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ANNUAL REPORT : 2022-23

सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE & FARMERS WELFARE

DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

DIRECTORATE OF PULSES DEVELOPMENT

VINDHYACHAL BHAVAN, BHOPAL-462004

(MADHYA PRADESH)

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निदेशक
Dr. Sumit Mishra
Director

PREFACE

India's economy has been dominated by agriculture with its contribution to employment at 49%. Ensuring food and nutritional security at an affordable rate to >1.25 billion population remains a national concern and a priority agenda for the current government. The major food crops rice and wheat have been heavily incentivized with MSP and preferential treatment of PDS hence the farmers are motivated to grow either these crops or cash crops like cotton, sugarcane etc.

Pulses have been a secondary choice, mostly concentrated to the rainfed ecology. The rainfed regions supports >40% of human population and 2/3rd of livestock of the country. More than 80% of total pulses are grown in this region. Pulses, historically vital constituent of cropping and consumption pattern are the only rich source protein (20-25%) for 43 percent vegetarians (Urban – 48%, rural – 41%). With the twin objectives i.e. achieving food and nutritional security vis-à-vis enhancing income of the rainfed farmers, the government decided to harness the potential of pulses. In 2015-16, many farmers centric strategies and programmes such as PMKSY, PMFBY, PKVY, SHM and SHC, e-NAM etc was initiated to achieve the targeted outcomes.

The production of pulses to the tune of 27.30 million tonnes during 2021-22 is close to self sufficiency in pulses and the country's hopeful to mitigate the projected demand of 35 Mt. by 2030. According to Final estimates of 2021-22, total foodgrain production in the country is estimated at a record 315.62 million tonnes, which is 64.07 million tonnes and 25% higher than that during 2015-16 (251.54 Million Tonnes) and CAGR by 4%.

The production of Pulses has increased at compound annual growth rates (CAGR) of 5 percent (Tur-9%, Gram-11%, Mung-12%, Urd-6% and Lentil-4%) respectively, during last six years from 2015-16 to 2021-22. It impacts the livelihood of over 5 crore farmers and their dependents. India is the largest consumer and producer of Pulses in the world shared 36% in area and 26% in production (FAO Stat, 2020).

As a result of enhanced per hectare productivity, the year 2020-21 witnessed a record pulse production of 25.46 million tonnes, a grand success story and revolution in pulses self– sufficiency after 2017-18 (25.42 Million Tonnes).

The annual report is an effort towards a brief summary of activities performed by this directorate for the development of Pulses, Global & National Scenario Strategies, various Participation/Workshop/Training/Meeting/IMCT, Field visit, Studies, Surveys etc.

I acknowledge the sincere efforts of Technical Officers Dr A.K. shivare, Joint Director & Shri Vipin Kumar, Joint Director and Technical Staff of this Directorate in their contribution to this publication.

January, 2024 (Dr. Sumit Mishra)

ABOUT THE DIRECTORATE

1. The Directorate of Pulses Development (DPD), one of the eight Commodity Development Directorates (CDDs) viz Jute, Cotton, Wheat, Millets, Rice, Sugarcane and Oilseeds, under the *crops division* of the Ministry of Agriculture, Department of Agriculture & Cooperation (DAC), was established in 1971 at Lucknow (U.P.) by merging the Regional Extension Unit, Ahmedabad (Gujarat). On the recommendations of "CDDs Re-organization Committee", in 1996, the National Head Quarter of pulses commodity was subsequently shifted to Madhya Pradesh, Bhopal. In the Year 2020-21.

   Emphasising on the welfare of farmers for overall growth of the agri-sector, the government renamed the Agriculture Ministry as "Ministry of Agriculture and Farmers Welfare" (DA&FW) in the year 2020-21.
2. The Directorate of Pulses Development is mandated to co-ordinate and monitor the implementation of all Pulses related centrally sponsored/central sector schemes on crops development & research across the country.
3. At present Food & Nutrition Security Pulses erstwhile - National Food Security Mission (NFSM)–Pulses is operational in 28 States (638 Districts) + 2 UTs i.e. Jammu & Kashmir and Laddakh (28 Districts) in the Country.
4. With the bi-focal responsibilities for the assigned states of Madhya Pradesh & Chhattisgarh at present, it co-ordinates and monitors all crops related schemes/programmes/missions viz., FNS (Erstwhile-NFSM) - Rice, Wheat, Pulses, Targeting Rice Fallow Areas-Pulses & Oilseeds, Coarse Cereals, Nutri-Cereals, Commercial Crops-Sugarcane & Cotton), National Mission on Edible Oil (NMEO).
5. Monitoring the implementation of 150 pulses seed hubs (Rs. 225.31 Cr) in 24 states covering 97 districts KVKs, 46 SAUs and 07 ICAR institutions to enhance location specific varieties and quality & quantity of pulses seed (Gram, Mung, Urd, Tur, Lentil and Pea etc.,) availability on time in the country.
6. The Directorate functions as Nodal office of DA&FW, Govt. of India, New Delhi for Madhya Pradesh & Chhattisgarh states to represent in State Level Sanction Committees (SLSC), Inter-Ministerial Central Teams (IMCT) & Task-force etc.
7. Preparation of Weekly Weather Watch Report (WWWR), Area coverage and prospects of All India pulses for the all seasons (Kharif/Rabi/Summer) alongwith rainfall situation, market trends of pulses crops and Weekly Weather Watch Report (WWWR) of all Kharif/Rabi/Summer crops of Nodal states of Madhya Pradesh and Chhattisgarh & Crop-wise note on kharif pulses coverage and submitting to the Ministry including harvesting, status of crops on weekly basis.

8. To attend the Weekly Video Conference of Ministry of Agriculture & FW with States Deptt. of Agriculture on crop weather watch report on every Tuesday regularly.
9. Providing inputs for Formulation of Annual and Five year National plan, coordination in execution and monitoring of crop production programmes of pulses at national level, assisting states/UTs in initiation, planning, formulation and intensification of crop development programmes in consonance with the ongoing states programme/Crop diversification aspects & convergence and monitoring.
10. Analytical reports (prod. estimates/ scenario/ price regime/market trends/Import-Export/crop diversions etc.
11. Co-ordination with Seed Agencies (NSC/ NAFED /HIL/ IFFDC/ KRIBHCO/ KVSSL/NCCF etc.
12. Preparation and submission of crop specific technical notes of Pulses to the Ministry.
13. The DPD, Bhopal has been actively monitoring the programme implementation at the National level, through National Monitoring Team/Field visits, allocation of Seed Minikits, Seed-hub (Pulses), Interface with the Research and other stake-holder organizations/ agencies in the country.
14. The DPD drafted the policy paper/guidelines for NFSM -Pulses, Seed- Rolling Plan for the strategies on area expansion and productivity enhancement in consultation with states and ICAR.
15. The Directorate accomplishes the task relating to analysis of Area, Production and Productivity trends/impact of developmental programmes; research areas and identification of bottlenecks and suggest measures for their rectification and also feedback to ICAR-IIPR through institutionalized mechanism of National Conference/Group Meets on Chickpea, Pigeonpea, MULLaRP (Mung, Urd, Lentil, Lathyrus, Rajmash, Pea), Arid Legumes and DA&FW-ICAR Interface; Interface with National and International Research Organizations and Stake holders on area of crop Research, micro level planning of pulses crop development programme; fixing targets of production and suggest measures to achieve them; to co-ordinate in programmatic review of all CSSs and coordinate Seminar/Workshop/Conference /Review Meetings at State and National level.
16. To assess the crop loss/damage to agricultural sector during Natural Calamities as a Member in Inter-Ministerial Central Team (IMCT) representing the Govt. of India, Department of Agri. & FW.
17. To prepare and coordinate with assigned states of Madhya Pradesh & Chhattisgarh for reply of the Parliament Questions.
18. Monitoring of Cluster FLDs on Pulses/ Oilseeds organized by KVKs under ATARI Zone-IX-Jabalpur, Three Years Seed Rolling plan for purchase of breeder seed, production of

foundation and certified seed of oilseeds during 2021-22, 2022-23 and 2023-24 under NFSM-OS & OP and Seed Minikit Programme on Pulses & Oilseeds in Madhya Pradesh and Chhattisgarh States.

