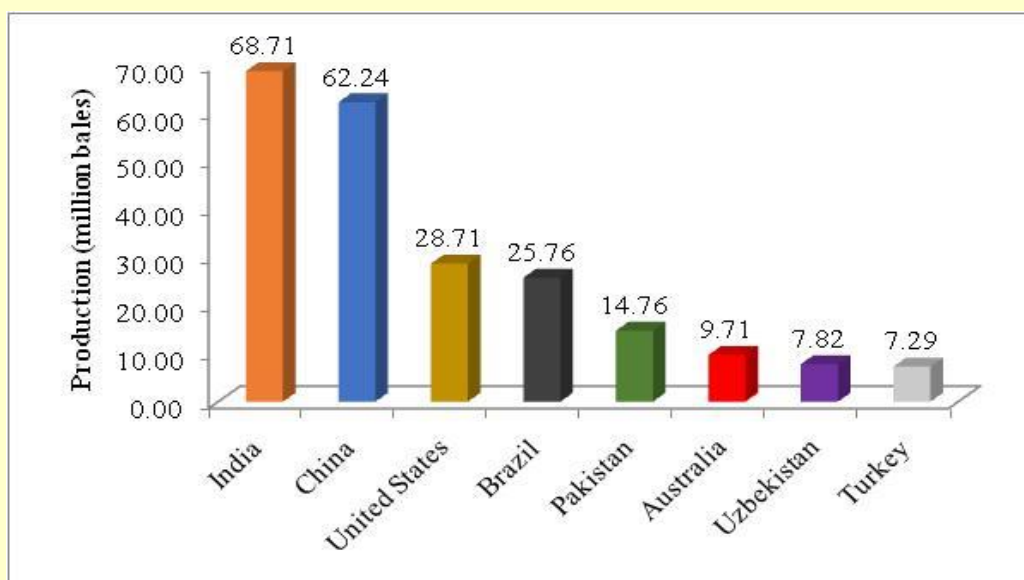


ANGRAU Crop Outlook Reports of Andhra Pradesh COTTON– January to December, 2021

Cotton is one of the most important fiber and a cash crop of India and plays a dominant role in the industrial and agricultural economy of the country. Globally, the area under cotton for the year 2021-22 was 32.10 million hectares, production and productivity accounted for 257.71 million bales and 1370 kg/ha respectively. India has emerged as the largest producer of cotton in the world and occupies the first position in terms of both total area and production. Among the major cotton producing countries in the world, India occupied 1st position with 68.71 million bales (Figure 1).

Figure 1: Major cotton producing countries in the world (2021-22)



Source: fas.usda.gov

In India during 2021-22, production of cotton was 362.19 lakh bales (1st Advance estimates, eands.dacnet.nic.in) cultivated under an area of 119.66 lakh hectares with a productivity of 515 kg per hectare. According to the 2nd advance estimates of 2021-22, cotton production in Andhra Pradesh was 16.25 lakh bales cultivated under an area of 5.23 lakh hectares with a productivity of 528 kg per hectare (des.ap.gov.in) contributing 4.49 per cent to total country's production. In India, there are nine major cotton growing states which fall under three zones, viz. the North Zone (Punjab, Haryana and Rajasthan), the Central Zone (Maharashtra, Madhya Pradesh and Gujarat), and the Southern Zone (Andhra Pradesh, Karnataka and Tamil Nadu). Nearly 65 per cent of the cotton crop is cultivated under rainfed conditions in the country. Nearly 2/3rd of the Cotton production in India comes from the

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states of Maharashtra, Gujarat, Andhra Pradesh, and Telangana, collectively known as the Cotton Basket of India.

Table 1: Balance sheet for the year 2017-18 to 2020-21 (in lakh bales)

Particulars	2017-18	2018-19	2019-20 (P)	2020-21 (P)
Supply				
Opening Stock	43.76	42.91	56.52	120.79
Production	370.00	333.00	365.00	353.84
Import	15.80	35.37	15.50	11.03
Total Supply	429.56	411.28	437.02	485.66
Demand				
Mill Consumption	280.11	270.78	233.70	297.45
Consumption By SSI	26.18	22.43	20.49	22.42
Non-Mill Consumption	12.77	18.00	15.00	15.00
Exports	67.59	43.55	47.04	77.59
Total Demand	386.65	354.76	316.23	412.46
Ending Stock	42.91	56.52	120.79	73.20

Source: Cotton Association of India, caionline.in/; Bale -170 kg. (P)- Provisional

The balance sheet in Table 1 explains that the demand for cotton has increased in 2020-21 to 412.46 lakh bales and the exports have increased from 67.59 lakh bales in 2017-18 to 77.59 lakh bales in 2020-21. Total supply has increased from 429.56 lakh bales in 2017-18 to 485.66 lakh bales in 2020-21. Imports have decreased from 15.80 lakh bales to 11.03 lakh bales from 2017-18 to 2020-21.

