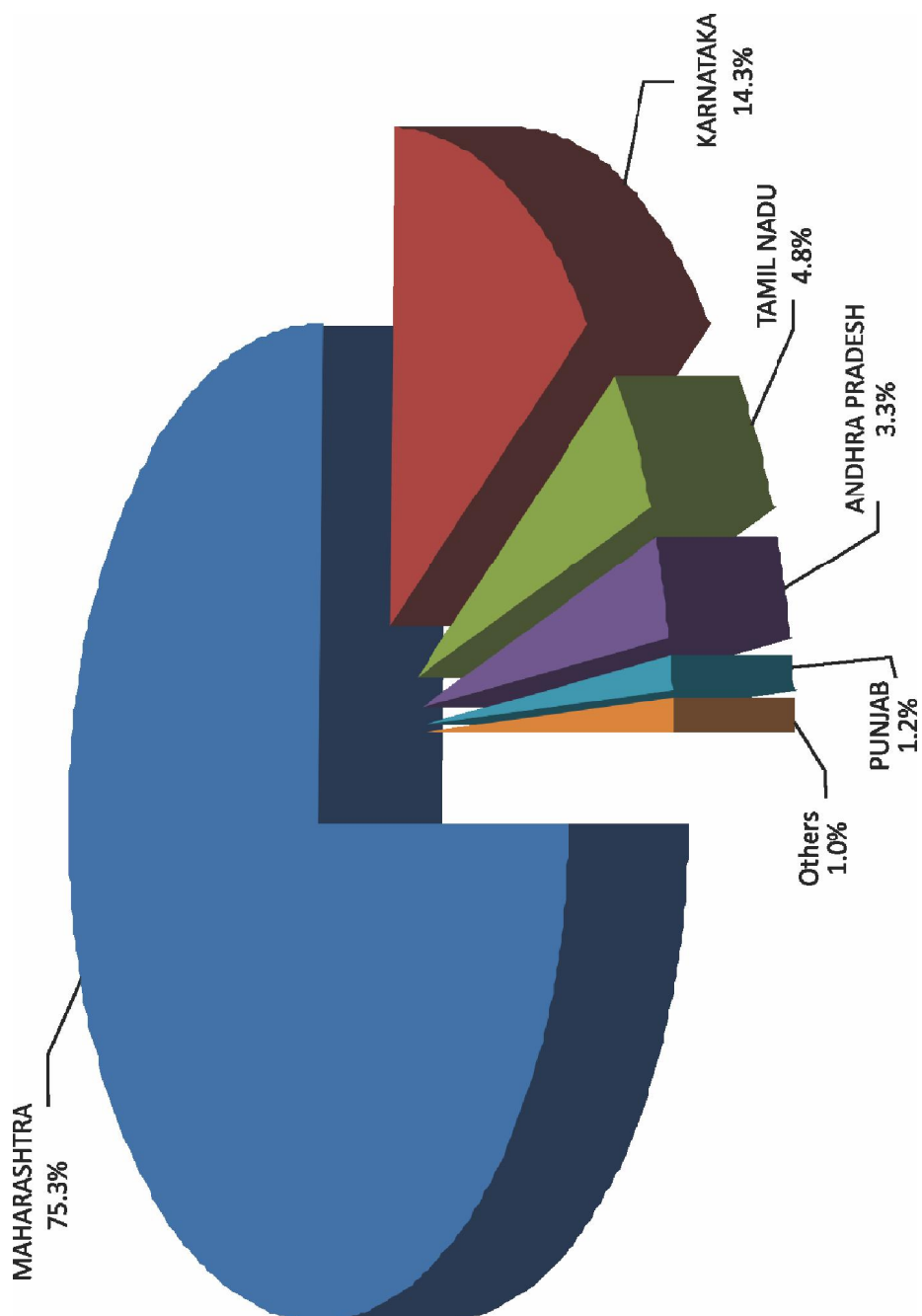


## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF GRAPES

AREA (000 HA)      PRODUCTION (000 HAMT)      PRODUCTIVITY HAMT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
MAHARASHTRA	45.6	1290.0	28.3	55.7	1415.0	25.4	82.0	440.0	5.4
KARNATAKA	14.3	258.8	18.1	14.9	269.0	18.0	17.4	317.6	18.3
TAMIL NADU	2.8	83.5	29.8	3.1	91.0	29.8	2.6	44.1	16.8
ANDHRA PRADESH	2.8	58.0	21.0	3.0	62.2	21.0	1.4	29.8	21.0
PUNJAB	1.0	26.7	26.7	0.8	22.1	28.4	0.5	15.5	28.6
Others	1.9	17.6	9.4	2.2	19.0	8.7	2.4	33.7	14.0
<b>TOTAL</b>	<b>68.3</b>	<b>1734.7</b>	<b>25.4</b>	<b>79.6</b>	<b>1878.3</b>	<b>23.6</b>	<b>106.4</b>	<b>880.7</b>	<b>8.3</b>

Leading Grape Producing States (2009-2010)



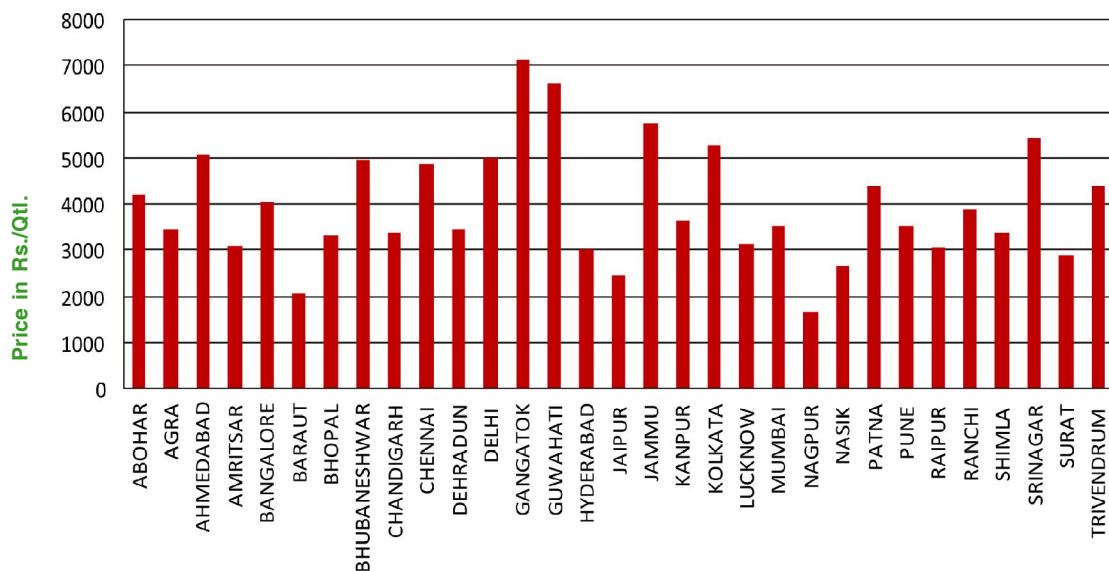
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF GRAPES DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Ql.  
Total Arrivals in MT.

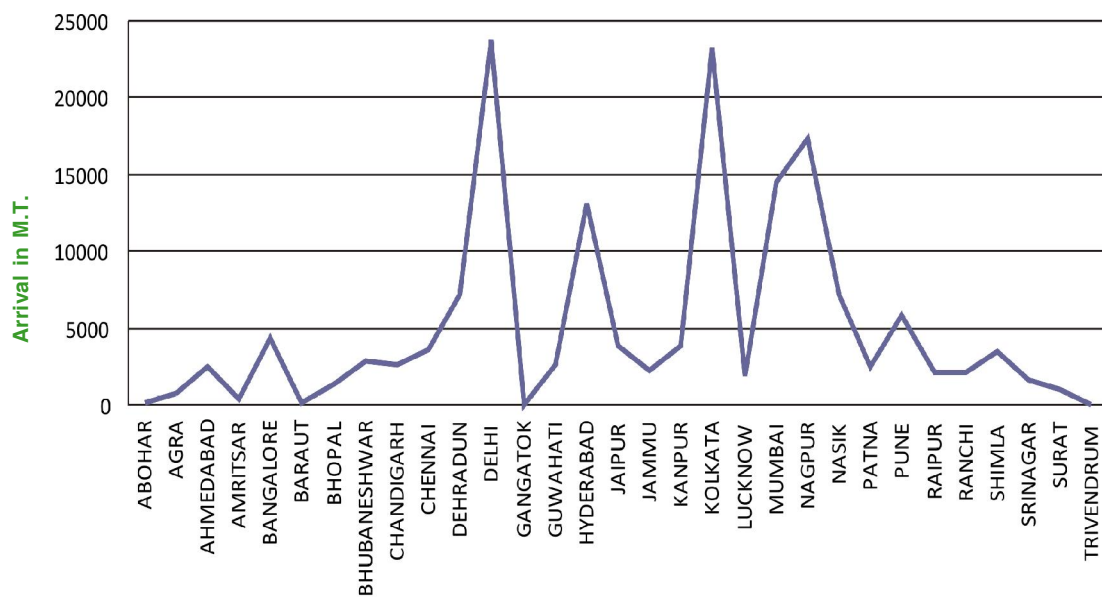
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHAR	0	0	0	2905	28	3288	28	3780	22	2846	51	8157
AGRA	0	0	0	3008	490	3913	291	0	0	0	0	0
AHMEDABAD	0	0	3778	621	2857	1412	7670	407	6000	11	0	0
AMRITSAR	2900	11	3079	76	3173	89	3830	56	4321	26	1239	60
BANGALORE	5746	1115	3146	1215	3346	1245	3889	745	0	0	0	0
BARAUT	0	0	0	0	0	0	0	0	0	0	0	0
BHOPAL	0	0	2657	536	2904	600	4527	220	3784	44	0	0
BHUBANESHWAR	4536	610	2959	575	2886	705	3659	620	6218	232	7580	17
CHANDIGARH	3484	555	2891	651	3045	639	3380	351	0	0	0	0
CHENNAI	4300	50	3683	870	5864	1460	4923	1070	0	0	0	0
DEHRADUN	0	0	2435	54	2923	140	3268	29	5192	7011	0	0
DELHI	3320	2266	3137	6507	3685	7181	4226	3966	5864	1419	5920	241
GANGATOK	8681	6	6035	5	5660	8	6223	9	9071	1	0	0
GUWAHATI	6121	223	5409	438	5372	681	6678	407	7894	562	8230	323
HYDERABAD	0	0	2878	3049	2232	6458	3563	2843	3361	822	0	0
JAIPUR	3049	240	2602	1004	2185	1028	2258	1157	2237	431	0	0
JAMMU	5020	229	4736	810	5488	680	5298	380	4940	49	0	0
KANPUR	4229	207	3259	1350	3674	1203	3046	1022	3973	69	0	0
KOLKATA	3826	4130	3944	4816	4072	4592	4663	2662	5573	974	6567	65
LUCKNOW	0	0	3004	469	3037	855	2989	456	3544	30	0	0
MUMBAI	3894	4427	3187	4859	2957	2789	4117	2399	0	0	0	0
NAGPUR	2563	630	1383	1300	1716	1490	1766	1050	1521	950	1375	565
NASIK	2932	516	2450	3760	2473	2450	2698	433	0	0	0	0
PATNA	4734	170	3785	830	4026	1100	4990	325	0	0	0	0
PUNE	0	0	3365	981	3090	3265	3600	1286	4000	326	0	0
RAIPUR	2542	131	2239	567	2516	1073	3640	281	4393	74	0	0
RANCHI	3263	521	2259	745	2607	442	2773	405	0	0	0	0
SHIMLA	0	0	3298	62	2813	94	3684	3272	3627	52	0	0
SRINAGAR	4688	497	4475	410	5452	456	5519	252	0	0	0	0
SURAT	0	0	2029	520	2287	337	4298	123	0	0	0	0
TRIVENDRUM	0	0	3523	18	4500	21	5188	20	0	0	0	0



## Annual Wholesale Average Price Trends of Grape - 2010



## Annual Total Arrival Trends of Grape - 2010



## GUAVA

- Origin** – Tropical America
- Major Producing States** – Uttar Pradesh, Maharashtra, Bihar, Andhra Pradesh, Gujarat, Madhya Pradesh, Karnataka
- Latest Production** – 25.72 Lakh Tonnes
- Main Varieties** – Allahabad Safeda, Lucknow-49, Chittidar, Bangalore, Dharidar, Akra Mridula, Arka Amulya, Laliti, Shweta, Harijha, Hafshi, Allahabad Surkha.
- Advanced Technology** – Wedge Grafting High density planting/Ultra High density Planting (Meadow Orchard)
- Pre-cooling** – Forced air
- Storage Conditions**
- |                   |             |
|-------------------|-------------|
| Temperature       | : 7-10°C    |
| Relative Humidity | : 85-90%    |
| Storage period    | : 3-3 weeks |
- Treatment for Quality** – Vacuum infiltration of packaged fruits in 10%  $\text{CaCl}_2$  at ambient temperature retards softening and increase the self-life. Coating of fruit with water soluble high-polymer stored at 10°C for 2 months.
- Sensibility to** – Refregeration and Ethylene

### Growing Belts

The major guava producing belts are as follows :

- Andhra Pradesh (East & West Godavari, Guntur, Krishna, Ananthapur, Medak, Khemmam)





- Madhya Pradesh & Chhattisgarh (Raipur, Durg, Jabalpur)
- Gujarat (Bhavnagar, Ahmedabad)
- Bihar (Rohtas, East Champaran, West Champaran, Vaishali, Muzaffarpur, Arariya)
- Maharashtra (Satara, Beed, Pune, Ahmednagar, Aurangabad, Amravati)
- Uttar Pradesh (Allahabad, Kaushambhi, Kanpur, Varanasi, Farrukhabad, Aligarh, Badaun)
- Karnataka (Bangalore (R&U), Kolar, Shimoga, Dharwar)
- Tamil Nadu (Mudurai, Dindigul, Salem)
- Jharkhand (Ranchi, Lohardagga, Hazaribagh, Giridih, Gumla, Palamu).

## HARVESTING SEASON OF GUAVA

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
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ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
  LEAN SEASON
  ROUND THE YEAR

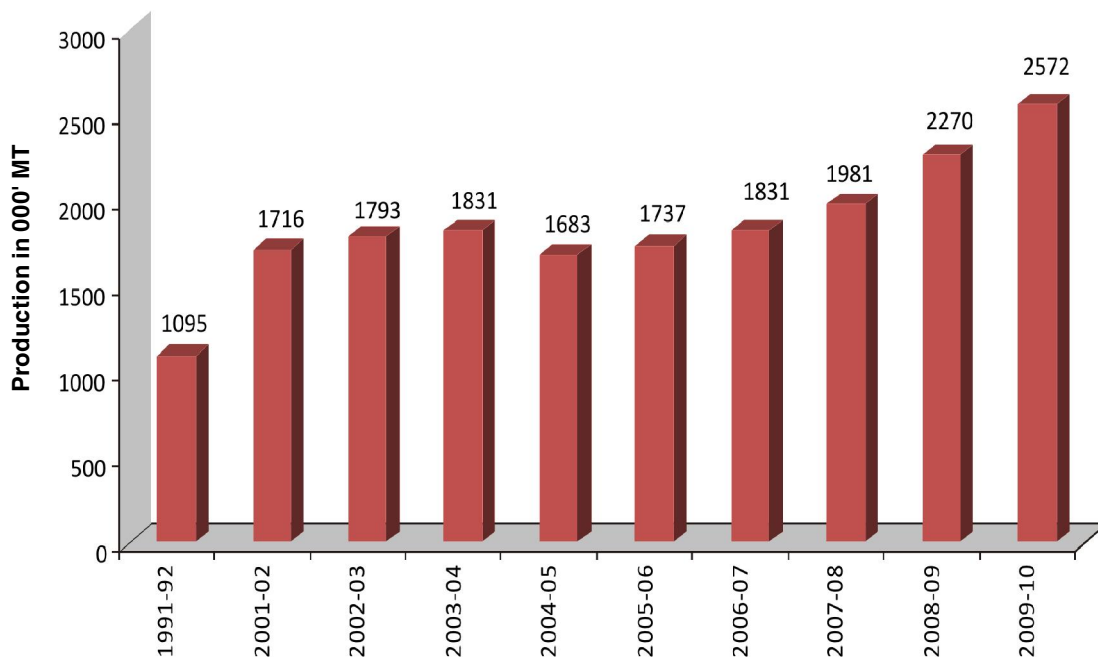
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF GUAVA

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT. PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	94.0	3.3	1095.1	3.8	11.7
2001-02	154.6	3.9	1715.5	4.0	11.1
2002-03	154.6	4.1	1793.0	4.0	11.6
2003-04	166.4	3.6	1830.7	4.0	11.0
2004-05	161.0	3.2	1682.8	3.4	10.5
2005-06	166.5	3.1	1736.6	3.1	10.4
2006-07	176.0	3.2	1831.0	3.1	10.4
2007-08	179.0	3.1	1981.0	3.0	11.1
2008-09	204.0	3.3	2270.0	3.3	11.1
2009-10	219.7	3.5	2571.5	3.6	11.7

### Production Trends of Guava



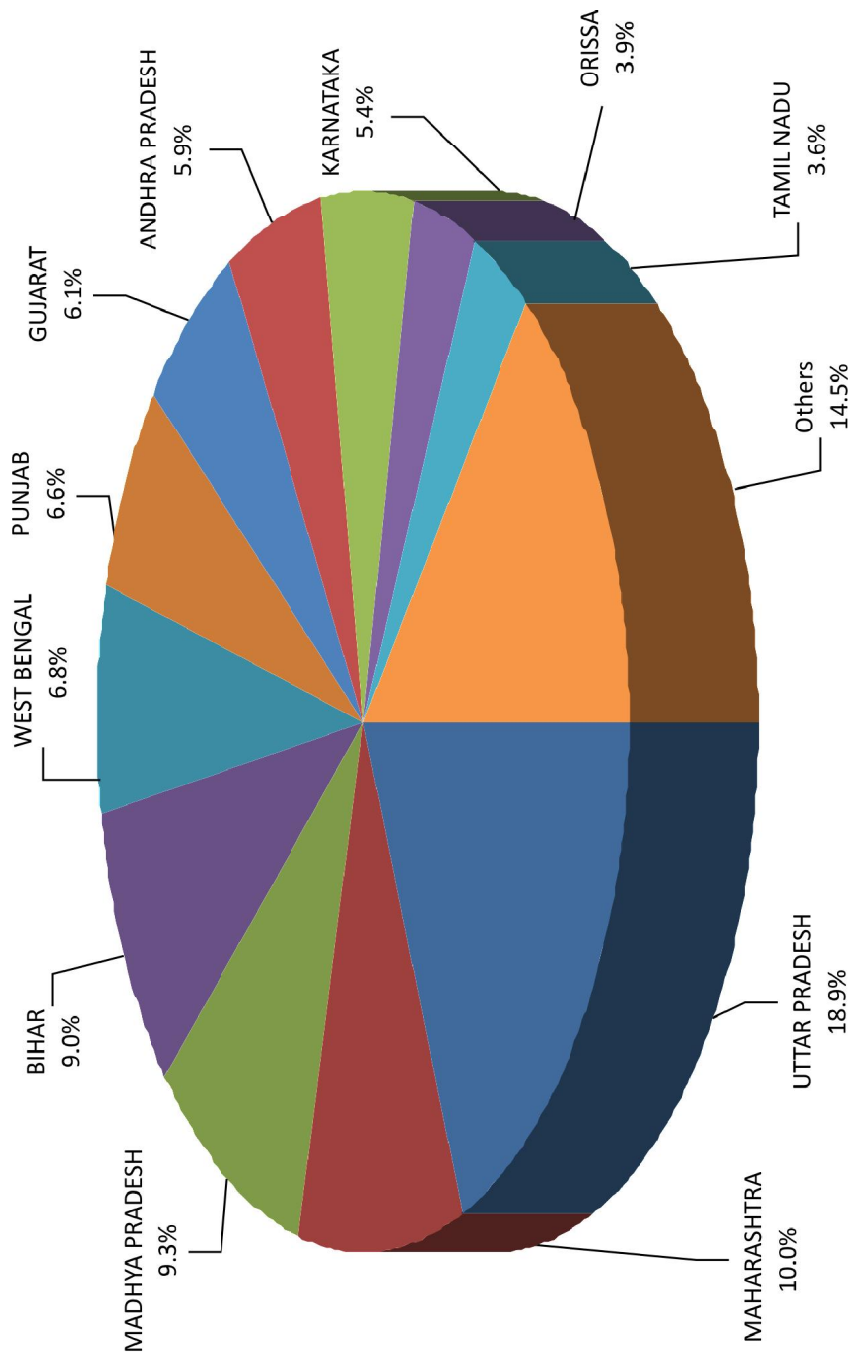
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF GUAVA

AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
UTTAR PRADESH	15.1	196.3	13.0	34.0	412.6	12.1	39.9	486.7	12.2
MAHARASHTRA	32.0	250.5	7.8	32.5	257.3	7.9	33.5	258.0	7.7
MADHYA PRADESH	2.5	50.0	20.0	4.8	95.0	19.8	8.2	238.5	29.0
BIHAR	28.7	255.7	8.9	29.1	229.2	7.9	29.2	231.5	7.9
WEST BENGAL	11.9	162.2	13.6	12.5	170.5	13.7	13.4	175.7	13.1
PUNJAB	8.2	155.5	19.0	8.0	160.5	20.0	8.0	169.3	21.2
GUJARAT	8.6	131.1	15.2	9.3	144.2	15.4	9.8	156.6	15.9
ANDHRA PRADESH	9.6	144.4	15.0	10.8	162.0	15.0	10.1	150.8	15.0
KARNATAKA	6.9	134.8	19.6	7.0	137.5	19.6	7.2	138.8	19.3
ORISSA	14.0	93.4	6.7	14.1	95.0	6.7	14.1	100.0	7.1
TAMIL NADU	8.5	93.3	11.0	9.2	101.7	11.0	7.0	92.5	13.2
Others	33.2	314.0	9.5	32.3	304.8	9.4	39.242	373.0	9.5
<b>TOTAL</b>	<b>179.2</b>	<b>1981.1</b>	<b>11.1</b>	<b>203.7</b>	<b>2270.1</b>	<b>11.1</b>	<b>219.7</b>	<b>2571.5</b>	<b>11.7</b>



## Leading Guava Producing States (2009-10)



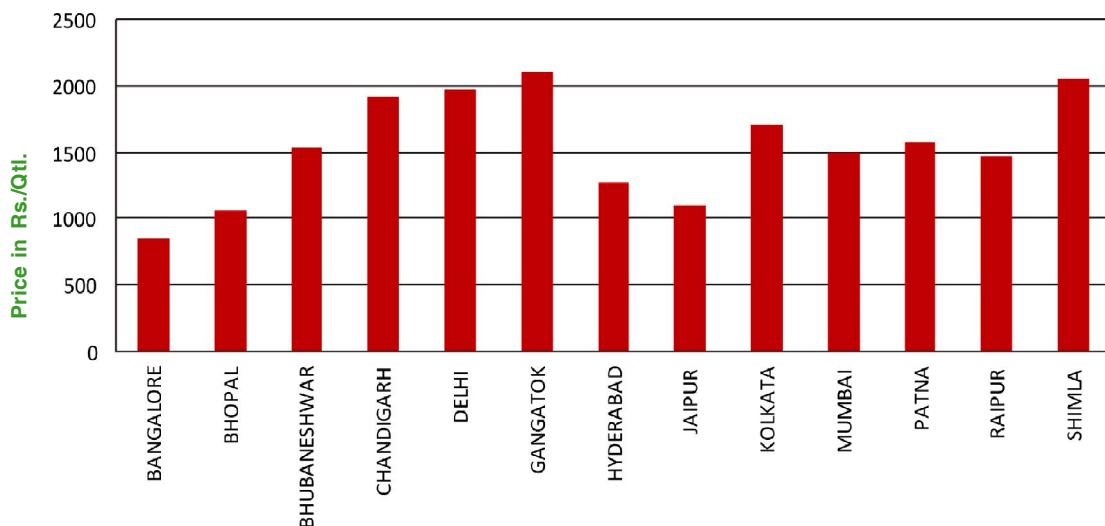
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF GUAVA DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs/Qtl.  
Total Arrivals in M.T.

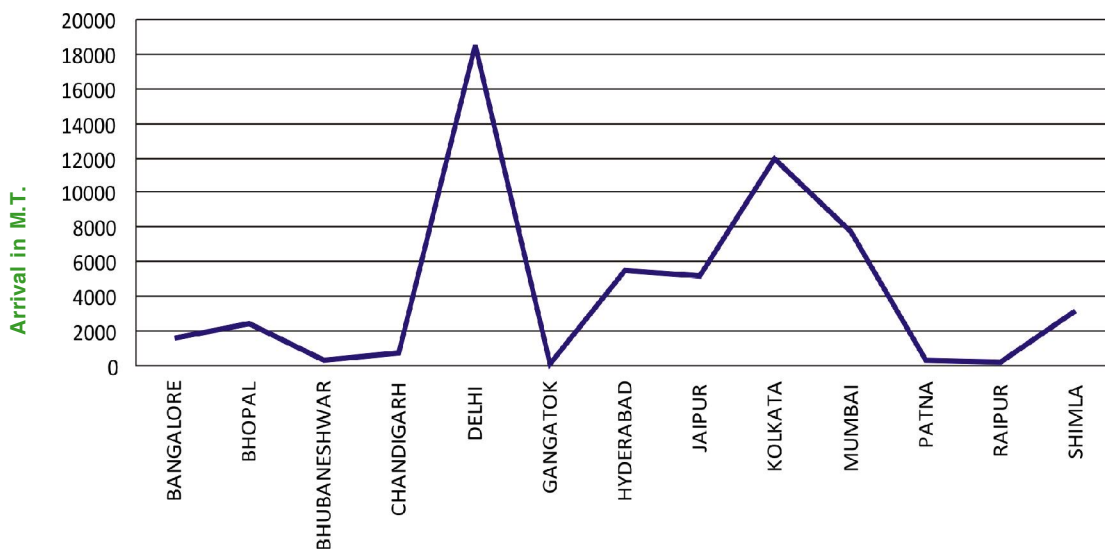
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
BANGALORE	948 74	939 75	897 120	854 109	817 114	784 154	790 148	915 294	798 165	766 111	833 89	818 88
BHOPAL	905 704	653 524	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1447 467	1218 767
BHUBANESHWAR	0 0	0 0	0 0	0 0	0 0	0 0	1278 26	1584 139	1740 35	1494 77	1649 38	1424 49
CHANDIGARH	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1914 727
DELHI	1750 2174	2043 2026	1646 2390	2017 7	0 0	0 0	1825 190	1969 1123	2428 238	1989 971	2118 3052	1889 6308
GANGATOK	2431 6	2215 4	2156 6	2546 9	2180 6	1987 5	1802 8	1804 9	2183 8	2048 10	2001 12	1952 12
HYDERABAD	839 3742	0 0	0 0	0 0	0 0	0 0	1900 350	0 0	0 0	0 0	0 0	1072 1410
JAIPUR	1038 1327	1036 1272	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1216 2586
KOLKATA	0 0	0 0	2070 491	2142 606	1813 717	1332 1193	1310 1273	1210 2451	1556 1464	1843 1419	1643 1328	2169 1016
MUMBAI	1478 856	1293 488	2900 196	0 0	0 0	0 0	0 0	1184 729	1243 651	1355 3003	1211 582	1283 1217
PATNA	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1569 295
RAIPUR	1404 73	1658 67	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1409 15	1382 70
SHIMLA	2473 2558	1658 91	1966 86	1661 73	1691 46	0 0	0 0	0 0	2216 68	2428 65	2269 66	2117 71



### Annual Wholesale Average Price Trends of Guava - 2010



### Annual Total Arrival Trends of Guava - 2010



## LITCHI

**Major Producing States** – Bihar, Uttrakhand, West Bengal, Jharkhand, Assam, UP and Punjab

**Latest Production** – 4.83 Lakh Tonnes

**State-wise Commercial varieties**

<b>Bihar</b>	– Shahi, Rose Scented, China, Kasba, Purbi, Early Bedana, Late Bedana
<b>Uttar Pradesh</b>	– Rose Scented, Dehradun, Calcuttia
<b>West Bengal</b>	– Bombay Green, Kalyani Selection
<b>Punjab</b>	– Muzaffarpur, Dehradun, Seedless, Late Bedana

**Advanced Technology** – High density planting

**Pre-cooling** – Forced air

**Storage Conditions**

Temperature : 1 - 2°C

Relative Humidity : 90-95%

Storage period : 3-5 weeks

**Treatment for Quality** – Sulphur treatment

**Sensibility to** – Refrigeration and Ethylene

**Growing Belts**

The major litchi producing belts are as follows :

- Uttrakhand (Dehradun, Pithauragarh, Nainital, Haridwar)
- West Bengal (Murshidabad, 24 - Paraganas)
- Bihar (Muzzafarpur, East Champaran, Samastipur, Vaisali, Bhagalpur)
- Assam (Kamrup, Sonitpur, Bongaigaon)
- Punjab (Gurdaspur, Ropar, Hoshiarpur)
- Uttar Pradesh (Saharanpur,)
- Jharkhand (Ranchi, Khuti, Gumla, Lohardagga, Hazaribagh, Ramgarh).

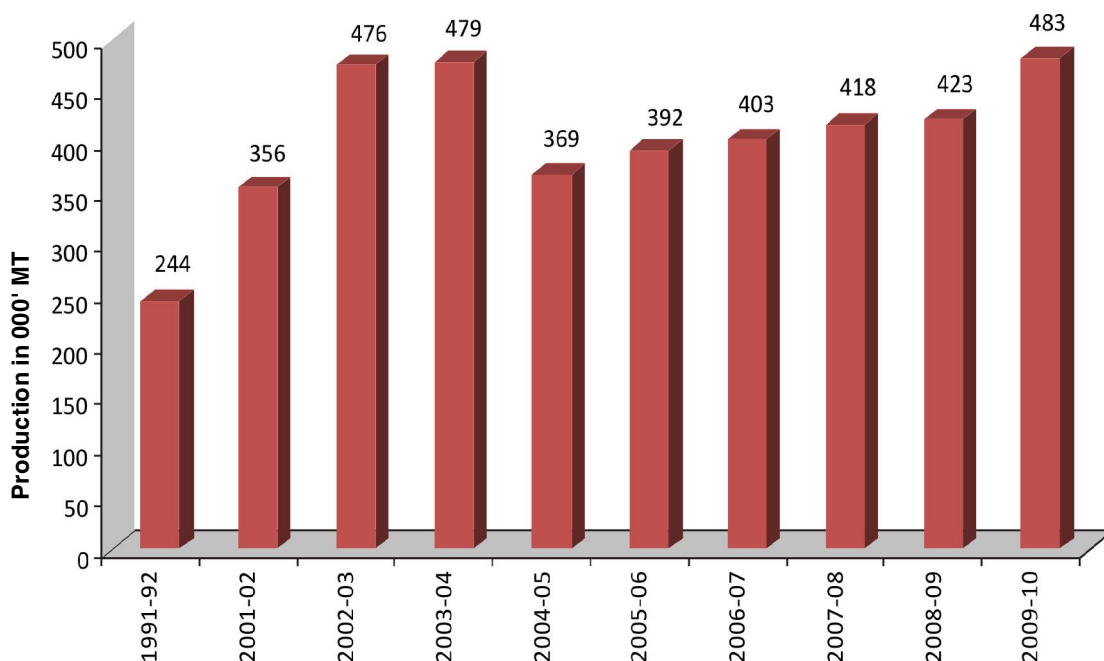




## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF LITCHI

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	49.3	1.7	243.8	0.9	4.9
2001-02	58.1	1.4	355.9	0.8	6.1
2002-03	54.1	1.4	476.4	1.1	8.8
2003-04	53.7	1.1	478.5	1.0	8.9
2004-05	60.0	1.2	368.6	0.7	6.1
2005-06	63.2	1.2	392.1	0.7	6.2
2006-07	65.0	1.2	403.0	0.7	6.2
2007-08	69.0	1.2	418.0	0.6	6.1
2008-09	72.0	1.2	423.0	0.6	5.9
2009-10	74.4	1.2	483.3	0.7	6.5

### Production Trends of Litchi



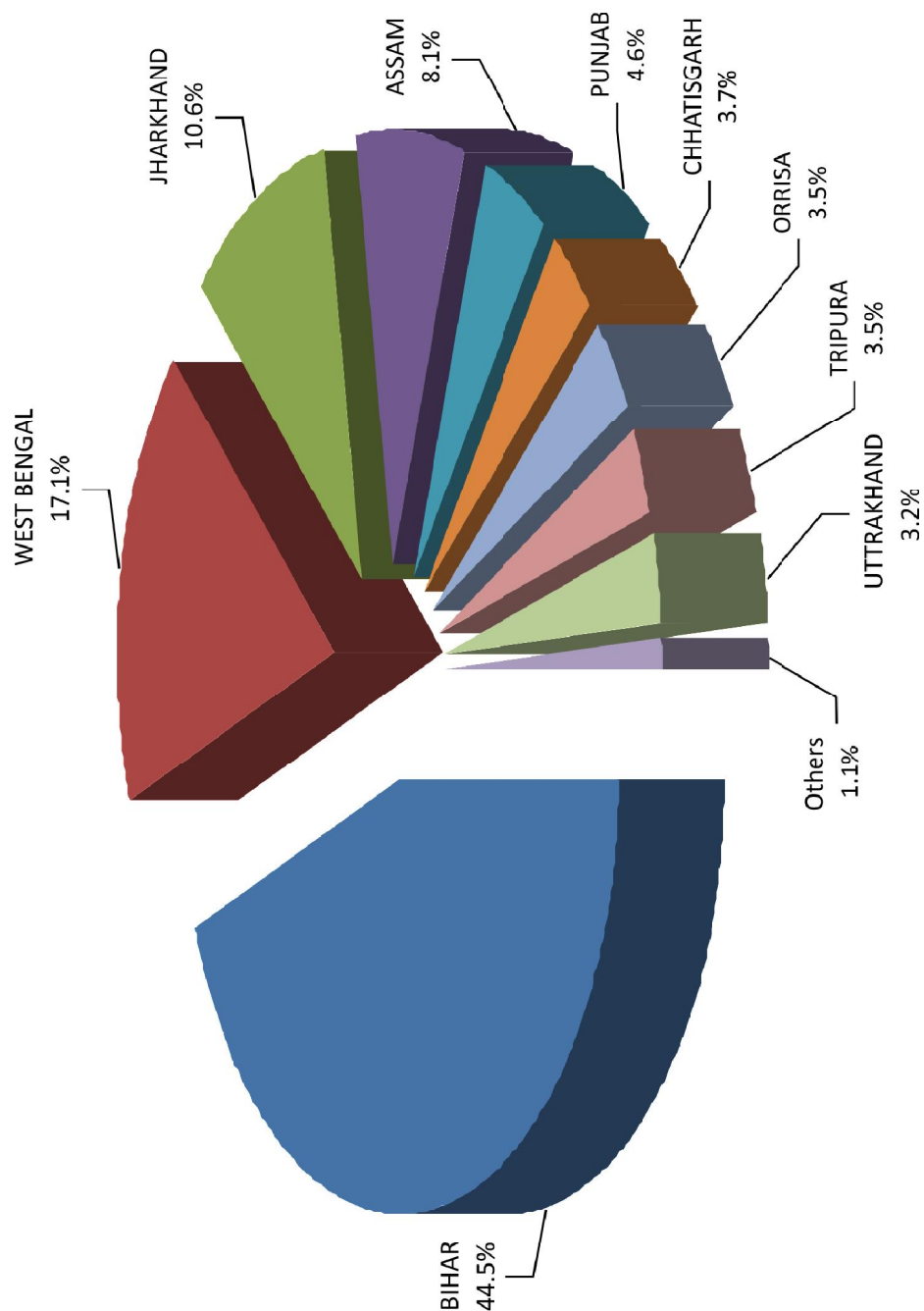
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF LITCHI

AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
BIHAR	29.8	223.2	7.5	30.5	216.9	7.1	30.6	215.1	7.0
WEST BENGAL	8.1	77.8	9.6	8.4	81.2	9.7	8.4	82.4	9.8
JHARKHAND	3.3	16.5	5.0	4.3	20.3	4.8	4.3	51.1	12.0
ASSAM	4.8	34.0	7.1	4.8	34.9	7.2	5.1	39.2	7.7
PUNJAB	1.5	19.3	12.9	1.5	21.3	13.9	1.6	22.4	14.1
CHHATISGARH							3.0	17.8	6.0
ORISSA	4.0	12.8	3.2	4.2	13.0	3.1	4.3	17.1	4.0
TRIPURA	2.6	14.4	5.5	2.8	14.4	5.1	2.8	17.0	6.1
UTTARAKHAND	8.8	15.1	1.7	8.8	15.3	1.7	9.1	15.7	1.7
Others	6.2	5.3	0.9	6.6	6.2	0.9	5.2	5.5	1.1
<b>TOTAL</b>	<b>69.1</b>	<b>418.4</b>	<b>6.1</b>	<b>71.9</b>	<b>423.4</b>	<b>5.9</b>	<b>74.4</b>	<b>483.3</b>	<b>6.5</b>



Leading Litchi Producing States (2009-10)



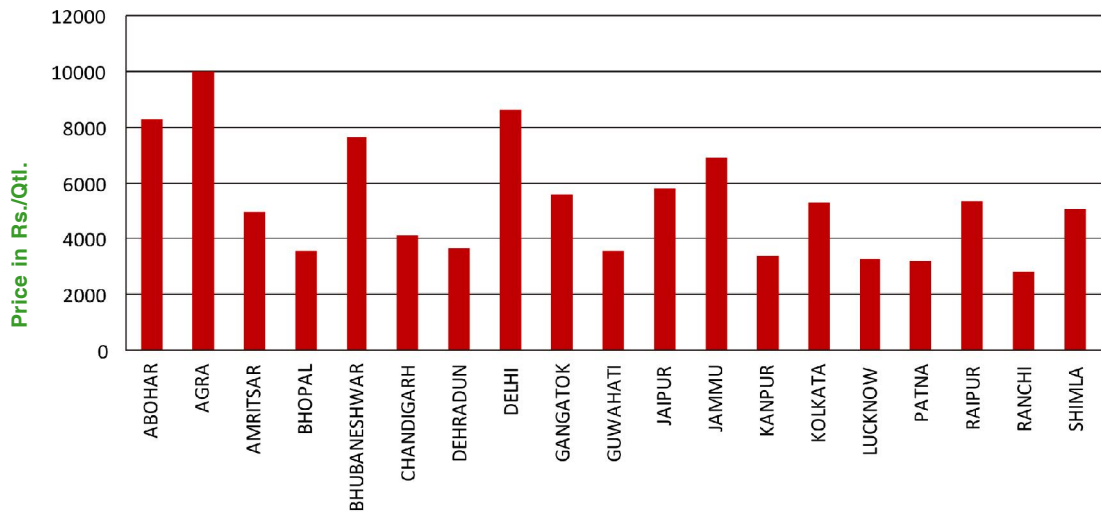
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF LITCHI DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

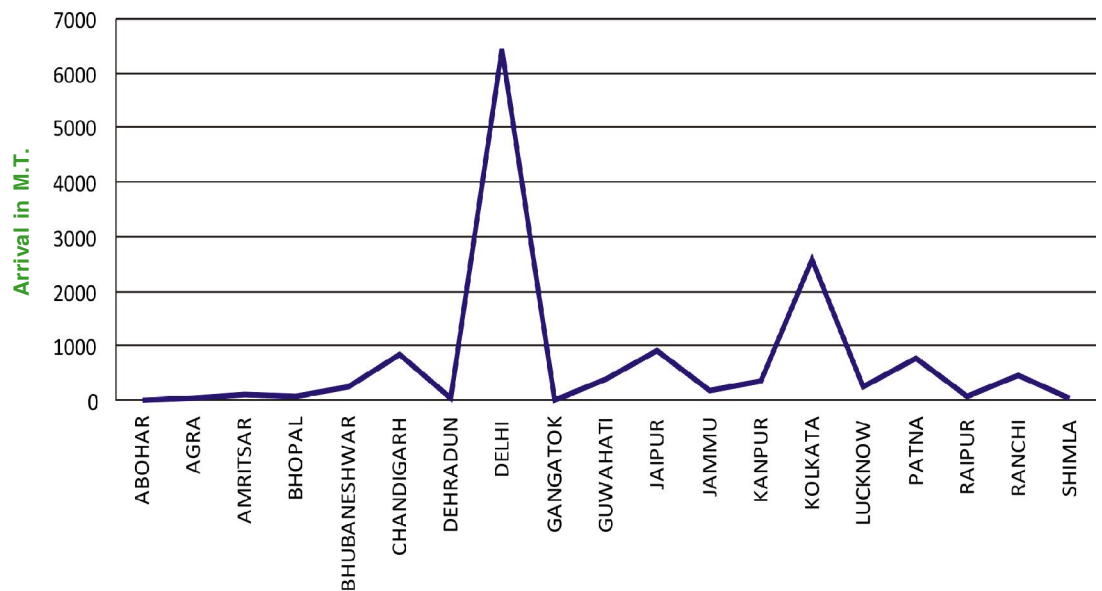
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHAR	0	0	0	0	0	0	8264	15	0	0	0	0
AGRA	0	0	0	0	0	0	10000	45	0	0	0	0
AMRITSAR	0	0	0	0	0	4910	98	0	0	0	0	0
BHOPAL	0	0	0	0	0	5755	20	0	0	0	0	1350
BHUBANESHWAR	0	0	0	0	5070	221	10196	40	0	0	0	0
CHANDIGARH	0	0	0	0	3317	316	4115	524	9	0	0	0
DEHRADUN	0	0	0	0	3463	7	3924	29	0	0	0	0
DELHI	0	0	0	8833	7	5996	2893	7632	3516	11955	35	0
GANGATOK	0	0	0	3900	0	5624	4	7200	4	0	0	0
GUWAHATI	0	0	0	0	0	0	3550	393	0	0	0	0
JAIPUR	0	0	0	0	6491	488	5506	323	5406	89	0	0
JAMMU	0	0	0	0	0	0	5408	153	8333	10	0	0
KANPUR	0	0	0	0	3925	194	2800	151	0	0	0	0
KOLKATA	0	0	0	0	3290	2094	7268	498	0	0	0	0
LUCKNOW	0	0	0	0	3037	97	3489	135	0	0	0	0
PATNA	0	0	0	0	2885	495	3516	270	0	0	0	0
RAIPUR	0	0	0	0	5581	68	5044	13	0	0	0	0
RANCHI	0	0	0	0	2998	255	2659	213	0	0	0	0
SHIMLA	0	0	0	0	0	0	5300	22	4829	16	0	0



### Annual Wholesale Average Price Trends of Litchi - 2010



### Annual Total Arrival Trends of Litchi - 2010



## MANGO

**Origin** – South Asia

**Major Producing States** – Andhra Pradesh, Uttar Pradesh, Bihar, Karnataka, Tamil Nadu, West Bengal, Orissa & Maharashtra

**Latest Production** – 150.27 Lakh Tonnes

### Commercial mango varieties grown in different states

States	Varieties
<b>Andhra Pradesh</b>	Banganapalli, Suvarnarekha, Neelum and Totapuri
<b>Bihar</b>	Bombay Green, Chausa, Dashehari, Fazli, Gulabkhas, Kishen Bhog, Himsagar, Zardalu and Langra
<b>Gujarat</b>	Kesar, Alphonso, Rajapuri, Jamadar, Totapuri, Neelum, Dashehari and Langra
<b>Haryana</b>	Chausa, Dashehari, Langra and Fazli
<b>H.P.</b>	Chausa, Dashehari and Langra i
<b>Karnataka</b>	Alphonso, Totapuri, Banganapalli, Pairi, Neelum and Mulgoa
<b>Madhya Pradesh</b>	Alphonso, Bombay Green, Dashehari, Fazli, Langra and Neelum
<b>Maharashtra</b>	Alphonso, Kesar and Pairi
<b>Punjab</b>	Chausa, Dashehari and Malda
<b>Rajasthan</b>	Bombay Green, Chausa, Dashehari and Langra
<b>Tamil Nadu</b>	Alphonso, Totapuri, Banganapalli and Neelum
<b>Uttar Pradesh</b>	Bombay Green, Chausa, Dashehari and Langra
<b>West Bengal</b>	Fazli, Gulabkhas, Himsagar, Kishenbhog, langra and Bombay Green

### Mango hybrids and their characters

Hybrid	Important characters
<b>Mallika</b>	Regular-bearers, high TSS, good colour, uniform fruits, moderate keeping quality
<b>Amrapali</b>	Dwarf, regular-bearers, cluster bearing, small-sized fruits, good keeping quality
<b>Ambika</b>	Regular-bearing and fruit qualities from Amrapali & Red seed colour from Janardan Pasand. Tree is semi spreading with sparee canopy.
<b>Ratna</b>	Regular-bearer, free from spongy tissue and fibre
<b>Arka Puneet</b>	Regular-bearer, attractive skin colour, medium-sized, free from spongy tissue, good keeping quality, good sugar acid blend.