19. To prepare the All India Quarterly Progress Report and Annual Progress Report NFSM-Pulses and Seed hub-Pulses.
20. To act as Convener for National Level Monitoring Team (NLMT) to Madhya Pradesh and Chhattisgarh under FNS (Erstwhile-NFSM) Rice, Pulses, Wheat, Coarse Cereals, Nutri-Cereals, Commercial Crops).
21. To provide monthly crop specific advisories to the farmers in assigned states of Madhya Pradesh and Chhattisgarh and through m-kishan portal.
22. To collect & provide the various success stories on Centrally sponsored schemes benefits and other Technical inputs to extension agencies.
23. To participate in ICAR institutes, SAUs, International Research Organizations, NGOs and other stake holders in the field of Agri. and allied sectors for better Research-Development interface.
24. To represent on behalf of DA&FW in ICAR- Annual Group Meet (AGM) Pigeonpea/ Chickpea/ MULLaRP/ Arid Legumes and also represent in National conferences of DA&FW (Kharif, Rabi & Summer conference).
25. Also to represent Department on their Committee/ events with a view to have direct interface for onward benefits to formulate farmer friendly schemes at national level with a unified approach for the overall development of agriculture and in Crop Training Programmes; Developing leaflets/ Literatures on training, etc.

Unit-I

Pulses Overview

1.1 Introduction

- With more people and smaller farms, the world is adopting sustainable production systems. India's Global Hunger Index position dropped after the COVID-19 incident. Nearly 14% of the population is undernourished, which is attributed to pandemic-induced poverty and food insecurity. India's population consumes too few proteins, fruits, and vegetables. 73% of urbanites surveyed were protein deficient. They contain about 20–25% protein by weight, which is double the protein content of wheat and three times that of rice, makes them an excellent source of protein for vegetarians and vegans.
- Rajasthan, Madhya Pradesh, Maharashtra, Uttar Pradesh, and Karnataka are the top five pulse-producing states. Madhya Pradesh, Maharashtra & Rajasthan and Uttar Pradesh produce 22%, 16% each, and 10% of total pulses. Current output cannot meet demand. India buys pulses because growth is insufficient. Pulses are attracting attention from government plans to double farmers' revenue by diversifying and diverting production from traditional cereal-based crops. India produces 25% of the world's pulses, although its contribution to total food grain fell from 16% in 1950 to 8% in 2022-23. Thus, pulses in the country have a huge demand–supply mismatch. The study forecasts 26 million tonnes of pulses by 2026. To meet demand by 2050, it must expand 2.2% annually. Due to unpredictable output, the demand–supply gap for pulses is anticipated to expand. Due to poor pulse production, per capita availability is declining, which is not encouraged by government policy as it competes with wheat and rice.
- Pulses improve soil biodiversity and intercropping, which helps agricultural sustainability. Pulses are a low-carbon future food with a growing population and shift towards vegetarian and vegan diets. To fulfil population increase, 39 million tonnes of pulses are needed by 2050. In this setting, it is necessary to forecast pulse production and formulate policy. This work uses hybrid models to predict pulse production.
- Pulses are one of the important food crops globally due to higher protein content. Pulses are an important group of crops in India, which is also responsible for yielding large financial gains by amounting for a large part of the exports. Pulses are the major sources of protein in the diet. Of all categories of people pulses form an integral part of the Indian diet, providing much needed protein to the carbohydrate rich diet. India is the largest producer and consumer of pulses in the world.
- Major pulses are grown chickpeas (Gram/Chana), Pigeon pea (Tur/Arhar), Mungbeans, Urdbeans (Blackgram), Masur (Lentil), Peas and various kinds of Beans (Minor Pulses).
- The future agricultural operations are likely to be highly skilled and competitive. The serious challenges to the workforce/youth of these resource poor and rainfed regions viz. lack of skill in scientific crop cultivation, repair and maintenance of farm

machineries and implements, production of quality seeds, primary processing, value addition, modern animal husbandry, poor infrastructure (irrigation, go downs/ware houses ,trading centres) and organized pulse markets etc. have been considered by the government while formulating the strategy and roadmap to increase the production of pulses.

- The poor nutritional status of the population is a major challenge where low income, small scale's households, has a long term negative implication for economic development. The government has resolved this issue to be addressed through **nutrition-sensitive agriculture interventions,** focusing the pulse crops having multiple nutritional values with essential source of vitamins, micro-nutrient and protein to help attain **nutritional security**. Pulses have better enabling environment to promote dietary and production diversity to address hunger and malnutrition at national level.

Focus on pulses production and consumption can help overcome malnutrition: India should include pulses in the public distribution system.

- India, a country with high concentrations of poor and malnourished people, long promoted a cereal-centric diet composed of subsidized staple commodities such as rice and wheat to feed its population of more than a billion. Today, however, dietary patterns are changing. Policy makers, researchers, and health activists are looking for ways to fight hunger and malnutrition in the country. As they shift their focus from calorie intake to nutrition, neglected foods such as pulses (the dried, edible seeds of legumes) are gaining attention. There are three kinds of hunger that needed to be dealt with – calorie inadequacy, protein deficiency and micronutrient deficiency.

- Pulses are grown in all three seasons. The three crop seasons for the commodity are:
  - ***Kharif*** : Arhar (Tur), Urd (Blackgram), Moong (Greengram), Lobia (Cowpea), Kulthi (Horsegram) and Moth;
  - ***Rabi*** : Gram, Lentil, Pea, Lathyrus and Rajmash;
  - ***Summer*** : Greengram, Blackgram and Cowpea.

1.2 Pulses in Indian Context: 2021-22

1.2.1 India's status of pulse production

- The total world acreage under pulses is about 94.14 (Mha) with production of 89.74 (Mt) at 953 kg/ha yields level. India, with >35 Mha pulses cultivation area, is the largest pulses producing country in the world. It ranks first in area and production with 37 *per cent* and 29 *per cent* respectively. During 2021-22 our productivity at 932 kg/ha, has also increased significantly over last 05 years.

- Thanks to pro-active pulse programme implementation strategies and robust monitoring mechanism of Govt. of India, significant growth in area, production and productivity of pulses has been recorded. More visible and significant increasing trends during 2016-17, 2020-21 and 2021-22, whereby the pulses production reached at 23.13 Mt, 25.46 Mt. and 27.30 Mt respectively, is a grand success story in itself.

The productivity of pulses has increased 13 *per cent* during 2020-21 & 2021-22 from the level of 786 kg/ha during 2016-17. The production growth has been 18 *per cent* during 2021-22 highest over 2016-17.

1.2.2 Pulses share to total foodgrain basket :

- Percent share of pulses to total foodgrain production basket remained stagnated between 8-9 *per cent* uptill 2016-17, The multi-pronged strategy of the government to protect the interest of farmers and the consumers has resulted into enhanced *per cent* contribution of about 2-3% from 2015-16 to till now. The area was also observed in increasing trend from 2015-16 betweeen 25-30 Mha (*Table-1, Fig.-1).*

- Deceleration of percent production contribution of pulses to total food grains basket prompted the present dispensation in the Ministry of Agriculture & FW to vigorously pursue the FNS-Pulses (Erstwhile-NFSM) with synergistic approach on Research & Development, procurement, marketing, and import-export policies etc.

(Table–1) : Contribution of pulses to food grains basket.

{Area- Million ha, Production- Million Tones, Yield- kg/ha}

Year	Pulses			Food grains			Pulses share to foodgrains (%)	
	A	P	Y	A	P	Y	A	P
2015-16	24.91	16.32	655	123.22	251.54	2041	20	6
2016-17	29.45	23.13	786	129.23	275.11	2129	23	8
2017-18	29.81	25.42	853	127.52	285.01	2235	23	9
2018-19	29.16	22.08	757	124.78	285.21	2286	23	8
2019-20	27.99	23.03	823	126.99	297.50	2343	22	8
2020-21	28.78	25.46	885	129.80	310.74	2394	22	8
2021-22	30.73	27.30	888	130.17	315.62	2425	24	9