Table 2: Cotton Exports and Imports of India

Year	Exports		Imports	
	Quantity in lakh bales of 170 Kgs	Value in Rs. Crores	Quantity in lakh bales of 170 Kgs	Value in Rs. Crores
2006-07	58.00	5267.08	5.53	752.29
2007-08	88.50	8365.98	6.38	978.54
2008-09	35.00	3837.13	10.00	1377.80
2009-10	83.00	10270.21	6.00	1195.64
2010-11	76.50	14483.31	2.38	1709.11
2011-12	129.57	23488.59	7.51	1059.20
2012-13	101.43	17462.87	14.59	2057.77
2013-14	116.96	23153.24	11.51	2746.16
2014-15	57.72	9499.87	14.39	2848.50
2015-16	69.07	11434.80	22.79	4230.00
2016-17	58.21	11676.00	30.94	7268.00
2017-18	67.59	13976.71	15.80	4224.84
2018-19	43.55	9502.72	35.37	8339.26
2019-20	47.04	8731.32	15.50	3588.38

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2020-21(P)	77.59	17753.83	11.00	3482.72
AVERAGE	73.98	12224.99	13.98	3026.82
CAGR (%)	-1.46***	3.78***	11.40***	17.76***

Source: Cotton Corporation of India, cotcorp.org.in. NA: Not Available, *** - Significant at 1 per cent levels (P): Provisional

From table 2, it is observed that the average exports of cotton by India are 73.98 lakh bales from 2006-07 to 2020-21, whereas the average imports are 13.98 lakh bales. The compound growth rate of exports showed a negative and significant growth -1.46 per cent, whereas imports in India showed a positive and significant growth rate of 11.40 per cent. Even though, the growth rate of exports showed negative from 2014-15 to 2020-21 exports in absolute terms have increased from 57.72 lakh bales to 77.59 lakh bales whereas imports have decreased from 22.79 lakh bales to 11 lakh bales, signaling the better terms of trade for cotton.

Table 3: Cotton Consumption by Organized sector Textile mills (Non-SSI Mills) and Small-Scale Spinning Mills (SSI) Units in India

Year	Non-SSI mills		SSI mills	
	Average Consumption (Quantity in lakh bales)			
	Cotton Consumption	Monthly Consumption	Cotton Consumption	Monthly Consumption
2000-01	149.36	12.45	10.97	0.91
2001-02	147.00	12.25	11.70	0.98
2002-03	142.42	11.87	11.63	0.97
2003-04	150.39	12.53	13.00	1.08
2004-05	163.98	13.67	16.57	1.58
2005-06	180.00	15.00	19.00	1.67
2006-07	194.89	16.24	21.26	1.32
2007-08	195.67	16.31	22.08	1.59
2008-09	190.00	15.83	20.00	1.58
2009-10	219.00	18.25	23.00	1.92
2010-11	221.77	18.48	24.46	2.04
2011-12	223.59	18.63	22.12	1.84
2012-13	251.74	20.97	23.59	1.97
2013-14	268.03	22.34	25.20	2.10
2014-15	278.06	23.17	26.38	2.20
2015-16	270.20	22.50	27.08	2.26
2016-17	262.70	22.00	26.21	2.18
2017-18	280.11	23.33	26.18	2.18
2018-19	270.78	22.57	22.43	1.87
2019-20	233.70	19.48	20.49	1.71
2020-21(P)	297.45	24.79	22.42	1.87
2021-22(P)	299.00	24.92	23.00	1.92
CAGR (%)	3.67**	3.67**	3.43**	3.53**

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*Source: Cotton Advisory Board, cotcorp.org.in (P): Provisional **-Significant at 5 per cent level*

Consumption of cotton by SSI and non-SSI mills is explained in table 3. It is shown that the consumption of cotton by SSI mills increased by 3.43 per cent whereas non-SSI mills, whose growth rate over the years was 3.67 per cent. Consumption of Cotton by organized sector textile mills (Non-SSI) has increased consistently from 149.36 lakh bales in 2000-01 to 299.00 lakh bales in 2021-22. Consumption of Cotton by SSI mills has also increased from 10.97 lakh bales in 2000-01 to 23.00 lakh bales in 2021-22.