**Advanced Technology** – High density planting

**Pre-cooling** – Forced air

**Storage Conditions**

Temperature : 13<sup>0</sup>C

Relative Humidity : 85-90%

Storage period : 2-3 weeks

Freezing point : -1<sup>0</sup>C

**Sensibility to** – Refrigeration, Freezing and Ethylene exposure

**Growing Belts**

The major mango producing belts are as follows :

- Jammu & Kashmir (Jammu, Kathwa, Udhampur)
- Punjab (Gurdaspur, Hoshiarpur, Ropar)
- Uttarakhand (Almora, Nainital, Dehradun)
- Uttar Pradesh (Saharanpur, Bulandshahar, Lucknow, Varanasi, Faizabad, Meerut, Sitapur, Hardoi),
- Haryana (Karnal, Kurukshetra)
- Bihar (Bhagalpur, Darbhanga, Sitamarhi, Vaishali, East & West Champaran).
- Madhya Pradesh (Rewa, Satna) and Chhattisgarh (Jabalpur, Raipur, Bastar).
- Maharashtra (Ratnagiri, Sindhudurg, Raigarh)
- Gujarat (Bhavnagar, Surat, Valsad, Junagarh, Mehsana, Khera)
- Andhra Pradesh (Krishna, East & West Godavari, Khamman, Vijayanagar), Madhya Pradesh (Durg, Bilaspur, Bastar, Ramnandgaon, Rajgari)
- Orissa (Dhankamal, Ganjam, Korapu, Puri).
- Kerala (Calicut, Cannanoore), Karnataka (Kolar, Bangalore (R&U), Tankur, Kagu
- Tamil Nadu (Coimbatore, Dharmapuri, Dindigul, Krishnagiri, Madurai, Theni, Thiruvallore, Vellore)
- West Bengal (Malda, Murshidabad)

## HARVESTING SEASON OF MANGO

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

SOURCE : Director of Horticulture / Agriculture of respective State / UT's

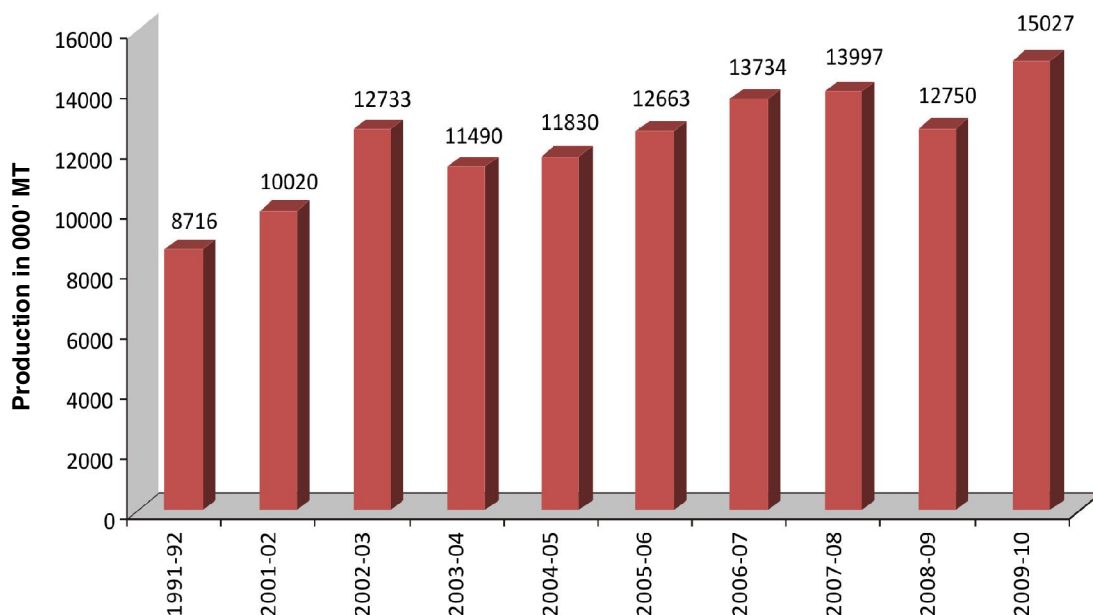




## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF MANGO

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	1077.6	37.5	8715.6	30.4	8.1
2001-02	1575.8	39.3	10020.2	23.3	6.4
2002-03	1623.4	42.9	12733.2	28.2	7.8
2003-04	1906.7	40.8	11490.0	25.2	6.0
2004-05	1970.4	39.7	11829.7	24.0	6.0
2005-06	2080.7	39.1	12663.1	22.9	6.1
2006-07	2154.0	38.8	13734.0	23.1	6.4
2007-08	2201.0	37.6	13997.0	21.3	6.4
2008-09	2309.0	37.8	12750.0	18.6	5.5
2009-10	2312.3	36.5	15026.7	21.0	6.5

### Production Trends of Mango

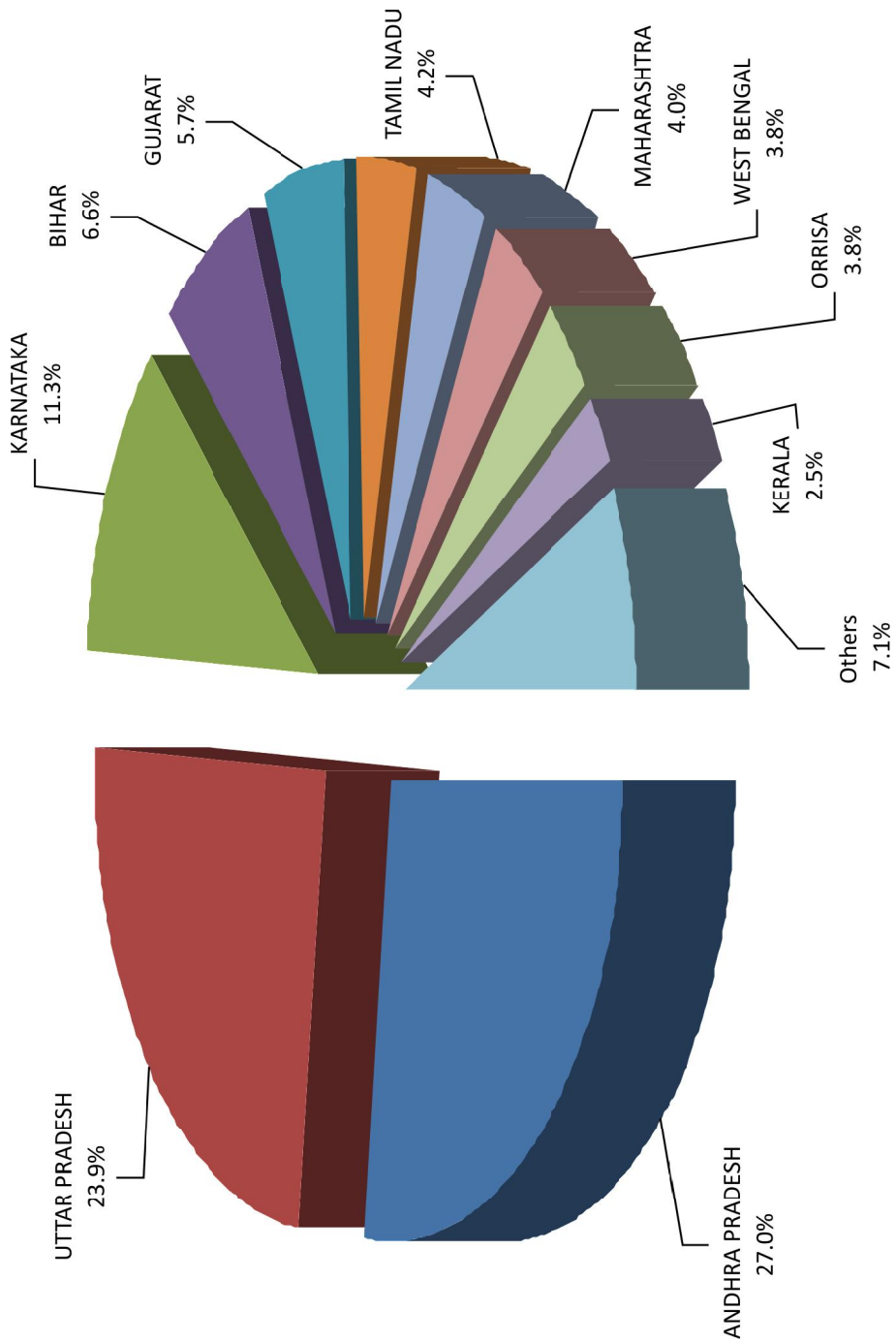


## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF MANGO

State	AREA (000 HA)			PRODUCTION (000 MT)			PRODUCTIVITY HA/MT		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ANDHRA PRADESH	483.5	4157.9	8.6	497.7	2522.0	5.1	480.4	4058.3	8.4
UTTAR PRADESH	265.9	3365.0	12.7	271.2	3465.9	12.8	276.4	3588.0	13.0
KARNATAKA	134.6	1223.3	9.1	141.3	1284.4	9.1	153.8	1694.0	11.0
BIHAR	142.2	870.4	6.1	144.1	1329.8	9.2	146.0	995.9	6.8
GUJARAT	109.6	930.1	8.5	115.7	299.8	2.6	121.5	856.7	7.0
TAMIL NADU	136.6	753.6	5.5	148.8	821.4	5.5	132.7	636.3	4.8
MAHARASHTRA	455.8	710.9	1.6	457.0	712.8	1.6	474.5	597.0	1.3
WEST BENGAL	80.9	623.3	7.7	86.0	548.9	6.4	88.1	578.0	6.6
ORRISA	148.2	251.8	1.7	164.3	449.7	2.7	177.6	577.5	3.3
KERALA	76.7	445.4	5.8	76.7	445.4	5.8	63.8	373.2	5.9
Others	167.4	665.1	4.0	206.2	869.5	4.2	197.425	1071.7	5.4
<b>TOTAL</b>	<b>2201.0</b>	<b>139970</b>	<b>6.5</b>	<b>2309.0</b>	<b>12750.0</b>	<b>5.5</b>	<b>2312.3</b>	<b>15026.7</b>	<b>6.5</b>



## Leading Mango Producing States (2009-10)



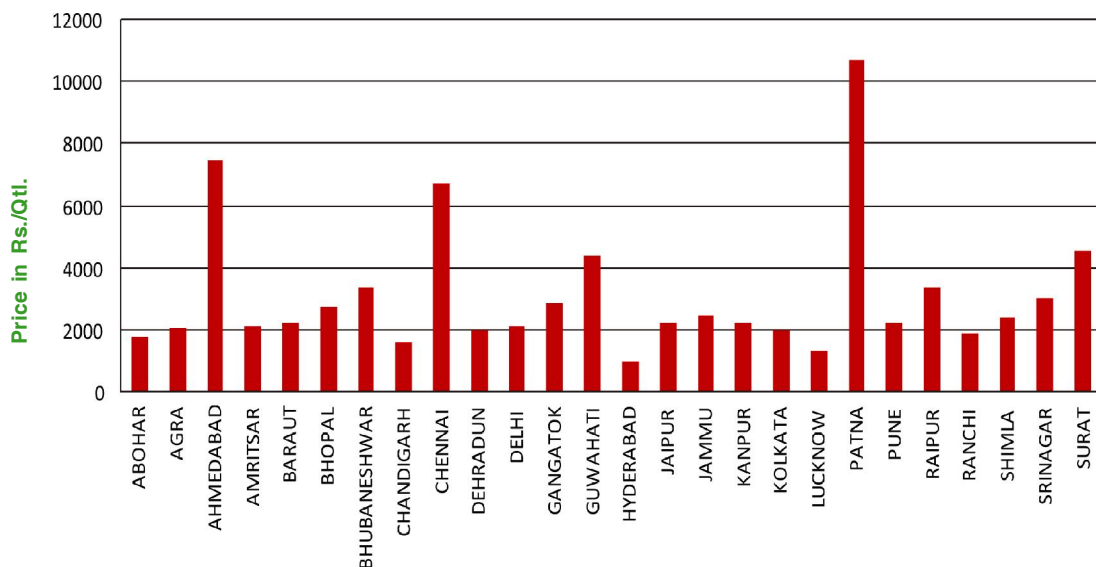
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF MANGO (DUSHEHARI) DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

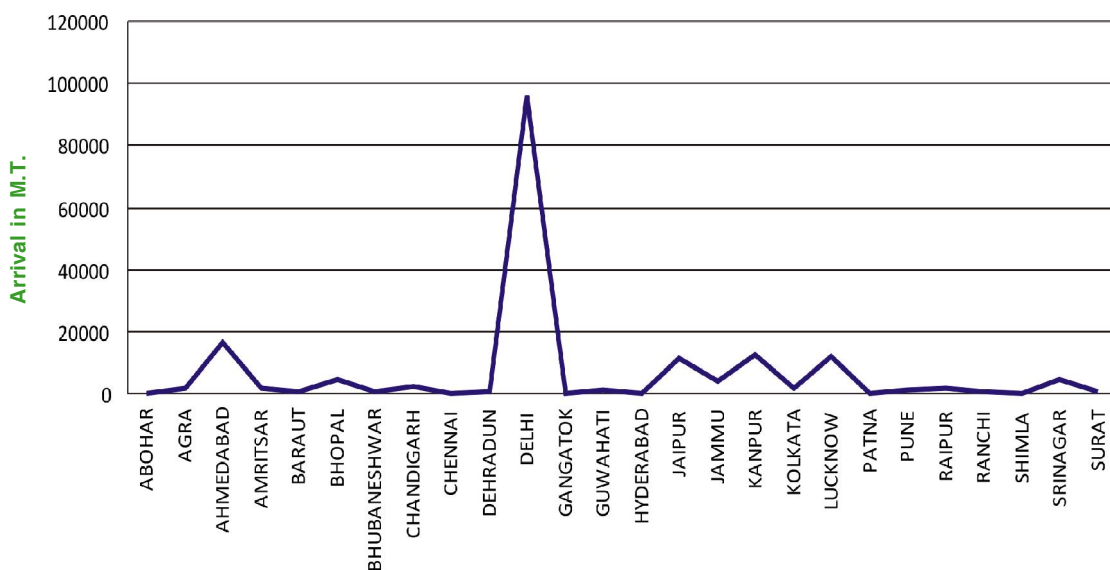
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHAR	0	0	0	0	0	0	1782	117	1768	56	0	0
AGRA	0	0	0	0	0	1893	1170	2250	710	0	0	0
AHMEDABAD	0	0	0	12063	3329	6200	7414	5725	3500	0	0	0
AMRITSAR	0	0	0	2613	81	0	1916	868	1763	721	0	0
BARAUT	0	0	0	0	0	0	2413	136	2018	151	0	0
BHOPAL	0	0	0	0	1200	20	2206	3982	2824	394	4800	1
BHUBANESHWAR	0	0	0	0	0	0	3294	208	3443	162	0	0
CHANDIGARH	0	0	0	0	0	0	1458	1116	1703	989	0	0
CHENNAI	0	0	0	0	0	0	0	0	6732	96	0	0
DEHRADUN	0	0	0	0	0	1736	311	1587	275	2700	7	0
DELHI	0	0	0	0	2508	1773	73323	2059	0	0	0	0
GANGATOK	0	0	0	0	0	2723	30	2932	29	0	0	0
GUWAHATI	0	0	0	0	0	3069	376	4531	617	5455	251	0
HYDERABAD	0	0	0	0	950	282	0	0	0	0	0	0
JAIPUR	0	0	0	2658	60	2380	428	1824	6685	1968	4194	0
JAMMU	0	0	0	0	0	0	2227	2202	2708	1827	0	0
KANPUR	0	0	0	2400	14	0	1182	7692	2031	4639	3300	50
KOLKATA	0	0	0	0	625	90	2174	884	3142	944	0	0
LUCKNOW	0	0	0	0	0	0	933	8085	1700	4021	0	0
PATNA	0	0	10700	5	0	0	0	0	0	0	0	0
PUNE	0	0	0	0	1100	22	2507	456	3050	889	0	0
RAIPUR	0	0	0	0	0	0	2452	1512	3526	0	4167	0
RANCHI	0	0	0	0	0	0	1671	486	1788	83	0	0
SHIMLA	0	0	0	0	0	0	2685	63	2009	74	2500	3
SRINAGAR	0	0	0	0	3664	1905	2237	2280	3178	405	0	0
SURAT	0	0	0	7392	36	4733	304	3471	203	2550	54	0



## Annual Wholesale Average Price Trend of Mangos (Dushehari) - 2010



## Annual Total Arrival Trends of Mango (Dushehari) - 2010



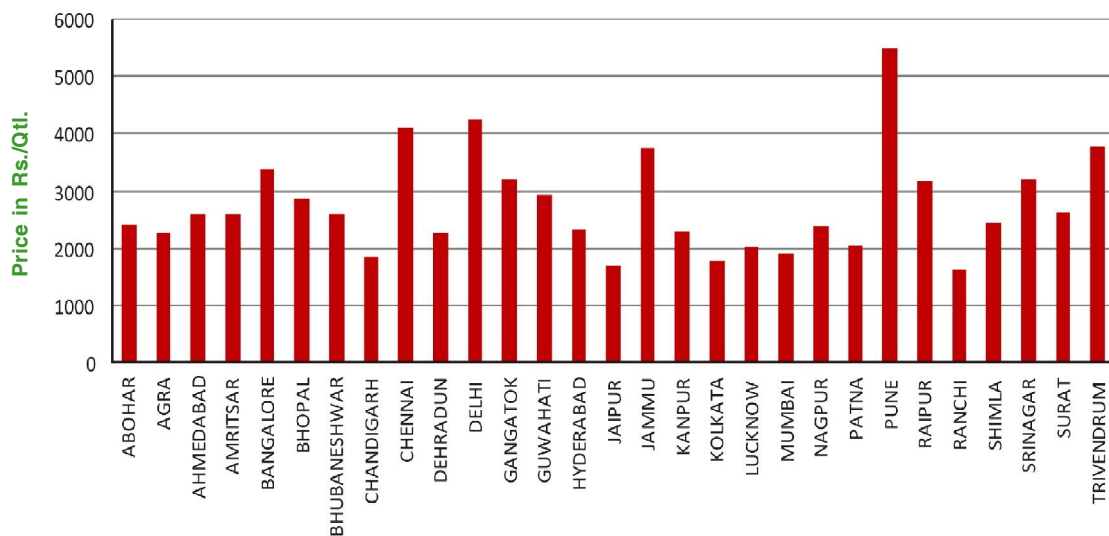
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF MANGO (SAFEDA) DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

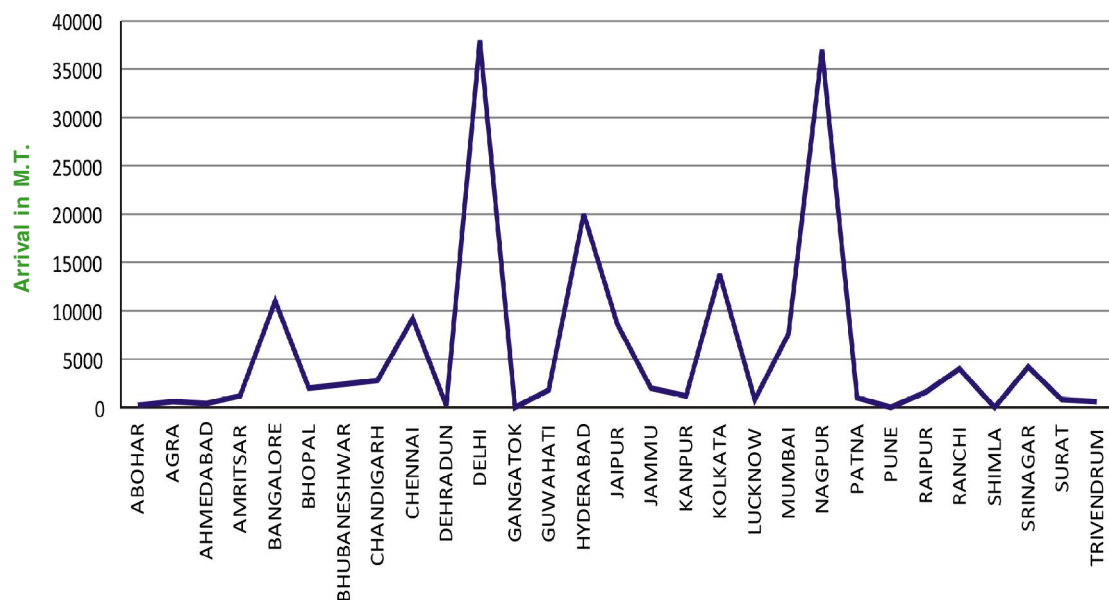
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHAR	0	0	0	0	3206	60	2360	75	1700	4	0	0
AGRA	0	0	0	0	2395	370	2309	219	2100	24	0	0
AHMEDABAD	0	0	0	0	2750	451	2850	0	0	0	0	0
AMRITSAR	0	0	0	0	2814	223	2494	693	2455	373	0	0
BANGALORE	0	0	0	0	3319	3910	3460	7150	0	0	0	0
BHOPAL	0	0	3561	31	2746	602	2788	644	2723	295	2506	355
BHUBANESHWAR	0	0	0	0	2150	90	2015	1541	2485	620	3715	74
CHANDIGARH	0	0	0	0	2024	872	1832	1147	1661	872	0	0
CHENNAI	0	0	0	0	5500	10	2844	2970	2963	4340	5083	1860
DEHRADUN	0	0	0	0	2417	62	2108	141	0	0	0	0
DELHI	0	0	8545	1278	3316	18132	2428	18651	2675	0	0	0
GANGATOK	0	0	0	0	3179	4	0	3200	1	0	0	0
GUWAHATI	0	0	0	0	3487	904	2383	923	0	0	0	0
HYDERABAD	0	0	0	0	2267	1726	2398	9663	2240	7530	2327	1010
JAIPUR	0	0	0	0	2077	3453	1468	3662	1551	1415	0	0
JAMMU	0	0	0	0	4819	564	3178	1023	3648	435	3350	24
KANPUR	0	0	0	0	2300	294	2155	780	2433	50	0	0
KOLKATA	0	0	0	0	2272	2389	1664	10599	1375	716	0	0
LUCKNOW	0	0	0	0	2171	614	1868	181	0	0	0	0
MUMBAI	0	0	0	0	2020	7552	1760	0	0	0	0	0
NAGPUR	0	0	0	0	2720	7295	1950	18320	2434	11350	0	0
PATNA	0	0	0	0	2323	185	1787	760	0	0	0	0
PUNE	0	0	0	0	5500	70	0	0	0	0	0	0
RAIPUR	0	0	0	0	4653	592	2471	1059	2532	0	3000	0
RANCHI	0	0	0	0	2087	781	1527	1932	1414	1034	1538	229
SHIMLA	0	0	0	0	0	0	0	0	0	0	0	1
SRINAGAR	0	0	0	0	3814	1280	3032	2040	2779	935	0	0
SURAT	0	0	0	0	2385	34	2440	227	3006	525	0	0
TRIVENDRUM	0	0	0	0	3700	36	3933	257	3666	324	0	0



## Annual Wholesale Average Price Trend of Mangos (Safeda) - 2010



## Annual Total Arrival Trends of Mango (Safeda) - 2010



## PAPAYA

- Origin** – South Mexico and Costa Rica.
- Major Producing States** – Karnataka, Gujarat, Orissa, West Bengal, Assam, Kerala Madhya Pradesh & Maharashtra
- Latest Production** – 39.13 Lakh Tonnes
- Main Varieties** – Honey Dew, Coorg Honey Dew, Washington, Pusa Delicious, Pusa Majestgy, Pusa Dwarf, Pusa Giant Co. 1 to Co. 7, Surya, Pink Flesh Sweet, Pant 1, Sunrise Solo, Taiwan, etc.
- Advanced Technology** – High density planting
- Pre-cooling** – Forced air
- Storage Conditions**
- |                   |              |
|-------------------|--------------|
| Temperature       | : 10° - 13°C |
| Relative Humidity | : 85-90%     |
| Storage           | : 1-3 weeks  |
| Freezing point    | : -2 to -1°C |
- Sensibility to** – Refrigeration and Ethylene

### Growing Belts

The major papaya producing belts are as follows :

- Andhara Pradesh (Cuddapah, Medak, Kurnool, Rangareddy)





- Gujarat (Kheda, Ahmedabad, Jamnagar) and Orissa
- Maharashtra (Sangli, Satara, Pune, Nasik, Sholapur, Nagpur, Amravati)
- Karnataka (Shimoga, Chitradurga, Mysore, Belgaum, Bangaluru, Hassan)
- Madhya Pradesh (Dhar, Khandwa, Bilaspur, Ratlam, Guna)
- West Bengal (North 24 - Paraganas, Hoogly)
- Assam (Nagaon, Darrang, Karbi Anglong)

## HARVESTING SEASON OF PAPAYA

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

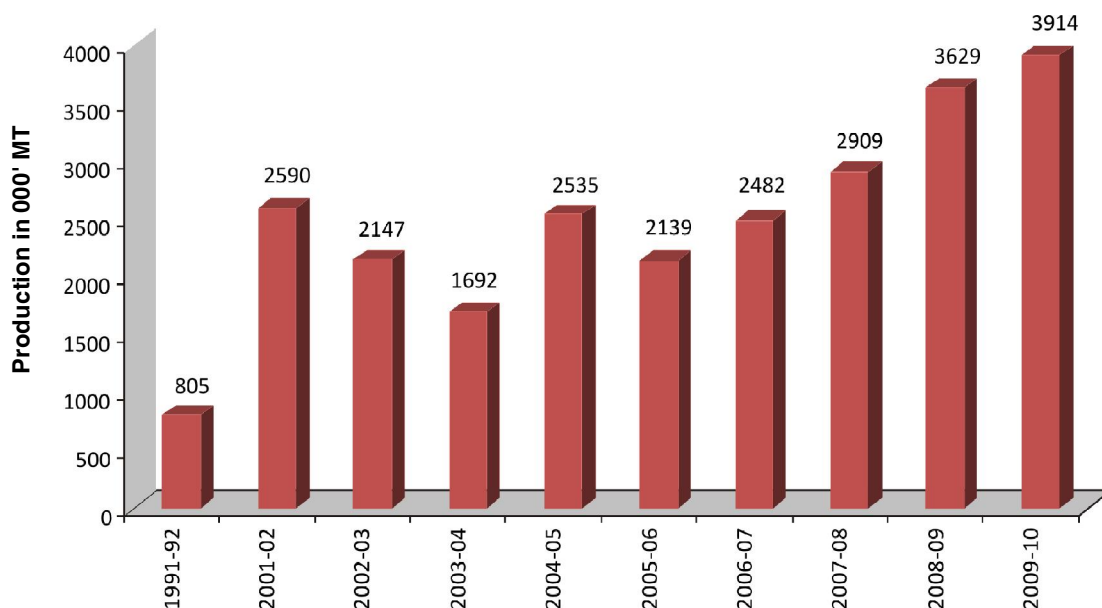
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF PAPAYA

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	45.2	1.6	805.3	2.8	17.8
2001-02	73.7	1.8	2590.4	6.0	35.1
2002-03	68.0	1.8	2147.2	4.8	31.6
2003-04	58.2	1.2	1692.1	3.7	29.1
2004-05	73.8	1.5	2535.1	5.1	34.4
2005-06	67.8	1.3	2139.3	3.9	31.6
2006-07	72.0	1.3	2482.0	4.2	34.5
2007-08	83.0	1.4	2909.0	4.4	35.0
2008-09	98.0	1.6	3629.0	5.3	37.0
2009-10	95.7	1.5	3913.5	5.5	40.9

## Production Trends of Papaya

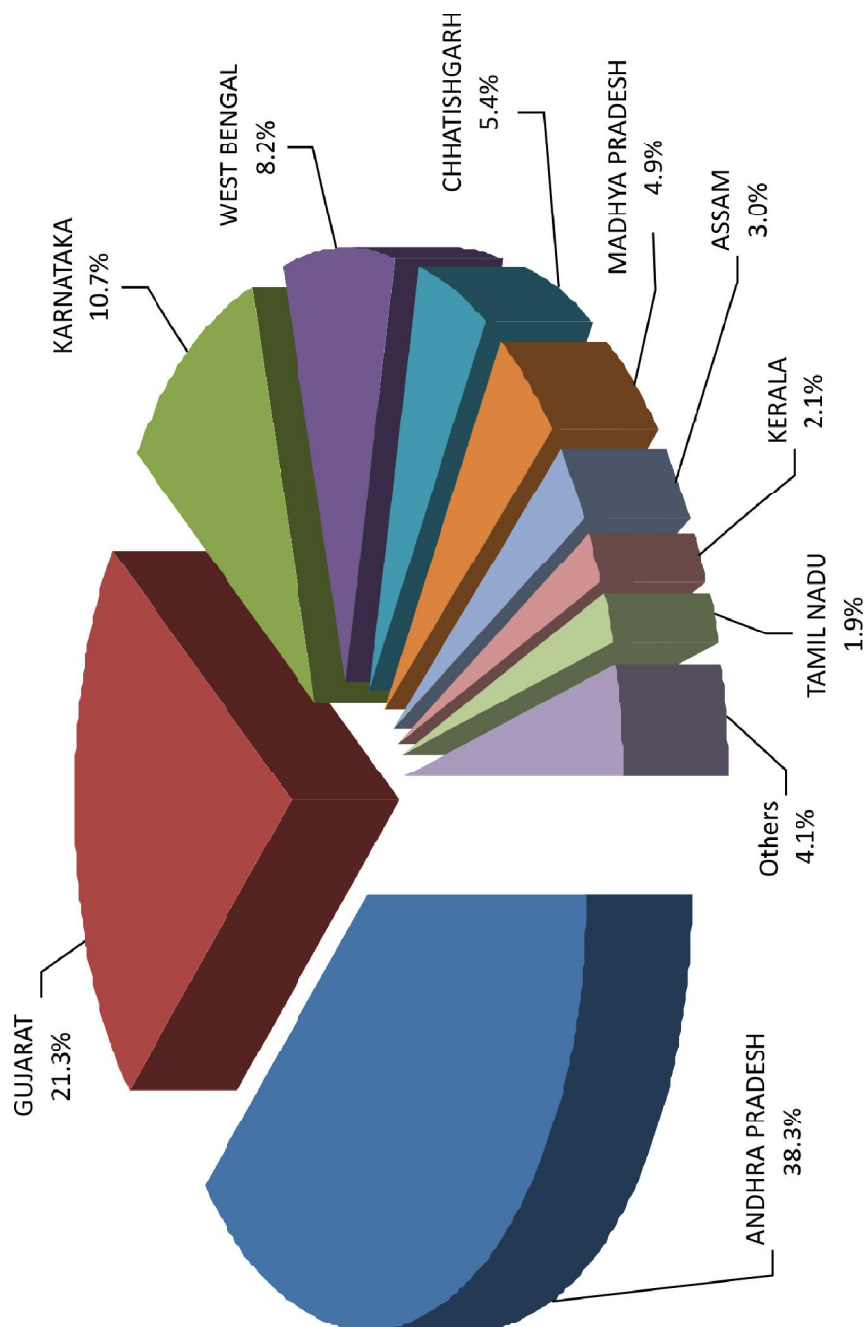


## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF PAPAYA

State	AREA (000 HA)			PRODUCTION (000 MT)			PRODUCTIVITY HA/MT		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ANDHRA PRADESH	14.9	1195.6	80.0	19.8	1581.2	80.0	18.8	1500.7	80.0
GUJARAT	11.2	489.0	43.7	14.1	721.7	51.1	15.3	832.9	54.3
KARNATAKA	5.2	389.5	74.7	5.5	409.0	74.7	5.8	419.3	72.3
WEST BENGAL	10.7	308.6	28.8	10.8	314.3	29.0	11.1	321.8	29.1
CHHATISHGARH	7.4	136.1	18.4	8.1	148.1	18.4	9.3	211.7	22.7
MADHYAPRADESH	0.8	28.3	35.4	1.6	53.8	33.9	1.7	192.9	115.6
ASSAM	7.0	107.1	15.3	7.1	128.5	18.1	7.2	119.1	16.5
KERALA	18.5	80.6	4.4	17.7	80.7	4.6	17.7	80.7	4.6
TAMILNADU	0.4	66.4	166.0	0.4	72.3	182.2	0.4	73.9	180.2
Others	6.7	107.4	16.1	12.7	119.2	9.4	8.4	160.5	19.2
<b>TOTAL</b>	<b>82.8</b>	<b>2908.6</b>	<b>35.1</b>	<b>97.7</b>	<b>3628.9</b>	<b>37.1</b>	<b>95.7</b>	<b>3913.5</b>	<b>40.9</b>



### Leading Papaya Producing States (2009-10)



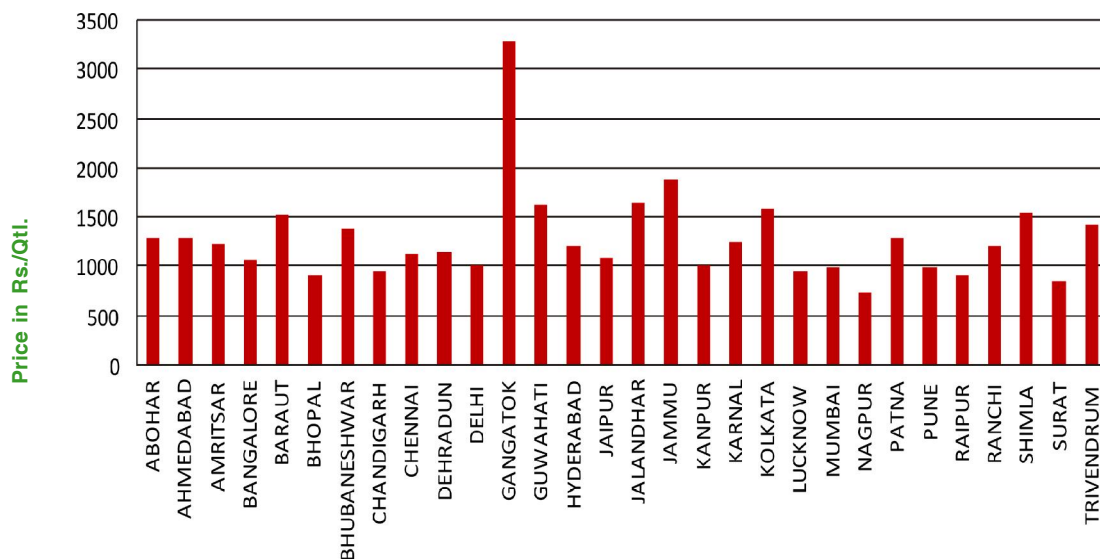
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF PAPAYA DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qlt.  
Total Arrivals in M.T.

