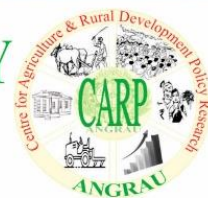




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## **Crop Outlook Reports of Andhra Pradesh**

### **REDGRAM** **(January to December, 2022)**



**Centre for Agriculture & Rural Development Policy Research (CARP)**

**ANGRAU, Lam, Guntur - 522 034.**

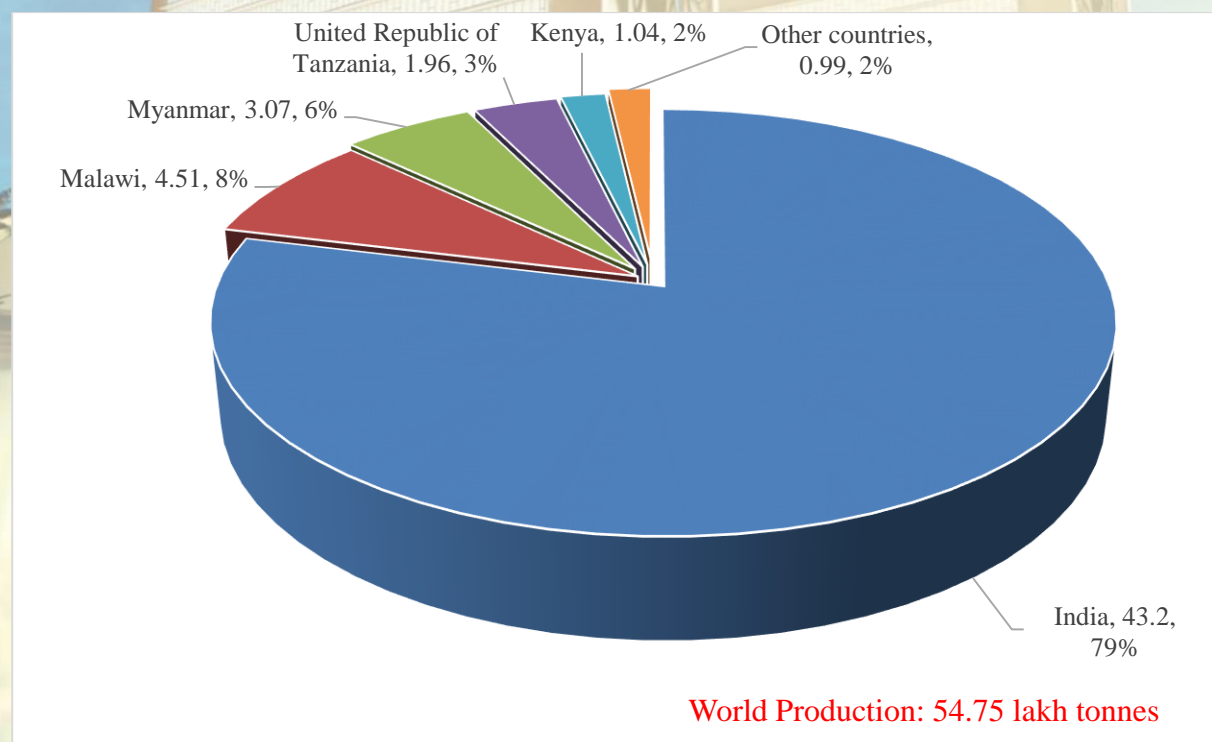
## Acharya N.G. Ranga Agricultural University

### Crop Outlook Reports of Andhra Pradesh

#### REDGRAM- January to December 2022

Pigeon pea (*Cajanaus cajan*), also known as redgram or arhar or tur, is an annual/perennial legume from the family Fabaceae. Since its domestication in the Indian sub-continent at least 3500 years ago, its seeds have become a common food in Asia, Africa and Latin America. It is consumed on a large scale in South Asia and is a major source of protein for the population of the Indian sub-continent. Globally, redgram is grown in an area of 63.57 lakh hectares with a production of 54.75 lakh tonnes and productivity of 861.25 kg/ha (FAO STAT, 2021). Major redgram producing countries in the world are presented in figure 1. India ranks first in redgram production globally with 43.4 lakh tonnes cultivated under 49.8 lakh hectares with productivity of 871 kg/hectare in 2021-22 (agricoop.nic.in). In Kharif 2022-23, redgram production was 38.9 lakh tonnes (1<sup>st</sup> advance estimates) in an area of 46.2 lakh hectares (agricoop.nic).

