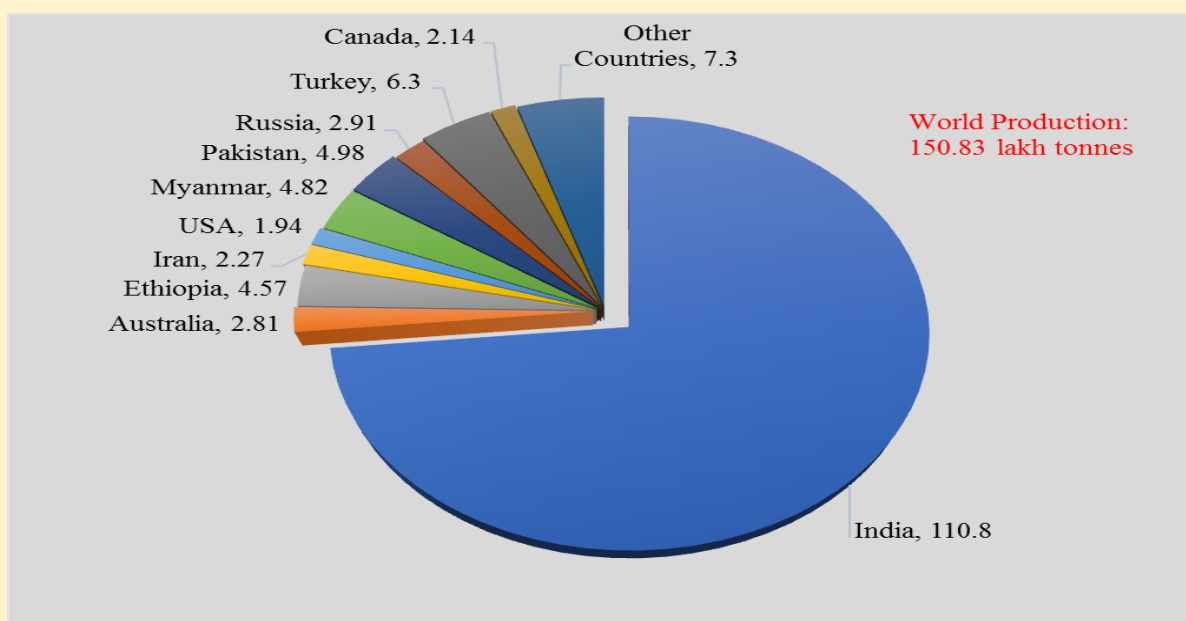


**Acharya N.G. Ranga Agricultural University**  
**Crop Outlook Reports of Andhra Pradesh**

**BENGALGRAM – January to December 2021**

The Bengalgram or chickpea or gram is an annual legume that belongs to the family Fabaceae. It is said to be one of the oldest pulses known and cultivated in Asia and Europe. The centre of origin of bengalgram is stated to be in the Eastern Mediterranean, but its probable place of origin lies in South Western Asia. Globally, bengalgram is grown in an area of 148.42 lakh hectares with a production of 150.84 lakh tonnes and productivity of 1016 kg/ha (FAO STAT, 2020). During 2020-21, India contributed 70% of total global bengalgram production, with 119.9 lakh tonnes grown on 112 lakh hectares with a productivity of 1070 kg/hectare (agricoop.nic.in). India is the largest producer of gram production in world, followed by Turkey, Russia and Myanmar (Figure 1). In India, bengalgram takes first position in total pulse production, followed by red gram. Andhra Pradesh produces 5.32 lakh tonnes in an area of 4.69 lakh hectares with 1136 kg/hectare productivity in 2020-21 (Final Estimates, 2020-21, des.ap.gov.in). Andhra Pradesh accounts for 4.43 per cent of India's bengalgram production. According to 2<sup>nd</sup> advance estimates during 2021-22, bengalgram was grown in 4.45 lakh hectares with a production of 5.05 lakh tonnes and productivity was 1135 kg/ha.

**Figure 1: India’s share in production (lakh tonnes) of bengalgram in the World during 2020**



Source: [fao.org/faostat/en/](http://fao.org/faostat/en/)

**Table 1: Supply and demand of bengalgram in India (lakh tonnes)**

Particulars	2019-20	2020-21
Opening Stock	18.22	21.32
Production	106.10	97.67
Import	4.00	3.00
Total Supply	128.32	121.99
Exports	2.00	3.50
Consumption	105.00	100.00
Total Demand	107.00	103.50
Ending Stock	21.32	18.49

Source: [agriwatch.com](http://agriwatch.com)

As per some private sources, the data given is compiled in Table 1, which depicts that the production has decreased from 106.10 lakh tonnes in 2019-20 to 97.67 lakh tonnes in 2020-21. Even then, the total demand (103.5 lakh tonnes) for bengalgram can be easily met by the total supply (121.99 lakh tonnes).