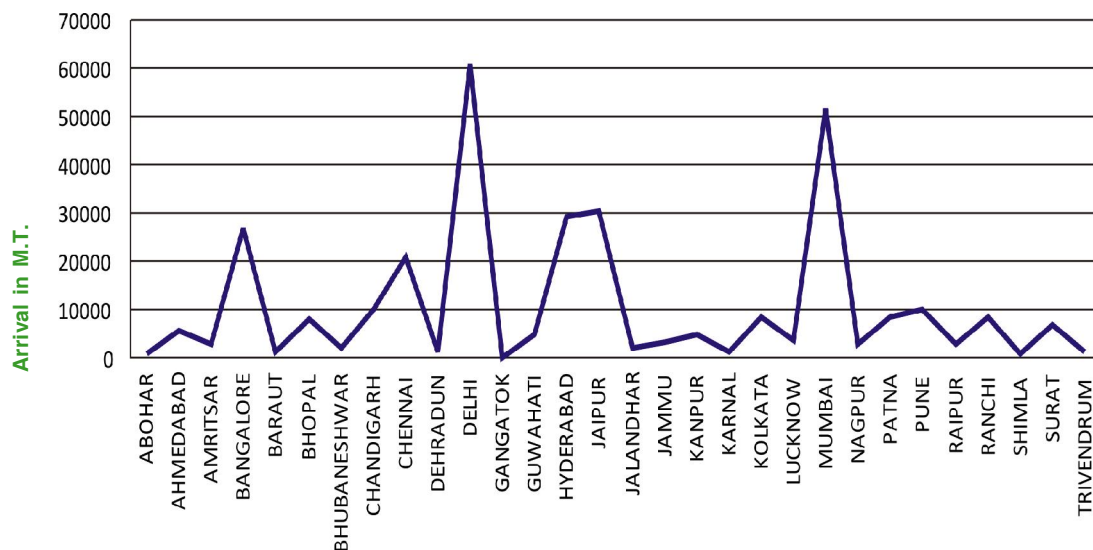
MARKET/CENTRE	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival
ABOHAR	1000	4	887	24	852	65	888	56	1265	53	1488	53	1450	47	1536	45	1505	197	1576	41	1636	21	1356	47
AHMEDABAD	1245	559	1125	505	1305	524	1214	347	957	270	1159	263	1327	612	1383	554	1427	536	1263	458	1514	334	1604	452
AMRITSAR	1023	230	1080	360	1033	430	1165	535	1184	509	0	0	0	0	1210	180	1271	183	1373	195	1558	138	1302	215
BANGALORE	779	2995	843	2130	852	2200	994	2070	1210	2085	1262	2100	1196	2230	1250	2240	1270	1900	1000	2075	1106	2213	957	2380
BARAUT	1282	47	1496	137	1438	143	1375	153	1453	281	1504	137	1513	74	1534	42	1583	41	1638	51	1658	63	1778	79
BHOPAL	774	677	600	692	597	842	627	732	652	724	840	691	882	758	1343	504	1554	488	1342	570	730	674	959	734
BHUBANESHWAR	1372	93	1449	73	1427	788	1945	81	1263	120	1316	72	1295	131	1337	185	1415	126	1347	124	1233	92	1178	104
CHANDIGARH	858	835	910	806	963	829	962	850	1024	795	931	981	931	955	887	795	982	756	975	915	963	842	916	771
CHENNAI	954	970	976	4890	1040	1100	1277	1040	1206	1040	980	1180	1102	1380	1015	1410	1443	5050	1283	950	1230	970	1082	1001
DEHRADUN	957	63	1007	108	1181	137	1276	72	983	86	1463	152	1451	116	1088	122	1141	77	1056	115	995	172	1082	113
DELHI	1255	1664	1198	4764	1071	7367	1074	6559	938	5535	950	5045	850	5683	954	6424	965	4744	983	4729	1020	4062	791	4090
GANGATOK	0	0	0	0	0	0	0	0	2881	1	4194	4	2552	8	2573	10	4252	8	2793	10	3872	12	3038	11
GUWAHATI	1382	282	1733	294	1692	365	1554	337	1427	528	1527	549	1619	558	1865	650	1667	319	1658	294	1691	252	1660	295
HYDERABAD	977	2023	863	2544	1392	4478	1704	4383	976	1606	1320	1731	1456	1421	1352	1369	1020	1936	1250	2082	976	2268	1196	3442
JAIPUR	717	1028	850	1365	905	3099	1051	5339	1158	4344	1228	2849	1171	2279	1211	2901	1179	2099	1328	1542	1145	1364	1007	2078
JALANDHAR	0	0	0	0	1500	30	0	0	0	0	0	0	0	0	0	0	0	0	2188	144	1613	552	1245	1101
JAMMU	1244	405	1360	320	1552	469	1602	394	1708	250	2233	214	1944	175	2119	164	2390	157	2380	127	2367	145	1708	259
KANPUR	912	526	959	492	1047	638	1027	432	1021	461	1210	330	1019	761	950	384	992	402	1041	310	0	0	0	0
KARNAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1253	229	1128	415	1385	385
KOLKATA	1408	729	1570	711	1522	810	1511	675	1634	531	1539	612	1590	628	1730	757	1678	667	1711	734	1522	753	1572	886
LUCKNOW	921	264	831	408	915	297	790	654	935	343	1013	228	985	371	972	176	1031	142	1041	286	953	254	982	279
MUMBAI	722	3305	904	3394	871	5080	991	2860	946	2183	998	2020	960	3375	1562	4352	798	3584	1303	11792	939	4566	935	5170
NAGPUR	521	242	689	290	704	235	895	224	895	230	889	140	735	291	633	291	768	235	652	250	668	240	663	222
PATNA	987	420	1230	620	1114	1370	1165	1170	1196	665	1382	557	1330	526	1569	855	1481	540	1385	520	1434	345	1204	660
PUNE	1200	1035	1192	1120	1152	944	1378	557	1217	399	1209	539	1077	790	690	1216	660	743	682	746	728	820	733	1059
RAIPUR	720	303	775	235	744	273	831	214	804	171	727	233	780	198	1029	153	1249	193	1230	204	1107	221	896	257
RANCHI	1193	571	1108	407	1104	2269	1142	419	1128	504	1162	531	1297	471	1199	484	1268	1080	1273	599	1271	505	1250	598
SHIMLA	1408	60	1462	66	1588	74	1547	55	1451	63	1553	68	1525	71	1668	79	1486	82	1579	81	1597	69	1696	75
SURAT	678	211	661	1812	670	301	669	525	706	452	676	714	681	660	1096	437	1259	409	762	475	1122	252	1185	370
TRIVENDRUM	1373	128	1359	134	1426	102	1426	127	1413	96	1410	120	1361	113	1515	82	1452	76	1444	102	1463	91	1527	100



### Annual Wholesale Average Price Trends of Papaya - 2010



### Annual Total Arrival Trends of Papaya - 2010



## PINEAPPLE

- Origin** – American continent, probably Brazil and Paraguay
- Major Producing States** – West Bengal, Assam, Karnataka, Meghalaya, Manipur, Bihar & Kerala
- Latest Production** – 13.87 Lakh Tonnes
- Main Varieties** – Giant Kew, Queen, Kew, Mauritius, Charlotte Rothchild Jaldhup Desi and Lakhat, etc.
- Advanced Technology** – High density planting
- Pre-cooling** – Forced air
- Storage Conditions**
- |                   |  |
|-------------------|--|
| Temperature       | : 7-10 <sup>0</sup> C                                |
| Relative Humidity | : 85-95%   |
| Storage period    | : 2-4 weeks (depending on cultivar & ripening stage) |
| Freezing point    | : -1 <sup>0</sup> C                                  |
- Treatment for Quality** – Pre harvest application of ethephon (500-2000 ppm) at the starting or natural colouring, ensure good fruit quality and in less effective in hot weather.
- Sensibility to** – Refrigeration, Ethylene and Odours.

### Growing Belts

The major pineapple producing belts, are as follows :

- Arunachal Pradesh (Lohit, Tirap, Changlang)
- Karnataka (Shimoga, North & South Kannada, Chickmagalore)





- Kerala (Enrakulam)
- West Bengal (North Dinajpur, Darzeeling, Jalpaiguri)
- Assam (Nagaon, Kamrup, Karbi-Anglong, Cachar, Nichill)
- Bihar (Purnia, Kishanganj, Saharsa, Madhepura)
- Nagaland (Dimapur, Mokokchung, Zunheboto, Wokha)
- Manipur (Thoubal, Churhandpur, Imphal- East)
- Meghalya (Ri-Bhoi, East Khasi, Garo Hills)
- Mizoram ( North & West part, Chhimheipuii)
- Tripura (West & North Tripura)

## HARVESTING SEASON OF PINEAPPLE

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

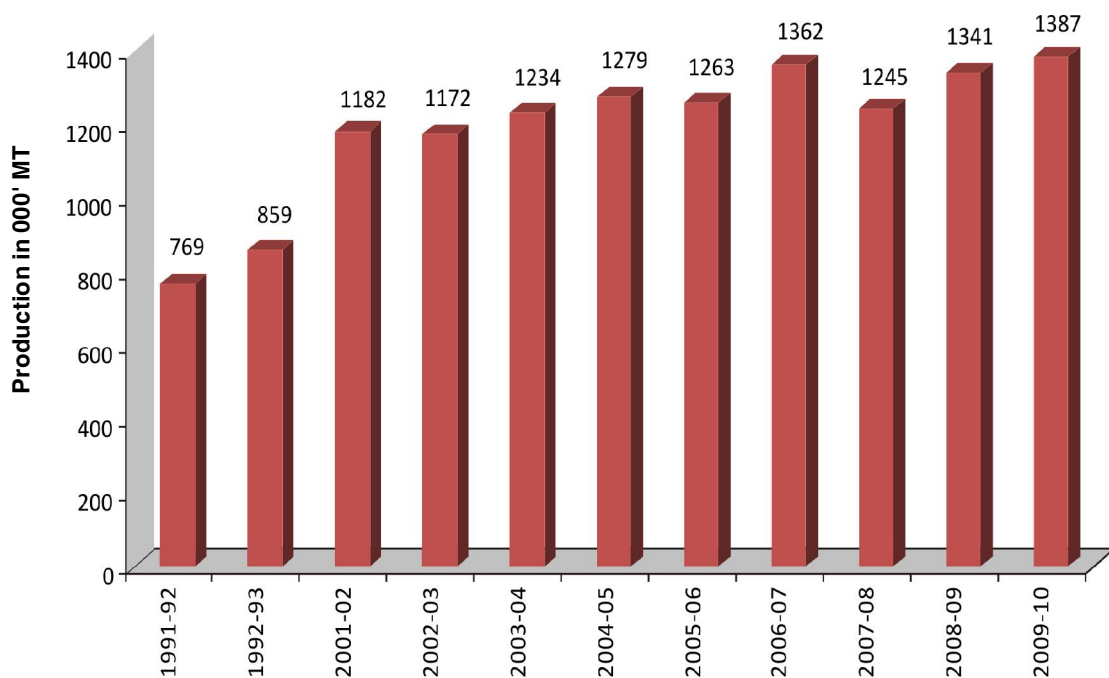
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF PINEAPPLE

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT. AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT. PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	57.1	2.0	768.5	2.7	13.5
1992-93	59.4	1.9	859.0	2.6	14.5
2001-02	77.2	1.9	1182.1	2.7	15.3
2002-03	79.8	2.1	1171.7	2.6	14.7
2003-04	80.9	1.7	1234.2	2.7	15.3
2004-05	82.8	1.7	1278.9	2.6	15.4
2005-06	82.4	1.5	1262.6	2.3	15.3
2006-07	87.0	1.6	1362.0	2.3	15.7
2007-08	80.0	1.4	1245.0	1.9	15.6
2008-09	84.0	1.4	1341.0	2.0	16.0
2009-10	91.9	1.5	1386.8	1.9	15.1

### Production Trends of Pineapple

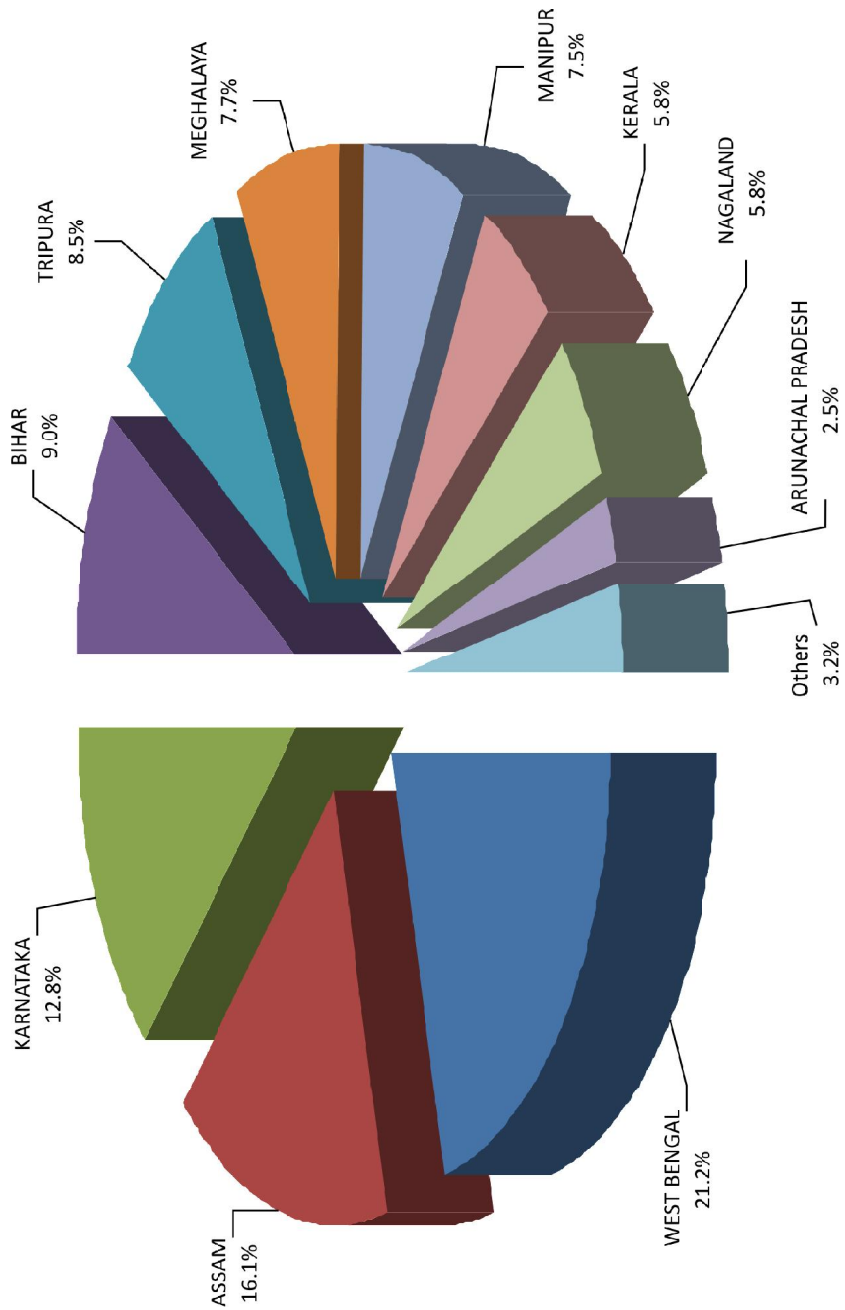


## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF PINEAPPLE

State	AREA (000 HA)			PRODUCTION (000 MT)			PRODUCTIVITY HA/MT		
	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
WEST BENGAL	9.5	283.2	29.8	9.6	283.9	29.7	9.6	293.8	30.5
ASSAM	12.7	195.7	15.4	12.9	225.1	17.5	14.2	223.0	15.7
KARNATAKA	2.9	177.4	61.7	3.0	186.3	61.7	2.8	177.2	63.3
BIHAR	4.6	126.8	27.6	4.7	119.5	25.5	4.7	125.0	26.4
TRIPURA	6.3	116.9	18.6	6.3	101.2	16.1	6.8	117.5	17.3
MEGHALAYA	9.6	85.3	8.9	10.8	106.8	9.9	10.8	106.8	9.9
MANIPUR	8.5	72.4	8.5	8.6	78.5	9.1	12.1	103.5	8.6
KERALA	12.5	102.4	8.2	12.5	102.4	8.2	9.8	80.8	8.2
NAGALAND	2.2	10.0	4.5	3.7	57.5	15.5	8.0	80.1	10.0
ARUNACHAL PRADESH	9.3	37.8	4.1	9.3	37.8	4.1	10.9	34.4	3.2
OTHERS	1.9	36.6	19.1	2.4	41.9	17.3	2.2	44.8	20.6
<b>TOTAL</b>	<b>80.0</b>	<b>1244.6</b>	<b>15.5</b>	<b>83.7</b>	<b>1340.8</b>	<b>16.0</b>	<b>91.9</b>	<b>1386.8</b>	<b>15.1</b>



## Leading Pineapple Producing States (2009-10)



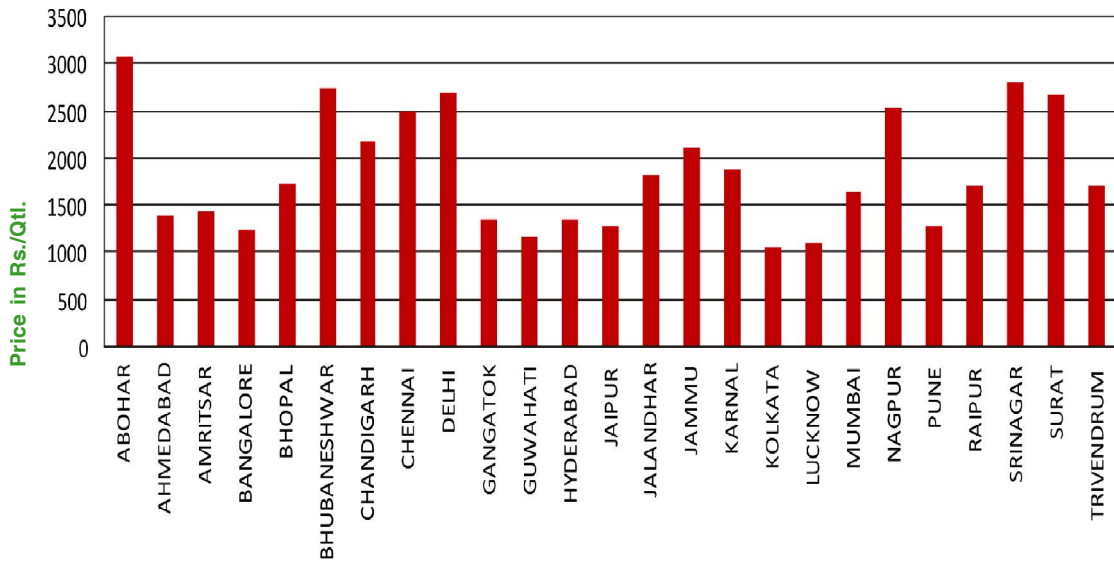
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF PINEAPPLE DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

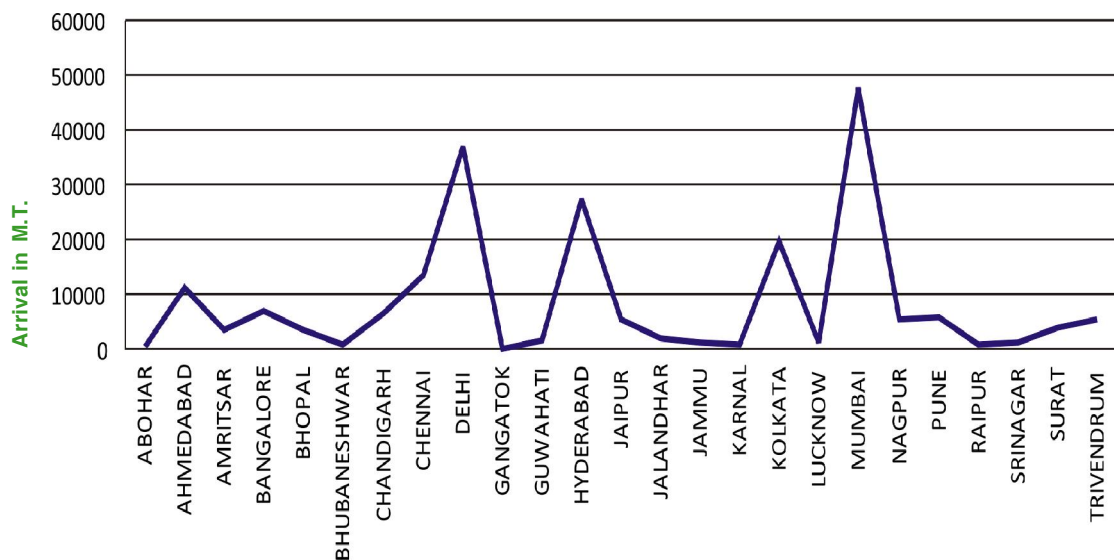
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHAR	3200	2 2743	12 2700	2 2620	27 3553	29 3063	29 2996	29 3082	25 3289	31 3362	24 3236	14 3006
18												
AHMEDABAD	969	1406 1211	1403 1107	1203 734	1800 572	1829 356	1404 938	1329 1009	1367 928	1554 1045	1370 581	1580 828
AMRITSAR	1054	242 1182	264 1361	264 1393	300 1498	291 1576	272 1480	342 1483	256 1545	235 1619	312 1494	255 1476
335												
BANGALORE	819	730 1059	835 1260	765 1654	560 1394	485 1387	567 1002	530 1156	555 1232	430 1124	410 1306	490 1327
560												
BHOPAL	1820	197 1559	129 1710	1847 1525	145 1834	104 2054	98 1973	172 1854	160 1915	124 1534	84 1498	157 1484
156												
BHUBANESHWAR	2839	63 2768	36 2838	41 2898	40 2513	119 2246	125 3000	62 2743	101 2938	68 2792	109 2746	84 2586
40												
CHANDIGARH	2045	553 2062	519 2063	438 2181	513 2365	400 2030	526 2226	590 2200	550 2383	533 2014	614 2096	627 2473
519												
CHENNAI	2448	1001 3813	840 3664	1020 2581	970 1958	1330 2060	1240 2104	1885 2222	1690 2407	980 2225	820 2291	840 2154
920												
DELHI	2560	768 2310	2300 2425	3675 2652	4101 3104	4337 2977	4299 2871	4339 2771	2973 2775	2570 2725	2760 2728	2625 2528
2076												
GANGATOK	0	0 1100	1 1155	7 1215	3 1370	12 1311	8 1151	8 1174	9 1638	8 1436	9 1572	10 1790
11												
GUWAHATI	0	0 0	0 0	0 0	0 0	0 0	0 1280	890 1042	694 0	0 0	0 0	0 0
0												
HYDERABAD	996	1410 1327	2800 1502	4436 1613	4034 1015	2826 1404	1654 1754	1000 1711	1239 1268	1567 1063	1928 1285	1813 1344
2517												
JAI PUR	1164	265 1122	362 1129	502 1383	737 1480	787 1230	494 1407	424 1307	464 1163	430 1146	388 1505	369 1304
330												
JALANDHAR	0	0 0	0 2100	18 0	0 0	0 0	0 0	0 0	0 0	0 1363	196 1547	777 2242
765												
JAMMU	1910	124 1900	83 1964	89 1854	90 2378	66 2515	83 1946	143 1800	178 2171	120 2196	77 2696	61 2090
128												
KARNAL	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1700	271 1598	407 2362
216												
KOLKATA	1064	551 1042	704 991	571 1136	488 1145	488 1125	843 950	3271 1016	3589 1110	2234 892	2584 1042	2083 1147
2228												
LUCKNOW	0	0 0	0 0	0 0	0 0	0 0	0 1114	429 1044	194 1045	167 1125	169 1085	163 1246
110												
MUMBAI	1892	3500 1378	3390 1767	5980 1783	3770 1656	2120 1535	2479 1765	1418 1682	4440 1391	2795 1621	10000 1520	3648 1557
4250												
NAGPUR	2021	320 1770	440 2084	410 2485	275 2612	322 2242	430 2791	1460 2807	332 3082	227 3460	310 2994	330 2198
477												
PUNE	1325	859 1200	768 1210	690 1255	490 1256	347 1379	517 0	0 0	0 1271	465 1247	629 1313	616 1373
575												
RAIPUR	1244	50 1365	32 1398	51 1775	42 1715	45 1418	146 1349	203 1652	46 1750	44 2155	76 2381	77 2350
84												
SRINAGAR	2976	107 2794	69 3015	112 2940	198 3152	236 2658	90 2625	32 2688	31 2838	25 2538	33 2567	14 2904
42												
SURAT	2422	232 2360	244 2400	266 2450	491 2540	239 2333	420 2596	364 3019	404 2778	323 3218	347 2779	236 3113
216												
TRIVENDRUM	1748	575 1483	635 1357	500 1971	410 2065	389 1731	421 2069	331 1923	390 1506	381 1906	351 1508	467 1302
603												



### Annual Wholesale Average Price Trends of Pineapple - 2010



### Annual Total Arrival Trends of Pineapple - 2010



## POMEGRANATE

- Origin** – Iran and adjoining countries
- Major Producing States** – Maharashtra, Karnataka, Tamil Nadu, Rajasthan, Himachal Pradesh.
- Botanical Name** – Punica Granatum
- Latest Production** – 8.20 Lakh Tonnes
- Advanced Technology** – High Density
- Pre-cooling** – Forced air

### Storage Conditions

Temperature	: 5°C
Relative Humidity	: 90%
Storage period	: 6 Months

### Growing Belts

The major pomegranate producing belts, are as follows :

- Maharashtra (Solapur, Sangli, Nashik, Ahmednagar, Pune, Dhule, Aurangabad, Satara, Osmanabad and Latur districts).
- Karnataka (Bijapur, Kopal, Dharwad, Tumkur and Bagalkot)
- Gujarat (South Gujarat)
- Rajasthan (Hanumangarh, Gangshar)
- Andhra Pradesh (Anantpur, Mahboobnagar, Jahirabad)
- Tamil Nadu (Coimbatore)





## HARVESTING SEASON OF POMEGRANATE

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERY												
<div> <div></div> PEAK SEASON           <div></div> LEAN SEASON           <div></div> ROUND THE YEAR         </div>												
SOURCE : Director of Horticulture / Agriculture of respective State / UT's												

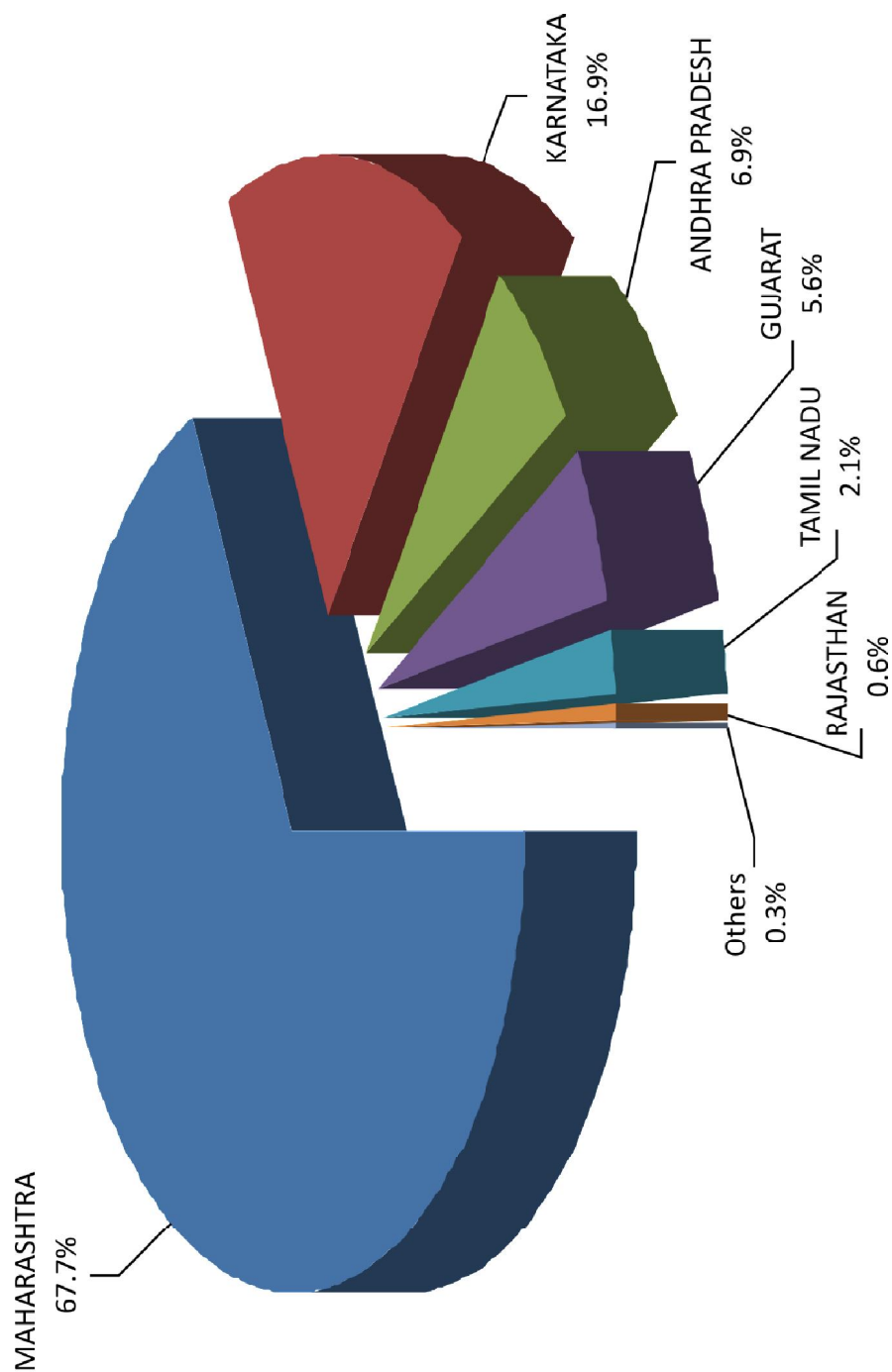
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF POMEGRANATE

AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
MAHARASHTRA	96.5	596.2	6.2	82.0	550.0	6.7	98.9	555.5	5.6
KARNATAKA	13.9	134.1	9.7	14.3	138.1	9.7	13.2	138.5	10.5
ANDHRA PRADESH	5.7	85.5	15.0	6.5	64.7	10.0	5.6	56.4	10.0
GUJARAT	5.6	56.6	10.1	4.0	39.3	9.8	4.4	45.6	10.4
TAMILNADU	0.4	9.1	22.8	0.4	10.0	25.0	0.4	17.5	39.4
RAJASTHAN	0.5	1.9	4.2	0.6	3.5	5.5	0.8	4.8	6.4
Others	1.1	0.7	0.7	1.4	1.6	1.1	1.66	2.1	1.2
<b>TOTAL</b>	<b>123.6</b>	<b>884.1</b>	<b>7.2</b>	<b>109.2</b>	<b>807.2</b>	<b>7.4</b>	<b>125.0</b>	<b>820.3</b>	<b>6.6</b>



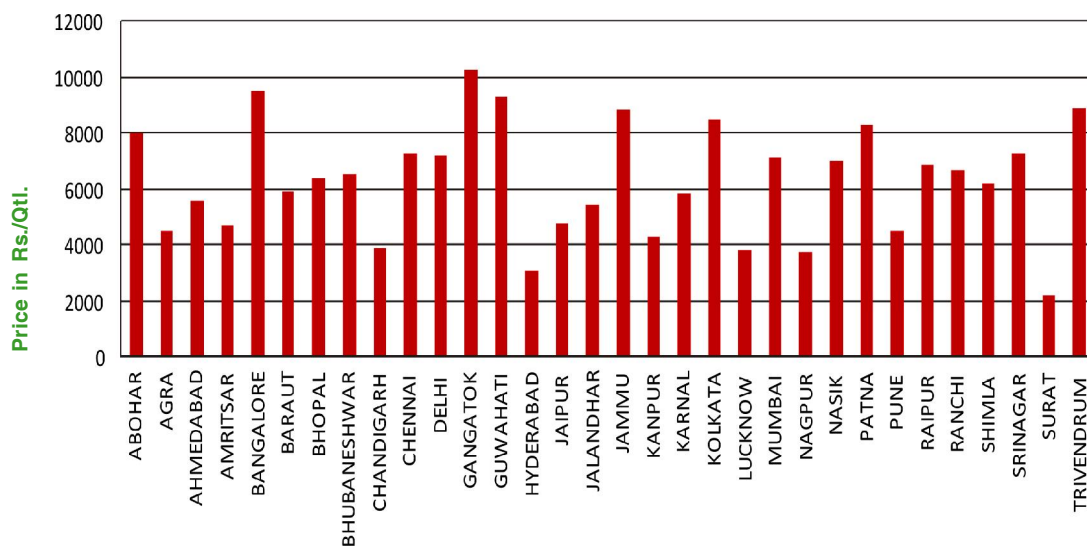
### Leading Pomegranate Producing States (2009-10)



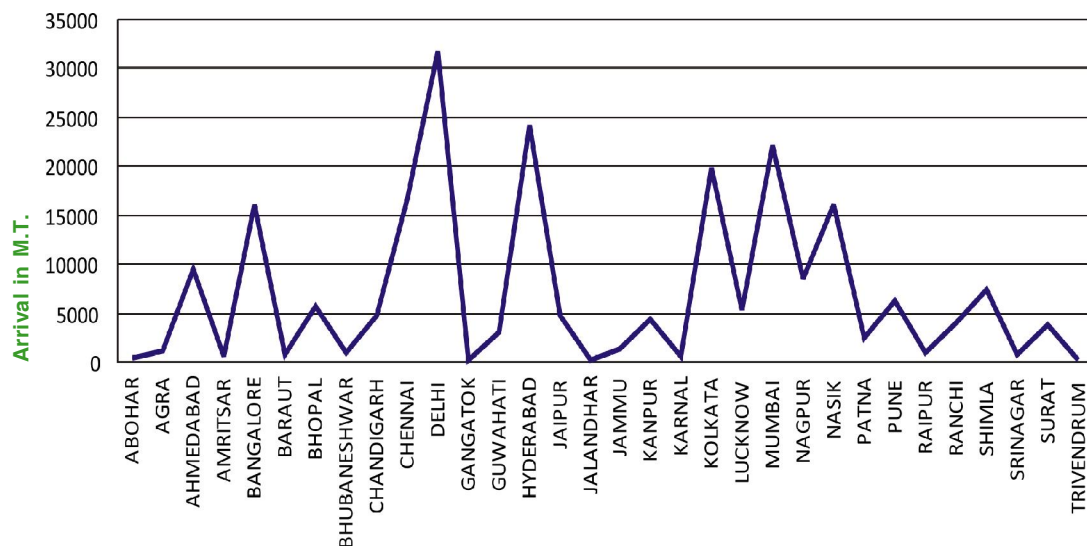




## Annual Wholesale Average Price Trends of Pomegranate - 2010



## Annual Total Arrival Trends of Pomegranate - 2010



## SAPOTA

**Origin** – Tropical America

**Major Producing States** – Karnataka, Gujarat, Andhra Pradesh, Maharashtra and Orissa.

**Latest Production** – 13.47 Lakh Tonnes

### States-wise cultivars of sapota

State	Cultivars
Andhra Pradesh	Pala, Kirtibarthi, Cricket Ball, Dwarapudi and Guthi Jonavalasa
Gujarat	Kalipatti, Bhuripatti, Piilipatti, Dhola Diwani, Jhumakhia and Cricket Ball
Maharashtra	Kalipatti, Cricket Ball, and Murraba
Karnataka	Kalipatti, Cricket Ball, Kirtibarthi, DHS 1 and DHS 2
Tamil Nadu	Guthi, Kirthibarthi, Pala, Co 1, Co 2 and PKM 1

**Advanced Technology** – Softwood grafting

**Pre-Cooling** – Forced Air

### Storage Conditions

Temperature	: 15 - 20°C
Relative Humidity	: 85-90%
Storage Period	: 2-3 weeks

**Treatment for Quality** – Treating fruits with GA<sub>3</sub> at 75 ppm for 3 minutes and stored in 100 gauge polythene with 1.2% vents.