Source: *DES, Ministry of Agri. &FW (DA&FW), Govt. of India.*

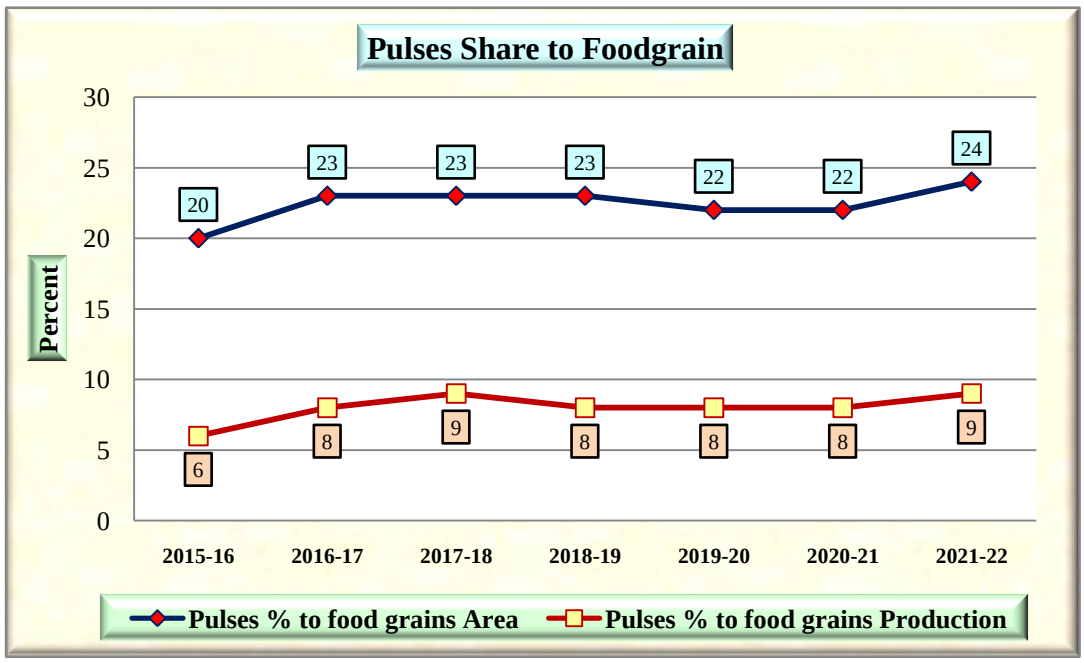


Fig-1: Contribution of Pulses to Foodgrains Basket

1.2.3 Season & crop contribution in total pulse production (2017-18 to 2021-22)

Under individual crop category gram with 47 *per cent* production share to total pulses is the highest contributor followed by Tur (15 *per cent*), Mung (12%), Urd (10%) and Lentil (5%). The crop-wise APY and *per cent* share to total pulses is given below *(Table-2, Fig.-2).*

(Table -2): Crop contribution to total pulse production

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

Crop	Normal (2017-18 to 2021-22)			Contribution (%)	
	Area	Production	Yield	Area	Production
Gram	101.08	115.70	1145	34	47
Tur	46.29	40.07	866	16	16
Urd	48.38	27.28	564	16	11
Mung	48.52	26.48	546	17	11
Lentil	14.19	13.43	947	5	5
Other Kharif Pulses	17.62	7.61	432	6	3
Other Rabi Pulses	16.86	16.01	949	6	7
Total Kharif Pulses	**139.70**	**84.34**	**604**	**48**	**34**
Total Rabi Pulses	**153.25**	**162.22**	**1059**	**52**	**66**
Total	**292.94**	**246.56**	**842**		

Source: *DES,Min.of Agri.&FW (DA&FW),GOI, OKP,Other Kharif Pulses, ORP –Other Rabi Pulses.*

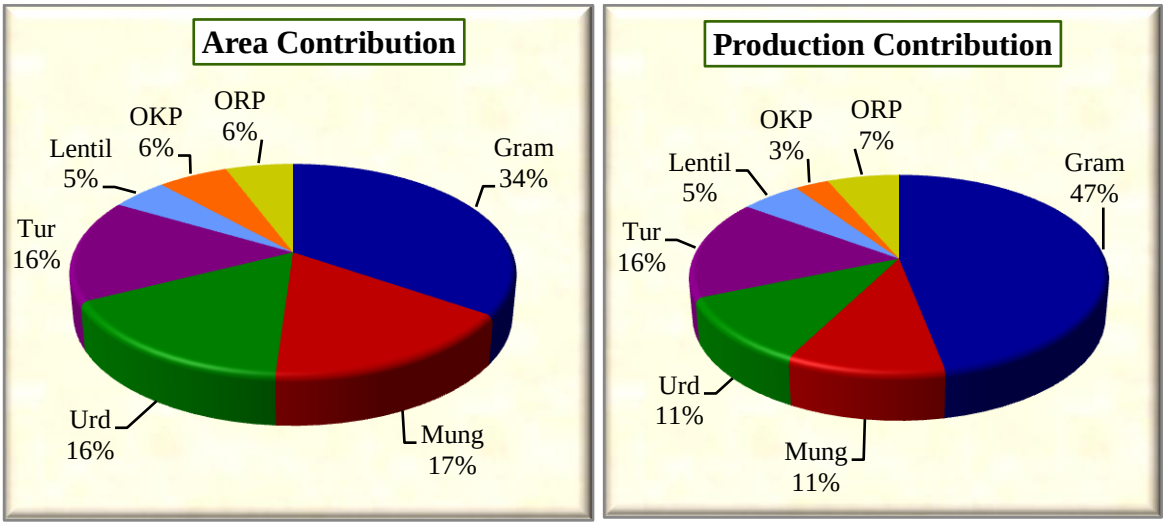


Fig-2: Crop contribution in Total Pulses

1.3 States' Contribution

1.3.1 Total Pulses Scenario : Normal (2017-18 to 2021-22)

- In India, total pulse area and production has been 293 Lha and 247 Lt respectively. Out of the total area >58 Lha is confined to Madhya Pradesh alone, earning a prime status in pulse production commodity contributing a remarkable 20% of the country's pulse area with 24% production, thereby ranking first both in area and production followed by Rajasthan (16%), Maharashtra (16%), and Uttar Pradesh (10%).
- More than 90 *per cent* of total pulse production has been contributed by 10 states of Madhya Pradesh, Rajasthan, Maharashtra, Uttar Pradesh, Karnataka, Gujarat, Andhra Pradesh, Jharkhand, Tamilnadu and Telangana *(Table-3, Fig.-3).*

(Table -3): States' Contribution in Area & Production – Total Pulses

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Prod.	% Contri.	Yield
1	Madhya Pradesh	58.10	20	58.51	24	1007
2	Rajasthan	60.36	21	39.93	16	662
3	Maharashtra	44.05	15	38.22	16	868
4	Uttar Pradesh	23.46	8	24.30	10	1036
5	Karnataka	31.61	11	19.83	8	627
6	Gujarat	11.26	4	14.34	6	1273
7	Andhra Pradesh	12.91	4	10.55	4	817
8	Jharkhand	8.06	3	8.38	3	1040
9	Tamil Nadu	8.21	3	5.37	2	654
10	Telangana	5.57	2	5.34	2	958
	Others	29.34	10	21.79	9	742
	All India	**292.94**		**246.56**		**842**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