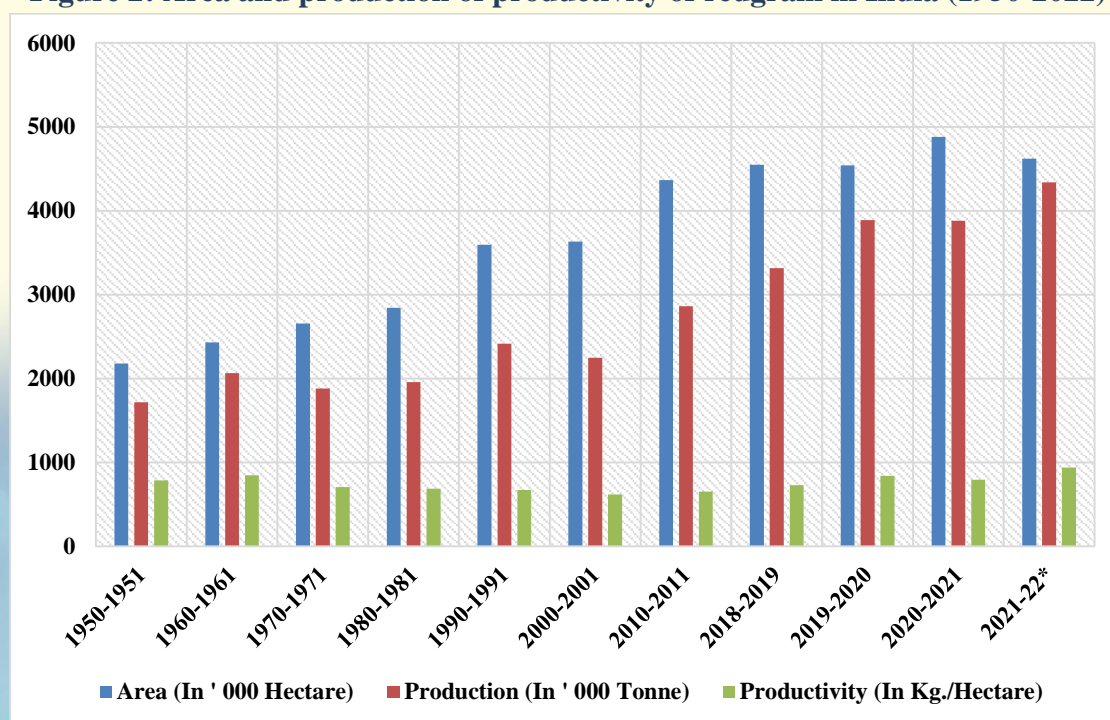
**Figure 1: Major redgram producing countries in the world during 2021 (production in lakh tonnes)**



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

The decadal comparison of redgram area, production and yield statistics in India are presented in figure 2. In India, redgram takes second place in total pulse production after bengalgram. Andhra Pradesh produced 0.66 lakh tonnes contributing 1.52% to total India's production cultivated in an area of 2.52 lakh hectares with 363 kg/hectare productivity in 2021-22 (Final Estimates). According to 1<sup>st</sup> advance estimates during 2022-23, redgram was grown in 2.39 lakh hectares with a production of 0.97 lakh tonnes and productivity was 405 kg/ha.