**Sensibility to** – Refrigeration, Ethylene & Odours

### Growing Belts

The major sapota producing belts, are as follows :

- Andhra Pradesh (East & West Godavari, Krishna, Guntur, Kurnool, Medak)
- Gujarat (Valsad, Surat, Kheda, Bhavnagar)
- Karnataka (Belgaum, Dharwar, Chickmagalore, Shimoga, Hassan)
- West Bengal (South 24 - Paraganas, Midnapur)
- Maharashtra (Thane, Satara, Sangli, Ahmednagar)



## HARVESTING SEASON OF SAPOTA

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

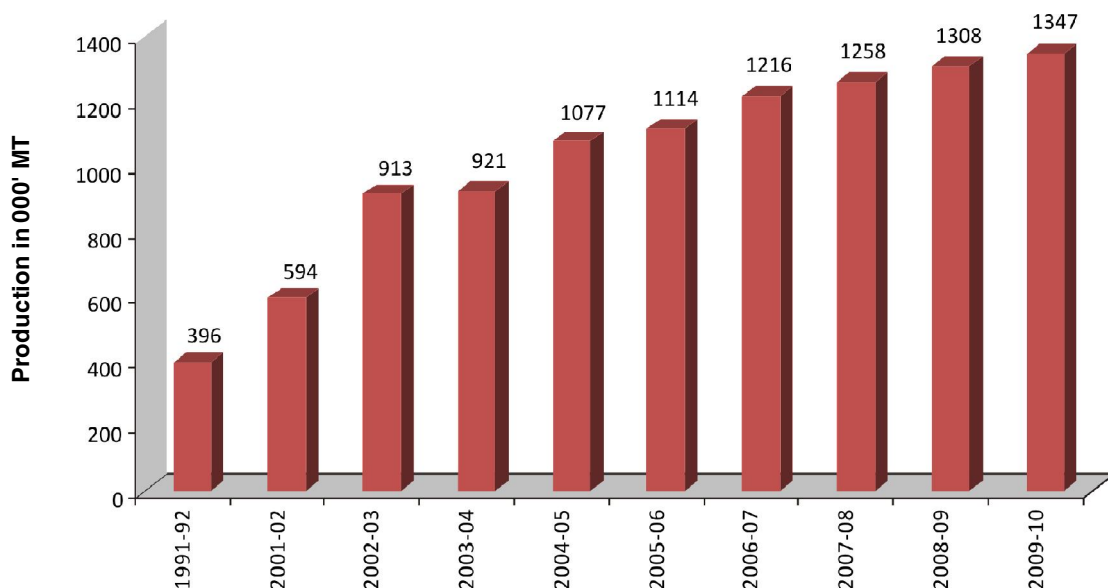
PEAK SEASON
LEAN SEASON
ROUND THE YEAR

SOURCE : Director of Horticulture / Agriculture of respective State / UT's

## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF SAPOTA

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	27.2	0.9	396.2	1.4	14.6
2001-02	52.0	1.3	593.5	1.4	11.4
2002-03	84.2	2.2	913.1	2.0	10.8
2003-04	120.6	2.6	921.3	2.0	7.6
2004-05	134.1	2.7	1076.5	2.2	8.0
2005-06	139.7	2.6	1114.0	2.0	8.0
2006-07	149.0	2.7	1216.0	2.0	8.2
2007-08	152.0	2.6	1258.0	1.9	8.3
2008-09	156.0	2.6	1308.0	1.9	8.4
2009-10	158.9	2.5	1346.8	1.9	8.5

### Production Trends of Sapota



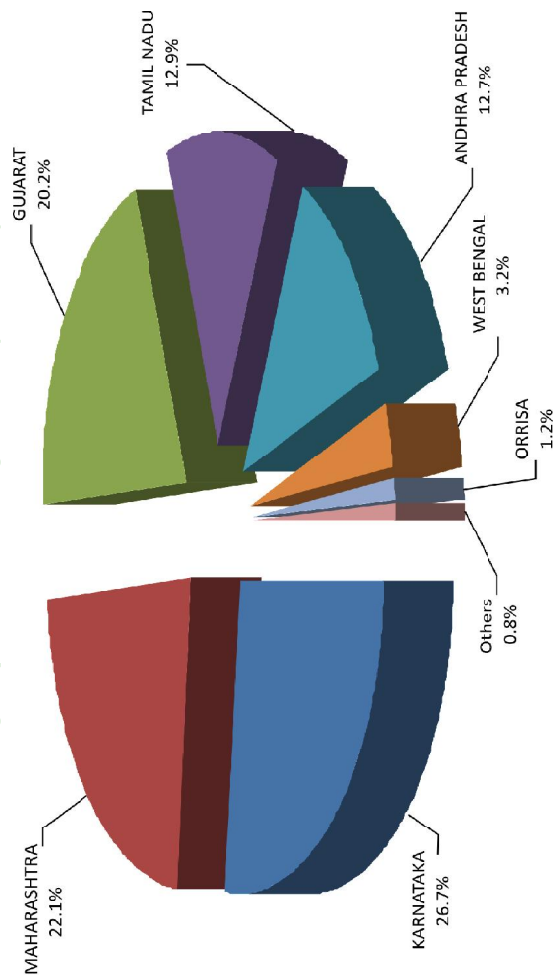


## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF SAPOTA

AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
KARNATAKA	26.2	283.6	10.8	27.5	297.8	10.8	29.3	360.0	12.3
MAHARASHTRA	65.3	294.1	4.5	65.4	298.7	4.6	69.1	298.0	4.3
GUJARAT	26.5	258.9	9.8	26.7	255.4	9.6	27.4	272.6	10.0
TAMIL NADU	6.8	168.8	24.8	7.4	184.0	25.0	6.9	173.5	25.0
ANDHRA PRADESH	18.7	187.3	10.0	20.6	205.9	10.0	17.1	171.4	10.0
WEST BENGAL	3.9	43.4	11.1	3.8	43.0	11.2	4.0	43.4	10.9
ORRISA	3.3	14.6	4.4	3.3	15.0	4.6	3.3	16.6	5.0
Others	1.3	7.1	5.3	1.5	8.1	5.4	1.7	11.1	6.5
<b>TOTAL</b>	<b>152.0</b>	<b>1258.0</b>	<b>8.3</b>	<b>156</b>	<b>1308.0</b>	<b>8.4</b>	<b>158.9</b>	<b>1346.6</b>	<b>8.5</b>

Leading Sapota Producing States (2009-10)



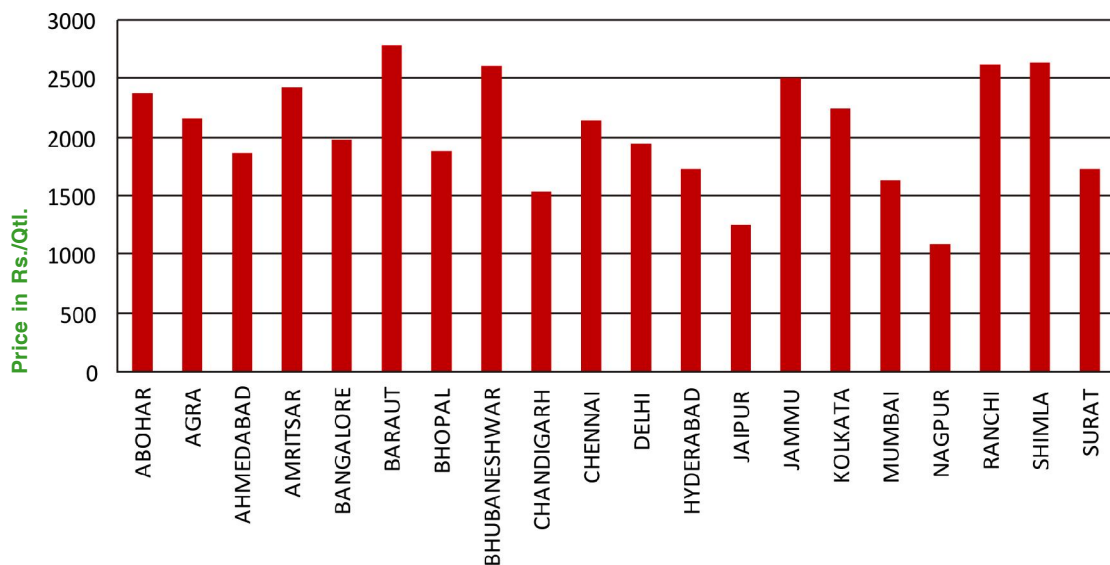
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF SAPOTA DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

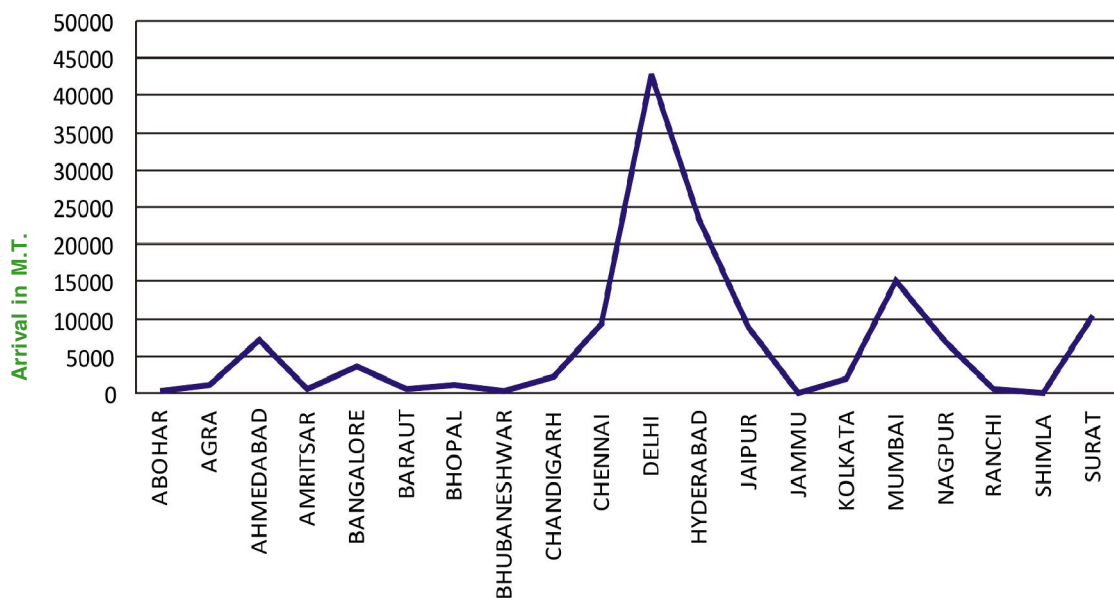
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHR	2700 1	2371 10	2138 43	1983 29	2467 13	2713 35	2283 13	0 0	0 0	0 0	0 0	0 0
AGRA	1699 252	1639 212	1791 140	2027 105	2446 93	2643 36	2586 7	0 0	0 0	0 0	0 0	2502 216
AHMEDABAD	1355 426	1389 517	1550 466	1238 283	1530 1644	2338 1861	1854 396	1744 328	2346 333	1924 340	2402 233	2700 353
AMRITSAR	2230 122	2357 81	2374 66	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2714 202
BANGALORE	1971 278	2070 280	1983 352	1883 301	1633 292	1756 302	1877 306	2190 292	2261 248	2158 277	2008 306	1905 335
BARAUT	2713 43	2804 84	2662 89	2054 92	2318 116	3208 58	3113 43	3110 26	3159 11	0 0	0 0	0 0
BHOPAL	1785 129	1557 133	1450 163	1552 190	2144 68	0 0	0 0	0 0	1858 125	2379 39	2111 27	2088 146
BHUBANESHWAR	2096 50	2348 34	2577 27	0 0	2919 47	2869 30	3375 2	0 0	0 0	0 0	1960 20	2734 37
CHANDIGARH	1466 589	1513 605	1579 581	1400 9	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1728 538
CHENNAI	2190 740	2217 700	1836 800	1750 830	2010 960	2312 960	1927 1330	2376 1190	2213 540	2333 470	2439 280	2192 614
DELHI	1942 2709	1435 7209	1126 11727	1213 6874	1795 3539	1712 1705	1434 883	1611 774	2342 531	3248 496	2509 2092	2512 4439
HYDERABAD	1765 1055	1646 1631	2072 4501	2433 2760	1295 1942	2174 1112	1894 1076	1174 1087	1600 1660	1639 1710	1542 1995	1587 2727
JAIPUR	1145 1251	1047 1697	1015 1483	1207 2304	1117 401	0 0	805 60	0 0	0 0	0 0	1925 412	1754 1226
JAMMU	2384 56	2624 30	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
KOLKATA	1942 172	1941 180	2439 112	2865 116	2084 328	1866 419	2618 111	0 0	0 0	0 0	0 0	2120 492
MUMBAI	1341 2111	1283 2028	1611 1475	1302 2216	1403 906	1733 592	1698 721	1504 804	1461 685	1991 1474	2143 704	2033 1390
NAGPUR	1174 760	1057 845	998 965	975 720	1020 490	1259 517	862 435	780 485	769 400	1231 300	1569 385	1266 540
RANCHI	3050 132	2418 210	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2410 164
SHIMLA	2583 23	2697 23	3681 29	1788 22	1698 11	0 0	0 0	0 0	0 0	0 0	0 0	3333 21
SURAT	1331 815	1255 798	910 700	965 1095	1065 738	1121 848	1587 865	2512 909	2704 659	3057 596	2400 1050	1922 1235



### Annual Wholesale Average Price Trends of Sapota - 2010



### Annual Total Arrival Trends of Sapota - 2010



## BRINJAL (EGG PLANTS)

- Origin** – India (Asia)
- Major Producing States** – Orissa, Bihar, Karnataka, West Bengal, Andhra Pradesh, Maharashtra & Uttar Pradesh
- Latest Production** – 105.63 Lakh Tonnes
- Improved varieties**

Season (Bearing maturity)	Varieties
<b>Early</b>	ABH 1, ABH 2, Arka Navneet, Arka Neelkantha, Arka Nidhi, Azad Kranti, Mysore Green, NDBH 1, Pant Samrat, Punjab Chamkila, Punjab Sadabahar, Pusa Bhairav, Pusa Bindu, Pusa Hybrid 5, Pusa Hybrid 6, Pusa Hybrid 9, Pusa Upkar, Pusa Uttam and Pusa Purple Lomng (Extra early).
<b>Medium</b>	Annamalai, Arka Keshav, Arka Kusumakar, Arka Sheel, Arka Shirish, Azad B 1, BR 112, Co 1, Gujarat 6, Hisar Jamuni, Hisar Shyamal, Jamuni Gole, Junagarh Long, MDU 1, Pant Rituraj, PH 4, Punjab Barsati, Punjab Neelam, Pusa Anupam, Pusa Kranti, Pusa Purple Cluster and Vaishali
<b>Late</b>	Manjri Gota, Punjab Bahar

- Advanced Technology** – Use of Hybrid seeds, Drip Irrigation

### Storage Conditions

- Temperature : 8° - 12°C
- Relative Humidity : 90-95%
- Storage period : 1-2 weeks
- Highest Freezing point : -1°C

- Treatment for Quality** – Integrated Pest Management (IPM)

- Sensibility to** – Refrigeration, Ethylene & Odours

### Growing Belts

The major brinjal (egg plants) producing belts, are as follows :

- Andhra Pradesh (East & West Godavari, Krishna, Guntur, Nellore, Kurnool, Ananthapur, Sri Kakulam, Visakhapatnam)



- Karnataka (Belgaum, Dharwar, Bijapur, Hassan, Mysore)
- West Bengal (Hoogly, 24 - Paraganas, Burdwan)
- Tamil Nadu (Salem, Dindugal, Coimbatore)
- Maharashtra (Ahmednagar, Nasik, Pune, Satara, Kohlapur)
- Orissa (Cuttack, Jajpur, Puri, Nayagarh, Dhankar, Sambalpur, Jagatsinghpur)
- Bihar (Nalanda, Begusarai, Samastipur, Madhubani, Darbhanga, Vaishali, Muzzafarpur, Nawada)
- Uttar Pradesh (Saharanpur, Muzafarnagar, Farukhabad, Etawa, Fatehpur, Allahabad, Jhansi, Varanasi, Lucknow, Hardoi, Faizabad)
- Gujarat (Navsari, Valsad, Anand)
- Rajasthan (Alwar, Jaipur, Kota, Tonk, Ajmer, Sriganganar)
- Haryana (Gurgaon, Karnal, Panipat, Sonapat, KuruKshetra, Ambala, Bhiwani, Jind, Mewat)

## HARVESTING SEASON OF BRINJAL

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

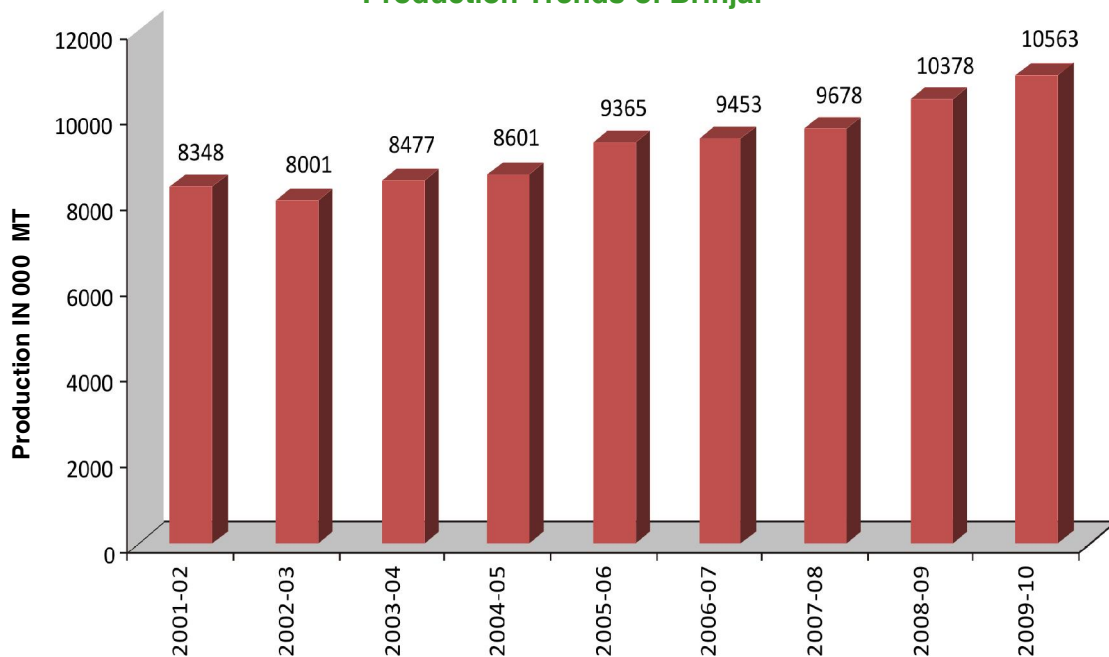
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF BRINJAL

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
2001-02	502.4	8.2	8347.7	9.4	16.6
2002-03	507.3	8.3	8001.2	9.4	15.8
2003-04	516.4	8.2	8477.3	9.1	16.4
2004-05	526.5	7.8	8600.8	8.5	16.3
2005-06	559.7	8.3	9364.6	9.2	16.7
2006-07	568.0	7.5	9453.0	8.2	16.6
2007-08	561.0	7.1	9678.0	7.5	17.3
2008-09	600.0	7.5	10378.0	8.0	17.3
2009-10	612.0	7.7	10563.0	7.9	17.3

### Production Trends of Brinjal



# STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF BRINJAL

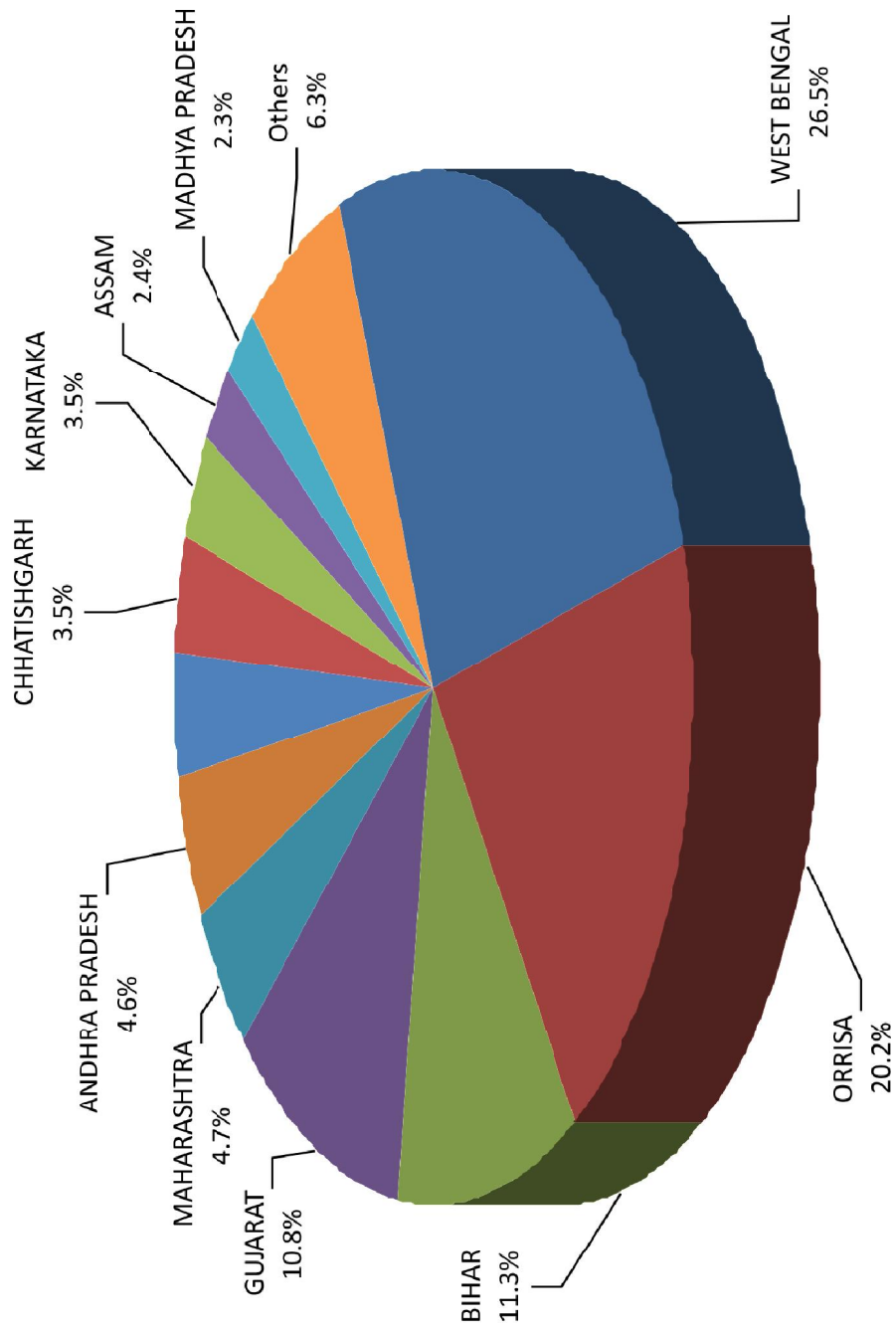
AREA (000 HA) PRODUCTION (000 MT) PRODUCTIVITY HAMT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
WEST BENGAL	153.9	2734.9	17.8	155.3	2758.6	17.8	156.8	2797.3	17.8
ORRISA	129.0	1932.5	15.0	130.0	1965.2	15.1	132.4	2135.2	16.1
BIHAR	54.6	1158.2	21.2	55.1	1186.1	21.5	55.3	1198.6	21.7
GUJARAT	55.8	987.7	17.7	62.6	1046.3	16.7	65.8	1143.6	17.4
MAHARASHTRA	29.4	479.2	16.3	28.9	471.1	16.3	30.0	495.0	16.5
ANDHRA PRADESH	26.6	531.3	20.0	26.6	531.3	20.0	24.3	485.0	20.0
JHARKHAND	19.0	379.8	20.0	22.7	453.9	20.0	22.7	398.3	17.5
CHHATISHGARH	22.3	327.5	14.7	24.2	355.5	14.7	25.2	374.5	14.9
KARNATAKA	14.9	362.0	24.3	15.3	372.9	24.3	15.7	372.7	23.7
ASSAM	#	#	#	15.5	275.9	17.8	15.9	253.0	16.0
MADHYAPRADESH	14.9	223.3	15.0	21.4	321.3	15.0	20.5	246.0	12.0
Others	41.0	561.3	13.7	42.7	639.7	15.0	47.9	663.7	13.9
TOTAL	561.4	9677.7	17.2	600.3	10377.6	17.3	612.4	10563.0	17.2





## Leading Brinjal Producing States (2009-10)



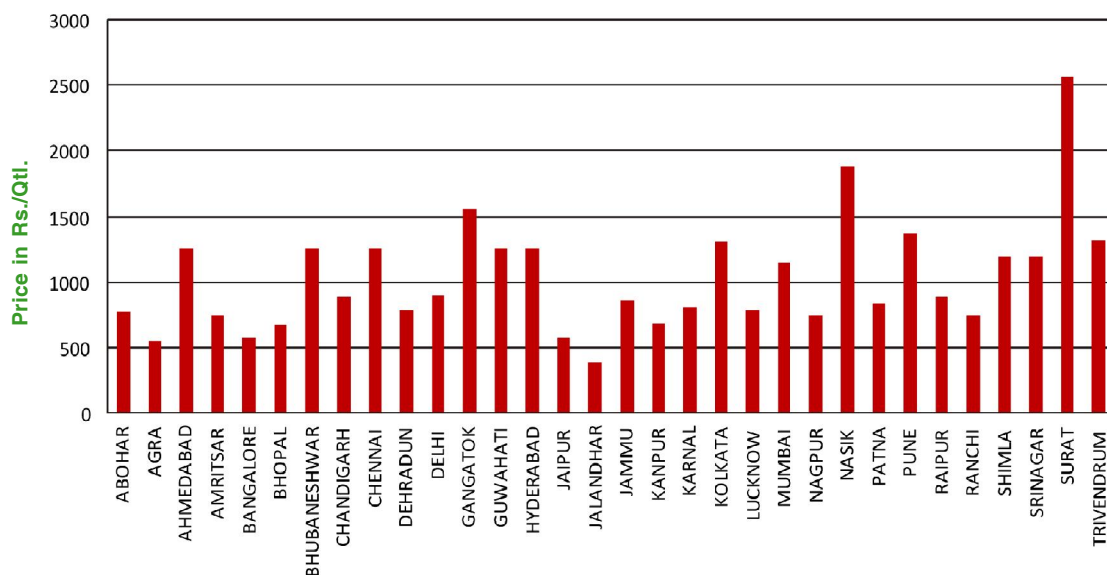
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF BRINJAL (ROUND) DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

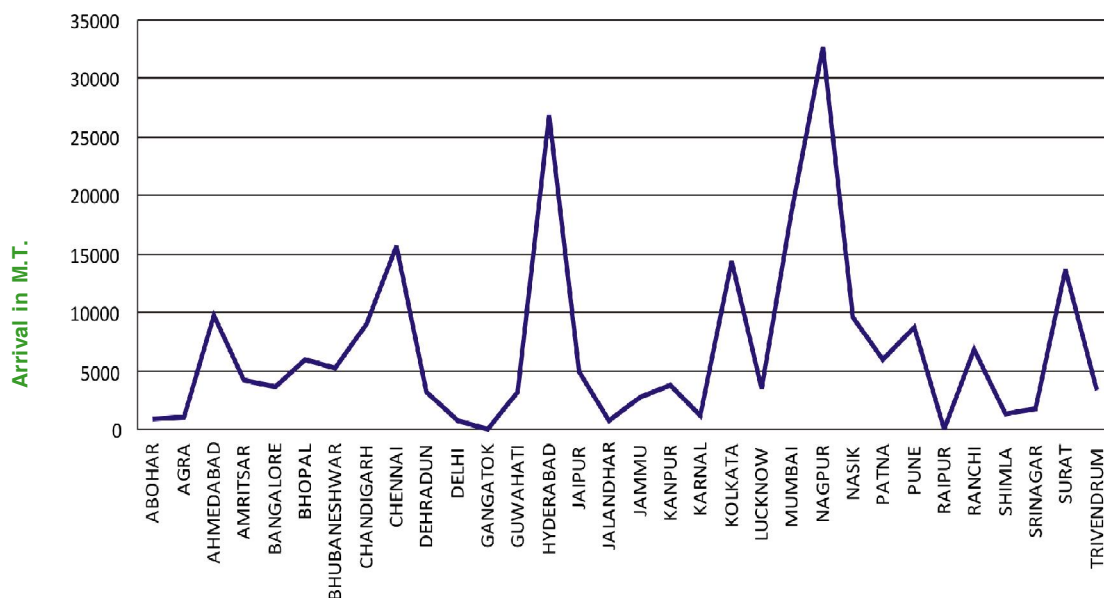
MARKET/CENTRE	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	
ABOHR	500	3	471	25	476	60	688	62	953	74	761	128	943	131	905	91	989	69	857	96	714	62	1006	43
	555	79	529	89	529	114	612	95	529	82	578	80	461	118	365	96	630	73	459	96	548	87	804	76
	1136	937	920	814	987	649	1024	347	1281	1622	1963	382	1338	831	1360	672	1466	899	953	709	945	937	1688	913
AGRA	808	275	859	282	866	298	711	356	722	329	657	354	848	371	870	306	852	332	632	427	586	373	618	462
AMRITSAR	464	296	438	411	459	298	719	230	603	281	723	308	627	310	403	329	434	266	470	309	498	323	1075	307
BANGALORE	700	338	520	464	402	481	348	422	376	494	1002	234	448	524	751	459	774	916	526	425	761	1017	1456	170
BHOPAL	955	445	549	465	780	358	875	320	965	329	1668	226	1633	1898	1364	308	1393	210	1507	269	1661	146	1795	204
BHUBANESHWAR	797	924	845	765	901	670	877	710	1013	477	900	693	950	791	912	785	995	622	814	901	838	994	817	731
CHANDIGARH	1084	1480	1052	1170	1122	1230	1173	1370	1175	1210	1504	1250	943	1950	1100	1460	1217	1210	1104	1130	1277	1070	2291	1160
CHENNAI	566	154	551	162	709	1552	713	97	715	147	798	131	864	126	1019	106	1101	118	1014	216	509	241	866	183
DEHRADUN	629	209	988	113	995	99	897	120	896	0	1181	62	1050	0	863	0	1272	0	611	0	454	0	913	134
DELHI	1700	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1400	1	
GANGATOK	688	288	748	307	750	290	922	253	1463	261	1548	292	1648	274	1663	260	1729	258	1626	250	1296	246	958	281
GUWAHATI	951	2097	765	3342	1225	3856	1671	3777	1276	2628	1855	2151	1439	2230	966	1453	1240	1801	972	1423	1148	753	1524	1341
HYDERABAD	427	501	452	439	475	387	443	470	545	434	615	354	677	344	769	269	786	376	748	426	494	459	513	529
JAIPUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	295	288	472	386	0	0
JALANDHAR	750	114	951	219	1131	164	851	198	856	300	667	454	997	223	1033	274	1071	174	667	183	692	259	709	189
JAMMU	337	1317	589	572	437	457	414	205	713	196	843	135	802	233	523	231	1679	217	482	198	0	0	0	0
KANPUR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	774	327	675	507	982	397
KARNAL	755	3312	516	2470	484	435	1100	54	0	0	0	0	1241	820	1020	1299	1255	1194	1424	1410	1367	1838	1539	1531
KOLKATA	442	212	771	204	676	295	547	243	869	185	874	298	995	330	661	441	1143	286	530	417	833	333	1084	289
LUCKNOW	1198	1114	664	763	989	1993	1002	624	1150	645	1325	1180	937	2216	948	2028	865	3189	1054	2231	1390	1660	2156	888
MUMBAI	491	2670	339	2820	292	2470	570	3040	531	3190	1172	3264	398	3210	1356	1940	911	2290	631	2450	958	2900	1332	2380
NAGPUR	1998	475	1485	1115	1412	990	1689	365	1394	700	1864	725	1941	1035	2153	1105	1520	1001	1428	628	2227	755	3507	640
NASIK	749	365	738	450	644	565	1043	290	757	500	916	473	1053	420	945	485	896	475	714	595	779	525	702	795
PATNA	1258	785	1095	1288	1262	875	1158	533	1322	476	1364	801	1188	599	1148	671	1160	532	1256	678	1547	750	2740	668
PUNE	685	12	750	0	696	0	778	0	786	0	1024	0	816	0	845	0	946	0	944	0	1026	0	1325	0
RAIPUR	563	705	579	516	518	555	637	475	588	489	796	522	1030	568	856	566	853	668	861	592	837	496	897	648
RANCHI	839	103	665	107	647	132	766	129	918	112	1323	153	1394	123	1426	125	1550	76	1821	100	1524	99	1379	70
SHIMLA	0	0	850	25	0	0	0	0	1333	298	1179	309	1478	131	1325	255	1400	18	0	0	1067	316	919	330
SRINAGAR	1189	868	1124	1439	1357	510	1656	744	2928	545	3669	780	3267	1155	2912	3784	2296	1123	2486	1073	3410	802	4532	865
SURAT	1188	293	1471	214	1674	213	1290	208	1205	240	1426	305	927	299	1012	261	1614	228	1012	289	1201	249	1786	560
TRIVENDRUM																								



## Annual Wholesale Average Price Trends of Brinjal (Round) - 2009-10



## Annual Total Arrival Trends of Brinjal (Round) - 2009-20



## CABBAGE

- Origin** – Cyprus and around the Mediterranean coast
- Major Producing States** – Uttar Pradesh, Orissa, Bihar, Assam, West Bengal, Maharashtra & Karnataka
- Latest Production** – 72.81 Lakh Tonnes
- Varieties Commonly grown** – Copenhagen, Drumhead Savoy, Golden Acre, Pride of India, Pusa Drumhead, Pusa Mukta. Red Cabbage- its hybrids are Sri Ganesh Gol (MAHYCO), Nath Laxmi 401, Beejo Sheetal 32. Two hybrids-Green Express and Green Boy-are marketed by NSC. IARI's Regional Station Katrain, has developed a synthetic variety-Pusa Sambandh. Other than these September is an early and high-yielding variety, it is recommended for Nilgiri hills.

- Advanced Technology** – Use of Hybrid seeds

### Storage Conditions

	Fresh (Air)	CA (3%O <sub>2</sub> +5%CO <sub>2</sub> )
Temperature	: 0°C	0°C
Relative humidity	: 98-100%	95-98%
Storage period	: 3-6 weeks	
Freezing point	: -1°C	

- Treatment for Quality** – GA<sub>3</sub> (25 ppm)
- Sensibility to** – Refrigeration, Ethylene & Odours

### Growing Belts

The major cabbage producing belts are as follows :

- Uttarakhand (Almora, Chamoli, Uttarkashi and Dehradun)



- Haryana (Hissar, Sonapat, Ambala, Karnal and Panipat)
- Rajasthan (Jaipur, Alwar and Shri Ganganagar)
- Bihar (Patna, Nalanda, West & East Champaran, Muzzafarpur, Vaishali, Bhagalpur, Darbhanga and Madhubani)
- Gujarat (Mehsana, Khera, Baroda and Gandhi Nagar)
- Maharashtra (Nasik and Pune)
- Orissa (Baleshwar, Balangir, Cuttack, Dhankanan, Ganjam, Koenjhar Koraput)
- Karnataka (Belgaum, Hassan, Belvey, Mysore and Dakshin Kannada)  
Tamil Nadu (The Nilgiris)
- Western Area of Uttar Pradesh

## HARVESTING SEASON OF CABBAGE

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH	PEAK	LEAN									PEAK	LEAN
ARUNACHAL PRADESH												
ASSAM	PEAK	PEAK	LEAN								PEAK	PEAK
BIHAR	PEAK	PEAK	LEAN	LEAN								
CHHATISHGARH	PEAK	PEAK	LEAN				LEAN	PEAK	PEAK	PEAK	PEAK	PEAK
DELHI												
GOA												
GUJARAT	PEAK	PEAK	LEAN							LEAN	LEAN	PEAK
HARYANA	PEAK		LEAN							LEAN		
HIMACHAL PRADESH	LEAN	PEAK	LEAN					LEAN	PEAK	PEAK	PEAK	PEAK
JAMMU & KASHMIR	PEAK	PEAK	PEAK	PEAK	LEAN	LEAN				PEAK	PEAK	PEAK
JHARKHAND	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK	PEAK
KARNATAKA	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND
KERALA												
MADHYA PRADESH	PEAK	PEAK		LEAN	LEAN							
MAHARASHTRA	PEAK	PEAK	LEAN									LEAN
MANIPUR							PEAK	PEAK		LEAN	LEAN	
MEGHALAYA							LEAN	PEAK				
MIZORAM											LEAN	PEAK
NAGALAND	LEAN	PEAK										
ORRISA	PEAK	PEAK	PEAK	LEAN							LEAN	PEAK
PUNJAB	PEAK	PEAK	PEAK	LEAN								PEAK
RAJASTHAN			LEAN									PEAK
SIKKIM	LEAN	LEAN	LEAN			PEAK	PEAK	PEAK	PEAK	PEAK	LEAN	LEAN
TAMIL NADU				LEAN	PEAK						LEAN	PEAK
TRIPURA												
UTTAR PRADESH	PEAK											LEAN
UTTARAKHAND	PEAK	PEAK	PEAK	PEAK	PEAK	PEAK	PEAK	PEAK	LEAN	PEAK	PEAK	PEAK
WEST BENGAL	PEAK	PEAK	LEAN						LEAN	LEAN	PEAK	PEAK
ANDMAN & NICOBAR	PEAK										PEAK	PEAK
CHANDIGARH												
DADAR & NAGAR HAVELI	PEAK	PEAK	LEAN							LEAN	LEAN	PEAK
DAMAN & DIU	PEAK	PEAK	LEAN							LEAN	LEAN	PEAK
LAKSHADWEEP												
PONDICHERRY												

■ PEAK SEASON   
 ■ LEAN SEASON   
 ■ ROUND THE YEAR

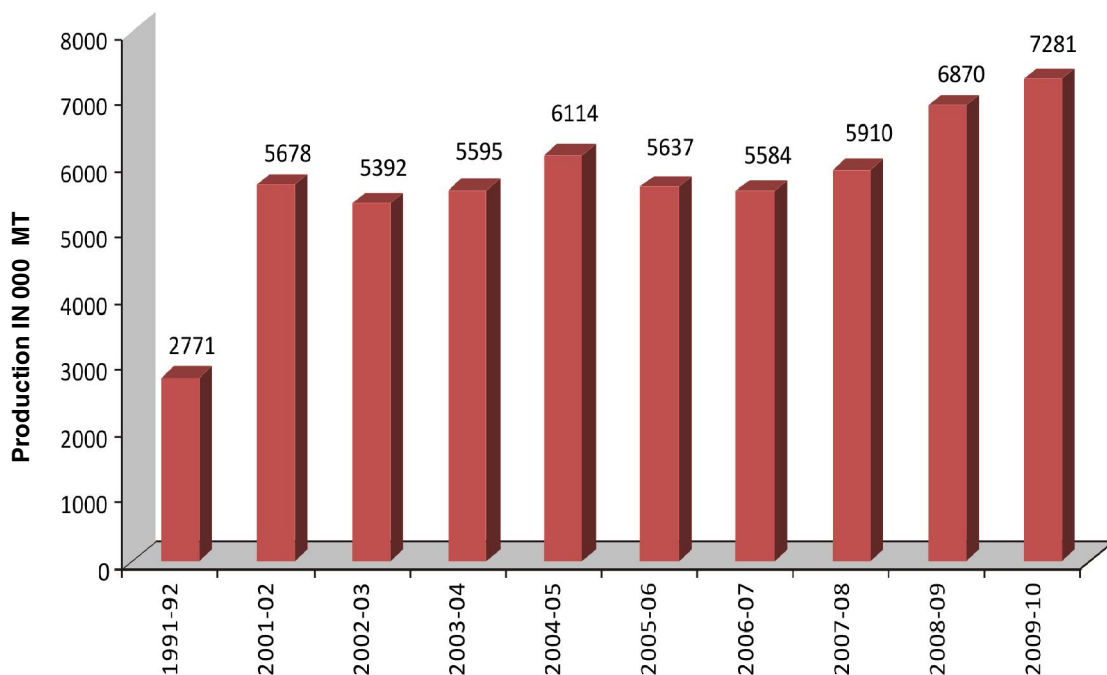
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF CABBAGE

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	177.3	3.2	2771.2	4.7	15.6
2001-02	258.1	4.2	5678.2	6.1	22.0
2002-03	233.8	3.8	5392.0	6.4	23.1
2003-04	255.1	4.0	5594.6	6.0	21.9
2004-05	287.8	4.3	6113.5	6.0	21.2
2005-06	253.5	3.5	5637.3	5.1	22.2
2006-07	249.0	3.3	5584.0	4.9	22.4
2007-08	266.0	3.4	5910.0	4.6	22.2
2008-09	310.0	3.9	6870.0	5.3	22.2
2009-10	331.0	4.1	7281.4	5.4	22.0

### Production Trends of Cabbage



## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF CABBAGE

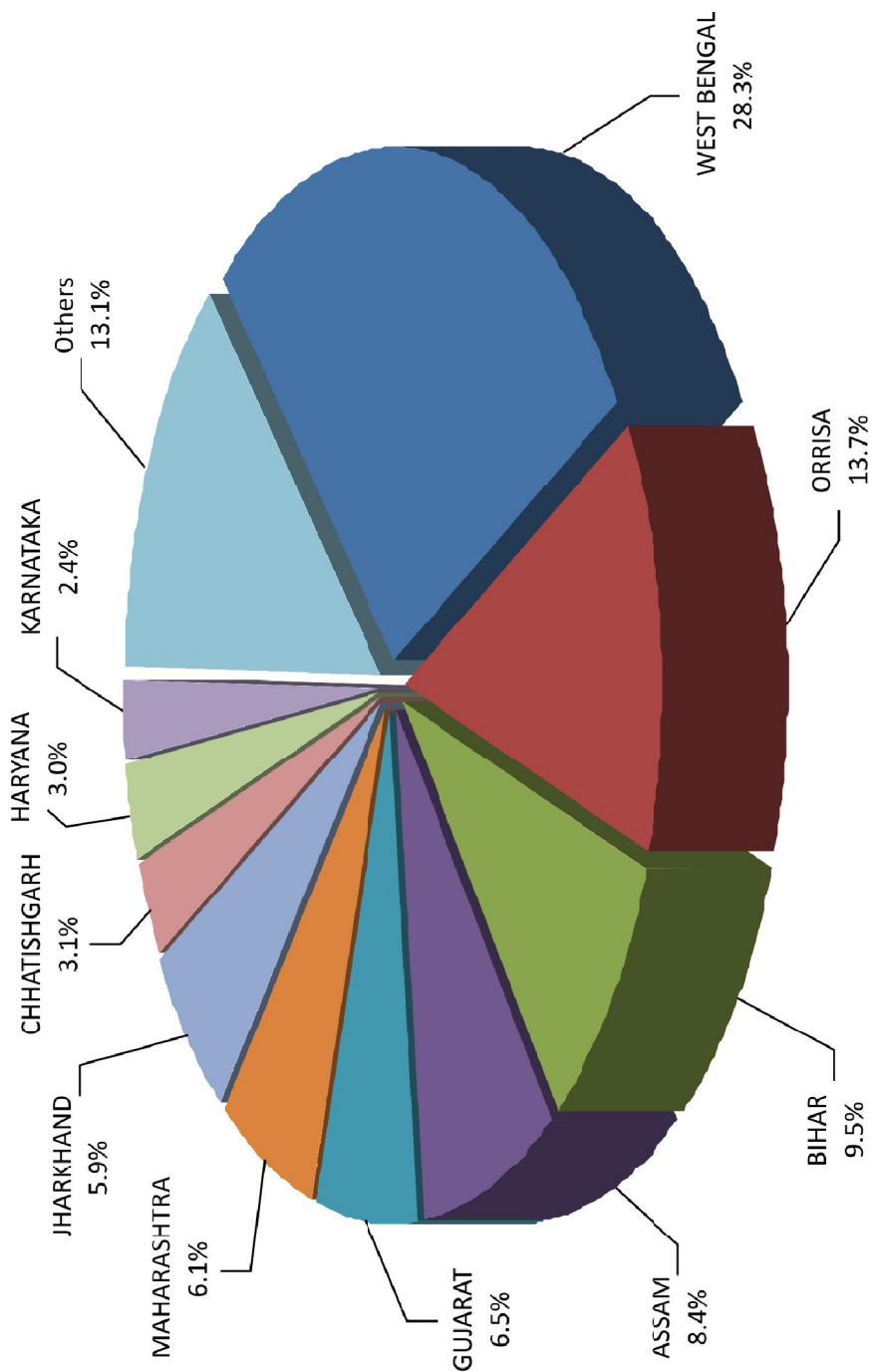
AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HAMT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
WEST BENGAL	73.2	2016.1	27.5	74.1	2042.7	27.6	74.3	2059.0	27.7
ORRISA	33.8	935.6	27.7	34.8	966.2	27.8	35.8	999.9	27.9
BIHAR	37.4	638.1	17.1	38.3	677.0	17.7	38.7	689.9	17.8
ASSAM	IN OTHER VEG			29.2	585.2	20.0	29.8	614.2	20.6
GUJARAT	23.0	396.2	17.2	23.0	404.6	17.6	25.6	473.8	18.5
MAHARASHTRA	15.1	383.0	25.4	15.0	381.0	25.4	17.0	442.0	26.0
JHARKHAND	11.4	183.0	16.1	15.4	246.0	16.0	26.8	429.3	16.0
CHHATISHGARH	11.3	177.4	15.7	13.6	213.7	15.7	13.7	227.8	16.7
HARYANA	11.3	152.6	13.5	11.2	214.2	19.2	12.2	218.3	17.8
KARNATAKA	8.2	170.2	20.8	8.6	178.7	20.8	8.9	176.2	19.8
Others	41.6	858.2	20.7	47.2	960.3	20.4	48.2	951.0	19.7
<b>TOTAL</b>	<b>266.2</b>	<b>5910.4</b>	<b>22.2</b>	<b>310.2</b>	<b>6869.6</b>	<b>22.1</b>	<b>331.0</b>	<b>7281.4</b>	<b>22.0</b>