Table 4: State-wise Cotton Purchases by Cotton Corporation of India (CCI) for 2020-21
(Quantity in '000 bales)

States	MSP	Commercial	Total
Punjab	537.61	0.00	537.61
Haryana	1052.05	0.00	1052.05
Rajasthan	908.20	0.00	908.20
Gujarat	327.53	0.00	327.53
Maharashtra	1615.18	0.30	1615.48
Madhya Pradesh	402.05	0.00	402.05
Andhra Pradesh	311.16	0.00	311.16
Karnataka	123.45	0.00	123.45
West Bengal	0.00	0.00	0.00
Odisha	184.22	0.00	184.22
Telangana	2998.13	0.00	2998.13
Total	8459.57	0.30	8459.87

Source: Andhra Pradesh Agricultural statistics at a glance 2020.

The Cotton Corporation of India procures the cotton from the farmers at MSP by arranging infrastructure in the form of regular procurement centres as well as satellite centres so that farmers are not compelled to travel long distances to sell their cotton kapasproduce. Besides MSP operations, to fulfil the raw material requirements of the domestic textile industry, CCI also undertakes viable commercial purchase operations as and when required. The main aim of these operations is to meet at least the annual cost of the minimum infrastructure maintained by the Corporation for Price Support operations. Table 4 shows that in the year 2020, CCI procured 8459.87 thousand bales of cotton from all over India, of which 8459.57 thousand bales were at MSP and only 0.30 thousand bales were at commercial price. Procurement of cotton was highest in Telangana, Maharashtra, Gujarat, Haryana, Punjab and Rajasthan.

Table 5: Major producing states of cotton in India

States	Area (' 000 Hectares)	Production ('000 Bales of 170 Kgs. each)	Rank
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	2015-16	2019-20	2020-21	2015-16	2019-20	2020-21	
Telangana	1773	2127	2413	3661	6833	7752	1
Gujarat	2722	2655	2279	9400	8617	7397	2
Maharashtra	4207	4491	4226	7500	6639	6247	3
Haryana	615	723	737	993	2484	2532	4
Rajasthan	448	760	668	1214	2788	2451	5
Andhra Pradesh	666	657	606	1888	2508	1604	6
India	12292	13477	12947	30005	36065	35384	

Source: eands.dacnet.nic.in

The results in Table 5 shows that Telangana, Gujarat and Maharashtra are the major producing states in India with a production of 77.52, 73.97 and 62.47 lakh bales respectively in 2020-21. Andhra Pradesh stood at 6th position in terms of area and production of cotton in India during 2020 –21.

Table 6: Comparison of area, production of Cotton with respect to bifurcation of Andhra Pradesh and Telangana states

Before Bifurcation					After Bifurcation				
Year	Area (lakh ha)		Production (lakh bales)		Year	Area (lakh ha)		Production (lakh bales)	
	India	AP	India	AP		India	AP	India	AP
2005-06	86.77	10.33	184.99	21.08	2015-16	122.9	6.66	332.0	18.17
2010-11	112.4	17.76	330.0	38.90	2021-22*	119.6	5.36	362.1	16.25

Source: AP Data: various issues of Agricultural statistics at a glance, des.ap.gov.in, 2021-22
2nd Advance Estimates

India data, eands.dacnet.nic.in. Production*- 1st Advance Estimates

The details of the comparison of cotton production and area between India and Andhra Pradesh are presented in Table 6. It is seen from the table that in 2005-06 to 2021-22, the area has declined from 10.33 to 5.36 lakh hectares while the production has declined from 21.08 to 16.25 lakh bales because of state bifurcation.