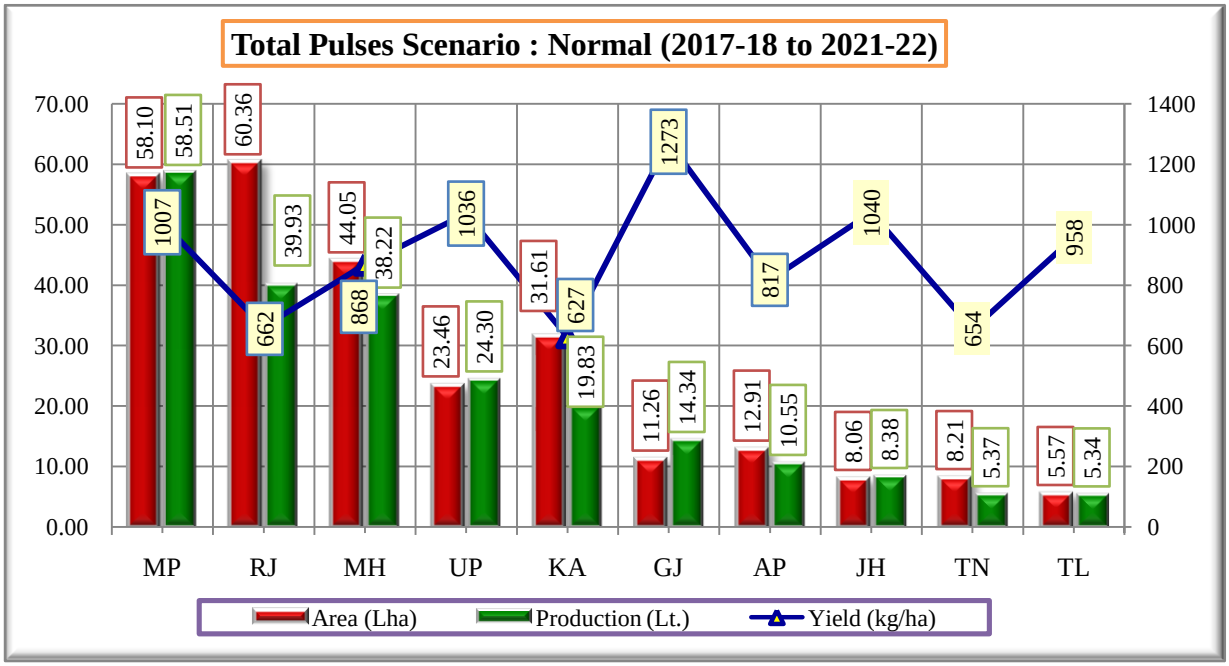


Fig. 3: States' Contribution in Area & Production–Total Pulses

1.3.2 Kharif Pulses Scenario : Normal (2017-18 to 2021-22)

- The Normal area coverage and production of Kharif Pulses has been 140 Lha and 84 Lt respectively. Rajasthan outshined with first rank in area and production both with 29% and 20% respectively followed by Maharashtra (15% & 19%), Karntaka (15% & 16%) and Madhya Pradesh (16% & 14%).
- About 94 *per cent* of total kharif production was realized from 10 states of Rajasthan, Maharashtra, Karnataka, Madhya Pradesh, Uttar Pradesh, Gujarat, Jharkhand, Telangana, Odisha and Tamil Nadu *(Table-4, Fig.-4))*.

(Table-4): States' Contribution in Area & Production– Kharif Pulses

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Rajasthan	39.88	29	17.04	20	427
2	Maharashtra	21.39	15	15.66	19	732
3	Karnataka	20.73	15	13.12	16	633
4	Madhya Pradesh	21.79	16	12.18	14	559
5	Uttar Pradesh	8.51	6	5.88	7	691
6	Gujarat	4.74	3	4.14	5	874
7	Jharkhand	4.27	3	4.13	5	965
8	Telangana	3.99	3	3.02	4	757
9	Odisha	4.30	3	2.68	3	623
10	Tamil Nadu	1.97	1	1.68	2	853
	Others	8.12	6	4.81	6	593
	All India	**139.70**		**84.34**		**604**

Source: DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).

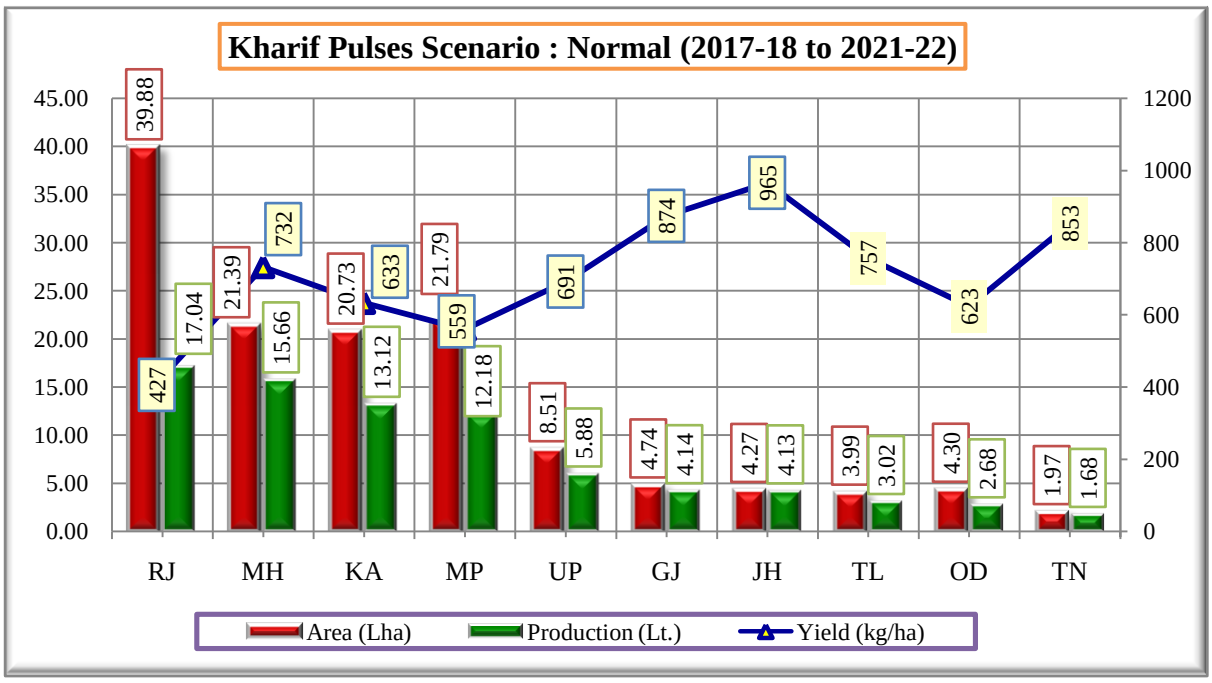


Fig-4: States' Contribution in Area & Production– Kharif Pulses

1.3.3 Rabi Pulses Scenario : Normal (2017-18 to 2021-22)

- All India Rabi pulse acreage and production has been recorded 153 Lha and 162 Lt. Madhya Pradesh with 24 *per cent* of area and 29 *per cent* of total rabi pulse production in the country outshined at first rank followed by Rajasthan (13% & 14%), Maharashtra (15% & 14%) and Uttar Pradesh (10% & 11%).
- More than 90 *per cent* pulse production was recorded from 10 states of Madhya Pradesh, Rajasthan, Maharashtra, Uttar Pradesh, Gujarat, Andhra Pradesh, Karnataka, Jharkhand, Tamil Nadu and Chhattisgarh *(Table-5, Fig.,-5).*

(Table-5): States' Contribution in Area & Production- Rabi Pulses

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Madhya Pradesh	36.31	24	46.33	29	1276
2	Rajasthan	20.48	13	22.89	14	1118
3	Maharashtra	22.66	15	22.56	14	996
4	Uttar Pradesh	14.96	10	18.42	11	1231
5	Gujarat	6.52	4	10.20	6	1564
6	Andhra Pradesh	9.55	6	9.21	6	964
7	Karnataka	10.88	7	6.71	4	617
8	Jharkhand	3.79	2	4.25	3	1124
9	Tamil Nadu	6.24	4	3.69	2	591
10	Chhattisgarh	5.45	4	3.58	2	658
	Others	16.42	11	14.37	9	875
	All India	**153.25**		**162.22**		**1059**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