**Table 2: Major bengalgram producing states in India (Area (A) in '000 ha, production (P) in '000 tonnes and productivity (Y) in kg/ha)**

States	1990-91		2000-01		2010-11		2020-21			Rank
	A	P	A	P	A	P	A	P*	Y*	
Madhya Pradesh	2462	1892	1978	1620	3112	2687	2575	3649	1417	1
Maharashtra	673	358	676	351	1438	1300	2453	2688	1096	2
Rajasthan	1653	1011	673	397	1783	1601	2124	2292	1079	3
Karnataka	230	69	370	239	959	631	1175	919	782	4
Uttar Pradesh	1275	1122	833	703	570	530	585	802	1371	5
Andhra Pradesh	88	57	201	229	584	720	469	532	1136	6
Other states	1140	847	454	316	849	900	1819	1108	1142	
<b>India</b>	<b>7521</b>	<b>5356</b>	<b>5185</b>	<b>3855</b>	<b>9186</b>	<b>8221</b>	<b>11200</b>	<b>11990</b>	<b>1142</b>	

Source: [www.indiastat.com](http://www.indiastat.com)

\*provisional figures, yet to be published

As shown in Table 2, Madhya Pradesh ranks first in bengalgram production with 36.49 lakh tonnes followed by Maharashtra (26.88 lakh tonnes), Rajasthan (22.92 lakh tonnes), Karnataka (9.19 lakh tonnes) and Uttar Pradesh (8.02 lakh tonnes). Andhra Pradesh ranks 6<sup>th</sup> in production of bengalgram with 5.32 lakh tonnes in 2020-21.

**Table 3: Procurement of bengalgram under Price Support Scheme (PSS)**

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<b>Commodity/year</b>	<b>Support price (Rs per quintal for FAQ)</b>	<b>Quantity procured in tonnes</b>	<b>Value in lakhs</b>	<b>Major states of procurement</b>
<b>2018-19</b>	4400	2769430	1218549	Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Telangana and Uttar Pradesh
<b>2019-20</b>	4620	776406	358699.6	Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Telangana and Uttar Pradesh
<b>2020-21*</b>	4875	2158434	1052236.6	Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Telangana and Uttar Pradesh

*\*as on 04.03.2021 'FAQ: Fair and Average Quality  
Source: Agricultural statistics at a glance 2020.*

The procurement of bengalgram under Price Support Scheme by Government of India is presented in Table 3. In 2018-19, a total of 27.69 lakh tonnes was procured at a price of Rs. 4400 per quintal and 2019-20, a total of 7.76 lakh tonnes was procured at a price of Rs. 4,620 per quintal. In 2020-21, a total of 21.5 lakh tonnes was procured at a price of Rs. 4,875 per quintal which has a value of Rs. 1,05,223 million.

**Table 4: Comparison of area, production and yield of bengalgram in Andhra Pradesh**

<b>Year</b>	<b>Area ('000 ha)</b>	<b>Production ('000 tonnes)</b>	<b>Yield (Kg/ha)</b>
<b>2010-11</b>	584	720	1204
<b>2015-16</b>	471	500	1062
<b>2018-19</b>	478	243	508
<b>2019-20</b>	459	559	1218
<b>2020-21</b>	469	532	1136
<b>2021-22*</b>	445	505	1135

*Source: indiastat.com, des.ap.gov.in \*2<sup>nd</sup> advance estimates*

It is observed that area declined from 5.84 lakh hectares to 4.45 lakh hectares and production declined from 7.20 lakh tonnes to 5.05 lakh tonnes from 2010-11 to 2021-22 (Table 4). In 2018-19, production was decreased due to aberrant weather conditions.