**Figure 2: Area and production of productivity of redgram in India (1950-2022)**



Source: [www.indiastat.com](http://www.indiastat.com) and \*4<sup>th</sup> advance estimates, [agricoop.nic.in](http://agricoop.nic.in)

**Table 1: Major producing states of redgram in India (Area in '000 ha, production in '000 tonnes and productivity in kg/ha)**

States	1990-91		2000-01		2010-11		2020-21		2021-22*		
	A	P	A	P	A	P	A	P	A	P*	Y
Maharashtra	1008	421	1096	660	1302	976	1247	1280	1298	1343	1035
Karnataka	463	175	583	264	891	529	1280	1240	1102	1036	759
Telangana	-	-	-	-	-	-	427	330	333	259	778
Uttar Pradesh	468	578	407	510	344	309	354	291	347	342	988
Andhra Pradesh	346	74	513	219	638	265	231	83	252	66	357
Other states	906	817	715	487	915	509	1285	1056	1419	1294	-
India	3593	2417	3632	2247	4367	2861	4824	4280	4751	4340	892

Source: [www.indiastat.com](http://www.indiastat.com) & [agricoop.nic.in](http://agricoop.nic.in) \* provisional figures, yet to be finalized.

State wise redgram production in India is shown in Table 1. The figures explain that in 2021-22, Maharashtra and Karnataka were the major producing states in an area of 12.98 and 12.40 lakh hectares, respectively. Andhra Pradesh produced 0.66 lakh tonnes of redgram cultivated in an area of 2.52 lakh hectares. Uttar Pradesh, Maharashtra and Telangana were found superior in terms of productivity of redgram.

**Table 2: Balance sheet of redgram (in lakh tonnes)**

Marketing Year (March to February)	2020-21	2021-22	2022-23*
Opening stocks	7.66	7.54	7.56
Production	37.88	37.11	32.10
Imports	5.30	6.91	7.00
Total Supply	49.64	51.56	46.66
Exports	0.30	0.25	0.15
Consumption	43.00	43.75	43.75
Demand	43.30	44.00	43.90
Ending stocks	7.54	7.56	2.76

*\* Advance Estimates, Source: agriwatch.com*

As per some private sources, the data compiled in Table 2 infers that in 2021-22 the total supply of 51.56 lakh tonnes can be met for the demand of 44.00 lakh tonnes supported with imports of 6.91 lakh tonnes.

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

Commodity /year	Support price (Rs per quintal for FAQ)	Quantity procured in tonnes	Value in lakh	Major states of procurement
2016-17	5050	195994	98976	Gujarat, Karnataka and Maharashtra
2017-18	5450	873759	476198	Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Telangana
2018-19	5675	291001	165143	Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu and Telangana
2019-20	5800	547272	317417	Karnataka, Maharashtra and Telangana
2020-21	6000	11004	6603	Karnataka, Maharashtra and Gujarat
2021-22*	6300	11680	7359	Karnataka, Maharashtra and Telangana

*\*as on 24.02.2022 'FAQ: Fair and Average Quality Source: Agricultural Statistics at a glance, 2020, eands.dacnet.nic.in*

The procurement of redgram under the Price Support Scheme is presented in Table 3. In 2016-17, a total of 195994 tonnes were procured at a price of Rs. 5,050 per quintal, and in 2021-22, a total of 11680 tonnes were procured at a price of Rs. 6,300 per quintal, which has a value of Rs. 7359 lakhs.

**Table 4: Area, production and yield of redgram in Andhra Pradesh**

Year	Area ('000 ha)	Production ('000 tonnes)	Yield (Kg/ha)
2010-11	638	265	416
2015-16	220	132	599
2018-19	237	113	496
2019-20	243	119	486
2020-21	231	84	363
2021-22	252	66	264
2022-23*	239	97	405

\* First Advance estimates, 2021-22 Source: [des.ap.gov.in](http://des.ap.gov.in)

Table 4 shows that the redgram acreage in Andhra Pradesh before bifurcation was 6.38 lakh hectares, which has come down to 2.39 lakh hectares in 2022-23, and production has declined from 2.65 to 0.97 lakh tonnes during 2010-11 to 2022-23, which can be attributed to the decline in area only. The productivity recorded low in Andhra Pradesh during 2021-22 due to irrational rainfall received in redgram growing areas.