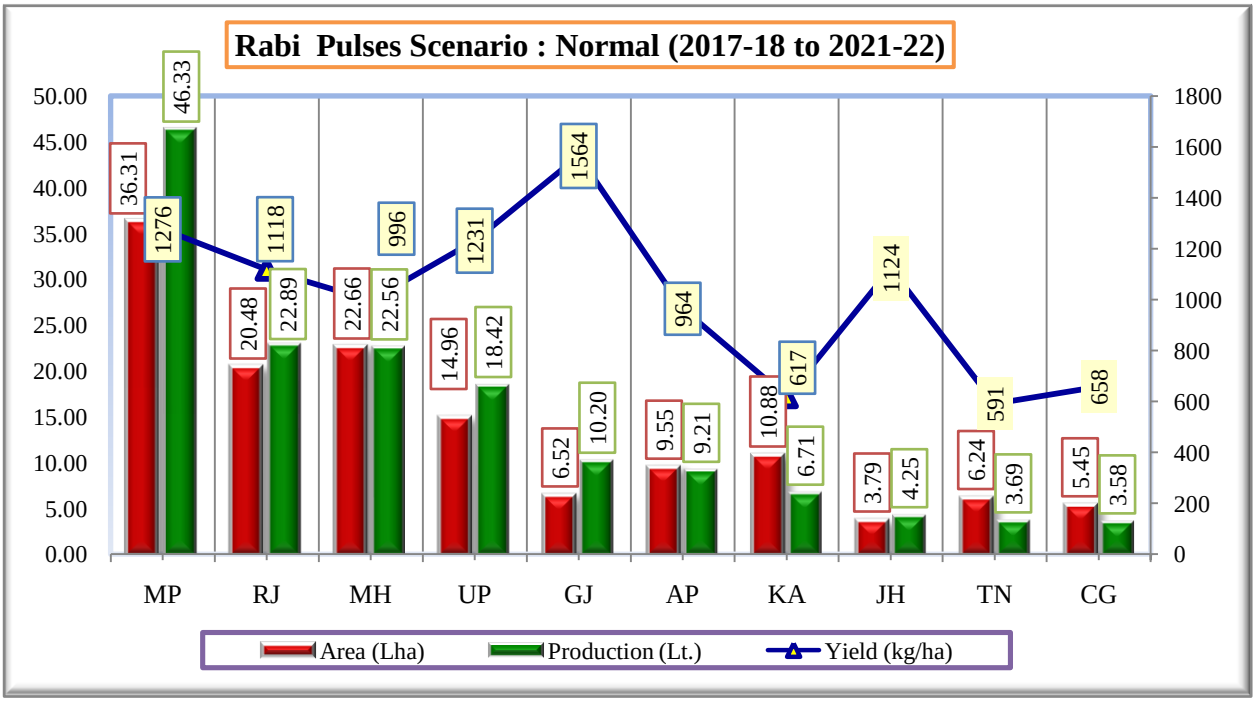


Fig- 5: States' Contribution in Area & Production– Rabi Pulses

1.3.4 Gram (Chickpea) Scenario : Normal (2017-18 to 2021-22)

- This crop was cultivated in about 101 Lha. The country harvested a record production of 116 Lt at a highest productivity level of 1145 kg/ha. As usual, Madhya Pradesh has contributed a significant 25% of the total gram area and 30% of total gram production in the country, thereby ranking first both in area and production followed by Rajasthan (20% & 19%), Maharashtra (21% and 19%), and Gujarat (6% & 8%).

- About 98 *per cent* of gram production of the country during the period under report has been realized by 10 states of Madhya Pradesh, Rajasthan, Maharashtra, Gujarat, Uttar Pradesh, Karnataka, Andhra Pradesh, Jharkhand, Chhattisgarh and Telangana *(Table-6, Fig.-6).*

(Table-6): States' Contribution in Area & Production- Gram

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Madhya Pradesh	25.43	25	34.93	30	1374
2	Rajasthan	20.09	20	22.27	19	1108
3	Maharashtra	21.36	21	21.94	19	1027
4	Gujarat	5.58	6	9.26	8	1660
5	Uttar Pradesh	5.83	6	7.47	6	1282
6	Karnataka	9.37	9	5.94	5	634
7	Andhra Pradesh	4.74	5	4.76	4	1003
8	Jharkhand	2.36	2	2.85	2	1209
9	Chhattisgarh	3.31	3	2.49	2	754
10	Telangana	1.27	1	1.94	2	1535
	Others	1.76	2	1.85	2	1048
	All India	**101.08**		**115.70**		**1145**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

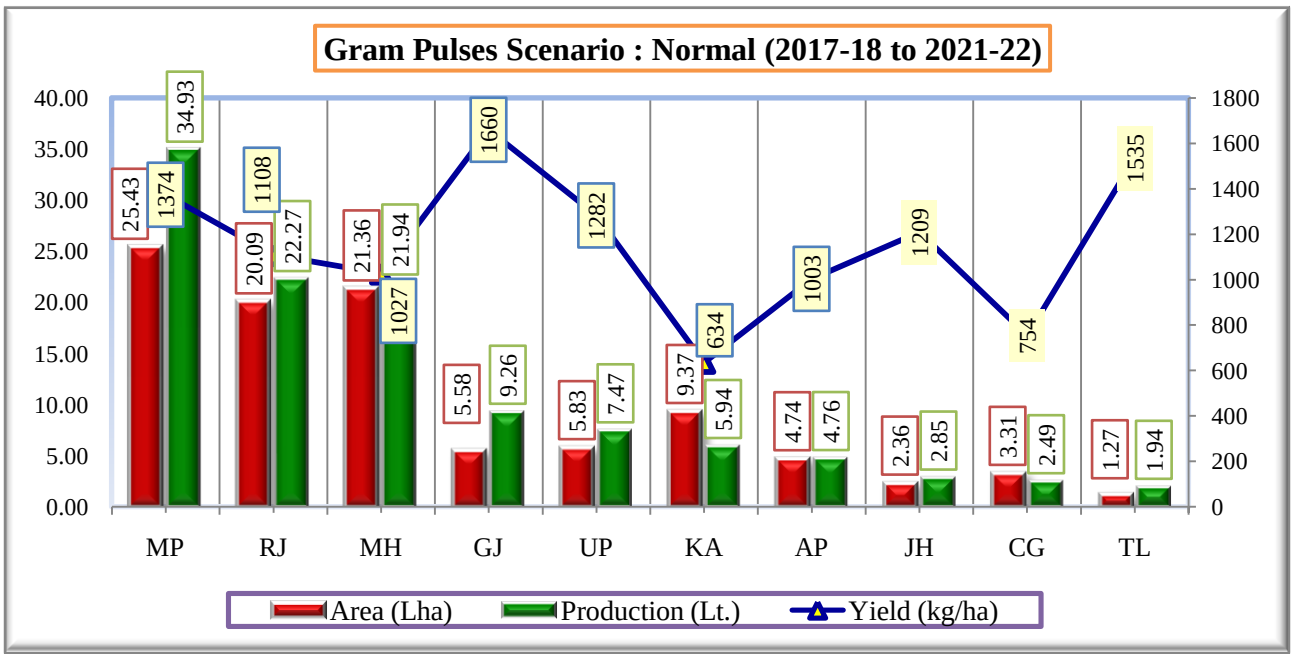


Fig- 6: States' Contribution in Area & Production–Gram

1.3.5 Arhar / Tur (Pigeonpea) Scenario : Normal (2017-18 to 2021-22)

- The country's total area coverage and production of tur has been about 46 Lha and 40 Lt respectively. Maharashtra ranked first (>12 Lha) contributes 27% in area and 29% in production, whereas, Karnataka has contributed 31 *per cent* of area and 26 *per cent* of total production.
- About than 98 *per cent* of Arhar production of the country during the period under report has been realized by 10 states of Maharashtra, Karnataka, Madhya Pradesh, Uttar Pradesh, Gujarat, Jharkhand, Telangana, Odisha, Andhra Pradesh and Tamil Nadu *(Table-7, Fig.-7).*

(Table-7): States' Contribution in Area & Production –Arhar /Tur

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Maharashtra	12.61	27	11.53	29	914
2	Karnataka	14.53	31	10.44	26	719
3	Madhya Pradesh	3.11	7	3.54	9	1139
4	Uttar Pradesh	2.81	6	3.07	8	1093
5	Gujarat	2.46	5	2.86	7	1164
6	Jharkhand	2.29	5	2.49	6	1087
7	Telangana	3.12	7	2.43	6	779
8	Odisha	1.33	3	1.39	3	1047
9	Andhra Pradesh	2.51	5	0.87	2	347
10	Tamil Nadu	0.46	1	0.51	1	1112
	Others	1.07	2	0.93	2	871
	All India	**46.29**		**40.07**		**866**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