## Leading Cabbage Producing States (2009-10)



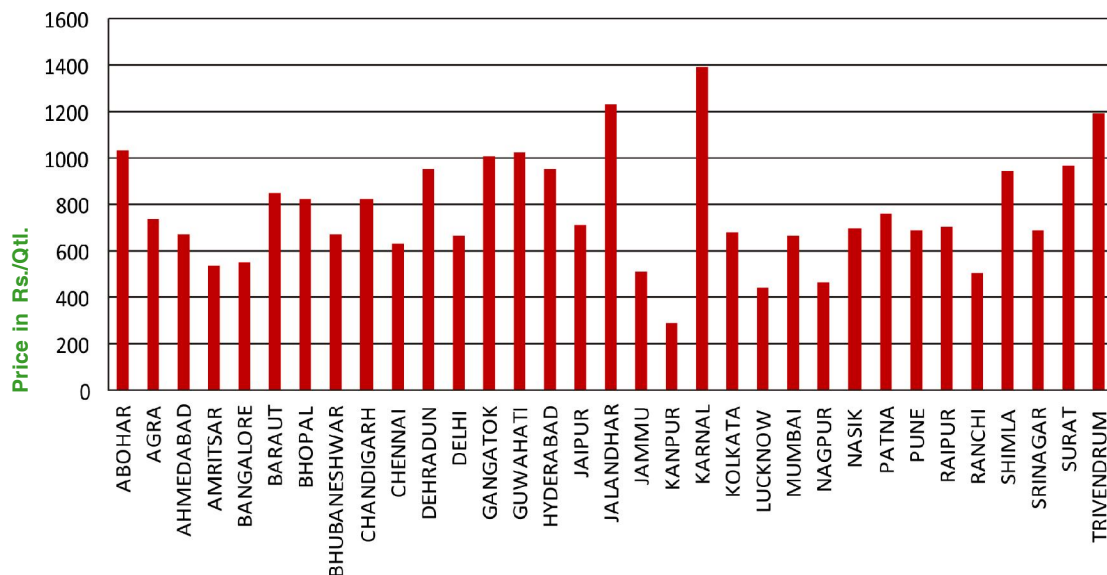
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF CABBAGE DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

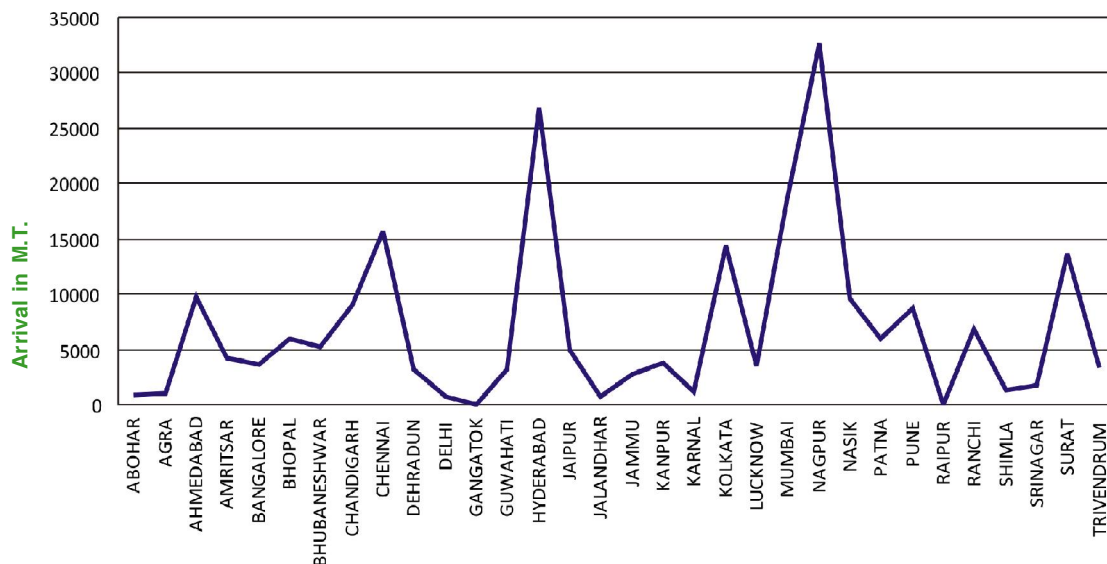
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABO HAR	600 3	557 28	538 99	547 61	0 0	0 0	0 0	0 0	0 0	1614 30	1854 24	1533 44
AGRA	459 102	362 99	387 93	510 88	646 104	802 91	963 67	989 111	1017 79	985 93	882 91	833 109
AHMEDABAD	286 3176	253 3267	343 2994	421 2694	470 2199	857 2815	848 3611	613 3301	746 3575	900 2783	1155 1364	1200 3145
ANIRITSAR	485 326	391 343	287 372	279 372	268 250	0 0	0 0	0 0	0 0	910 360	936 401	725 462
BANGALORE	386 2576	382 2968	458 4194	424 2422	458 2779	779 2588	667 2831	451 3227	400 2617	444 2846	781 3028	985 3189
BARAUT	750 74	879 143	1026 138	794 141	792 90	0 0	0 0	0 0	0 0	0 0	0 0	0 0
BHOPAL	550 585	408 625	379 787	399 637	495 584	748 214	1113 349	1270 277	1415 397	836 467	981 485	1280 457
BHUBANESHWAR	331 1805	279 1430	299 1310	421 1020	739 835	935 953	869 4348	767 1067	821 668	870 945	928 895	846 840
CHANDIGARH	627 1139	558 1201	605 1030	632 450	0 0	0 0	0 0	0 0	1073 252	1038 551	1093 639	949 795
CHENNAI	446 3620	371 3370	349 4250	381 3810	486 3280	813 3130	776 4350	796 4070	572 3440	550 3280	889 4000	1165 2437
DEHRADUN	503 236	479 265	469 194	702 152	684 135	635 255	700 128	1383 102	1261 92	1232 127	1663 122	1706 117
DELHI	359 3591	504 2120	263 3002	201 3502	205 4673	269 6851	1130 5889	1115 4760	992 5773	917 4712	1006 4236	975 4882
GANGATOK	686 128	604 179	494 161	592 95	785 48	1007 26	1046 58	1345 49	1567 54	1504 42	1348 46	1144 41
GUWAHATI	390 680	884 316	885 446	568 446	1208 401	1582 498	650 1440	708 1546	392 1326	470 1189	509 1000	711 4554
HYDERABAD	850 5845	689 6680	1010 7567	1746 6213	892 6776	1116 7929	898 6761	1060 3010	926 4541	776 5006	692 3158	785 4554
JAIPUR	446 439	424 385	453 345	472 1602	484 380	559 263	707 264	944 268	932 325	1022 425	1038 654	1076 483
JALANDHAR	0 0	0 0	700 30	0 0	0 0	0 0	0 0	0 0	0 0	1500 280	1495 386	1224 884
JAMMU	559 883	377 1161	343 1093	465 832	518 575	478 927	660 777	721 841	542 1150	450 1506	504 1160	482 1084
KANPUR	303 1706	347 634	321 497	173 255	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
KARNAL	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
KOLKATA	322 5885	358 3632	389 1481	478 192	640 61	854 961	845 1996	851 2280	886 2100	922 2237	887 3701	772 13330
LUCKNOW	481 1709	449 1780	280 1699	247 1038	0 0	0 0	0 0	0 0	0 0	0 0	0 0	761 1196
MUMBAI	500 3790	486 2789	574 7482	455 2462	635 2366	869 3752	656 5087	619 5392	610 5867	654 4336	825 3075	1118 3399
NAGPUR	282 2780	272 2710	203 2860	240 2700	270 2980	470 3660	576 2170	565 2720	870 2920	601 2580	499 3230	731 2650
NASIK	570 1905	498 1870	325 2045	351 1285	518 1375	811 1455	791 1530	890 1775	669 1880	682 3015	900 1775	1307 2140
PATNA	356 2020	332 2395	411 705	488 385	532 430	987 330	1339 332	1179 410	1176 505	955 795	802 1210	573 1790
PUNE	558 1086	511 1244	455 1364	458 528	683 407	915 840	838 862	607 904	537 669	611 803	876 613	1217 778
RAIPUR	525 359	533 244	511 271	466 160	617 68	872 69	829 188	769 324	806 295	792 323	791 313	964 352
RANCHI	402 846	178 829	216 846	237 797	326 382	0 0	0 0	1168 138	736 975	618 896	632 690	544 1271
SHIMLA	777 329	650 269	576 300	672 282	668 334	713 294	786 279	1225 232	1141 256	1428 271	1348 264	1315 279
SRINAGAR	830 780	691 625	533 845	627 458	600 681	609 463	1100 95	956 198	675 220	564 560	503 662	606 556
SURAT	574 904	564 711	668 574	642 952	895 676	1052 845	1493 676	1082 907	1050 957	812 1087	1283 889	1542 640
TRIVENDRUM	831 366	762 312	880 286	962 237	1362 253	1365 278	1306 228	1307 233	1107 170	1196 257	1444 198	1818 410



### Annual Wholesale Average Price Trends of Cabbage - 2010



### Annual Total Arrival Trends of Cabbage- 2010



## CAULIFLOWER

- Origin** – Cyprus and around the Mediterranean coast
- Major Producing States** – Bihar, Uttar Pradesh, Orissa, West Bengal, Assam, Haryana & Maharashtra
- Latest Production** – 65.69 Lakh Tonnes

### Recommended varieties

Group	Varieties
September maturity	Early Kunwari, Pant Gobhi 3, Pusa Early Synthetic
October maturity	Pusa Deepali, Pusa Katki
November maturity	Hisar 1, IIHR 101, IIHR 105, Improved Japanese, Panth Gobhi 2, PG 26, PG 35, Pusa Hybrid 2, Pusa Sharad
December maturity	Pusa Himjyoti, Pusa Shubhra, Pusa Synthetic Snowball-1, Pusa Snowball K-1 Snowball-16

- Advanced Technology** – Use of hybrid seeds

### Storage Conditions

	<u>Fresh</u>	<u>Frozen</u>
Temperature	: 0°C	-18°C
Relative Humidity	: 95-98%	Vapor-tight packing
Storage Period	: 2-4 weeks	1 year ±
Highest Freezing point	: -0.8°C	–

- Treatment for Quality** – Maintain temperature 15°-20°C post curd formation

- Sensibility to** – Freezing and Odours



## Growing Belts

The major cauliflower producing belts, are as follows :

- Uttarakhand (Nainital, Pithauragarh and Dehradun)
- Himachal Pradesh (Shimla, Kullu, Sirmour, Solan).
- Punjab (Gurdaspur, Fatehgarh Sahib, Nawabshah)
- Haryana (Sonapat, Panipat, Karnal, Yamunanagar, Ambala, Rewari, Gurgaon, Hisar, Jind)
- Uttar Pradesh (Bareilly, Agra, Varanasi, Aligarh, Azamgarh, Khushinagar, Etah, Hathras, Ghaziabad)
- Delhi (Rural Area)
- Bihar / Jharkhand (Santhal Pargana, Darbhanga, Purnia, Katihar, Madhubani, West Champaran, Muzaffarpur, Vaishali, Patna, Nalanda, Sitamarhi, Bhagalpur, Samstipur, Saharsa, Dhanbad)
- Maharashtra (Nasik, Nagpur, Kolhapur), Karnataka (Belgaum) and Gujarat (Khera, Baroda, Ahmedabad, Mehsana).

## HARVESTING SEASON OF CAULIFLOWER

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH	PEAK	LEAN									PEAK	PEAK
ARUNACHAL PRADESH												
ASSAM	PEAK	PEAK	LEAN								PEAK	PEAK
BIHAR	PEAK	PEAK	LEAN	LEAN								PEAK
CHHATTISGARH	PEAK	PEAK	LEAN				LEAN	PEAK	PEAK	PEAK	PEAK	PEAK
DELHI												
GOA												
GUJARAT	PEAK	PEAK	LEAN							LEAN	LEAN	PEAK
HARYANA	PEAK		LEAN	LEAN								
HIMACHAL PRADESH	PEAK	PEAK	LEAN					PEAK	PEAK	PEAK		PEAK
JAMMU & KASHMIR	PEAK	PEAK	PEAK	PEAK	LEAN	LEAN				PEAK	PEAK	PEAK
JHARKHAND	LEAN	LEAN	LEAN	PEAK	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK	PEAK	PEAK
KARNATAKA	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND
KERALA												
MADHYA PRADESH	PEAK	PEAK		LEAN								
MAHARASHTRA												
MANIPUR	PEAK							LEAN	LEAN	PEAK	PEAK	PEAK
MEGHALAYA								LEAN		PEAK		
MIZORAM												
NAGALAND		LEAN	PEAK									
ORISSA	PEAK	PEAK	LEAN							LEAN	PEAK	PEAK
PUNJAB	PEAK	LEAN										PEAK
RAJASTHAN	PEAK		LEAN									
SIKKIM	PEAK	PEAK	PEAK			LEAN	LEAN	LEAN	LEAN	LEAN	PEAK	PEAK
TAMIL NADU	LEAN	PEAK									LEAN	PEAK
TRIPURA												
UTTAR PRADESH	PEAK											LEAN
UTTARAKHAND	PEAK	PEAK					PEAK	PEAK	LEAN	LEAN	PEAK	PEAK
WEST BENGAL	PEAK	LEAN								LEAN	LEAN	PEAK
ANDMAN & NICOBAR	PEAK										PEAK	PEAK
CHANDIGARH												
DADAR & NAGAR HAVELI	PEAK	PEAK	LEAN							LEAN	LEAN	PEAK
DAMAN & DIU	PEAK	PEAK	LEAN							LEAN	LEAN	PEAK
LAKSHADWEEP												
PONDICHERRY												

■ PEAK SEASON     
 ■ LEAN SEASON     
 ■ ROUND THE YEAR

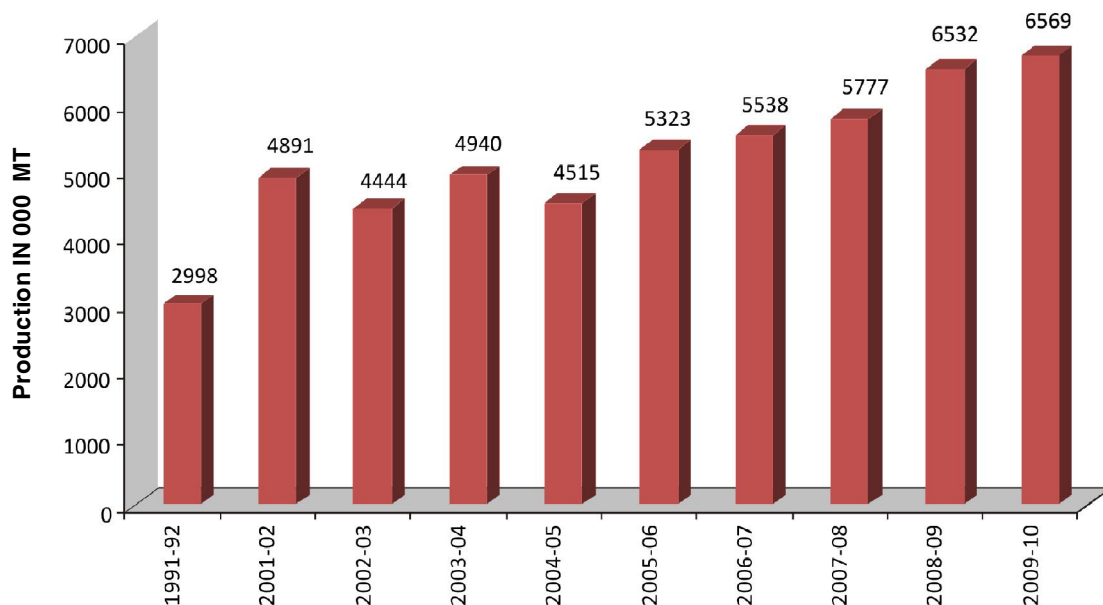
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF CAULIFLOWER

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	202.8	3.6	2998.1	5.1	14.8
2001-02	269.9	4.4	4890.5	5.2	18.1
2002-03	254.6	4.2	4444.1	5.2	17.5
2003-04	267.9	4.2	4940.2	5.3	18.4
2004-05	238.5	3.5	4514.8	4.5	18.9
2005-06	288.6	4.0	5323.1	4.8	18.4
2006-07	302.0	4.0	5538.0	4.8	18.3
2007-08	312.0	4.0	5777.0	4.5	18.5
2008-09	349.0	4.4	6532.0	5.1	18.7
2009-10	347.9	4.4	6569.0	4.9	18.9

### Production Trends of Cauliflower



## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF CAULIFLOWER

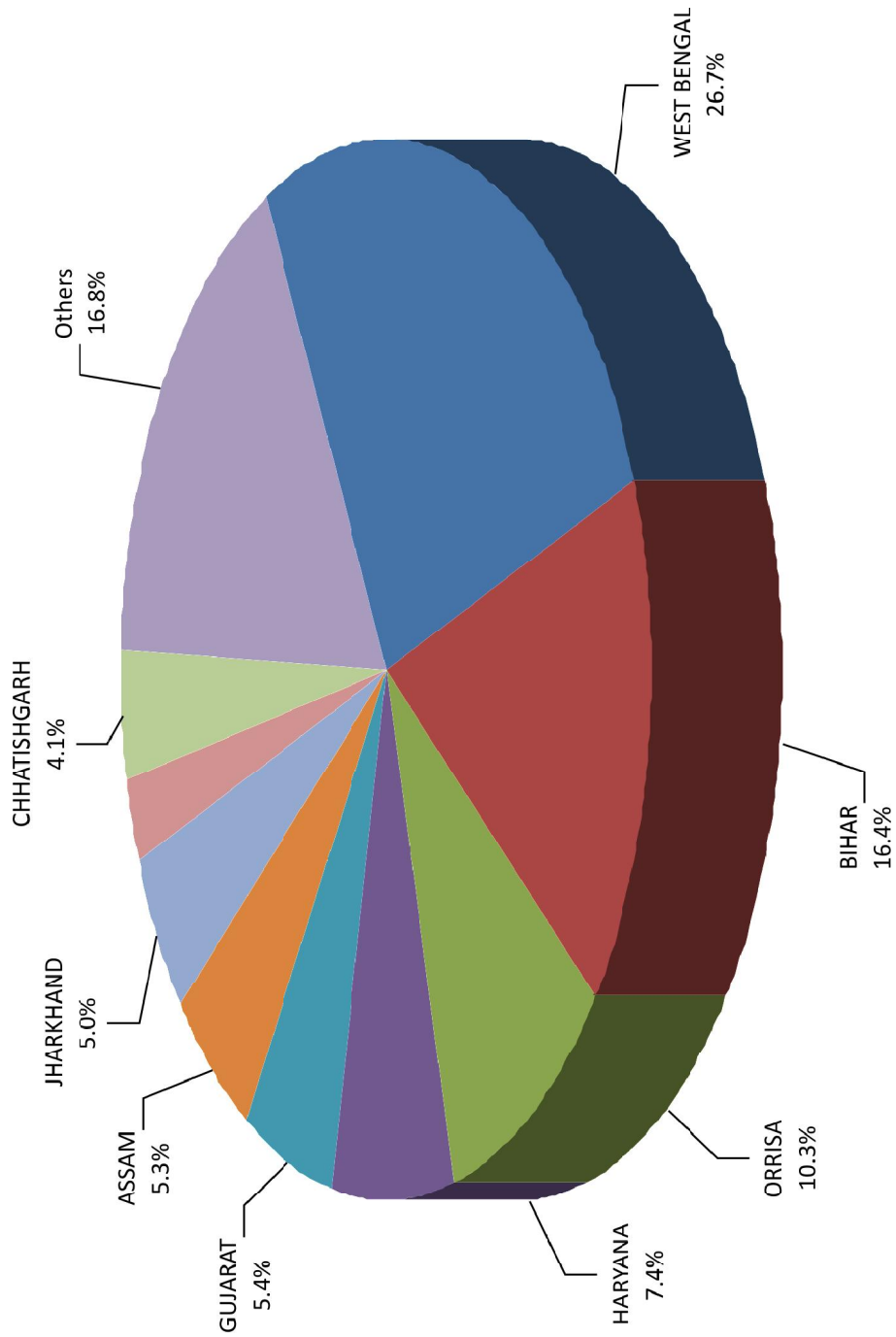
AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HAMT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
WEST BENGAL	66.9	1682.1	25.1	68.8	1743.8	25.4	69.2	1754.1	25.4
BIHAR	60.7	1023.9	16.9	61.0	1043.8	17.1	62.2	1080.1	17.4
ORRISA	45.2	644.2	14.3	46.1	663.5	14.4	46.5	675.4	14.5
HARYANA	24.2	349.9	14.5	25.9	500.3	19.3	25.7	487.7	19.0
GUJARAT	17.4	314.2	18.1	18.5	321.1	17.4	19.8	356.7	18.0
ASSAM	IN OTHER VEG			19.8	282.9	14.3	20.5	351.3	17.2
JHARKHAND	20.7	331.9	16.0	27.3	436.9	16.0	20.6	329.8	16.0
MAHARASHTRA	13.1	330.7	25.2	13.0	328.9	25.3	10.1	158.6	15.7
CHHATISHGARH	16.6	251.9	15.2	16.1	241.4	15.0	16.1	268.9	16.7
Others	47.6	848.3	17.8	52.5	969.1	18.5	57.2	1106.5	19.3
<b>TOTAL</b>	<b>312.4</b>	<b>5777.1</b>	<b>18.5</b>	<b>348.9</b>	<b>6531.9</b>	<b>18.7</b>	<b>347.9</b>	<b>6569.0</b>	<b>18.9</b>





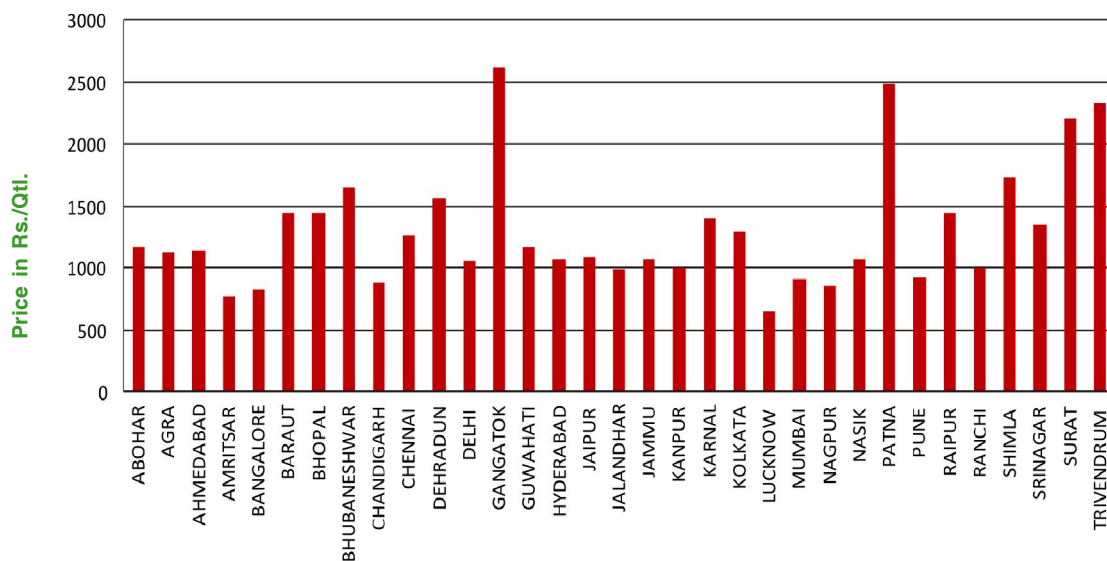
## Leading Cauliflower Producing States (2009-10)



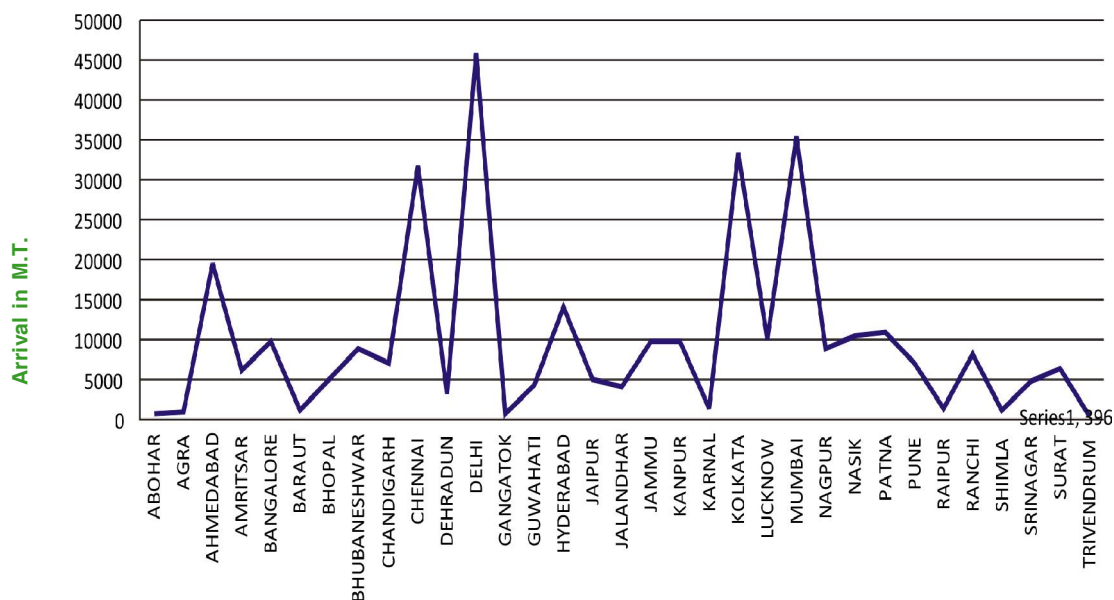




## Annual Wholesale Average Price Trends of Cauliflower - 2010



## Annual Total Arrival Trends of Cauliflower - 2010



## OKRA

Origin	– Africa															
Major Producing States	– Uttar Pradesh, Bihar, Orissa, West Bengal, Andhra Pradesh, Karnataka and Assam															
Latest Production	– 48.03 Lakh Tonnes															
Important commercial	<p>Arka Abhay, Arka Anamika, Azad Kranti, Co 1, MDU1, Gujarat Bhindi 1, Harbhajan Bhindi, Hisar Unnat, Parbhani Kranti, Perkins Long Green, Punjaab 7, Punjab 8, Punjab Padmini, Pusa A 4, Pusa Makhmali, Pusa Sawani, Red Bhindi, TN Hybrid 8 and Varsha Uphar</p> <p>Besides, a number of hybride from many private sector agencies/seed companies are marketed. Of these, Varsha, Vijay, Adhunik, Panchali, Hybrid No. 6,7 and 8, Nath Sobha, Supriya, Sungro 35, Aroh 1,-2,-3,-9 and are more popular.</p>															
Advanced Technology	– Use of hybrid seeds															
Storage Conditions																
	<table><tr><td></td><td><u>Fresh</u></td><td><u>Frozen</u></td></tr><tr><td>Temperature</td><td>: 7°-10°C</td><td>-18°C to -24°C</td></tr><tr><td>Relative Humidity</td><td>: 90-95%</td><td>–</td></tr><tr><td>Storage Period</td><td>: 7-10 days</td><td>5 months - 1 year</td></tr><tr><td>Freezing point</td><td>: -1°C</td><td>–</td></tr></table>		<u>Fresh</u>	<u>Frozen</u>	Temperature	: 7°-10°C	-18°C to -24°C	Relative Humidity	: 90-95%	–	Storage Period	: 7-10 days	5 months - 1 year	Freezing point	: -1°C	–
	<u>Fresh</u>	<u>Frozen</u>														
Temperature	: 7°-10°C	-18°C to -24°C														
Relative Humidity	: 90-95%	–														
Storage Period	: 7-10 days	5 months - 1 year														
Freezing point	: -1°C	–														
Treatment for Quality	– Integrated Paste Management (IPM)															
Sensibility to	– Freezing															



### Growing belts

The major Okra producing belts, are as follows :

- Andhra Pradesh (Guntur, Prakasham, Kurnool, Rangareddy),
- Karnataka (Dharwad, Gulberga, South Canara, Belgaum, Shimoga)
- Madhya Pradesh (Bilaspur, Raipur, Durg, Rajnandgaon)
- West Bengal (Hoogly, Burdwan) and Bihar
- Assam (Darrang, Nagaon, Sibsagar) and Orissa
- Rajasthan (Jaipur, Ajmer, Alwar & Sikkar) and Jharkhand
- Haryana (Sonepat, Karnal, Panipat, Rohtak, Jhajjar, Hisar)
- Western Area of Uttar Pradesh

## HARVESTING SEASON OF OKRA

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

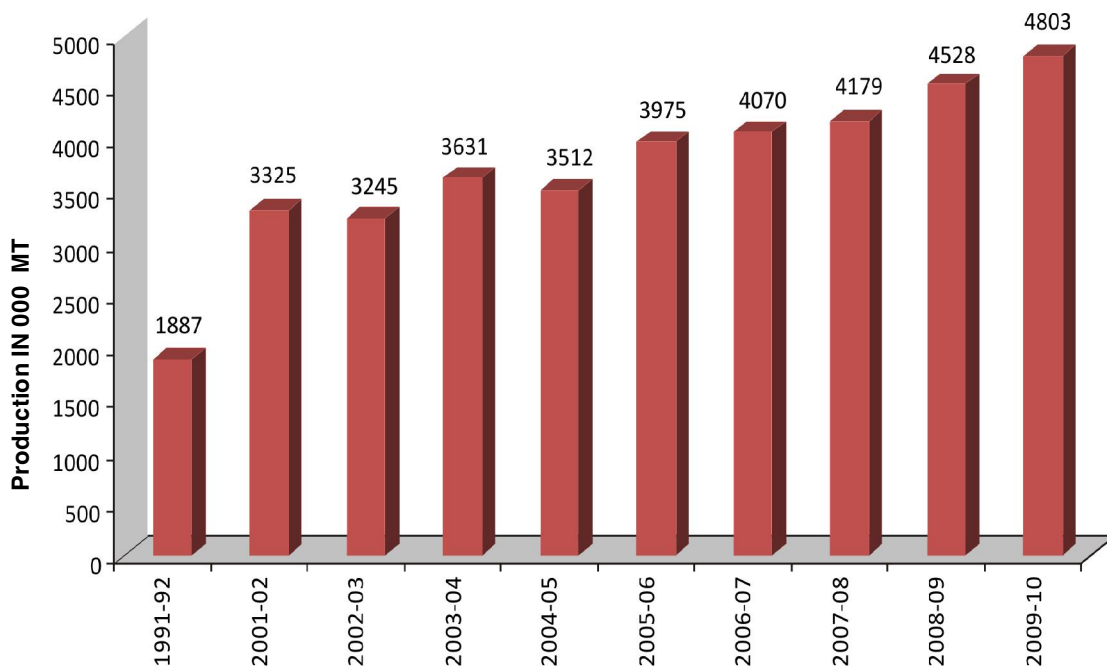
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF OKRA

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	222.0	4.0	1886.5	3.2	8.5
2001-02	347.2	5.6	3324.7	3.5	9.6
2002-03	329.2	5.4	3244.5	3.8	9.9
2003-04	353.1	5.6	3631.4	3.9	10.3
2004-05	357.3	5.3	3512.4	3.5	9.8
2005-06	391.8	5.5	3974.6	3.6	10.1
2006-07	396.0	5.2	4070.0	3.5	10.3
2007-08	407.0	5.2	4179.0	3.3	10.3
2008-09	432.0	5.4	4528.0	3.5	10.5
2009-10	452.5	5.7	4803.3	3.6	10.6

### Production Trends of Okra



## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF OKRA

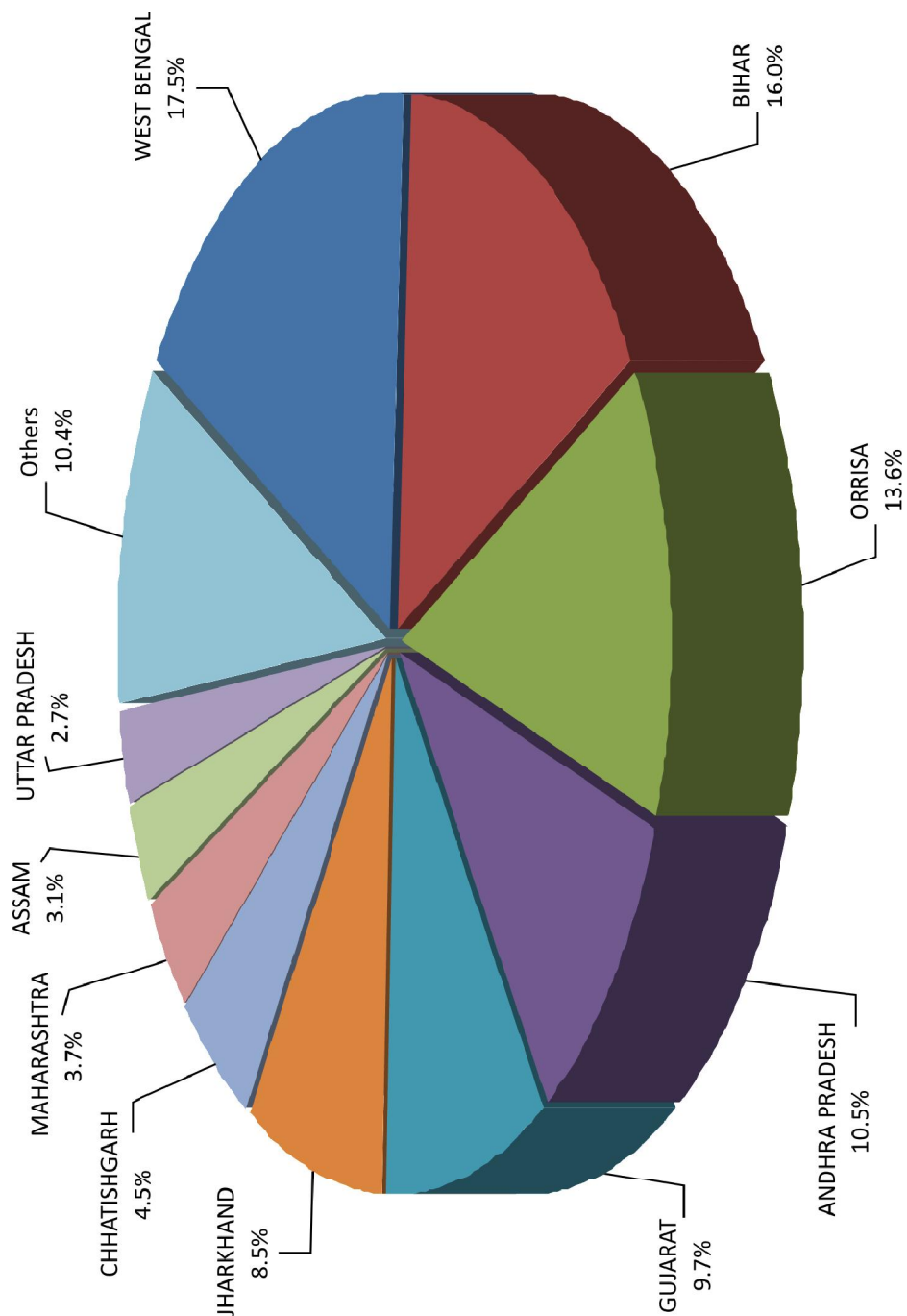
**AREA (000 HA)** **PRODUCTION (000 MT)** **PRODUCTIVITY HA/MT**

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
WEST BENGAL	71.5	815.3	11.4	72.6	830.9	11.4	73.1	839.3	11.5
BIHAR	57.2	707.3	12.4	58.2	743.5	12.8	58.3	766.6	13.2
ORISSA	71.5	621.1	8.7	73.3	639.9	8.7	73.9	651.8	8.8
ANDHRA PRADESH	29.3	439.7	15.0	29.3	439.7	15.0	33.5	502.1	15.0
GUJARAT	41.5	365.9	8.8	44.9	407.1	9.1	49.5	466.2	9.4
JHARKHAND	24.5	343.2	14.0	29.8	417.2	14.0	29.0	406.0	14.0
CHHATISHGARH	23.0	202.4	8.8	23.5	207.6	8.8	23.9	217.3	9.1
MAHARASHTRA	26.3	165.4	6.3	25.0	157.5	6.3	27.0	175.5	6.5
ASSAM				10.3	129.2	12.5	10.9	149.7	13.8
UTTAR PRADESH	9.2	102.1	11.1	10.1	112.2	11.2	11.6	131.2	11.3
Others	52.9	416.7	7.9	54.7	443.1	8.1	61.9	497.5	8.0
<b>TOTAL</b>	<b>406.9</b>	<b>4179.1</b>	<b>10.3</b>	<b>431.6</b>	<b>4527.9</b>	<b>10.5</b>	<b>452.5</b>	<b>4803.3</b>	<b>10.6</b>