Table 7: Inter-District Comparison of Andhra Pradesh for Cotton crop (2019-20)

Major Districts	Area (in '000 ha)	Rank in Area	Production (in lakh bales)	Rank in Production
Kurnool	275	1	9.04	2
Guntur	182	2	9.86	1
Anantapur	52	3	0.91	5
Krishna	48	4	2.22	3

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Prakasam	46	5	1.34	4
Total of 5 districts	603		23.37	
Other Districts	53		1.71	
Andhra Pradesh	656		25.08	
Share (%) of 5 districts	91.92		93.18	

Source: Various issues of Andhra Pradesh Agricultural statistics at a glance.

The inter-district comparison of Andhra Pradesh for the cotton crop (2019-20) is explained in Table 7. It shows that Kurnool ranks first in the area, whereas Guntur district is first in production due to high productivity. Anantapur district ranks third in area and fifth in production. Among the 13 districts of Andhra Pradesh state, five districts, viz., Kurnool, Guntur, Anantapur, Krishna and Prakasam, cover 91.92% of area under cotton acreage and 93.18% cotton production of the state.

Table 8: Cost-return structure of Cotton in Krishna Zone 2020-21 (Rs./ha)

S NO	Particulars	Cotton
1	Labour costs (Rs/ha)	31608 (38.27)
2	Material costs(Rs/ha)	29292 (35.46)
3	Variable costs(Rs/ha)	60900 (73.73)
4	Fixed costs(Rs/ha)	21700 (26.27)
5	Total cost(Rs/ha)	82600 (100)
6	Yield (Qtl/ha)	12
7	Price (Rs./qtl)	4550
8	Gross returns (Rs/ha)	54600
9	Net returns (Rs/ha)	-28000
10	Gross Margin (Rs/ha)	-6300
11	Return on rupeeBCR	0.66
12	Return on VC	0.90
13	Cost of Production (Rs./qtl)	6883.33

Source: Survey Data, Figures in the parentheses indicate the per cent of the item to the total cost, BCR-Benefit Cost Ratio, VC – Variable Costs

The cost-return structure of cotton in Krishna Zone (Guntur, Prakasam and Krishna districts) in Andhra Pradesh for the year 2020-21 is presented in Table 8. Cost of Production in cotton was Rs. 6883/quintal. Gross margin implies the returns over variable costs which is pertained to owner farmers and net returns implies returns over the total costs which is pertained to tenant owners. Because of the lower productivity during 2020-21, the gross margin and net returns were Rs. -6300 per ha and Rs. -28000 per ha respectively. The return

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on rupee investment was 0.66 which is concerned to tenant farmers and return on variable costs was 0.90 which is mostly related to owner farmers.

Cotton Price Outlook:

For calculating seasonal indices, modal prices of cotton kapas from the Adoni market of Kurnool district were taken. Seasonal indices measure the monthly per cent deviation from the average arrivals and prices from 2015 to 2021.

Table 9: Seasonal Indices of Cotton in Adoni Market (Agricultural Year 2015-2021)

Months	Arrivals	Price
June	117.87	106.13
July	69.90	105.34
August	22.62	96.57
September	65.97	103.54
October	180.27	100.69
November	118.66	98.80
December	108.02	95.94
January	139.94	102.57
February	94.61	103.23
March	107.56	108.53
April	88.25	76.17
May	86.34	102.49

Source: Data obtained from Adoni AMC

The results in Table 9 indicates that the maximum arrival indices of cotton in the Adoni market were observed in October (177.89 %) followed by January (143.41 %) and June (116.95 %). Minimum arrival indices were observed in August (22.44%) followed by September (65.45%). The highest price indices were observed in March (108.05%), followed by June (105.77%) and February (103.78%). The minimum price indices were observed in April (80.28%) followed by December (94.82%). The average monthly prices of cotton were Rs. 7388, 7912, 7817 and 7807 for the months of September, October, November and December 2021 respectively in Adoni AMC.