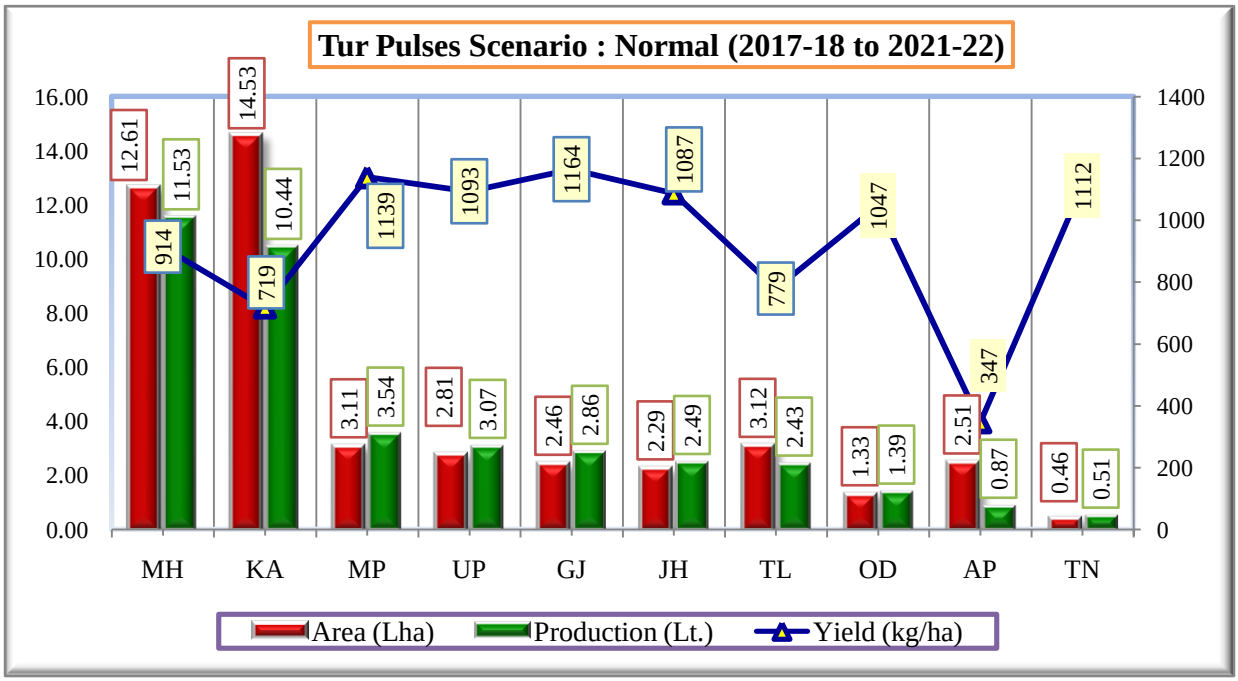


Fig.-7: States' Contribution in Area & Production – Arhar/Tur

1.3.6 Mungbean (Greengram) Scenario : Normal (2017-18 to 2021-22)

- The total coverage under mungbean has been about 49 Lha with a production of 26 Lt. There has been phenomenal increase in area of mungbean in the country from 2016-17 onwards. Rajasthan with 48 *per cent* area and 42 *per cent* of production outshined in the total mungbean contribution in the country.

- More than 90 *per cent* of mungbean production comes from 10 states of Rajasthan, Madhya Pradesh, Maharashtra, Karnataka, Bihar, Gujarat, Andhra Pradesh, Odisha, Tamil Nadu and Uttar Pradesh *(Table-8, Fig.-8).*

(Table-8): States' Contribution in Area & Production – Mungbean

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Rajasthan	23.25	48	11.16	42	480
2	Madhya Pradesh	5.08	10	5.14	19	1011
3	Maharashtra	4.21	9	1.83	7	434
4	Karnataka	4.14	9	1.50	6	363
5	Bihar	1.69	3	1.12	4	666
6	Gujarat	1.39	3	0.97	4	695
7	Andhra Pradesh	1.14	2	0.86	3	752
8	Odisha	2.36	5	0.78	3	331
9	Tamil Nadu	1.70	3	0.71	3	416
10	Uttar Pradesh	0.89	2	0.54	2	608
	Others	2.68	6	1.87	7	700
	All India	**48.52**		**26.48**		**546**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

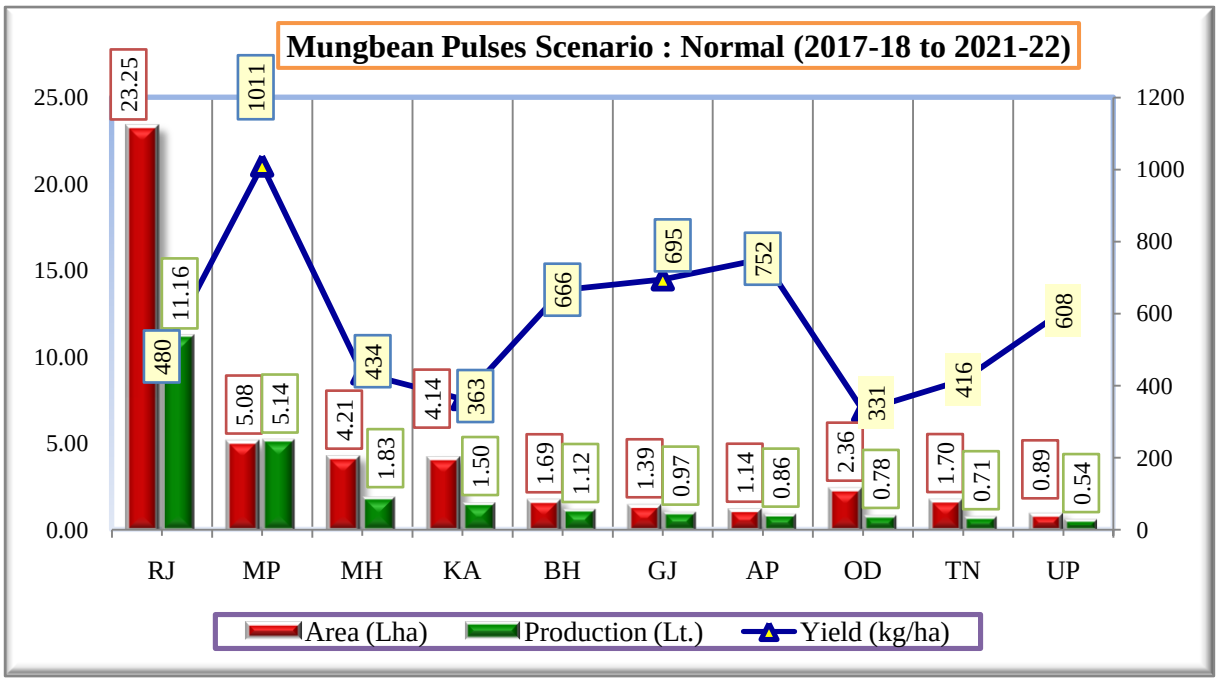


Fig.-8: State's Contribution in Area & Production-Mungbean

1.3.7 Urdbean (Blackgram) Scenario : Normal (2017-18 to 2021-22)

- Urdbean crop is also gaining momentum since 2017-18 and there has been phenomenal increase in its coverage. The crop was cultivated in an area of 48 Lha. Madhya Pradesh ranked 1st both in area and production with 37% and 32% followed by Andhra Pradesh (8% and 13%) & Uttar Pradesh & Rajasthan (12% and 10% of each).

- About 93 *per cent* of urdbean production comes from 10 states of Madhya Pradesh, Andhra Pradesh, Uttar Pradesh, Tamil Nadu, Rajasthan, Maharashtra, Jharkhand, Gujarat, West Bengal and Karnataka. *(Table-9, Fig.-9).*

(Table-9): States' Contribution in Area & Production- Urdbean

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Madhya Pradesh	18.06	37	8.75	32	484
2	Andhra Pradesh	3.64	8	3.60	13	990
3	Uttar Pradesh	5.72	12	2.99	10	522
4	Tamil Nadu	4.16	9	2.77	10	666
5	Rajasthan	5.86	12	2.68	10	457
6	Maharashtra	3.74	8	1.60	6	427
7	Jharkhand	1.34	3	1.17	4	872
8	Gujarat	1.29	3	0.90	3	701
9	West Bengal	0.75	2	0.53	2	701
10	Karnataka	0.91	2	0.47	2	515
	Others	2.92	6	1.83	7	626
	All India	**48.38**		**27.28**		**564**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