### Leading Okra Producing States (2009-10)



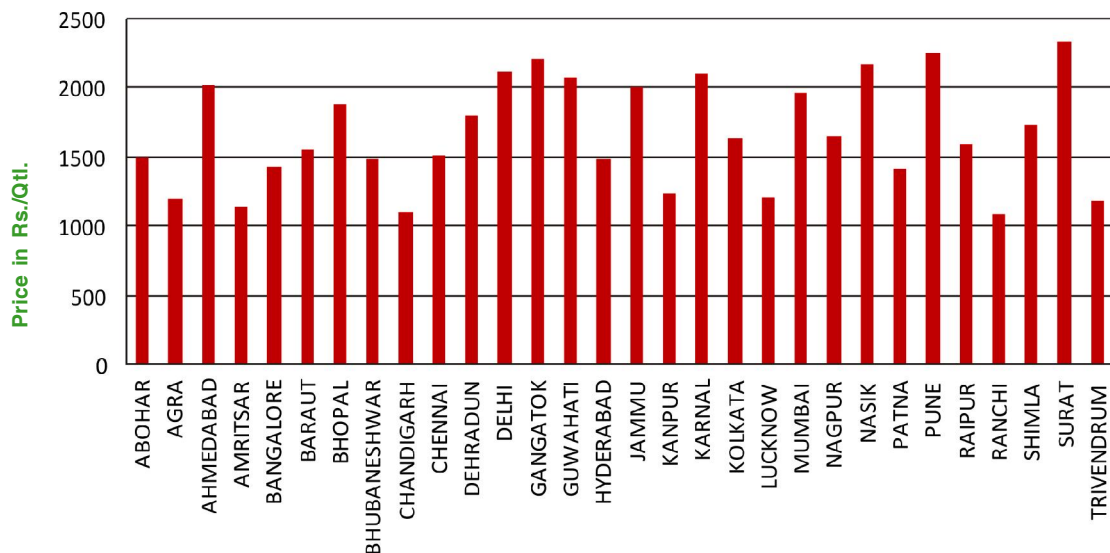
**MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF OKRA  
DURING THE PERIOD JANUARY TO DECEMBER, 2010**

**Average Wholesale Price in Rs./Qtl.**  
**Total Arrivals in M.T.**

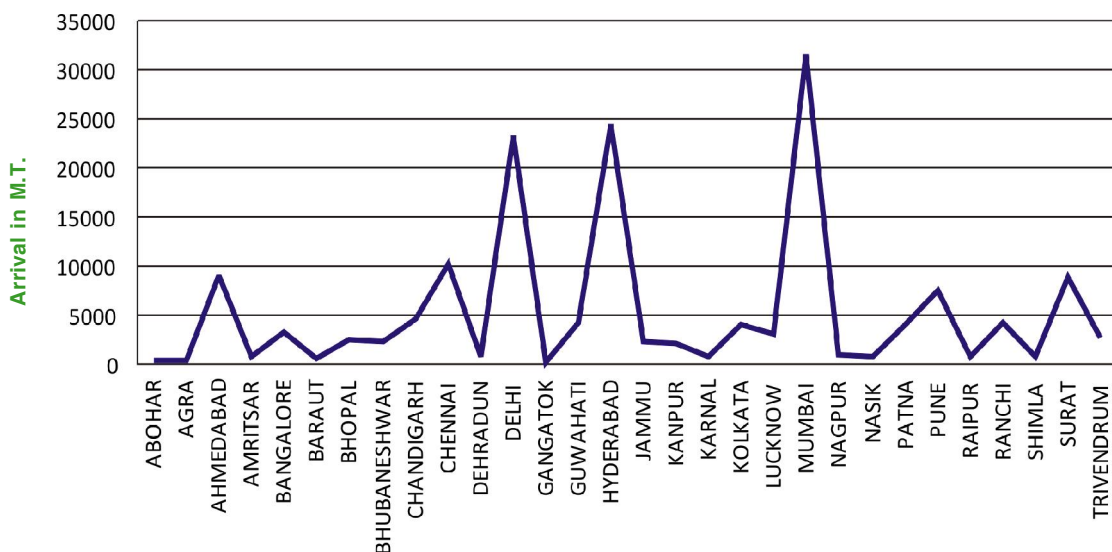
MARKET/CENTRE	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	Price	Arrival	
ABO HAR	0	0	0	0	0	0	0	0	1700	59	1117	104	1395	85	1345	62	1589	36	1581	37	1736	19	0	0	0
	0	0	0	0	0	0	0	0	1009	100	944	95	1245	105	1078	74	1437	39	1433	50	0	0	0	0	
AGRA	0	0	2486	353	2509	915	2124	890	2081	586	2550	884	2040	1534	1655	1546	1315	1316	1467	882	2000	68	0	0	
AHMEDABAD	0	0	0	0	0	0	2075	84	789	198	435	242	906	112	1290	49	1386	61	0	0	0	0	0	0	
AMRITSAR	0	0	0	0	0	0	1732	25	1442	116	1283	129	1561	94	1596	71	1625	61	1614	38	0	0	0	0	
BANGALORE	1313	236	1174	249	1121	397	1681	228	1508	256	1694	270	1319	279	1342	280	1352	230	1306	262	1517	272	1877	350	
BARAUT	0	0	0	0	0	0	1732	25	1442	116	1283	129	1561	94	1596	71	1625	61	1614	38	0	0	0	0	
BHOPAL	2600	20	2298	22	2267	56	1483	126	1388	227	1917	175	1646	319	1700	385	1229	540	1276	504	2377	136	2326	25	
BHUBANESHWAR	1539	99	1401	152	1119	215	957	979	1100	136	1680	65	1249	222	1185	159	1185	166	1830	83	2128	35	2374	38	
CHANDIGARH	0	0	0	0	0	0	1416	277	960	815	929	1081	1039	942	1079	906	1179	545	0	0	0	0	0	0	
CHENNAI	1785	1150	1587	480	1696	980	1452	810	1523	490	1596	650	1014	940	1164	890	1126	1370	1183	990	1657	690	2408	660	
DEHRADUN	0	0	0	0	0	0	1436	43	1144	140	1108	170	792	92	1067	49	1363	91	1364	75	2113	36	5850	14	
DELHI	2833	2006	3004	1799	3027	3465	1974	3013	1042	2851	994	2644	1208	2696	1444	2023	1945	1066	1893	761	2543	372	3431	639	
GUANGANGTOK	0	0	0	0	0	0	2591	12	2797	29	1763	30	1293	15	1737	16	1923	23	2052	30	2625	26	2500	23	
GUWAGHATI	807	227	2800	22	2015	267	1963	448	1835	584	1631	635	1717	666	1752	553	2213	234	2562	213	2474	219	3081	161	
HYDERABAD	940	2035	900	2347	1454	4002	1879	3774	2067	1473	1863	1856	1587	1215	1131	1804	1248	1686	1232	1419	1675	1295	1773	1462	
JAMMU	2854	62	3239	72	3066	99	2078	125	773	450	476	540	960	450	1678	206	1720	117	1266	109	2232	60	3644	14	
KANPUR	1100	60	0	0	2228	62	1558	96	470	752	612	585	1191	270	1600	168	1308	123	1065	48	0	0	0	0	
KARNAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1463	309	1692	371	3139	68	
KOLKATA	0	0	0	0	2428	322	1543	592	1598	455	1388	370	1110	508	896	1047	1091	360	1693	223	2180	75	2451	48	
LUCKNOW	0	0	0	0	0	0	1694	299	573	805	812	489	1411	337	1200	357	1485	239	990	386	1505	113	0	0	
MUMBAI	2050	1810	1914	2314	1929	4833	1931	2222	2040	1904	2273	2207	1790	1730	1742	3101	1292	4204	1694	3196	2387	1899	2568	2100	
NAGPUR	1762	74	2487	37	2056	31	1353	47	1001	95	1638	88	1690	52	1282	78	1191	134	1174	82	1873	96	2238	131	
NASIK	2278	25	2267	24	1644	51	2129	24	2419	64	2439	27	2780	27	2554	27	1602	208	1208	285	1871	64	2898	25	
PATNA	2098	115	2049	120	2017	280	1820	300	874	605	975	471	1239	325	1069	435	845	700	1052	335	1314	155	1621	210	
PUNE	2632	656	2405	702	1848	707	1811	348	2119	299	2785	604	2553	558	2065	772	1587	514	1544	720	2450	813	3233	888	
RAIPUR	2176	30	2407	49	1656	130	870	116	926	65	1587	53	1273	63	1291	54	1145	40	1374	38	1933	26	2498	25	
RANCHI	0	0	0	0	1448	327	1230	338	775	441	947	484	1005	516	1179	414	981	561	511	620	1220	370	1593	91	
SHIMLA	0	0	0	0	0	0	0	0	0	0	1369	107	1263	139	1381	132	1626	137	2508	110	2203	61	0	0	
SURAT	2000	30	2305	313	2527	363	2157	825	1926	681	2435	893	1778	1496	2194	1255	2089	1301	2107	912	2940	629	3550	211	
TRIVENDRUM	1221	257	1290	208	1445	194	1358	187	1061	230	1064	296	1078	219	1163	28	1257	161	1146	182	979	213	1146	547	



### Annual Wholesale Average Price Trends of Okra - 2010



### Annual Total Arrival Trends of Okra- 2010



## ONION

- Origin** – Asia
- Major Producing States** – Maharashtra, Bihar, Karnataka, Gujarat, Andhra Pradesh, Uttar Pradesh, Orissa and Madhya Pradesh
- Latest Production** – 121.59 Lakh Tonnes
- Main Varieties** – Agrifound Dark Red, Agrifound Light Red, Agrifound Red, Agrifound Rose, Arka Bindu, Arka Kalyan, Arka Niketan, Arka Pragati, Baswant 780, Brown Spanish, Co-1, Co-2 Co- 3, Co-4, Early Grano, Hisar II, Kalyanpur Red Round, MDU 1 N-2-4-1, N-53, N-257-9-1, Punjab 48 (S 48), Pusa Madhavi, Punjab Red Round, Punjab Selection, Pusa Ratnar, Pusa Red, Pusa White Flat, Pusa White ROUND, Udaipur 101, 102 & 103.
- Advanced Technology** – Use of Hybrid Seeds
- Storage Conditions :**
- |                   | Fresh          | Frozen            |
|-------------------|----------------|-------------------|
| Temperature       | : 0°C          | - 18°C            |
| Relative Humidity | : 65 - 70%     | Gas-tight Packing |
| Storage Period    | : 3 - 5 months | 6 - 12 months     |
- Treatment for Quality** – Proper Curing
- Sensitivity to** – Low Temperature
- Growing Belts**

The major onion producing belts are as follows :

- Punjab (Patiala, Sangrur, Amritsar, Ludhiana)
- Haryana (Panipat, Rohtak, Karnal, Kurukshetra, Ambala)



- Rajasthan (Alwar, Ajmer, Sikar, Jaipur).
- Uttar Pradesh (Badaun, Moradabad, Farrukhabad, Jaunpur).
- Bihar (Patna, Nalanda, W&E Champaran, Muzaffarpur, Sitamarhi, Bhagalpur, Begusarai, Purnea, Katihar).
- Maharashtra (Nasik, Ahmednagar, Pune, Satana, Solapur, Dhule, Jalgaon)
- Gujarat (Bhavnagar, Rajkot, Junagarh, Jamnagar)
- Madhya Pradesh (Khargone, Khandwa)
- Andhra Pradesh (Kurnool, Cuddapadh, Angareddy)
- Karnataka (Dharwad, Chitradurga, Bijapur, Chickmanglur, Gulbarga).
- Tamil Nadu (Salem, Coimbatore, Periyarr, Trichury, Dindigulan Anna, Tirunlveli).

## HARVESTING SEASON OF ONION

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORISSA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

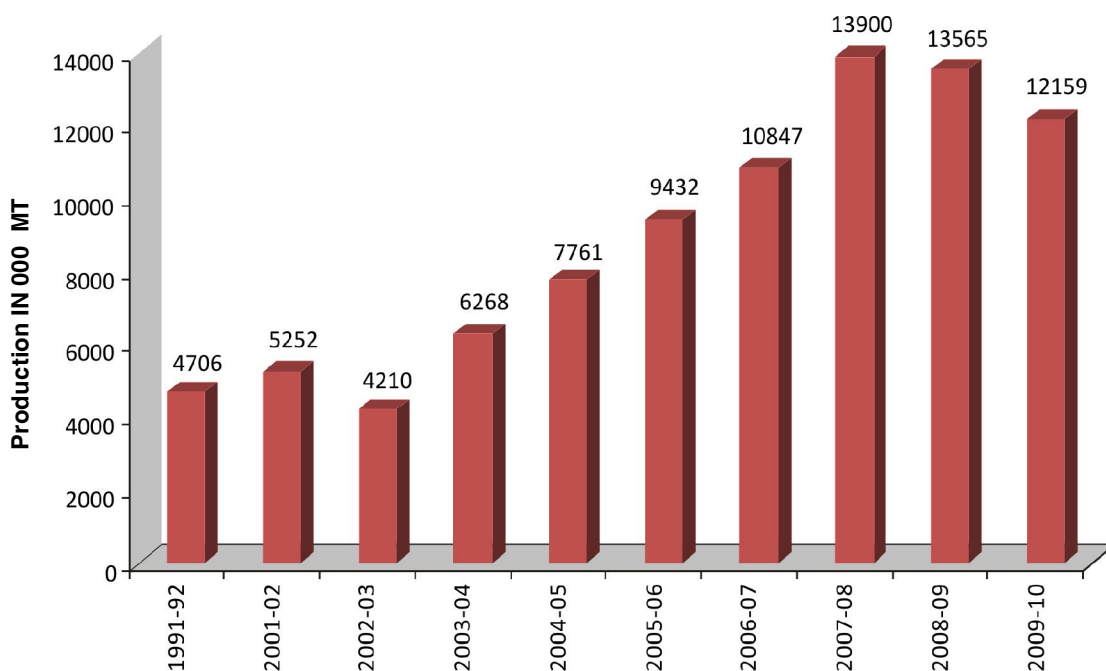
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF ONION

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	331.8	5.9	4705.8	8.0	14.2
2001-02	495.8	8.1	5252.1	5.6	10.6
2002-03	424.7	7.0	4209.5	5.0	9.9
2003-04	553.8	8.8	6267.6	6.7	11.3
2004-05	613.8	9.1	7760.6	7.7	12.6
2005-06	703.6	9.8	9432.5	8.5	13.4
2006-07	768.0	10.1	10847.0	9.4	14.1
2007-08	821.0	10.5	13900.0	10.8	16.9
2008-09	834.0	10.4	13565.0	10.5	16.3
2009-10	756.2	9.5	12158.8	9.1	16.1

## PRODUCTION TRENDS OF ONION



## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF ONION

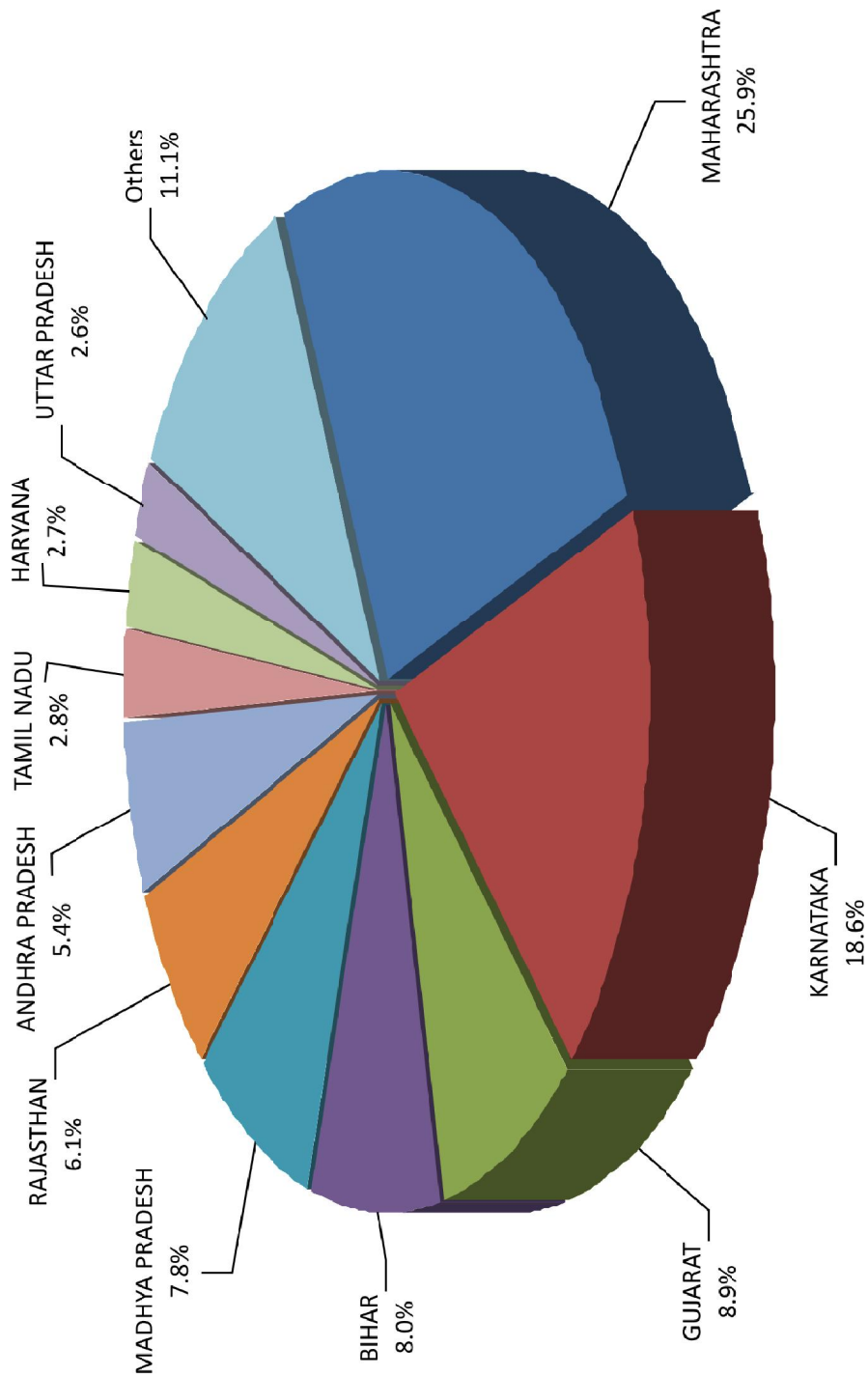
AREA (000 HA) PRODUCTION (000 MT) PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
MAHARASHTRA	254.5	4003.1	15.7	250.0	3932.5	15.7	200.0	3146.0	15.7
KARNATAKA	157.3	2887.4	18.4	165.1	3031.8	18.4	141.3	2266.2	16.0
GUJARAT	84.3	2238.3	26.6	57.6	1409.6	24.5	43.4	1078.6	24.9
BIHAR	51.3	1019.6	19.9	51.6	946.6	18.3	53.0	972.0	18.3
MADHYAPRADESH	39.0	648.6	16.6	53.0	881.8	16.6	57.3	952.3	16.6
RAJASTHAN	42.7	391.6	9.2	41.0	369.1	9.0	45.0	742.5	16.5
ANDHRA PRADESH	35.6	606.0	17.0	39.0	662.6	17.0	39.0	662.6	17.0
TAMILNADU	32.1	280.3	8.7	35.0	305.5	8.7	35.3	339.7	9.6
HARYANA	17.7	346.6	19.6	18.8	347.9	18.5	18.4	330.3	17.9
UTTAR PRADESH	21.6	295.8	13.7	22.3	308.0	13.8	24.3	320.3	13.2
Others	84.8	1183.1	13.9	100.7	1369.1	13.6	99.1	1348.3	13.6
<b>TOTAL</b>	<b>821.0</b>	<b>13900.4</b>	<b>16.9</b>	<b>834.2</b>	<b>13564.5</b>	<b>16.3</b>	<b>756.2</b>	<b>12158.8</b>	<b>16.1</b>





## Leading Onion Producing States (2009-10)



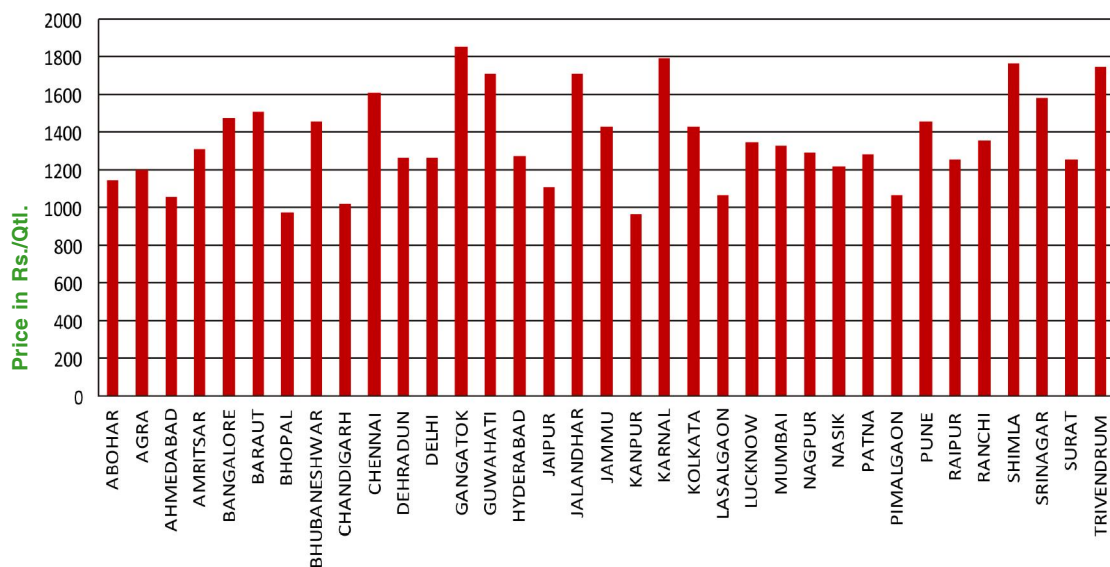
## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF ONION DURING THE PERIOD JANUARY TO DECEMBER, 2010

Average Wholesale Price in Rs./Ql.  
Total Arrivals in M.T.

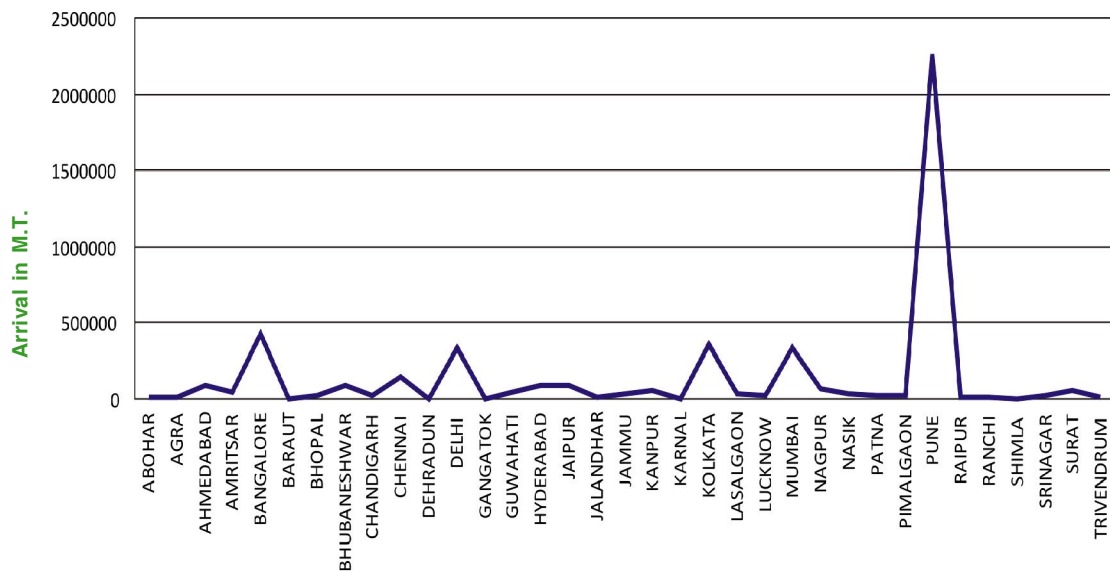
MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ASOHAR	1200 60	1086 420	1171 1270	782 1110	771 1068	796 1950	883 1725	850 1590	1144 1260	1252 1411	1386 990	2419 1070
AGRA	1343 966	1200 966	961 1210	668 1039	563 1266	514 2180	746 2290	948 1030	1405 800	1598 910	1815 1020	2635 708
AHMEDABAD	1188 5020	1041 6345	748 6905	525 9965	486 5696	565 11844	674 11653	810 6503	1230 8125	1464 5636	1665 4943	2282 5122
AMRITSAR	1651 3333	1410 4165	916 4925	822 4465	651 4750	572 4775	781 4950	1021 3165	1469 3350	1724 3275	2093 2750	2651 2915
BANGALORE	1721 28050	1296 24580	808 28380	673 32530	790 28610	902 28240	923 26070	998 33373	1455 41720	1568 79250	2734 39510	3842 37500
BARAUT	1518 219	1704 175	1392 192	1175 197	938 258	680 368	843 311	1062 199	1675 164	2178 163	2463 166	2525 156
BOPAL	1140 832	1095 1668	713 1736	503 1904	349 3608	491 3267	663 1317	788 855	1085 681	1336 758	1581 762	1918 803
BHUBANESHWAR	1676 10800	1601 9550	1207 12800	855 10950	844 7718	876 6290	938 8190	969 7170	1295 4760	1869 4060	2197 2370	3105 2730
CHANDIGARH	1074 1438	1003 1304	787 1446	705 1519	610 1637	645 1590	786 1452	822 1567	1072 1470	1172 1574	1359 1353	2147 1358
CHENNAI	1902 12860	1589 11570	1122 12680	820 11780	833 12320	994 13650	1028 13670	1175 12340	1496 10990	1992 10900	2709 10040	3638 10600
DEHRADUN	1326 345	1572 361	769 468	683 381	567 362	671 383	735 323	972 398	1203 372	1538 463	2135 557	2936 364
DELHI	1525 21872	1153 22982	758 28277	642 32688	545 33498	583 39586	1086 33242	952 28001	1380 24327	1629 17878	2027 22549	2842 28055
GANGATOK	2192 129	2203 135	1266 205	1052 122	1049 1051	123 1584	89 1341	85 1850	104 102	2245 98	2727 90	3651 79
GUWAHATI	2186 3520	1753 4165	1048 3900	1000 3365	960 3785	1014 4005	1215 3930	1243 3630	1702 2920	2069 3515	2589 2970	3714 2525
HYDERABAD	1034 6079	895 6947	1248 8406	1663 7508	982 8303	1331 8393	869 8599	1146 6934	1074 6574	1276 8289	1477 9492	2231 8153
JAI PUR	1139 2964	1106 4541	859 4600	665 10924	553 10927	520 11550	606 10338	837 7587	1309 5468	1603 4946	1666 6387	2412 5936
JALANDHAR	0 0	0 0	1750 98	0 0	0 0	0 0	0 0	0 0	0 0	1203 1085	1527 2702	2344 2575
JAMMU	1730 1946	1596 1872	993 3047	925 4995	743 6561	697 2983	937 3255	1085 3287	1514 4426	1775 2781	2315 1451	2820 1237
KANPUR	1385 3286	1276 3181	799 9905	734 7208	527 10546	609 6733	937 8260	833 2915	1245 2573	1457 1205	0 0	0 0
KARNAL	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1557 468	1648 513	2173 586
KOLKATA	1708 27058	1470 40848	648 36014	752 20166	732 29728	846 28768	928 48580	1073 52184	1610 26696	1875 26320	2409 13267	3088 11788
LASALGAON	0 0	1042 22087	573 2090	513 1386	552 1642	593 1195	651 2641	870 1964	1318 2002	1386 1292	1452 1876	2782 468
LUCKNOW	1598 1028	1572 1315	1155 1634	800 1818	619 1844	698 1335	868 1747	951 1719	1511 1146	1639 1580	1995 1071	2741 1007
MUMBAI	1558 26262	1208 19106	758 56334	628 26548	682 22806	769 23504	800 22365	934 29880	1455 21689	1617 33609	2400 31300	3116 22787
NAGPUR	1246 7790	1128 6500	741 5600	564 5280	495 7930	583 11250	726 3560	967 3100	1520 3730	1807 5000	1848 6150	3909 4130
NASIK	1484 2380	1225 2070	728 2464	655 2945	598 3305	673 2920	712 2030	831 1926	1324 1228	1510 2339	2307 1020	2560 3835
PATNA	1598 1700	1444 2200	765 2525	746 2140	573 1745	708 1659	834 2197	931 1290	1410 1350	1610 1295	2175 1095	2638 1495
PIMALGAON	0 0	932 2112	575 1769	520 2657	589 2628	633 1775	660 2758	830 2846	1276 2938	1394 2129	1586 1773	4292 429
PUNE	1622 284279	1233 374307	737 419885	616 195490	647 247347	793 118438	771 123058	958 159331	1340 96963	1622 118314	2821 115348	4307 13556
RAIPUR	1576 1042	1391 938	760 1443	596 1382	589 1178	654 1303	775 939	878 862	1377 781	1706 980	1957 888	2728 970
RANCHI	1593 974	1556 891	845 1062	693 1019	546 1111	666 1106	887 1045	1112 1049	1296 1159	1718 1136	1981 874	3412 885
SHIMLA	1840 275	1974 264	1648 305	1301 1690	1099 356	832 322	1210 278	1251 343	1623 261	2063 270	2405 230	3941 133
SRINAGAR	1762 2297	1668 1850	1282 3430	1060 3000	979 3788	993 2660	1178 745	1456 820	1519 750	1781 1865	2530 1400	2819 1085
SURAT	1474 3663	1268 4103	753 3865	626 5980	658 4890	663 6000	675 6715	845 5210	1366 4528	1698 4538	1910 4535	3165 4866
TRIVENDRUM	2152 500	1681 513	1214 508	1083 501	1020 550	1555 697	1150 602	1285 553	1690 426	1852 511	2529 458	3786 634



## Annual Wholesale Average Price Trends of Onion - 2010



## Annual Total Arrival Trends of Onion - 2010



## PEAS

- Origin** – Ethiopia
- Major Producing States** – Uttar Pradesh, Bihar, Haryana, Punjab, Himachal Pradesh, Orissa and Karnataka
- Latest Production** – 30.29 Lakh Tonnes
- Main Varieties** – Arkel, Bonneville, Harbhajan, FC-1, Jawahar Matar 1, Jawahar Matar 2, Jawahar Matar 3, Jawahar Matar 4, Jawahar Matar 5, Jawahar Peas 83, JP 4 (JM 6), JP 19, Lincoln, Mattar Ageta 6, Pantnagar Matar 2, Pant Uphar (IP 3), P 88, PRS 4, and VL 3.
- Advanced Technology** – Use of Hybrid seeds

### Storage Condition :

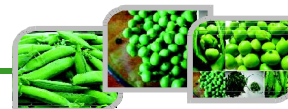
	<u>Fresh</u>	<u>Frozen</u>
Temperature	: 0°C	- 23 to -18°C
Relative Humidity	: 95%	Gas-tight Packing
Storage Period	: 3 - 7 days	1 year +
Freezing Point	: - 0.6°C	-

- Sensibility to** – High temperature and High humidity

### Growing Belts

The major peas producing belts are as follow :

- Karnataka (Belgaum, Bangalore, Rural, Dharwad, Kolar, Chickmagalore)
- Madhya Pradesh (Ujjain, Durg)
- Rajasthan (Jaipur, Alwar, Jodhpur, Udaipur)
- West Bengal (Nadia, Hoogly, 24 Parganas)
- Punjab (Jalandhar, Amritsar, Hoshiarpur)
- Haryana (Sonapat, Jhajjar, Rohtak, Karnal, Panipat Hisar)
- Assam (Darrang, Kamrup, Nagaon)
- Western Area of Uttar Pradesh



## HARVESTING SEASON OF PEAS

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH	PEAK	LEAN									PEAK	LEAN
ARUNACHAL PRADESH												
ASSAM	PEAK	PEAK	PEAK	LEAN		PEAK	PEAK	PEAK	PEAK	PEAK	PEAK	PEAK
BIHAR	PEAK		LEAN	LEAN								PEAK
CHHATTISGARH	PEAK	PEAK	LEAN								LEAN	PEAK
DELHI												
GOA												
GUJARAT	PEAK	PEAK	PEAK	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK
HARYANA	PEAK	PEAK		LEAN							LEAN	
HIMACHAL PRADESH	PEAK	PEAK	PEAK	LEAN			PEAK	PEAK	LEAN			LEAN
JAMMU & KASHMIR			PEAK	LEAN	LEAN							
JHARKHAND	LEAN										PEAK	PEAK
KARNATAKA	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND	ROUND
KERALA												
MADHYA PRADESH	LEAN										PEAK	PEAK
MAHARASHTRA	PEAK	PEAK	LEAN									LEAN
MANIPUR	PEAK										LEAN	PEAK
MEGHALAYA									LEAN		PEAK	
MIZORAM	PEAK											LEAN
NAGALAND		LEAN	PEAK									
ORISSA	PEAK	PEAK										PEAK
PUNJAB			PEAK	LEAN								
RAJASTHAN	PEAK	PEAK	LEAN									
SIKKIM	LEAN	LEAN	LEAN	PEAK	PEAK	PEAK						
TAMIL NADU												
TRIPURA												
UTTAR PRADESH		PEAK										LEAN
UTTARAKHAND	LEAN	LEAN		PEAK	PEAK	LEAN					PEAK	PEAK
WEST BENGAL	LEAN	PEAK	LEAN									
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI	PEAK	PEAK	PEAK	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK
DAMAN & DIU	PEAK	PEAK	PEAK	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	LEAN	PEAK
LAKSHADWEEP												
PONDICHERRY												

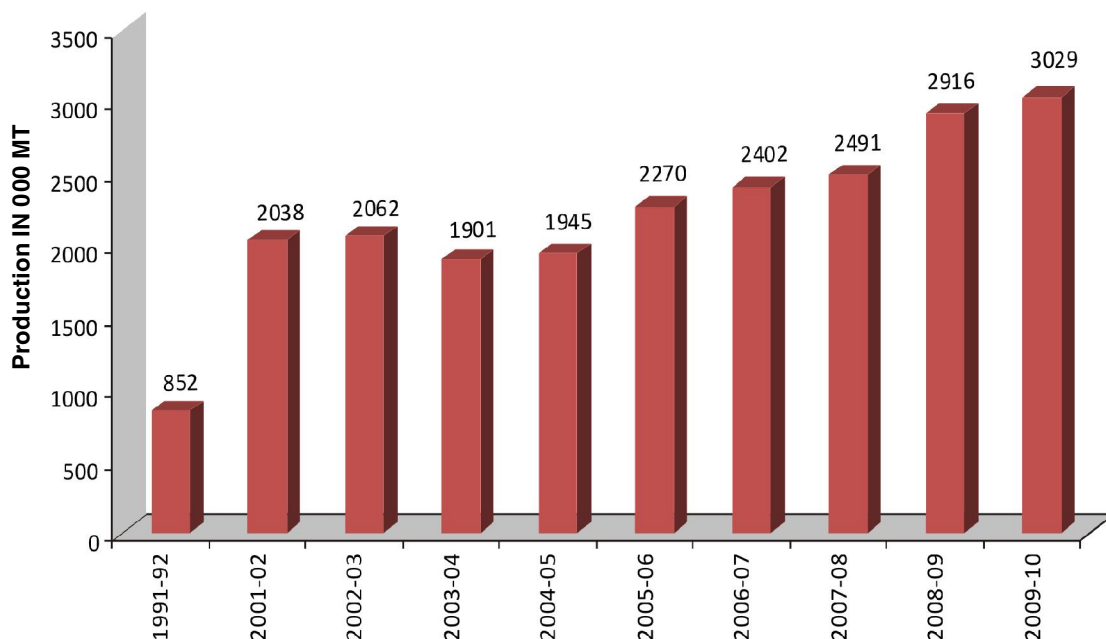
■ PEAK SEASON    
 ■ LEAN SEASON    
 ■ ROUND THE YEAR

SOURCE : Director of Horticulture / Agriculture of respective State / UT's

## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF PEAS

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	177.7	2.9	851.6	1.7	4.8
2001-02	303.3	4.9	2038.2	2.2	6.7
2002-03	305.2	5.0	2061.8	2.4	6.8
2003-04	285.2	4.5	1901.2	2.0	6.7
2004-05	276.3	4.1	1944.8	1.9	7.0
2005-06	286.1	4.0	2270.0	2.1	7.9
2006-07	297.0	3.9	2402.0	2.1	8.1
2007-08	313.0	4.0	2491.0	1.9	8.0
2008-09	348.0	4.4	2916.0	2.3	8.4
2009-10	364.9	4.6	3029.4	2.3	8.3

### Production Trends of Peas

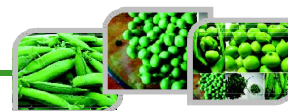
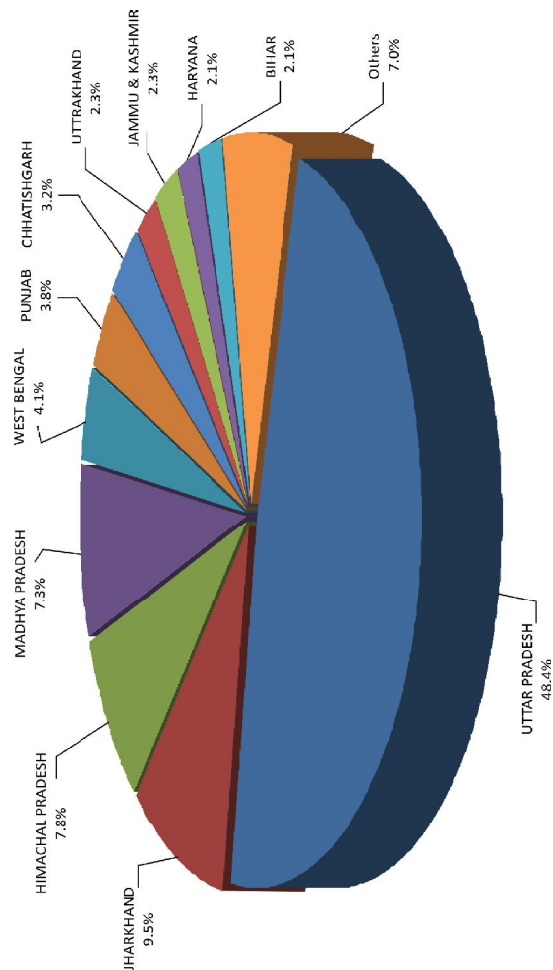


# STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF PEAS

AREA (000 HA) PRODUCTION (000 MT) PRODUCTIVITY HAM/T

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
UTTAR PRADESH	158.1	1398.6	8.8	159.4	1464.8	9.2	159.0	1465.8	9.2
JHARKHAND				12.1	241.4	20.0	20.5	287.0	14.0
HIMACHAL PRADESH	17.4	203.4	11.7	18.9	202.5	10.7	21.7	237.3	10.9
MADHYA PRADESH	21.5	236.4	11.0	23.7	260.8	11.0	20.0	220.0	11.0
WEST BENGAL	20.9	123.8	5.9	21.1	124.7	5.9	21.1	125.6	6.0
PUNJAB	18.5	111.0	6.0	18.5	112.0	6.1	19.1	115.5	6.1
CHHATISHGARH							10.6	96.6	9.2
UTTRAKHAND	11.1	72.5	6.5	10.6	71.1	6.7	10.8	71.0	6.6
JAMMU & KASHMIR	2.3	25.2	11.0	4.4	73.5	16.7	7.6	69.9	9.2
HARYANA	10.0	70.9	7.1	10.6	91.2	8.6	10.6	64.3	6.1
BIHAR	9.0	57.6	6.4	9.1	61.3	6.7	9.3	63.5	6.9
Others	43.7	191.7	4.4	59.8	213.2	3.6	54.8	213.0	3.9
<b>TOTAL</b>	<b>312.5</b>	<b>2491.1</b>	<b>8.0</b>	<b>348.1</b>	<b>2916.5</b>	<b>8.4</b>	<b>364.9</b>	<b>3029.4</b>	<b>8.3</b>

Leading Peas Producing States (2009-10)