**Table 5: Inter-district comparison of area, production, productivity of bengalgram in Andhra Pradesh (2019-20)**

Major Districts	Area (in '000 ha)	Rank	Production (in '000 tonnes)	Rank	Yield (kg/ha)	Rank
Kurnool	156	1	199	1	1273	5
Prakasam	86	4	121	2	1401	3
YSR Kadapa	91	3	116	3	1278	4
Ananthapur	92	2	71	4	767	7
Guntur	17	5	28	5	1684	2
Nellore	11	6	13	6	1179	6
Krishna	4	7	8	7	2185	1
Other districts	2		3		-	
<b>Andhra Pradesh</b>	<b>459</b>		<b>559</b>		<b>1218</b>	

Source: [apagrisnet.gov.in](http://apagrisnet.gov.in)

From Table 5 it is clear that, the highest bengalgram yield was observed in Krishna district in 2019-20. It is observed that Kurnool district ranks 1<sup>st</sup> both in area and production. In terms of production, the major districts were Kurnool (1.99 lakh tonnes), Prakasam (1.21 lakh tonnes), YSR Kadapa (1.16 lakh tonnes), Ananthapur (0.71 lakh tonnes), Guntur (0.28 lakh tonnes) and Nellore (0.13 lakh tonnes). Among 13 districts of Andhra Pradesh, these 6 districts covered 99 per cent of area and production under bengalgram.

**Table 6: Cost-return structure of bengalgram in Krishna zone during 2020-21 (Rs./ha)**

S NO	Particulars	Bengalgram
1	Labour costs (Rs/ha)	19453(34.49)
2	Material costs(Rs/ha)	16215(28.75)
3	Variable costs(Rs/ha)	35668(63.24)
4	Fixed costs(Rs/ha)	20729(36.76)
5	Total cost(Rs/ha)	56397(100)
6	Yield (Qtl/ha)	19.35
7	Price (Rs./qtl)	5800
8	Gross returns (Rs/ha)	112230
9	Net returns (Rs/ha)	55833
10	Gross Margin (Rs/ha)	76562
11	Return on rupee BCR	1.99
12	Return on VC	3.15
13	Cost of Production (Rs./qtl)	2914.57

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 bengalgram in Krishna Zone (Guntur, Prakasam and Krishna districts) of Andhra Pradesh for the year 2020-21 is presented in Table 6. Cost of

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Production in bengalgram was Rs. 2914.57/quintal. Gross margin implies the returns over variable cost which is pertained to owner farmers and net returns implies returns over the total costs which is pertained to tenant owners. Gross margin and net returns were Rs. 76562 per ha and Rs. 55833 per ha respectively. Return on rupee BCR was 1.99 which is concerned to tenant farmers and return on variable costs was 3.15 which is mostly related to owner farmers.

### Bengalgram Price Outlook:

Seasonal indices measure the monthly per cent deviation from the average arrivals and prices from 2015 to 2021. Modal prices of bengalgram in Kurnool district were taken for calculating seasonal indices.

**Table 7: Seasonal indices of arrivals and prices of bengalgram at major markets in Kurnool district (Agricultural year 2015 to 2021).**

Months	Arrivals	Prices
June	128.58	113.09
July	72.79	92.08
August	65.49	85.56
September	99.96	86.53
October	126.78	109.47
November	59.11	92.85
December	18.71	94.56
January	105.06	116.68
February	155.89	107.46
March	196.41	105.32
April	85.18	79.60
May	86.04	116.79

*Source: Data obtained from Kurnool and Yemmiganur AMCs*

The results in Table 7 shows that the arrivals are highest in the months of March & June and prices are highest in the months of May and January. The average monthly prices of bengalgram were Rs. 4438, Rs. 4394, Rs. 4295 and Rs. 2575 for the months of September, October, November and December 2021 respectively in the Kurnool market.

**Table 8: Market Prices vis-a-vis MSP of Bengalgram in Major Producing States in Rabi Marketing Season 2021-22 (March-June 2021)**

States	No of days market prices reported	No of days market prices were above/equal to MSP	No of days market prices were below MSP				Average Difference (%) between Market Price & MSP
			<5 %	5-10%	10-15%	>15 %	
Karnataka	105	63	8	29	3	2	2.6