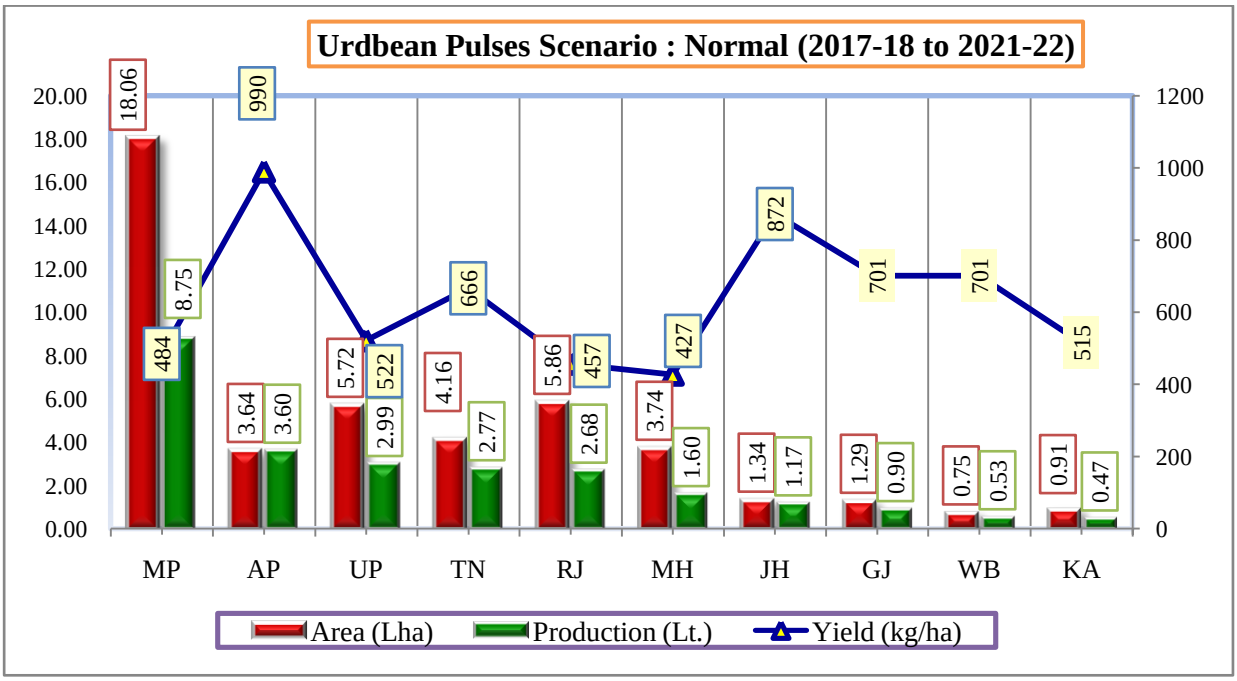


Fig.-9: States' Contribution in Area & Production- Urdbean

1.3.8 Lentil/Masoor Scenario : Normal (2017-18 to 2021-22)

- The crop was cultivated in an area of 14 Lha. Uttar Pradesh ranked 1st both in area (34%) and production with (36%) followed by Madhya Pradesh, West Bengal, Bihar & Jharkhand.

- About 98% has been realized from 08 states of Uttar Pradesh, Madhya Pradesh, West Bengal, Bihar, Jharkhand, Rajasthan, Assam and Uttarakhand *(Table-10, Fig.-10).*

(Table-10): States' Contribution in Area & Production-Lentil

{Area-lakh ha, Production-lakh tons, Yield-kg/ha}

S.No.	States	Area	% Contri.	Production	% Contri.	Yield
1	Uttar Pradesh	4.78	34	4.77	36	998
2	Madhya Pradesh	4.86	34	4.72	35	971
3	West Bengal	1.62	11	1.40	10	863
4	Bihar	1.40	10	1.27	9	908
5	Jharkhand	0.65	5	0.57	4	877
6	Rajasthan	0.21	1	0.26	2	1229
7	Assam	0.25	2	0.19	1	751
8	Uttarakhand	0.11	1	0.09	1	843
	Others	0.31	2	0.17	1	527
	All India	**14.19**		**13.43**		**947**

Source: *DES, Ministry of Agri. & FW (DA&FW), GoI. Normal Area & Prod. (2017-18 to 2021-22).*

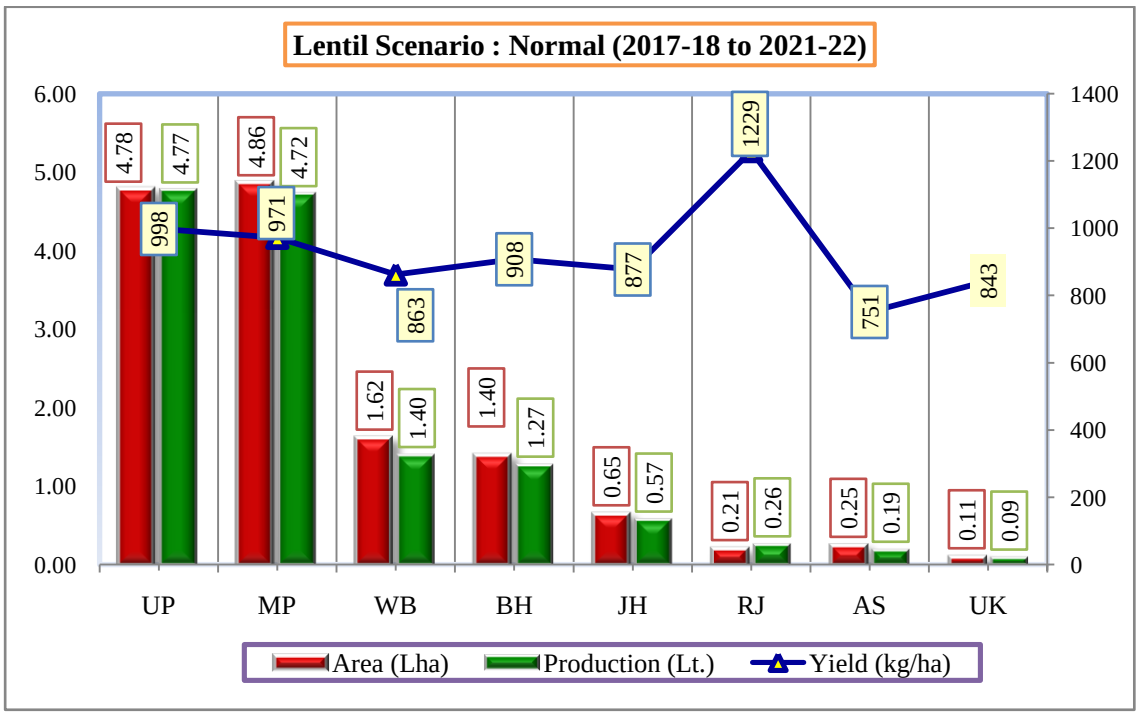


Fig.-10: States' Contribution in Area & Production-Lentil

1.4 Yearly Growth Rate of Pulses

1.4.1 Yearly Growth Rate of Total Pulses

From 2013-14 to 2021-22, the total acreage under pulses has almost slightly (+) being showed, however, the maximum growth rate in area and production was recorded with 18% & 42% during 2016-17 over previous year (2015-16). This trend is continuously maintained with highest area (30.73 Mha) and production (27.30 Mt.) with a productivity of 888 kg/ha was also recorded during 2021-22 and it was ever highest recorded both in area and production in last 08 years (Table 11,Fig.-11).

(Table-11): Yearly Growth Rate of Total Pulses

(Area-Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)-%)

Year	Area	YGR	Prod.	YGR	Yield	YGR	% coverage under irrigation
2013-14	25.21		19.25		764		19.89
2014-15	23.54	-7	17.15	-11	728	-5	20.05
2015-16	24.91	6	16.32	-5	655	-10	19.50
2016-17	29.44	18	23.12	42	785	20	19.08
2017-18	29.81	1	25.41	10	852	9	23.30
2018-19	29.15	-2	22.07	-13	757	-11	23.56
2019-20	27.98	-4	23.02	4	823	9	23.10
2020-21	28.78	3	25.46	11	885	8	-
2021-22	30.73	7	27.30	7	888	0.4	-
CAGR	**3%**		**4%**		**2%**		**3%**

Note: YGR – Yearly Growth Rate over the Previous Year; **CAGR-** Compound Annual Growth Rate
Source: DES, Min. of Agri. & FW, GoI, (DA&FW).