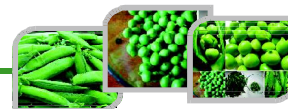


## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF PEAS DURING THE PERIOD JANUARY TO DECEMBER, 2010

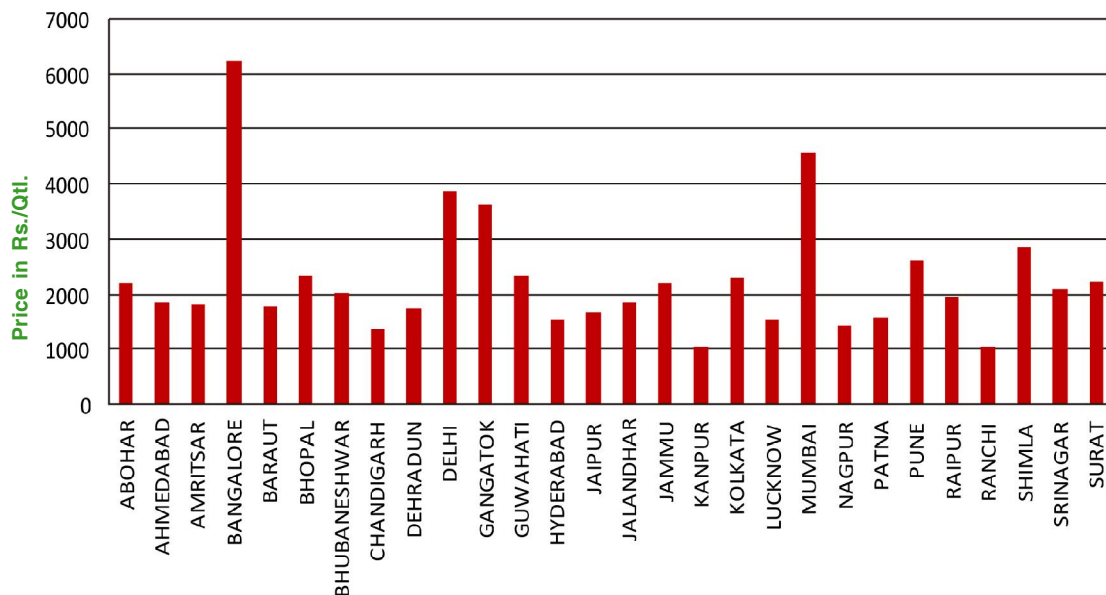
Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABOHAR	0	0	0	0	2777	32	2715	37	0	0	0	0
AHMEDABAD	1248	1119	1085	1223	1417	988	0	0	0	0	0	0
AMRITSAR	1143	847	641	1042	872	825	1678	594	1883	366	0	0
BANGALORE	2198	2169	1830	1674	3010	892	4742	343	10813	138	9788	133
BARAUT	2344	66	1429	122	1310	101	1970	33	0	0	0	0
BHOPAL	1410	597	1009	557	1911	117	3239	9	0	0	0	0
BHUBANESHWAR	1339	435	1081	369	1163	248	0	0	0	0	0	0
CHANDIGARH	1001	1034	703	1371	792	1113	1698	387	0	0	0	0
DEHRADUN	1039	275	710	420	668	341	1526	81	2912	15	0	0
DELHI	1384	7793	982	8099	1368	5161	2937	2060	3790	1299	5237	759
GANGATOK	2718	25	2210	15	1927	24	2973	32	4420	2	4825	1
GUWAHATI	1342	553	1359	476	1240	485	2609	248	0	0	0	0
HYDERABAD	0	0	0	0	0	0	2167	828	0	0	0	0
JAIPUR	1297	621	871	939	875	319	0	0	0	0	0	0
JALANDHAR	0	0	0	0	1850	60	0	0	0	0	0	0
JAMMU	1260	780	741	1074	922	721	2027	282	1596	792	1950	522
KANPUR	1252	1840	785	3166	1126	505	0	0	0	0	0	0
KOLKATA	1677	2920	883	1997	1562	428	2236	28	0	0	0	0
LUCKNOW	1546	1840	1023	2494	1295	618	0	0	0	0	0	0
MUMBAI	1782	8423	1291	11630	3326	4057	3477	1608	4619	1117	7000	1114
NAGPUR	1407	112	1292	59	1275	4	0	0	0	0	0	0
PATNA	1640	580	1117	710	1167	240	0	0	0	0	0	0
PUNE	1958	1474	1632	2770	2557	1502	0	0	0	0	0	0
RAIPUR	1487	343	1418	196	1638	106	2612	52	0	0	0	0
RANCHI	1106	570	790	511	557	408	0	0	0	0	0	0
SHIMLA	1521	137	1515	232	1555	222	1372	254	1705	223	3276	73
SRINAGAR	1544	1410	1139	1025	1370	1085	2390	441	1472	1475	1755	840
SURAT	1671	425	1363	640	1920	347	2995	144	0	0	0	0

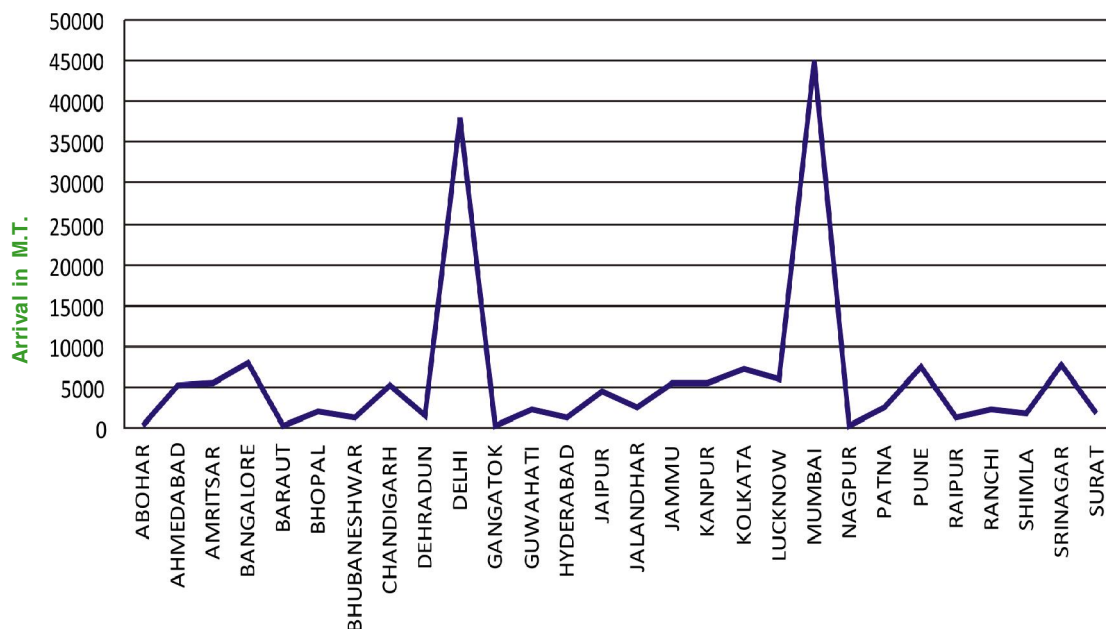




### Annual Wholesale Average Price Trends of Peas - 2010



### Annual Total Arrival Trends of Peas - 2010



## TOMATO

- Origin** – Peruvian & Mexican region
- Major Producing States** – Bihar, Karnataka, Uttar Pradesh, Orissa, Andhra Pradesh, Maharashtra, Madhya Pradesh & Assam
- Latest Production** – 124.33 Lakh Tonnes
- Main Varieties** – Arka Saurabh, Arka Vikash ARTH 3, ARTH 4, Avinash 2, BSS 90, CO3, HS 101, HS 102 HS 110. Hisar Anmol, Hisar Arun, Hisar Lalima, Hisar Lalit, Krishna, KS 2, Matri, MTH 6, NA 601, Naveen, Pusa 120, Punjab Chhuhara, Pant Bahar, Pusa Divya, Pusa Early Dwarf, Pusa Hybrid 1, Pusa Hybrid 2, Pusa Hybrid 4, Pusa Ruby, Pusa Sheetal, Pusa Uphar, Rajni, Rashmi, Ratna and Rupali.

- Advanced Technology** – Use of Hybrid seeds

**Storage Conditions :**

		<u>Mature Green</u>	<u>Pink</u>	<u>Ripe</u>
Temperature	:	13 - 18°C	10 - 13°C	7 - 10°C
Relative Humidity	:	85 - 90%	–	–
Storage Period	:	2 - 3 weeks	7 - 10 days	3 - 5 days

- Treatment for Quality** – Integrated Pest Management (IPM)

- Sensibility to** – Refrigeration and Freezing

**Growing Belts**

The major tomato producing belts are as follows :

- Uttar Pradesh (Bulandshahar, Aligarh, Agra, Firozabad, Bhadayun, Kanpurnagar, Fatehpur, Jalaum, Lucknow, Unnaw)
- Himachal Pradesh (Shimla, Kullu & Solan).
- Punjab (Amritsar, Ropar, Jalandhar, Hoshiyarpur)



- Haryana (Rohtak, Sonapat, Jhajjar, Faridabad, Karnal)
- Rajasthan (Jaipur, Dholpur, Alwar, Tonk, Bharatpur)
- Bihar (Vaishali, Sitamarhi, Bhagalpur, Patna, Aurangabad, Nalanda, Bhojpur, W&E Champaran)
- Maharashtra (Nasik, Ahmednagar, Pune & Nagpur)
- Gujarat (Surat, Valsad, Baroda, Ahmedabad, Gandhinagar, Khera & Jamnagar, Chiffore)
- Madhya Pradesh/Chhattisgarh (Raipur, Durg, Bastar, Satna, Sagar, Sarguja, Jabalpur, Bilaspur, Raigarh)
- Orissa (Keonjar, Khurda, Kalahandi, Mayurbhanj, Ganjam)
- Karnataka (Belgaum, Dharwad, Kolar, Bangalore R&U, Bellary)
- Andhra Pradesh (Rangareddy, Mahabubnagar, Parakasam, Vishakhapatnam, Chittore)
- Tamil Nadu (N.Arcot Ambedkar, Salem, Dharampur, Coimbatore, Periyar, Trichy, Madurai, Dindigul Anna)
- West Bengal (South 24 Pargana, Haldibari)

## HARVESTING SEASON OF TOMATO

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
  LEAN SEASON
  ROUND THE YEAR

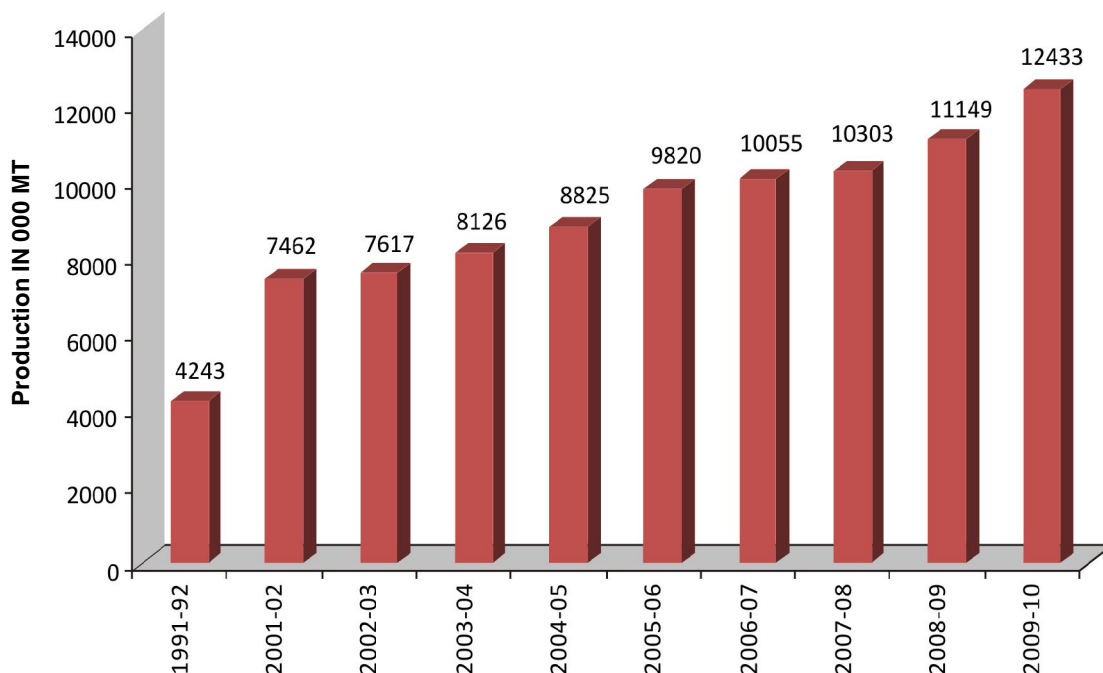
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF TOMATO

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	289.1	5.2	4243.4	7.2	14.7
2001-02	458.1	7.4	7462.3	8.0	16.3
2002-03	478.8	7.9	7616.7	9.0	15.9
2003-04	502.8	8.0	8125.6	8.7	16.2
2004-05	505.4	7.5	8825.4	8.7	17.5
2005-06	546.1	7.6	9820.4	8.9	18.0
2006-07	596.0	7.9	10055.0	8.7	16.9
2007-08	566.0	7.2	10303.0	8.0	18.2
2008-09	599.0	7.5	11149.0	8.6	18.6
2009-10	634.4	7.9	12433.2	9.3	19.6

### Production Trends of Tomato



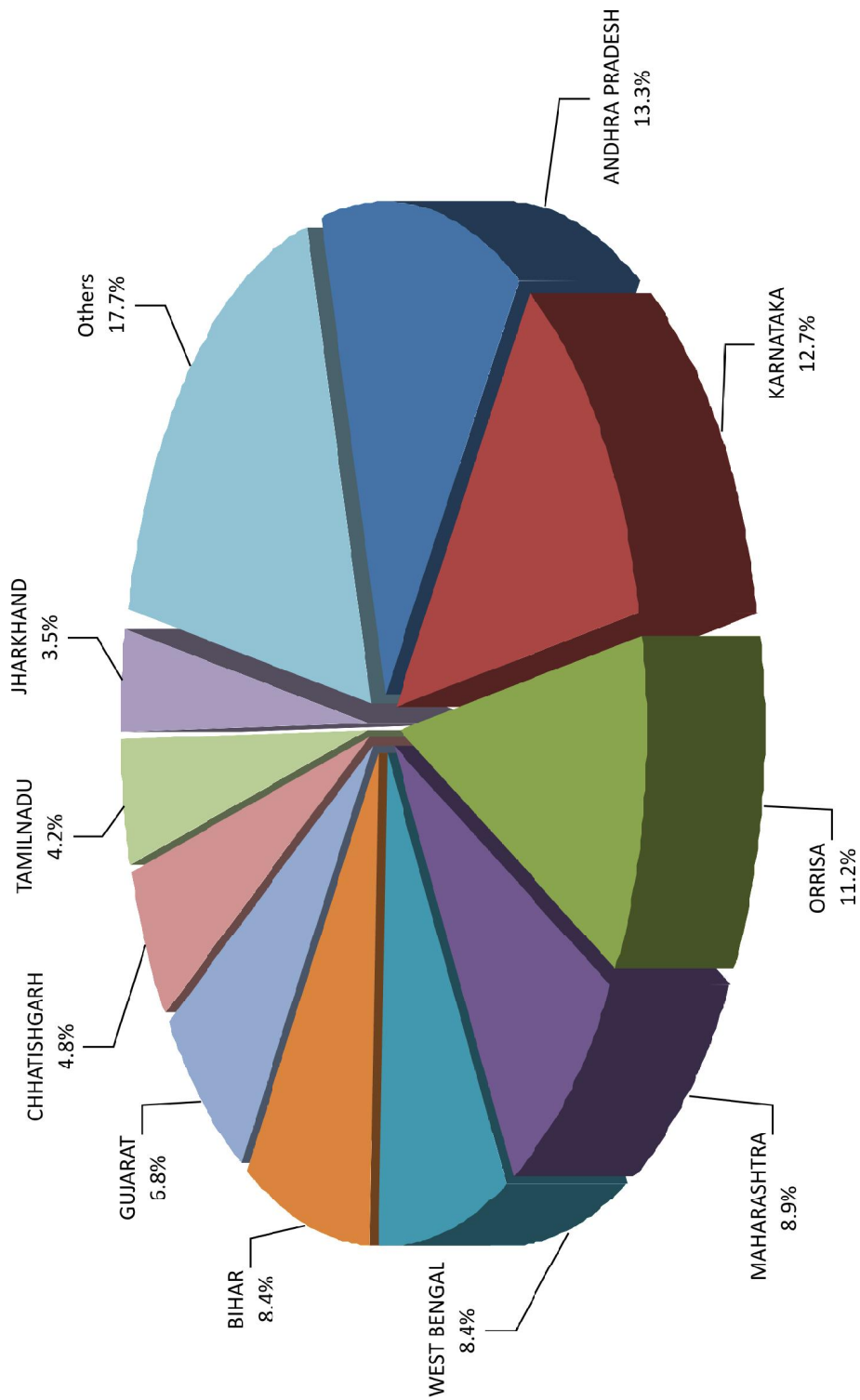
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF TOMATO

AREA (000 HA) PRODUCTION (000 MT) PRODUCTIVITY HAMT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ANDHRA PRADESH	74.1	1408.1	19.0	74.1	1408.1	19.0	87.0	1652.1	19.0
KARNATAKA	50.9	1498.8	29.5	53.4	1573.8	29.5	48.3	1580.0	32.7
ORRISA	100.7	1344.2	13.3	101.1	1360.5	13.5	102.9	1394.7	13.6
MAHARASHTRA	32.2	715.3	22.2	33.0	732.3	22.2	50.0	1112.5	22.3
WEST BENGAL	51.1	956.7	18.7	52.3	999.7	19.1	53.5	1050.0	19.6
BIHAR	46.2	921.9	20.0	46.4	1037.2	22.4	46.5	1043.7	22.4
GUJARAT	30.8	739.6	24.0	30.5	746.2	24.4	33.8	841.3	24.9
CHHATISHGARH	37.7	404.1	10.7	39.2	420.4	10.7	41.3	600.6	14.5
TAMILNADU							26.1	519.1	19.9
JHARKHAND	17.5	350.2	20.0	21.8	436.1	20.0	21.8	436.2	20.0
Others	125.1	1963.8	15.7	147.2	2434.7	16.5	123.2	2203.0	17.9
<b>TOTAL</b>	<b>566.3</b>	<b>10302.7</b>	<b>18.2</b>	<b>599.1</b>	<b>11148.8</b>	<b>18.6</b>	<b>634.4</b>	<b>12433.2</b>	<b>19.6</b>



### Leading Tomato Producing States (2009-10)



## MONTHLY AVERAGE WHOLESALE PRICE AND ARRIVAL OF TOMATO (HYBRID) DURING THE PERIOD JANUARY TO DECEMBER, 2010

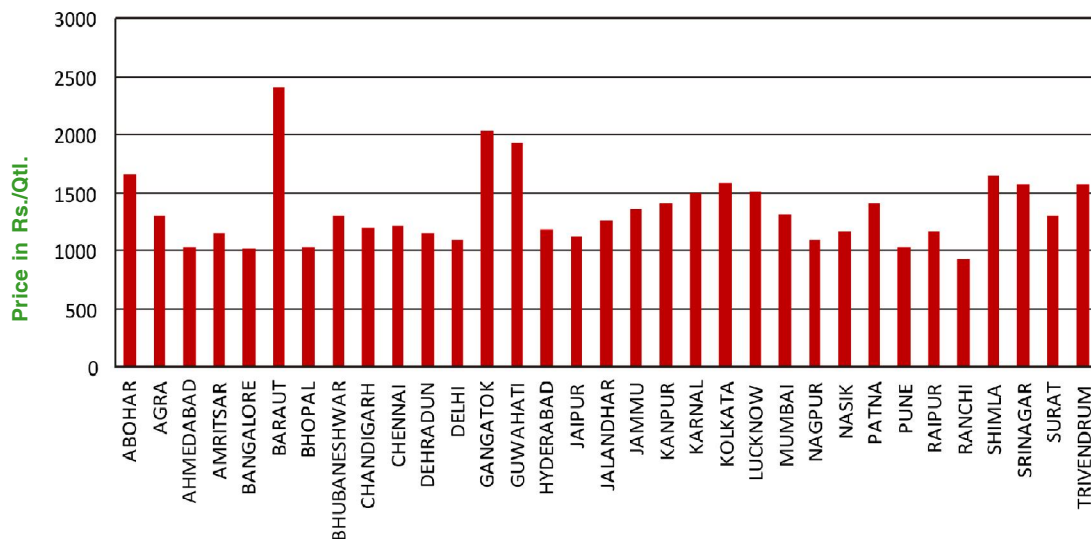
Average Wholesale Price in Rs./Qtl.  
Total Arrivals in M.T.

MARKET/CENTRE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival	Price Arrival
ABO HAR	1400 4	1300 25	1324 100	1415 82	1382 88	1300 128	2205 101	1968 85	2300 67	2352 72	1579 52	1444 58
AGRA	806 380	833 348	903 425	875 560	942 450	1424 368	2443 345	2315 478	1824 465	1361 590	761 620	1020 342
AHMEDABAD	950 5359	706 5389	386 5843	434 5657	733 2998	1470 5143	2050 6447	1252 8211	1422 6684	938 5568	689 5206	1294 6279
AMRITSAR	1396 466	989 670	793 678	821 629	533 761	483 800	1604 486	1833 348	1730 495	1217 565	883 525	1575 485
BANGALORE	987 2277	433 3303	399 2825	731 2142	1071 2673	1519 2394	1480 3312	656 3028	1191 2869	783 3805	679 2798	2311 2601
BARAUT	0 0	0 0	0 0	0 0	0 0	0 0	2914 108	3273 71	2733 71	2170 74	1554 82	1750 86
BHOPAL	803 1765	722 2381	371 3311	378 3180	650 2076	1583 1852	2343 1348	1644 3431	1515 1913	929 2564	405 3039	1049 1879
BHUBANESHWAR	764 645	558 580	507 740	768 840	1245 988	1831 810	2354 1367	1473 1444	1655 1145	1557 930	1091 1220	1815 1135
CHANDIGARH	1070 868	949 814	907 885	976 874	858 934	1082 911	1682 744	1763 837	1833 736	1355 902	967 876	968 634
CHENNAI	1198 5830	830 5830	572 5310	1029 4760	1314 4670	1488 5090	1743 5710	939 8760	1363 4640	1044 5160	996 4590	2048 4500
DEHRADUN	851 311	673 410	587 469	387 367	535 446	829 323	2092 332	2026 388	1837 419	1239 492	974 837	1508 426
DELHI	978 11433	720 13426	688 15870	636 10548	532 10227	899 13532	2131 12804	1562 11229	1717 7952	1031 11048	682 11476	1409 11997
GANGATOK	1520 18	0 0	0 0	719 87	2180 29	2837 16	2590 29	2231 40	2373 40	2121 46	1974 47	1755 46
GUWAHATI	672 777	561 829	424 904	782 675	2594 523	2996 709	2721 761	2200 653	3331 302	2728 272	2388 318	1676 547
HYDERABAD	928 2073	777 3144	629 6353	947 6167	1140 2254	1664 2094	1922 1911	1231 6282	1174 5995	1079 8317	976 9918	1732 5693
JAIPUR	1096 858	943 1285	1008 1554	841 1025	784 682	0 0	1989 1824	1414 5116	1427 4690	1234 4367	712 3826	808 1565
JALANDHAR	0 0	0 0	1550 85	0 0	0 0	0 0	0 0	0 0	0 0	888 2020	1083 2580	1502 2903
JAMMU	1319 1768	965 1733	912 2106	1061 2078	818 1905	1063 1298	2031 1563	1773 1323	1923 1306	1444 2128	1174 2028	1802 1890
KANPUR	0 0	0 0	0 0	871 765	670 998	1255 511	2300 570	1443 766	1868 654	1368 630	0 0	0 0
KARNAL	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1544 439	1535 572	1387 708
KOLKATA	714 5615	524 5337	460 3885	969 923	1664 1533	2420 2262	2996 1956	1924 2522	2171 2468	1852 2598	1495 2563	1786 2250
LUCKNOW	1012 45	885 1489	781 373	0 0	0 0	1648 1049	3145 839	2024 1421	1882 991	1339 1489	894 1388	0 0
MUMBAI	1550 6393	1009 6844	971 18644	669 7871	794 7781	1752 8344	2369 7773	1321 7534	1679 9136	760 10255	720 7944	2186 6051
NAGPUR	647 1470	611 1570	619 1710	763 1240	816 1600	1195 2530	2060 1410	1310 1770	1457 1890	1042 1590	900 1330	1607 1590
NASIK	1456 1207	1160 1105	961 1315	538 1240	635 1358	1180 920	2090 875	1442 1285	1438 1513	674 7529	583 3925	1874 2465
PATNA	699 595	351 1330	593 690	776 825	917 600	2169 863	2912 677	2403 755	2079 880	1664 950	1037 1500	1272 1200
PUNE	1295 1311	842 1963	514 2795	474 1051	585 953	1160 1418	1713 807	1205 623	1313 529	775 1192	550 1126	2000 1275
RAIPUR	574 373	713 305	712 270	850 214	960 148	1520 216	2278 324	1421 489	1578 379	1123 402	869 369	1282 388
RANCHI	500 40	0 0	583 607	507 576	614 540	1147 505	1715 375	1433 534	1377 517	882 605	653 648	828 559
SHIMLA	1679 155	1613 161	1204 233	1303 181	1157 261	1135 270	1975 153	2547 127	2546 90	2067 177	1132 192	1376 173
SRINAGAR	1544 1480	1357 971	1200 1630	1307 1275	1252 1537	1368 1020	2425 200	1638 450	1856 335	1815 745	1336 3330	1763 1025
SURAT	1234 4115	976 4145	650 3865	647 5670	796 4565	1435 5306	2493 6040	1631 6025	2020 5245	1074 5160	683 5665	1946 4900
TRIVENDRUM	1473 382	1059 395	1081 376	1263 343	1655 345	1972 331	2374 314	1503 388	1669 267	1440 748	1302 454	2059 817

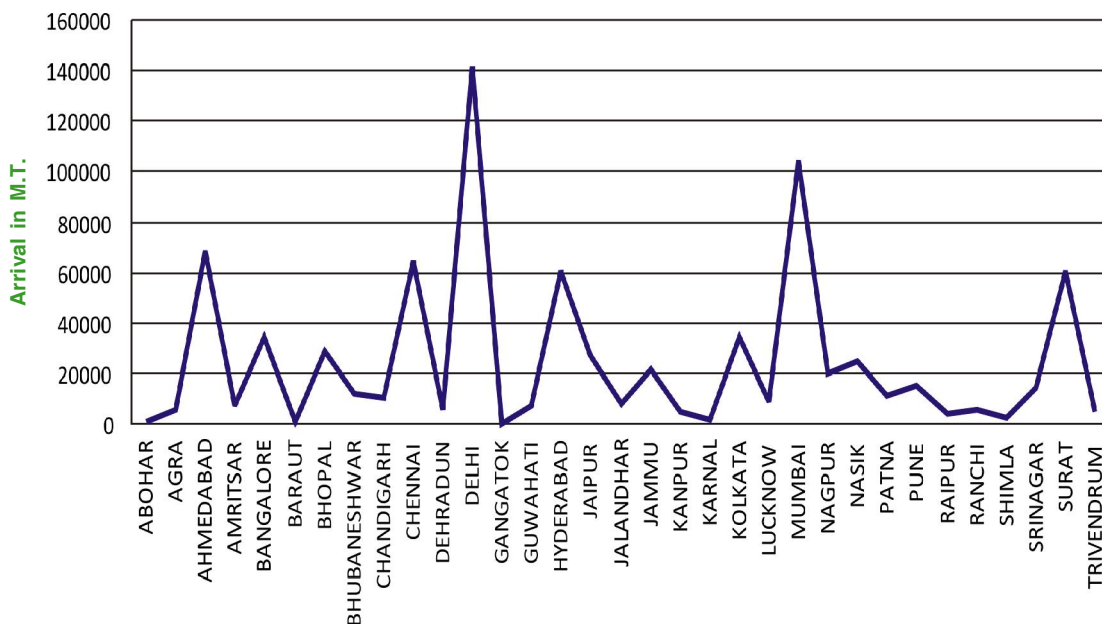




## Annual Wholesale Average Price Trends of Tomato (Hybrid) - 2010



## Annual Total Arrival Trends of Tomato (Hybrid) - 2010



## POTATO

<b>Origin</b>	–	South America												
<b>Major Producing States</b>	–	Uttar Pradesh, Bihar, West Bengal, Punjab, Karnataka, Assam & Madhya Pradesh												
<b>Latest Production</b>	–	365.77 Lakh Tonnes												
<b>Main Varieties</b>	–	Kufri Sindhuri, Kufri Chandramukhi, Kufri, Jyoti, Kufri Muthu, Kufri Lauvkar, Kufri Dewa, Kufri Badshah, Kufri Bahar, Kufri Lalima, Kufri Swarna, Kufri Megha, Kufri Ashoka, Kufri Jawahar and Kufri Sutlej.												
<b>Advanced Technology</b>	–	Use of TPS (True Potato Seed)												
<b>Storage Conditions</b>	–													
		<table> <tr> <th></th><th>Fresh</th><th>Frozen</th></tr> <tr> <td>Temperature</td><td>: 3<sup>0</sup> - 4<sup>0</sup>C</td><td>- 23 to - 18<sup>0</sup>C</td></tr> <tr> <td>Relative Humidity</td><td>: 90 - 95%</td><td>Vapor-tight Packing</td></tr> <tr> <td>Storage Period</td><td>: 5 - 10 Month</td><td>1 year +</td></tr> </table>		Fresh	Frozen	Temperature	: 3 <sup>0</sup> - 4 <sup>0</sup> C	- 23 to - 18 <sup>0</sup> C	Relative Humidity	: 90 - 95%	Vapor-tight Packing	Storage Period	: 5 - 10 Month	1 year +
	Fresh	Frozen												
Temperature	: 3 <sup>0</sup> - 4 <sup>0</sup> C	- 23 to - 18 <sup>0</sup> C												
Relative Humidity	: 90 - 95%	Vapor-tight Packing												
Storage Period	: 5 - 10 Month	1 year +												
<b>Sensibility to</b>	–	Refrigeration and Freezing												
<b>Growing Belts</b>														

The major potato producing belts are as follows :

- Himachal Pradesh (Shimla, Lahaul Spiti & Mandi)
- Punjab (Jalandhar, Hoshiarpur, Ludhiana & Patiala)
- Haryana (Ambala, Kurukshetra, Hisar & Karnal)
- Uttar Pradesh (Farrukhabad, Etawah, Mainpuri, Barabanki, Allahabad, Badaun, Moradabad, Agra Aligarh, Mathura, Faizabad,)



- Madhya Pradesh (Sidhi, Satana, Rewa, Sarguja, Rajgarh, Sagar, Tikamgarh)
- Rajasthan (Bharatpur, Dholpur)
- Gujarat (Khera, Dessa, Banansh Katha, Jamnagar, Baroda, Mehsana)
- Orissa (Cuttack, Dhenkamal, Puri & Sambalpur)
- West Bengal (Hoogly, Bardhman, Howrah)
- Maharashtra (Pune, Satana, Kochapur, Nasik)
- Karnataka (Hassan, Kolar, Belgaum & Dharwad)
- Andhra Pradesh (Chitoor, Medak)
- Tamil Nadu (Dhindigulanna, Nilgiris).

## HARVESTING SEASON OF POTATO

STATE/UT'S	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ANDHRA PRADESH												
ARUNACHAL PRADESH												
ASSAM												
BIHAR												
CHHATISHGARH												
DELHI												
GOA												
GUJARAT												
HARYANA												
HIMACHAL PRADESH												
JAMMU & KASHMIR												
JHARKHAND												
KARNATAKA												
KERALA												
MADHYA PRADESH												
MAHARASHTRA												
MANIPUR												
MEGHALAYA												
MIZORAM												
NAGALAND												
ORRISA												
PUNJAB												
RAJASTHAN												
SIKKIM												
TAMIL NADU												
TRIPURA												
UTTAR PRADESH												
UTTARAKHAND												
WEST BENGAL												
ANDMAN & NICOBAR												
CHANDIGARH												
DADAR & NAGAR HAVELI												
DAMAN & DIU												
LAKSHADWEEP												
PONDICHERRY												

PEAK SEASON
LEAN SEASON
ROUND THE YEAR

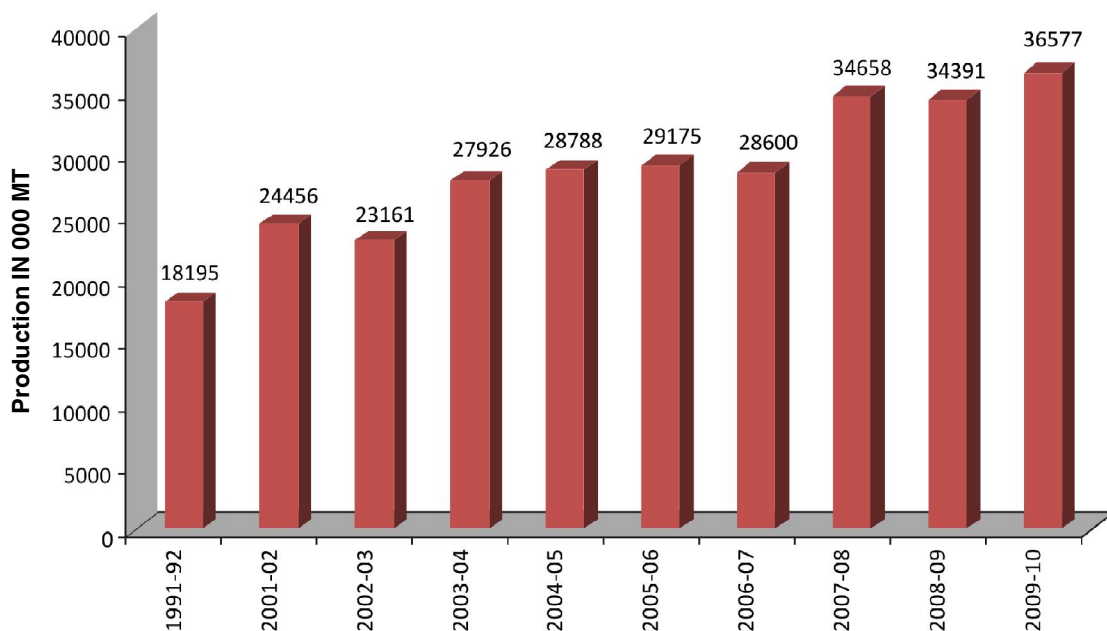
SOURCE : Director of Horticulture / Agriculture of respective State / UT's



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF POTATO

YEAR	AREA (IN 000 HA)	%OF TOTAL FRT.AREA	PRODUCTION (IN 000 MT)	%OF TOTAL FRT.PRODUCTION	PRODUCTIVITY (IN MT/HA)
1991-92	1135.1	20.3	18195.0	31.1	16.0
2001-02	1259.5	20.5	24456.1	26.1	19.4
2002-03	1337.2	22.0	23161.4	27.3	17.3
2003-04	1484.7	23.5	27925.8	30.0	18.8
2004-05	1523.9	22.6	28787.7	28.4	18.9
2005-06	1569.2	21.9	29174.6	26.4	18.6
2006-07	1743.0	23.0	28600.0	24.9	16.4
2007-08	1795.0	22.9	34658.0	27.0	19.3
2008-09	1828.0	22.9	34391.0	26.6	18.8
2009-10	1835.3	23.0	36577.3	27.3	19.9

### Production Trends of Potato



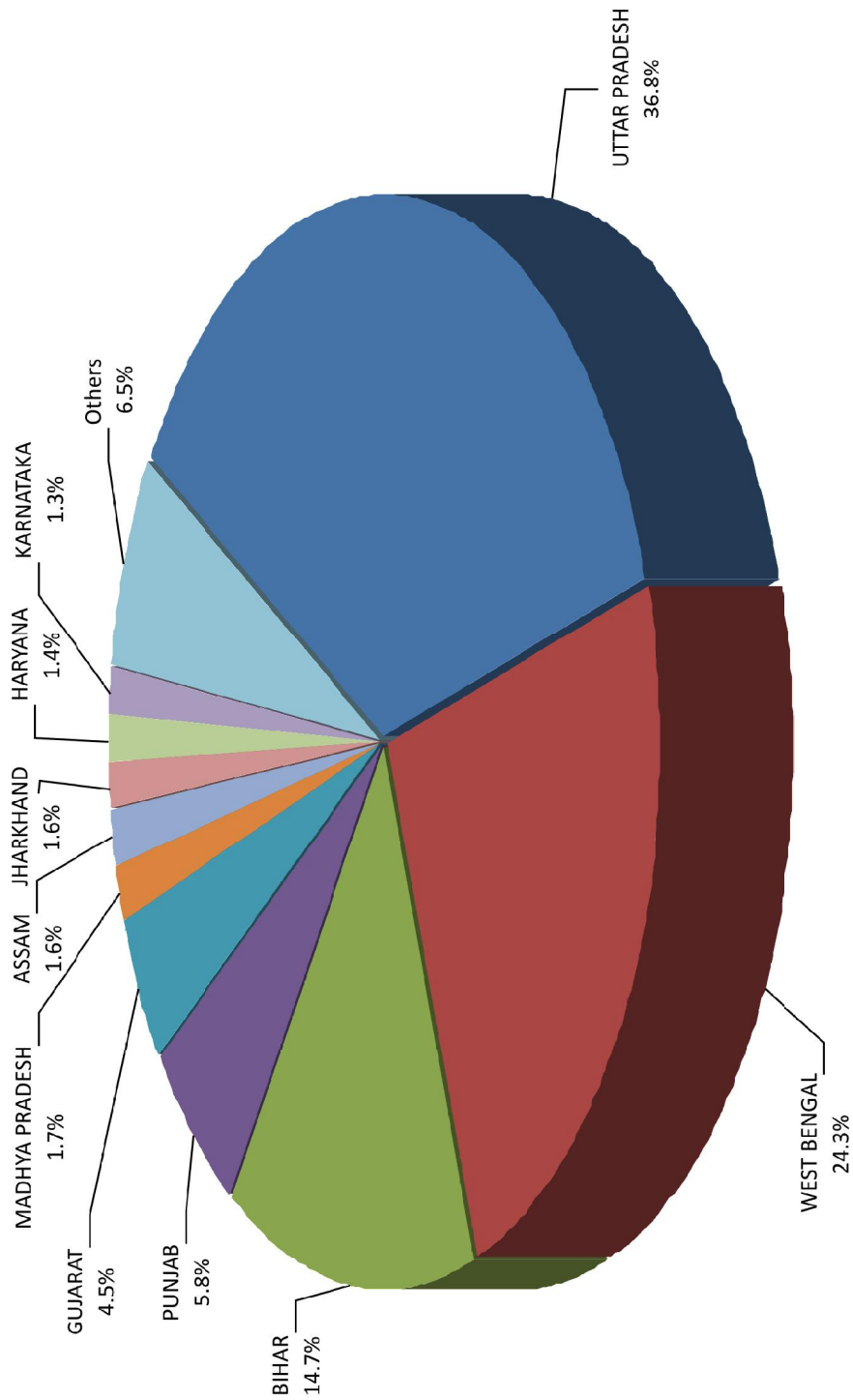
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF POTATO

AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HA/MT

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
UTTAR PRADESH	504.9	11094.9	22.0	527.3	10809.9	20.5	540.8	13447.3	24.9
WEST BENGAL	400.8	9900.8	24.7	400.8	9900.8	24.7	370.0	8880.0	24.0
BIHAR	315.5	6019.7	19.1	310.3	5033.6	16.2	313.6	5387.2	17.2
PUNJAB	79.0	1477.3	18.7	81.1	2001.1	24.7	83.1	2116.5	25.5
GUJARAT	65.2	1493.9	22.9	57.0	1448.8	25.4	60.1	1657.0	27.6
MADHYA PRADESH	50.0	650.4	13.0	66.2	882.9	13.3	60.8	608.4	10.0
ASSAM	79.3	514.6	6.5	79.7	669.2	8.4	86.6	589.7	6.8
JHARKHAND							38.2	573.1	15.0
HARYANA	19.8	352.2	17.8	23.2	490.1	21.1	23.0	494.8	21.5
KARNATAKA	67.9	572.4	8.4	71.6	606.3	8.5	81.1	460.3	5.7
Others	212.6	2582.0	12.1	211.2	2548.2	12.1	178.0	2363.1	13.3
<b>TOTAL</b>	<b>1795.0</b>	<b>34658.3</b>	<b>19.3</b>	<b>1828.3</b>	<b>34390.9</b>	<b>18.8</b>	<b>1835.3</b>	<b>36577.3</b>	<b>19.9</b>



## Leading Potato Producing States (2009-10)

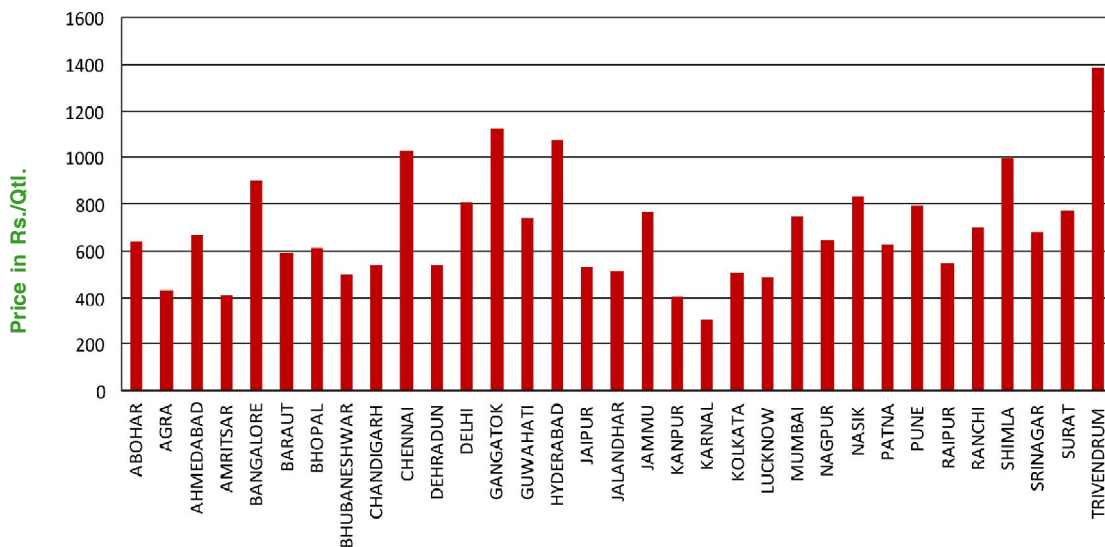




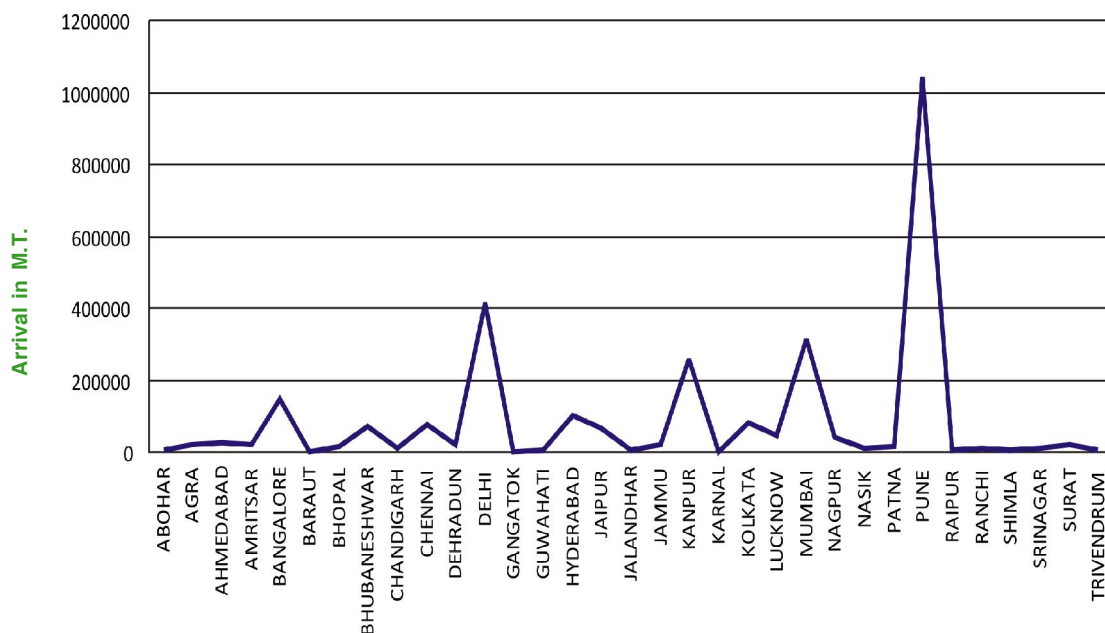




## Annual Wholesale Average Price Trends of Potato (Fresh) - 2010



## Annual Total Arrival Trends of Potato (Fresh) - 2010



## SWEET POTATO

It is grown as a starchy food crop throughout the tropical, subtropical and frost-free temperate climatic zone in the world.