**Table 5: Major redgram producing districts in Andhra Pradesh (2020-21)**

District	Area ('000 ha)	Position	Production ('000 tonnes)	Position	Yield (Kg/ha)	Position
Kurnool	63	2	32	1	503	3
Prakasam	82	1	30	2	366	7
Guntur	22	4	16	3	744	1
Ananthapur	47	3	4	4	73	13
Y.S.R Kadapa	7	6	1	5	177	11
Chittoor	8	5	1	6	123	12
Other districts	2					
<b>Andhra Pradesh</b>	<b>231</b>		<b>84</b>		<b>363</b>	

Source: [apagrisnet.gov.in](http://apagrisnet.gov.in); agricultural statistics at a glance

Table 5 shows the area, production, and yield of redgram in Andhra Pradesh by district. In Andhra Pradesh, redgram production was highest in Prakasham district and area was highest in Kurnool district. The productivity of redgram is observed to be highest in the Guntur district at 744 kg/ha.

**Table 6: Cost-return structure of Redgram in Krishna Zone 2021-22 (Rs./ha)**

S NO	Particulars	Redgram
1	Labour costs (Rs/ha)	11282 (32.95)
2	Material costs(Rs/ha)	12458 (36.38)
3	Variable costs(Rs/ha)	23740 (69.33)
4	Fixed costs(Rs/ha)	10500 (30.67)
5	Total cost(Rs/ha)	34240 (100)
6	Yield (Qtl/ha)	3.2
7	Price (Rs./qtl)	6100
8	Gross returns (Rs/ha)	19520
9	Net returns (Rs/ha)	-14720
10	Gross Margin (Rs/ha)	-4220
11	Return on rupee BCR	0.57
12	Return on VC	0.82
13	Cost of Production (Rs./qtl)	10700

*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 redgram in Krishna Zone (Guntur, Prakasam and Krishna districts) of Andhra Pradesh for the year 2021-22 is presented in Table 6. Cost of Production in redgram was Rs. 10700/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. Gross margin and Net returns were Rs. -4220 per ha and Rs. -14720 per ha respectively. Return on rupee investment was 0.57 which is concerned to tenant farmers and return on variable costs was 0.82 which is related to owner farmers. Our sample survey revealed that, the yields recorded were very low during 2021-22 in Krishna zone due to untimely rains.

### Redgram Price Outlook:

Seasonal indices measure the monthly per cent deviation from the average arrivals and prices during 2022. Modal prices of redgram from Kurnool and Yemmiganur AMCs were taken for calculating seasonal indices.



**Table 7: Seasonal Indices of redgram arrivals and prices in major markets of Kurnool districts (2022)**

Months	Arrivals	Price
January	147.93	94.82
February	243.12	90.95
March	254.37	93.34
April	113.95	91.60
May	47.30	87.33
June	22.21	92.56
July	73.26	99.69
August	60.44	108.98
September	13.27	100.82
October	42.84	109.97
November	23.45	111.54
December	157.85	118.40

*Source: Data obtained from Kurnool and Yemmiganur AMCs*

The results in Table 7 show the seasonal indices of redgram cumulative arrivals and average prices in the major markets of the Kurnool district (Kurnool and Yemmiganur). The results show that arrivals are highest in the month of February and March coinciding with peak harvests and prices are highest in the month of December. The average monthly prices of redgram were Rs. 5588, 6095, 6182 and 6562 for the months of September, October, November and December, 2022 respectively in Kurnool district.