Table 10: Market Prices vis-à-vis MSP of Cotton in Major Producing States in Kharif Marketing Season 2020-21 (Oct 2020 to Feb 2021)

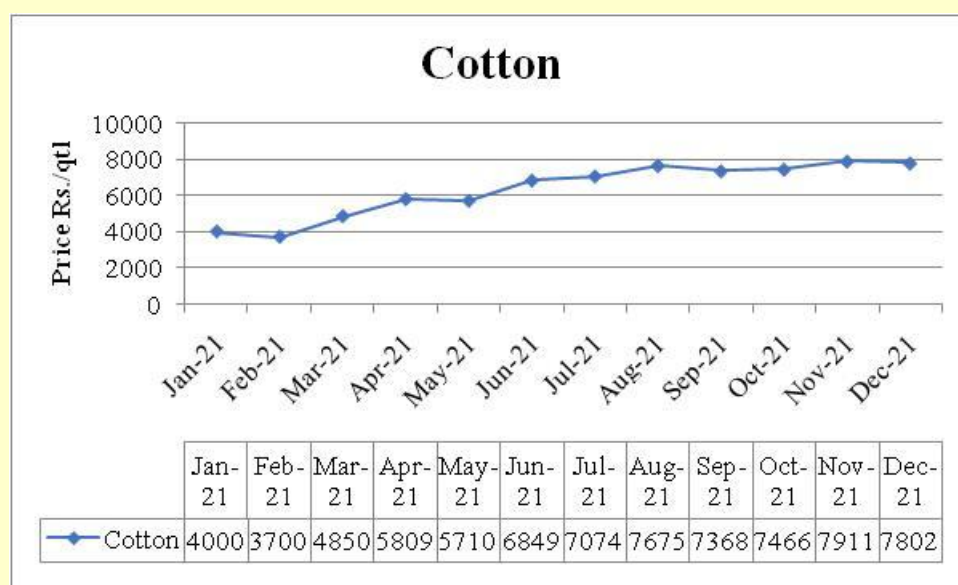
States	No. of days market prices reported	No. of days market prices were above MSP	No. of days market prices were below MSP				Average difference (%) between MSP & market price
			<5 %	5%-10%	10%-15%	>15 %	
Maharashtra	119	86	7	8	4	14	-1.9
Gujarat	140	32	61	21	11	15	-4.6

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Source: 1. AGMARKNET, Directorate of Marketing & Inspection (DMI), Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare
2. Directorate of Economics & Statistics, Ministry of Agriculture and Farmers Welfare

Table 10 shows the number of days when market prices stayed above/below MSP for cotton in major two cotton producing States during the current marketing season. The average difference between market prices and MSP was (-) 1.9 percent in Maharashtra and (-)4.6 percent in Gujarat.

Figure 2: Average monthly prices of Cotton in Andhra Pradesh



Source: Data obtained from Andhra Pradesh AMC

The figure 2 shows the monthly average prices of cotton in Andhra Pradesh, obtained from all major markets. As per the information shared by Agricultural market Intelligence Centre, ANGRAU, Cotton has been under the Open General License (OGL) Scheme without any quantitative or qualitative restrictions for the last several decades, but due to the imposition of a 10 percent import duty on cotton, the raw material which is being imported into India has become costlier, leading to increase in domestic prices. India is exporting cotton without any trade restriction presently.

For the coming season of 2021-22, cotton sowing is progressing in all parts of the country across India. As on 3rd December 2021, 119.66 lakh hectares of cotton was sown compared to 126.97 lakh hectares last year in India (agricoop.nic.in). In Andhra Pradesh as on 29th December 2021, 5.23 lakh hectares of cotton was sown compared to 6.03 lakh hectares last year (apagrisnet.gov.in). So there observed decrease in area cultivated during kharif season, 2020-21 at state and central level. International cotton markets crashed due to

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new wave of coronavirus. According to the International Cotton Advisory Committee December report, India's cotton production for the 2021-22 season is projected at 5.90 million metric tons lower from the previous season estimate of 6.00 million metric tonnes. Cotton yield in this season is expected to be lower by about 20 percent mainly due to unusually heavy rains in the major cotton growing areas of West and South India during September to November 2021. Although the new crop arrivals are slow in the local markets and domestic mills are making limited purchases due to the high prices of the natural fibre compared to the previous season. According to the fibre to fashion textile and apparel (texpro) data, Pakistan cotton production is expected to increase in 2021-22 season by 44.44 percent to 6.50 million bales compared to 4.50 million bales in 2020-21 season due to excellent conditions during harvest and a good growing season. Cotton imports are expected to fall by 6.19 percent during 2021-22 season as compared to 5.33 million bales in 2020-21 season.

Under these circumstances, AMIC, ANGRAU is here with providing the latest information with regard to the forecast price range of Rs. 7200-7800 per quintal for cotton in this rabi marketing/harvesting season 2021-22.