**Latest Production** : 10.95 Lakh Tonnes

**Major Producing States** : Orissa, Bihar, Uttar Pradesh and Madhya Pradesh

### Recommended varieties

States/Area	Varieties
Orissa	Bhuban Sankar, Gouri
Tamil Nadu	Co 1, Co 2, Co 3, H 41,
Kerala	H 41, Sree Nandini, Sree Vardhini
Karnataka	H 41, H 42,, Rajendra Sakarkand 5, Rajandra Sakarkand 47
Maharashtra	H 42, Rajandra Sakarkand 35, Varsha
Andhra Pradesh	Kiran, Samrat
Bihar	Rajendra Sakarkand 5, Rajendra Sakarkand 35, Rajendra Sakarkand 47
West Bengal	Rajendra Sakarkand 5, Rajendra Sakarkand 35, Rajendera Sakarkand 43.
Assam	Rajendra Sakarkand 35 , Rajendra Sakarkand 43
Uttar Pradesh	VL Sakarkand 6.

### POST HARVEST MANAGEMENT :

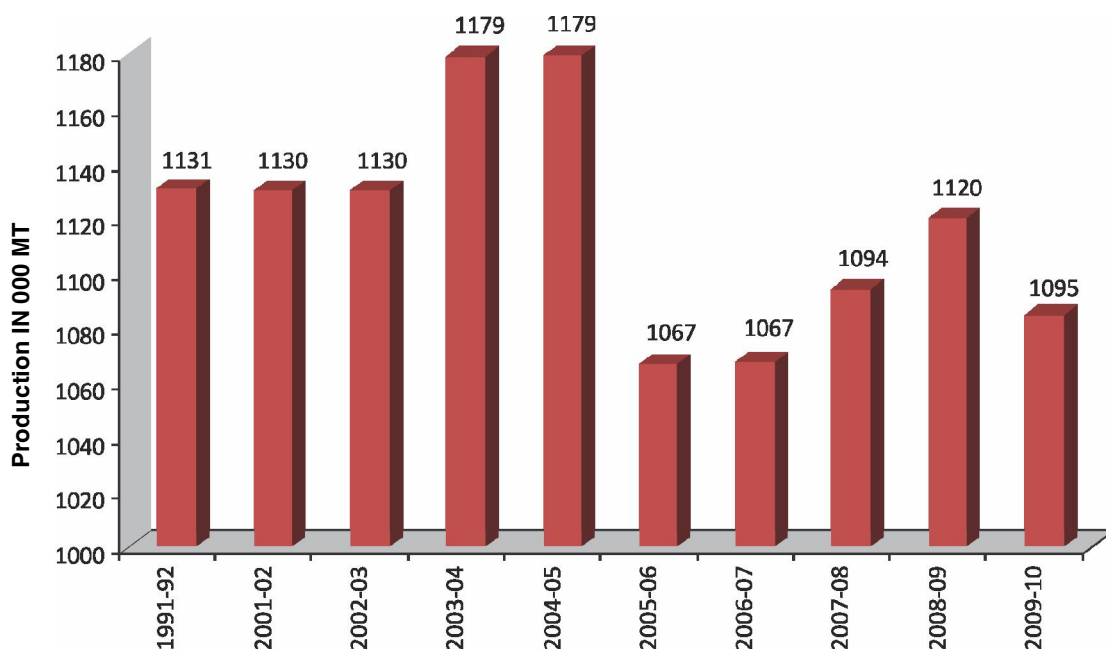
After harvest, tubers are spread in partial shade for 5-6 days, for healing and curing. They should be stored in semi-dark condition in a well-ventilated room. this types of storage invites infestation of pest and diseases. In some part of the country, tubers are stored in a layer of dry sand/soil after curing under ambient condition. For storing, graded tubers free from sweet potato weevil and bruises should be selected. Farmers store the graded tubers by keeping in a pit shade and covering the pit with paddy straw. Finally, the heap is plastered with mud or cow dung slurry.



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF SWEET POTATO

YEAR	AREA (IN 000' HA)	PRODUCTION (IN 000'MT)	PRODUCTIVITY (IN MT/HA)
1991-92	136.5	1130.7	8.3
2001-02	131.9	1130.3	8.6
2002-03	131.9	1130.3	8.6
2003-04	133.1	1179.1	8.9
2004-05	133.3	1179.4	8.8
2005-06	122.8	1066.5	8.7
2006-07	123.0	1067.2	8.7
2007-08	123.0	1094.0	8.9
2008-09	124.0	1120.0	9.0
2009-10	118.9	1094.7	9.1

### Production Trends of Sweet Potato



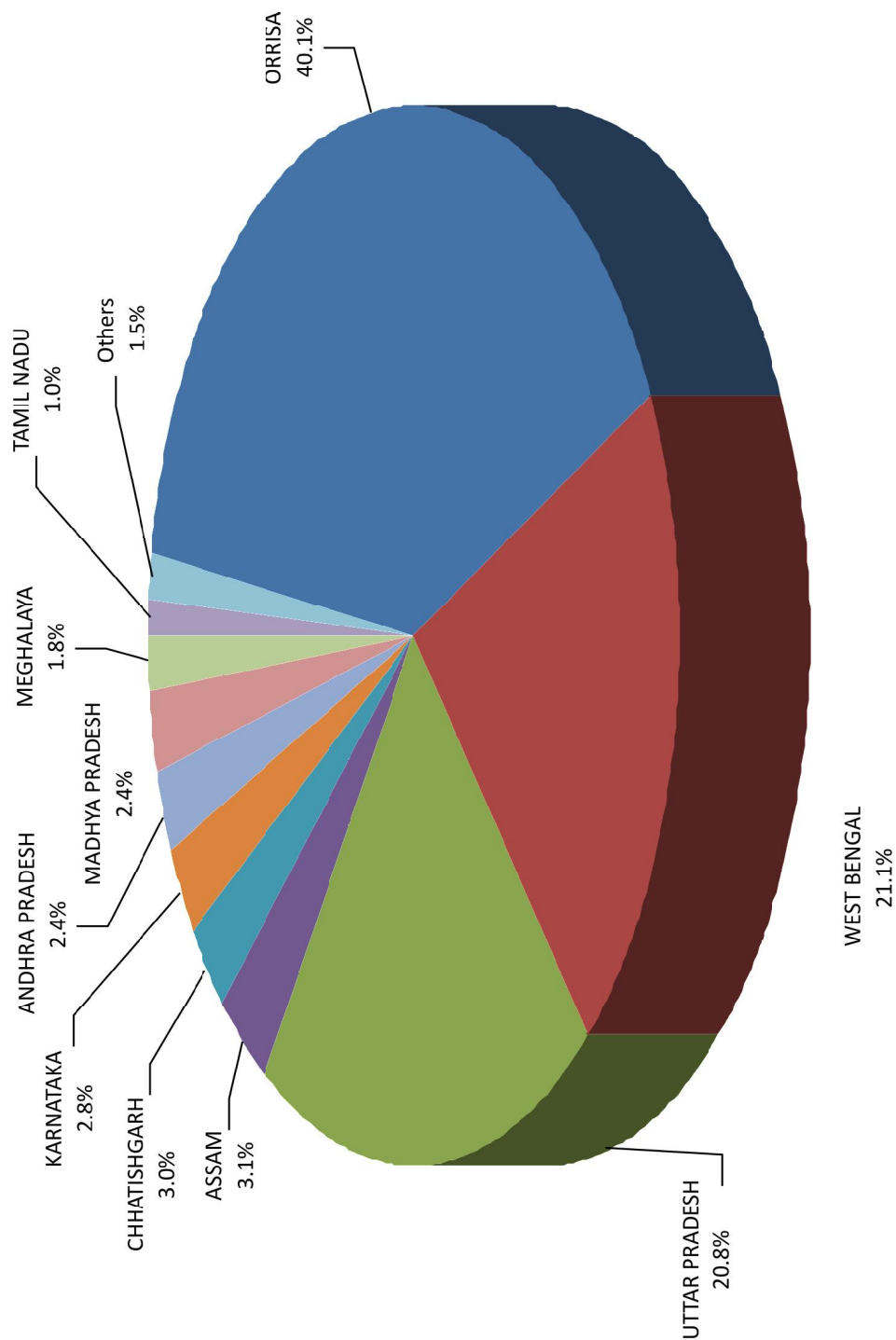
## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF SWEET POTATO

AREA (000 HA) PRODUCTION (000 MT) PRODUCTIVITY HAM/T

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
ORRISA	47.2	404.1	8.6	49.2	417.0	8.5	50.5	438.8	8.7
WEST BENGAL	23.3	235.9	10.1	22.5	231.1	10.3	22.5	231.1	10.3
UTTAR PRADESH	22.3	259.9	11.7	22.7	273.0	12.0	16.8	227.9	13.6
ASSAM	8.3	29.0	3.5	8.7	31.5	3.6	8.9	34.3	3.9
CHHATISHGARH	3.7	32.6	8.8	3.8	33.3	8.8	3.6	32.4	8.9
KARNATAKA	2.8	34.1	12.3	2.8	34.8	12.3	2.4	30.9	12.9
ANDHRA PRADESH	0.7	13.9	20.0	0.7	13.9	20.0	1.3	26.6	20.0
MADHYA PRADESH	4.2	23.3	5.5	4.6	25.7	5.5	4.5	26.0	5.8
MEGHALAYA	5.4	19.5	3.6	5.5	19.2	3.5	5.5	19.2	3.5
TAMIL NADU	1.2	20.5	17.1	1.3	22.4	16.8	0.8	11.5	14.9
OTHERS	3.5	21.5	6.1	2.4	17.7	7.3	2.1	16.0	7.6
<b>TOTAL</b>	<b>122.6</b>	<b>1094.3</b>	<b>8.9</b>	<b>124.3</b>	<b>1119.7</b>	<b>9.0</b>	<b>118.9</b>	<b>1094.7</b>	<b>9.2</b>



## Leading Sweet Potato Producing States (2009-10)



## TAPIOCA

Cassava (*Manihot esculenta*), popularly known as Tapioca, produces more calories/unit area.

**Major Producing Status** : Tamil Nadu, Karnataka and Andhra Pradesh

**Main Varieties** : Co 1, Co 2, Co 3, H 97, H 165, H 226, KMC 1, M 4, Nidhi, Sree Harsha, Sree Prakash, Sree Sahya, Sree Visakhm.

**Latest Production** : 80.60 Lakh Tonnes

### HARVESTING AND POSTHARVEST MANAGEMENT :

The crop is ready 10-11 months after planting. Short-duration varieties can be harvested 6-7 months after planting. Delay in harvesting may result in deterioration in cooking quality of the tubers. High-yielding varieties produce 35-40 tonnes/ha in 10-11 months, whereas short-duration ones (6-7 months) yield 28-30 tonnes/ha.

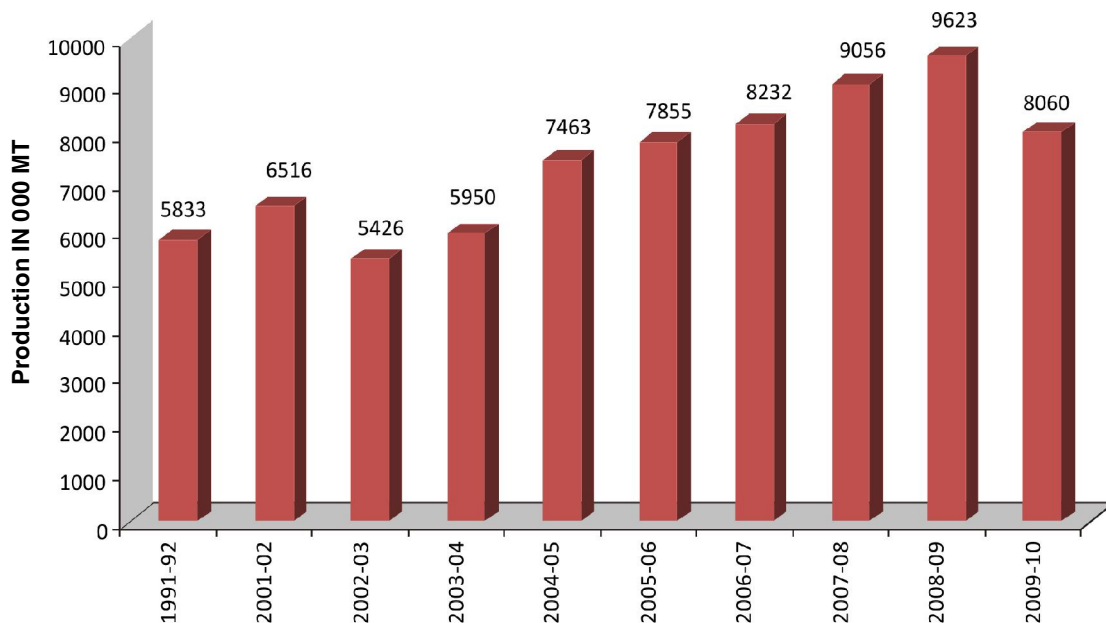
About 70% of the total cassava production is used as food either directly or in processed form. 'Parboiled chips' is a method of processing cassava tuber for storage. These chips are harder than the lain sundried chips due to the partial gelatinization. They can be stored for a longer period than sun dried chips. 'Sago' is an important food product derived from cassava starch.



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF TAPIOCA

YEAR	AREA (IN 000' HA)	PRODUCTION (IN 000'MT)	PRODUCTIVITY (IN MT/HA)
1991-92	250.9	5832.5	23.2
2001-02	238.9	6515.9	27.3
2002-03	207.0	5426.2	26.2
2003-04	220.0	5949.6	27.0
2004-05	244.7	7462.8	30.5
2005-06	244.6	7854.9	32.1
2006-07	255.0	8232.0	32.3
2007-08	270.0	9056.0	33.5
2008-09	280.0	9623.0	34.4
2009-10	231.9	8059.9	34.8

### Production Trends of Tapioca



## STATEWISE AREA, PRODUCTION AND PRODUCTIVITY OF TAPIOCA

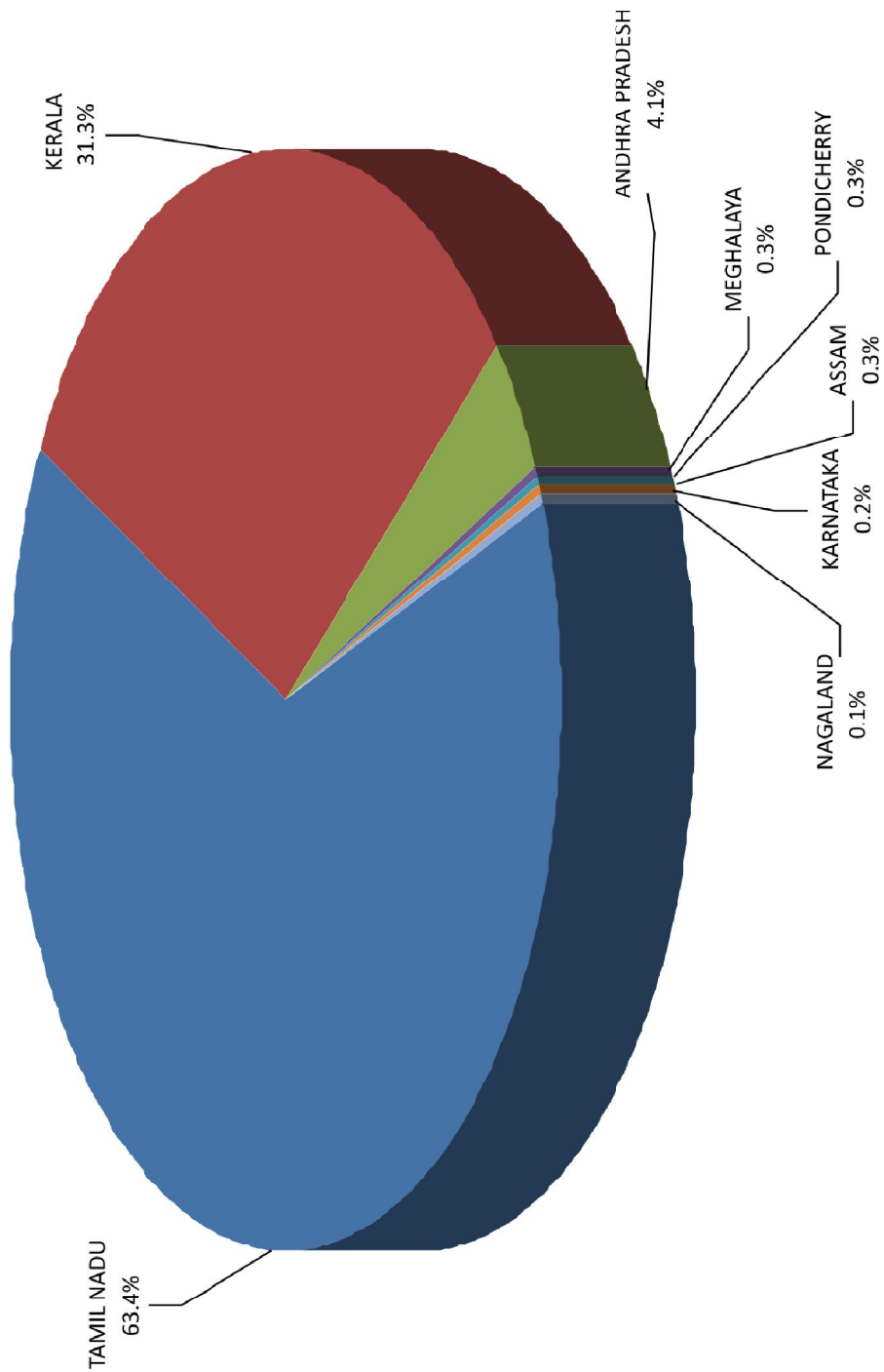
AREA (000 HA)      PRODUCTION (000 MT)      PRODUCTIVITY HAM/T

State	2007-08			2008-09			2009-10		
	Area	Production	Pdy.	Area	Production	Pdy.	Area	Production	Pdy.
TAMILNADU	151.5	6114.4	40.4	165.1	6664.7	40.4	129.4	5113.6	39.5
KERALA	90.3	2492.1	27.6	86.9	2516.8	29.0	74.9	2525.4	33.7
ANDHRA PRADESH	17.9	357.5	20.0	17.9	357.5	20.0	16.5	329.5	20.0
MEGHALAYA	4.3	23.5	5.5	4.9	26.4	5.4	4.9	26.4	5.4
PONDICHERY	0.8	35.2	46.6	0.6	25.0	40.9	0.6	25.0	40.9
ASSAM	2.7	12.9	4.8	2.8	13.5	4.8	3.6	20.8	5.7
KARNATAKA	1.0	12.8	12.8	1.0	13.0	12.8	1.0	13.1	12.8
NAGALAND	1.0	6.0	6.3	1.0	6.0	6.3	1.0	6.0	6.3
DAMAN & DIU	0.02	0.01	0.87	0.02	0.01	0.87	0.02	0.01	0.9
Others	0.34	1.52	4.45						
<b>TOTAL</b>	<b>269.7</b>	<b>9056.0</b>	<b>33.57</b>	<b>280.2</b>	<b>9623.0</b>	<b>34.35</b>	<b>231.9</b>	<b>8059.8</b>	<b>34.8</b>





### Leading Tapioca Producing States (2009-10)



## ARECANUT

Areacanut or betnut or supari is chewed both as raw nut and after processing. Owing to the medicinal properties, it is used in treating leucoderma, cough, fits, worms, anaemia and obesity.

**Major Producing States** : Kerala, Karnataka, Assam, West Bengal and Tamil Nadu.

**Latest Production** : 4.78 Lakh Tonnes

### Main Varieties

Variety	Recommended for Area
<b>Mangala</b>	Coastal Kerala and Karnataka
<b>Sumangala</b>	Coastal Kerala and Karnataka
<b>Sree Mangala</b>	Karnataka and Kerala
<b>Mohitnagar</b>	Northern parts of West Bengal, coastal Karnataka and Kerala
<b>CAL 7</b>	Andaman and Nicobar Islands
<b>SAS 1</b>	Hilly area of Karnataka

### POST HARVEST MANAGEMENT

The most important trade types of arecanuts are dried ripe nuts (chali or kotapak), kalipak and scented supari. To prepare chali or kotpak, ripe nuts are dried under the sun for 35-40 days. These are then dehusked and marketed as whole nuts. A mechanical through-flow drier as well as a dehusking device have been developed. The well-known grades of chali in decreasing order of sizes are moti, srivardhan, jamnagar and jinni.

Kalipak is processed in Kerala and Karnataka. Lylon, mainly consumed in Tamil Nadu and Andhra Pradesh. Nuli is a variety made from very tender nuts. Scented supari, popular in north and central India, is of chali and kalipak types.

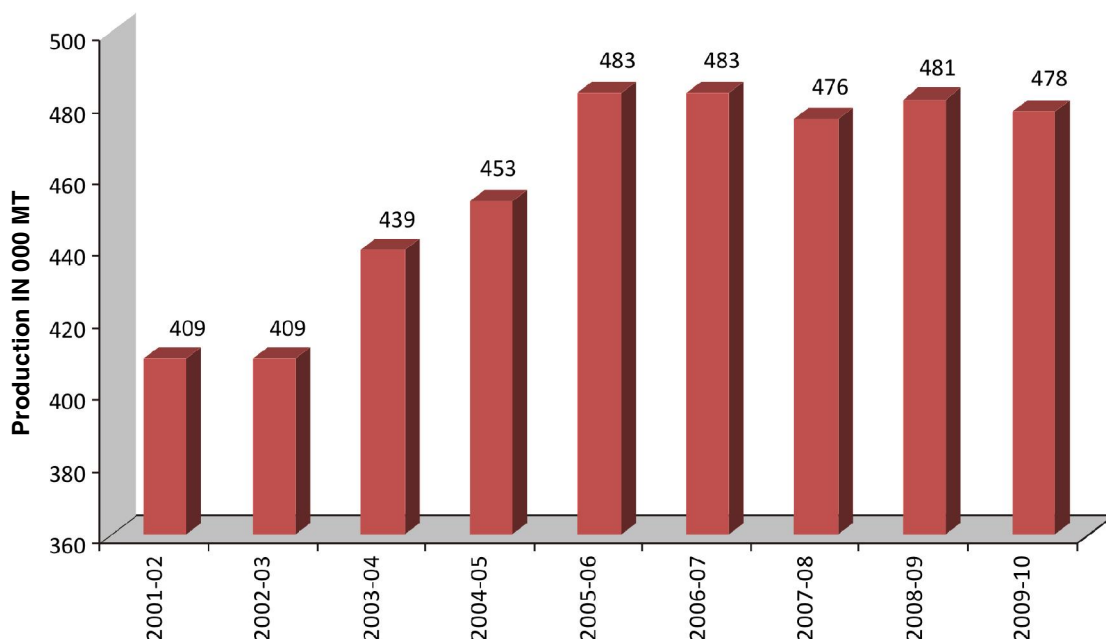
Scented supari, popular in north and central India, is of two types. The first is made from chali and the other from kalipak. Chali and ripe areacanut which leave a large fibrous residue in the mouth are used along with betel leaf and slaked lime.



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF ARECANUT

YEAR	AREA (IN 000 HA)	PRODUCTION (IN 000 MT)	PRODUCTIVITY (IN MT/HA)
1991-92	221.8	251.0	1.1
2001-02	334.8	409.3	1.2
2002-03	334.8	409.3	1.2
2003-04	365.0	439.2	1.2
2004-05	364.3	452.7	1.2
2005-06	381.1	483.1	1.3
2006-07	382.7	483.3	1.3
2007-08	386.6	476.0	1.2
2008-09	387.1	481.3	1.2
2009-10	400.1	478.0	1.2

### Production Trends of Arecanut



## CASHEWNUT

It is cultivated widely throughout the tropics for its kernels. In India, it is grown in the west coast, east coast and a few plain areas parts in Karnataka and Madhya Pradesh. The highest productivity is noticed in Maharashtra.

**Latest Production** : 6.13 Lakh Tonnes

### Main Varieties

State	Variety
<b>Andhra Pradesh</b>	BPP 4, BPP 8 and VRI 2
<b>Karnataka</b>	Chintamani 1, Sel. 1, Sel. 2, Ullal 1, Ullal 2, Ullal 3, Ullal 4, UN 50, VRI 2, Vengurla 1 and Vengurla 4.
<b>Kerala</b>	Dhana, K 22-1, Madakkathara 1, Madakkathara 2 and Priyanka
<b>Madhya Pradesh</b>	T No. 40 and Vengurla 4
<b>Maharashtra and Coa</b>	Vengurla 1, Vengurla 4 and Vengurla 6
<b>Orissa</b>	Bhubaneswar 1 and VRI 2
<b>Tamil Nadu</b>	VRI 1, VRI 2 and VRI 3
<b>West Bengal</b>	Jhargram 1

### POST HARVEST MANAGEMENT

Cashewnuts are harvested during February-May. Only fully mature nuts should be harvested. Usually, the nuts are picked after they fall off from the trees. Best quality nuts are obtained where freshly fallen fruits are collected. The apples are removed and the nuts are sun-dried for 2-3 days to reduce moisture from 25% to below 9%. With proper drying, the kernels retain their quality, particularly the flavor.

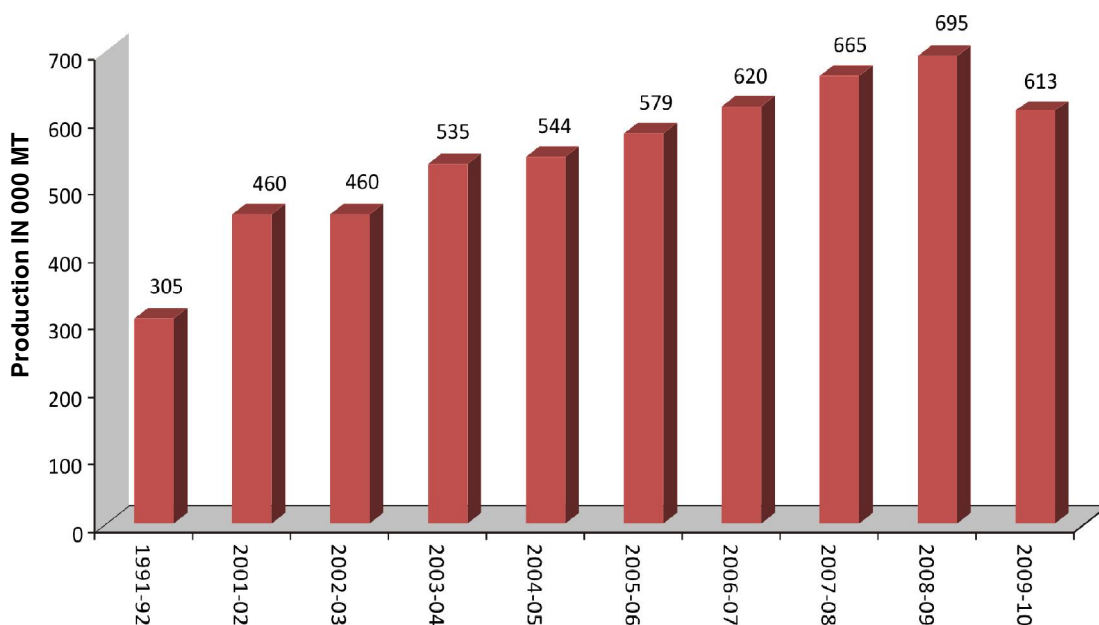
However, if cashew apples are used for processing, it is better to harvest them from the without damaging the apples. The mature nuts sink in water while the immature/unfilled once float. This test could be used to find out whether the nuts are mature or not. The nuts should be collected at weekly interval in the season. Ripe apples for fresh use should be picked almost daily. The area under trees should be weed-free and swept clean to facilitate nut collection.



## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF CASHEWNUT

YEAR	AREA (IN 000 HA)	PRODUCTION (IN 000 MT)	PRODUCTIVITY (IN MT/HA)
1991-92	534	305	0.6
2001-02	740	460	0.6
2002-03	740	460	0.6
2003-04	780	535	0.7
2004-05	820	544	0.7
2005-06	843	579	0.7
2006-07	854	620	0.7
2007-08	868	665	0.8
2008-09	893	695	0.8
2009-10	923	613	0.7

### Production Trends of Cashewnut



## COCONUT

It is a commercial crop in India. Tamil Nadu, Andhra Pradesh, Karanatak and Maharashtra are the major producing states.

**Latest Production** : 157.30 Lakh Tonnes

**Main Varieties** There are two types of varieties of coconuts, i.e. **Tall and Dwarf.**

**Tall-** West Coast Tall, Laccadive Ordinary, East Coast Tall and Andaman Ordinary.

**Dwarf-** Chowghat Green Dwarf, Chowghat Orange Dwarf, Gangabondam and Gudanjali Dwarf.

### Released coconut hybrids/varieties

Hybrid/Variety	Recommended for
<b>Anandaganga (AoxGB)</b>	Kerala
<b>Chandrakalpa (LOxCOD)</b>	Kerala and Karnataka
<b>Chandrasankara</b>	Kerala, Karnataka and Tamil Nadu
<b>Kerasankara(WCTxCOD)</b>	Kerala and Karnataka
<b>Keraganga(WCTxGB)</b>	Kerala
<b>Lakshaganga (LoxGB)</b>	Kerala
<b>Philippines Ordinary</b>	West Coast Konkan region, east coast of Andhra Pradesh and West Bengal
<b>Pratap (BGR)</b>	Coastal Maharashtra
<b>VHC 1 (ECTxDG)</b>	Tamil Nadu
<b>VHC 2 (ECTxDG)</b>	Tamil Nadu
<b>ECTxGB</b>	Andhra Pradesh

### POST HARVEST MANAGEMENT :

Post Harvest Management of coconut involves its conversion into copra and coconut oil. Coconut husk is used to manufacture coir mat, cushion and other products. Two forms of copra are manufactured. There are copra and milling copra. However, milling copra is manufactured commercially. Milling copra is most popular coconut is southern states. In Kerala, 60-65% of the total coconut produced is converted into milling copra.

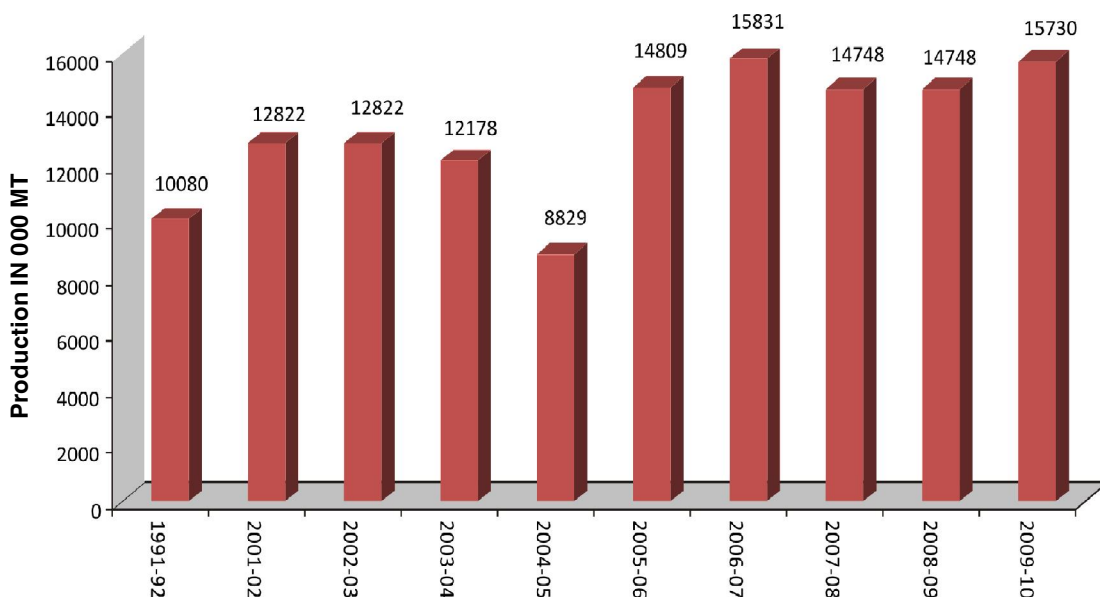


## ALL INDIA AREA, PRODUCTION AND PRODUCTIVITY OF COCONUT

YEAR	AREA (IN 000' HA)	PRODUCTION		PRODUCTIVITY (IN NUTS / HA
		(IN MILLION NUTS)	(IN MILLION TONNES)*	
1991-92	1529	10080	6.9	6593
2001-02	1893	12822	8.8	6775
2002-03	1893	12822	8.8	6775
2003-04	1934	12178	8.4	6298
2004-05	1935	8829	6.1	4563
2005-06	2029	14809	10.2	7299
2006-07	1940	15831	10.9	8161
2007-08	1903	14748	10.1	7749
2008-09	1903	14748	10.1	7749
2009-10	1895	15730	10.8	8300

\* Conversion Formula - No. of 1453.24 Nuts/Tonnes

### Production Trends of Coconut



## COCOA

It is an important commercial crop grown the world over. In India, it is being cultivated in Kerala, Karnataka and Tamil Nadu. The current area under cocoa, however, is very small. There is a lot of potential for area expansion as a mixed crop. Kerala accounts for about 76% of the area and 78% of the total production in the country. The remaining area and productions is contributed by Karnataka. It is being grown in some pockets in Tamil Nadu and Andhra Pradesh also.

**Latest Production** : 0.13 Lakh Tonnes

**Main Varieties** : There are three types of cocoa varieties. They are Criollo, Forastero and Trinitaro. Criollo and Forastero are naturally evolved varieties. Criollo types produce best quality cocoa. Forastero types are sturdy. They survive under adverse conditions. Trinitario types have characters of both these types.

### POST HARVEST MANAGEMENT :

The harvested pods are broken for extraction of beans by hitting them on a hard surface. The beans are then extract excluding the placenta. The pods may be kept up to a week before breaking and extracting beans for fermentations. The fermented beans have a moisture content of about 55%. The beans are to be skin dried within 24 hr. after fermentation to avoid mould growth. During drying biochemical oxidation of excess acetic acid from the bans takes place.

Dry cocoa bean can be stored for a long period under suitable conditions. The storage life is decided by the relative humidity and temperature prevailing in the store house. It is found that at 85% relative humidity, the bean moisture contents exceeds 8%. The practice followed at present is to shift the beans to other regions of the country where the conditions are suitable.





## Indian Noni Cultivation State Wise List

S. No.	Name of the State	Planted Area	
		Number of Cultivators	Area (Acre)
1.	Maharashtra	34	166
2.	Karnataka	22	120
3.	Orissa	6	43
4.	Andhra Pradesh	6	30
5.	Gujarat	8	42
6.	Rajasthan	2	10
7.	Tamil Nadu	1	5
8.	Madhya Pradesh	9	45
9.	Andaman & Nikobar Islands	260	192
	<b>Total Cultivation of Noni in India</b>	<b>348</b>	<b>653</b>

**Moni :** *Morinda Citrifolia* L.

**Source:** World Noni Research Foundation