**Table 8: Market prices vis-à-vis MSP of redgram in major producing states in Kharif marketing season KMS 2021-22**

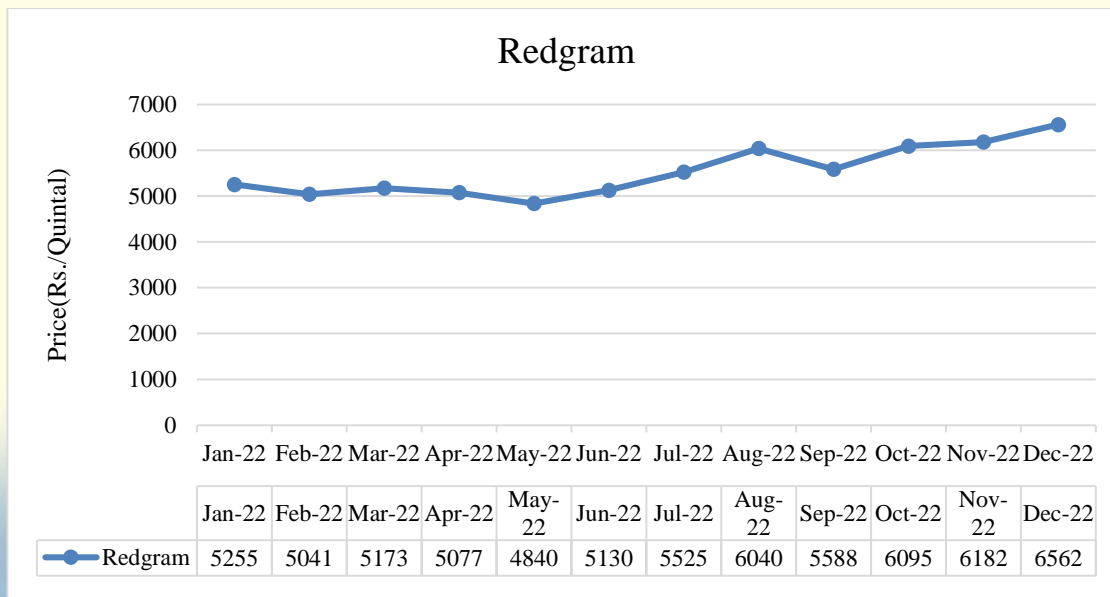
States	No. of days market prices reported	No. of days market prices were above MSP	No. of days market prices were below MSP				Average Difference (%) between MSP & market price
			<5 %	5%-10%	10%-15%	>15 %	
Gujarat	130	1	3	35	62	27	-12.3
Karnataka	127	11	49	38	19	10	-6.3
Madhya Pradesh	144	5	1	10	34	94	-20.3
Maharashtra	148	5	60	59	23	1	-6.1
Uttar Pradesh	151	58	85	7	1	0	-0.9

*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*

During Kharif Marketing Season (KMS) 2020-21, market prices of redgram have remained below MSP in most of the days for all the major States (Table 8). The price gap was highest in Madhya Pradesh (-22.3%), followed by and Gujarat (-12.3%), Karnataka(-6.3%) and Maharastra (-6.1%).

**Figure 3: Average monthly prices of redgram in Andhra Pradesh**



*Source: Data obtained from Andhra Pradesh AMCs*

The average monthly price of redgram in Andhra Pradesh obtained from major markets is depicted in Figure 3. As per the information shared by Agricultural Market Intelligence Centre, ANGRAU, regular influx of imported redgram and subdued demand in dal mainly attributed to the decline in prices. Redgram arrivals are slightly delayed in the wholesale markets of Karnataka, Maharashtra but direct selling of redgram to millers is happening. But demand is very less resulting into steady to weak movement in prices. According to the millers, the arrival of Tur from Gulbarga, Bijapur is weak. On 28th December 2022, Ministry of Commerce and Industry has extended the free import policy for redgram up-to 31st March 2024. Prior to this notification imports of redgram were free till March 2023. In Andhra Pradesh as on 28<sup>th</sup> December 2022, 2.34 lakh hectares of redgram was sown compared to 2.45 lakh hectares last year (apagrisnet.gov.in).

Under these circumstances, the AMIC, ANGRAU is here with provide the latest information with regard to the forecast price range of Rs. 5900 to Rs. 6200 per quintal for redgram in this rabi marketing/harvesting season 2022-23.

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