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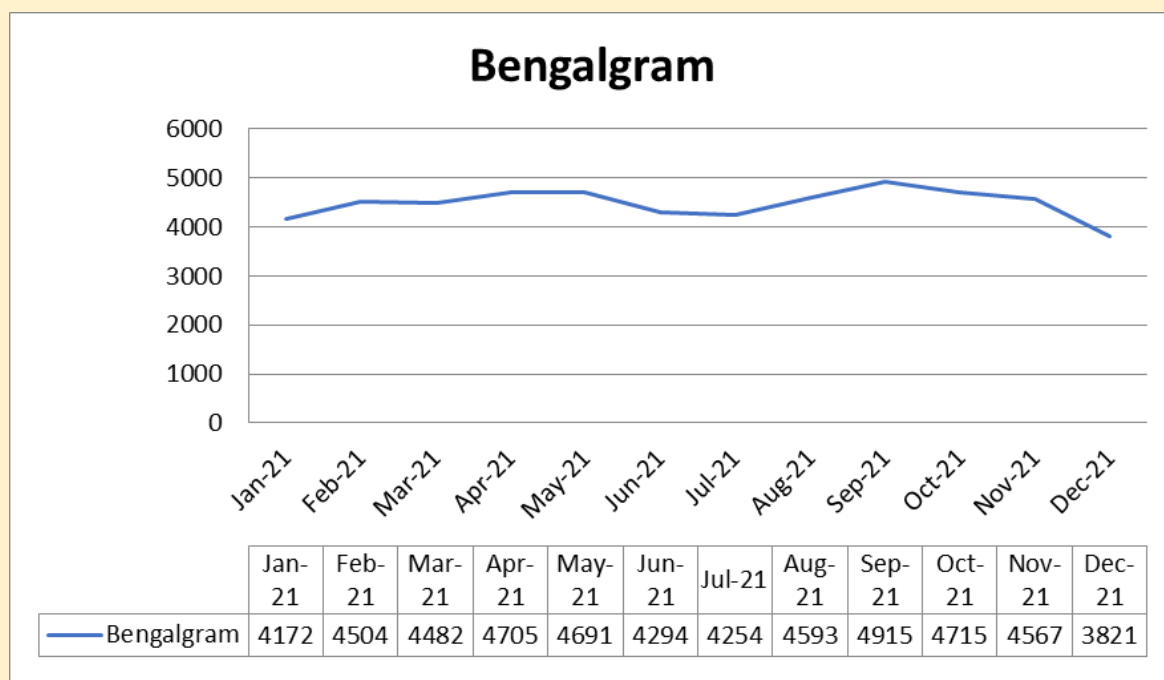
Madhya Pradesh	121	20	48	50	3	0	-3.9
Uttar Pradesh	122	90	30	2	0	0	3.5
Rajasthan	120	33	25	48	13	1	-4.3

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 8 depicts the number of reported days when the market prices of bengalgram were above or below or equal to MSP in major producing States. Among the major bengalgram producing states, Uttar Pradesh has reported market prices equal to/above MSP on 90 days and during the remaining reported days the variation is found to be lesser than 5 percent of MSP. Similar trend has been observed in Karnataka where market prices in 63 out of 105 reported days marked above or equal to MSP. The average difference between market prices and MSP is found to be 2.6 percent in Karnataka. For Madhya Pradesh and Rajasthan, market prices were below MSP on most of the days and average difference between market price and MSP in these States were (-) 3.9 percent and (-) 4.3 percent respectively.

**Figure 2: Monthly average prices of bengalgram in Andhra Pradesh**



Source: Data obtained from Andhra Pradesh AMCs

Average monthly prices of bengalgram in Andhra Pradesh markets for the month of December, 2021 was Rs. 3821 (Figure 2). As per the information shared by Agricultural Market Intelligence Centre, ANGRAU among major producing states like Rajasthan, M.P., Karnataka & Maharashtra area is down in M.P. by 1.95 % to 20.02 lakh ha. Area is down in

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other states like A.P by 7.48 % and Chhattisgarh by 40.54 %. The pace of sowing may go down due to bad weather conditions and shifting of bengalgram and wheat area to Mustard in Rajasthan and Madhya Pradesh. Area coverage may end up with 106 to 108 lakh ha against 116 lakh ha last year. At present demand is weak and millers are buying as per their need only. Also new contract for bengalgram is suspended in futures market. Prices may be steady as the stock availability is ample in the central pool and with private hands. As on 3<sup>rd</sup> December 2021, 81.43 lakh hectares of bengalgram was sown compared to 80.01 lakh hectares last year in India ([agricoop.nic.in](http://agricoop.nic.in)). In Andhra Pradesh as on 29<sup>th</sup> December 2021, 3.21 lakh hectares of bengalgram was sown compared to 3.33 lakh hectares last year ([apagrisnet.gov.in](http://apagrisnet.gov.in)).

Under these circumstances, the AMIC, ANGRAU is here with providing the latest information with regard to forecast price range of Rs. 4600- 5000 for bengalgram in rabi harvesting / marketing season 2021-22.

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