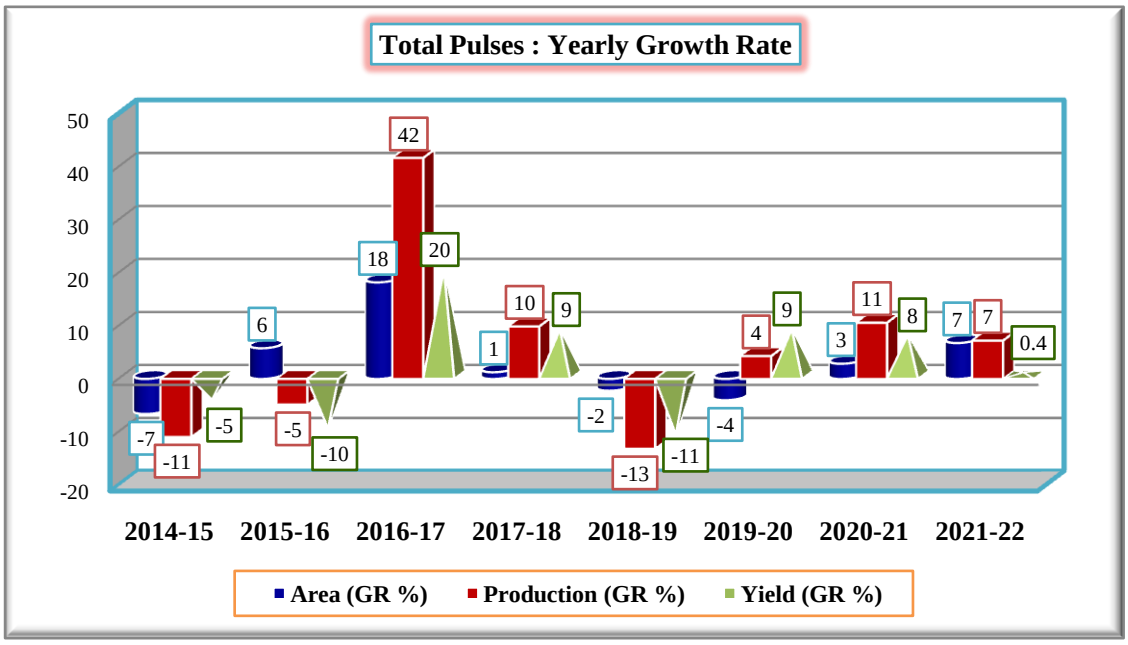


Fig.-11 : Yearly Growth Rate of Total Pulses

1.4.2 Yearly Growth Rate of Tur/Arhar and Gram

- **Tur/Arhar :** From 2013-14 to 2021-22, the total acreage under Tur has almost slightly (±) being showed, however, the maximum growth rate in area and production was recorded with 35% & 90% during 2016-17 over previous year (2015-16). The highest area (5.34 Mha) and production (4.87 Mt) was also recorded during the same period (Table – 12, Fig.-12.1).

- **Gram :** From 2013-14 to 2021-22, the total acreage under Gram has almost slightly (±) being showed, however, the ever highest area (10.74 Mha) and production (13.54 Mt.) was recorded during 2021-22 followed by 10.56 Mha & 11.38 Mt. during 2017-18 with productivity 1078 kg/ha (Table – 12, Fig.-12.2).

(Table-12): Yearly Growth rate of Tur and Gram

(A- Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)- %)

Year	Tur/Arhar						Gram					
	Area	YGR	Prod.	YGR	Yield	YGR	Area	YGR	Prod.	YGR	Yield	YGR
2013-14	3.90		3.17		813		9.93		9.53		960	
2014-15	3.85	-1	2.81	-12	729	-10	8.25	-17	7.33	-23	889	-7
2015-16	3.96	3	2.56	-9	646	-11	8.40	2	7.06	-4	840	-5
2016-17	5.34	35	4.87	90	913	41	9.63	15	9.38	33	974	16
2017-18	4.44	-17	4.29	-12	967	6	10.56	10	11.38	21	1078	11
2018-19	4.55	3	3.32	-23	729	-25	9.55	-10	9.94	-13	1041	-3
2019-20	4.53	-0.4	3.89	17	859	18	9.70	2	11.08	11	1142	10
2020-21	4.72	4	4.32	11	914	6	10.00	3	11.91	8	1192	4
2021-22	4.90	4	4.22	-2	861	-6	10.74	7	13.54	14	1261	6
CAGR	**3%**		**4%**		**1%**		**1%**		**4%**		**3%**	

Note: YGR – Yearly Growth Rate over the Previous Year; **CAGR-** Compound Annual Growth Rate
Source: DES, Min. of Agri. & FW, GoI, (DA&FW).

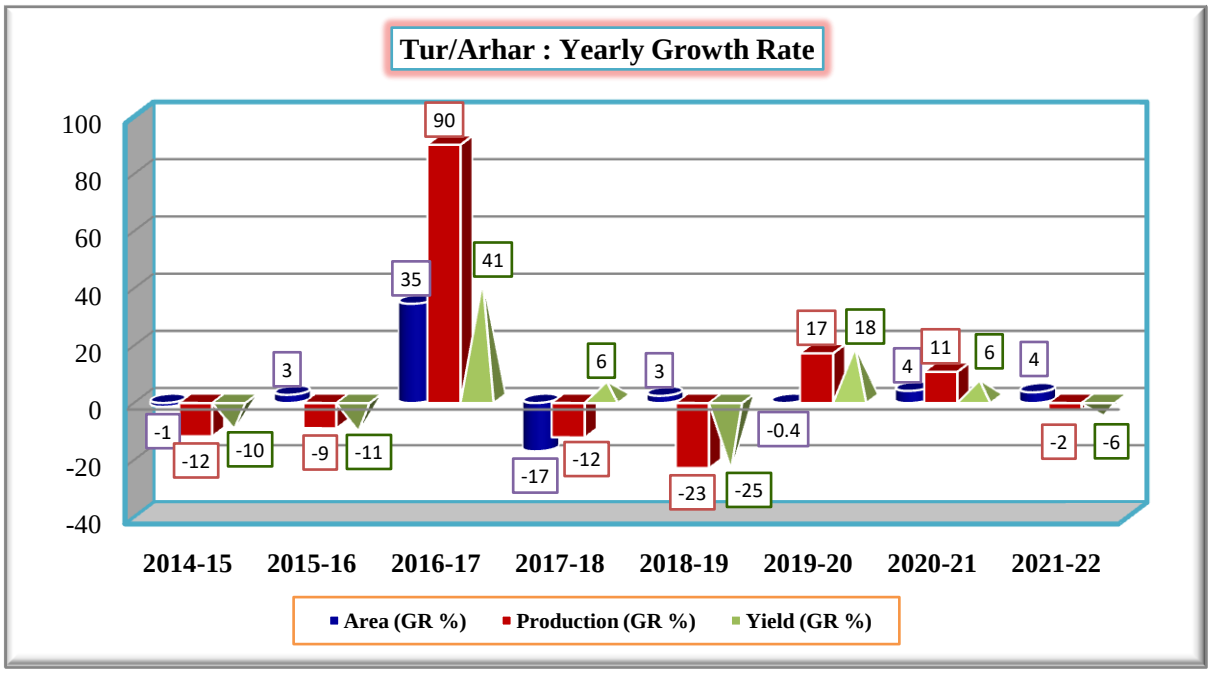


Fig. – 12.1 : Yearly Growth Rate of Tur/ Arhar

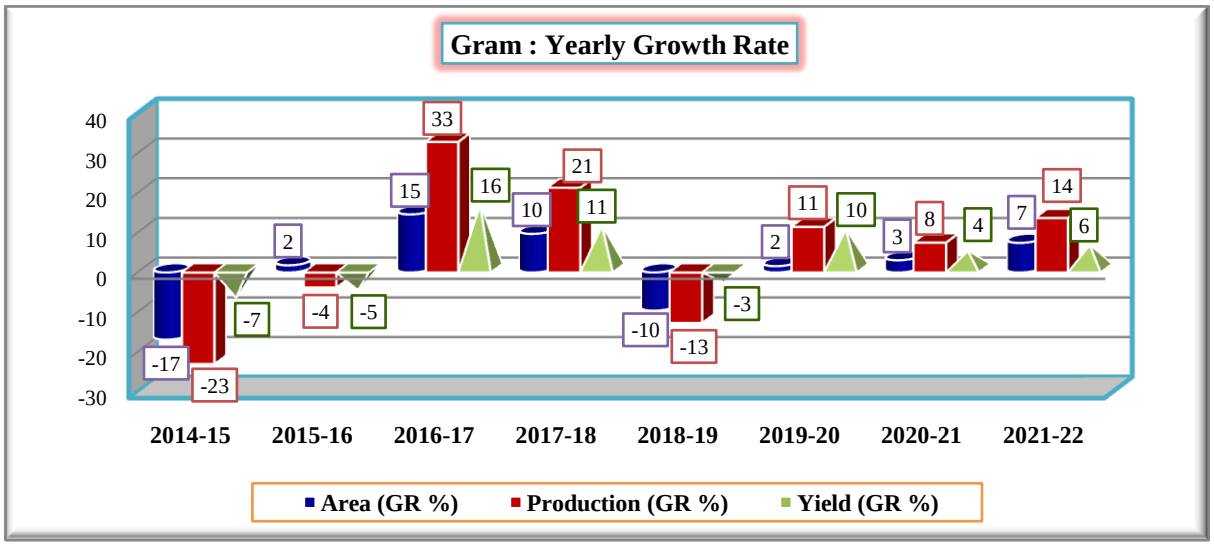


Fig. – 12.2 : Yearly Growth Rate of Gram

1.4.3 Yearly Growth Rate of Mungbean and Urdbean

- **Mungbean :** From 2013-14 to 2021-22, the total acreage under Mungbean has almost slightly (±) being showed, however, the maximum growth rate in production and productivity was recorded during 2016-17 & 2020-21 over previous year, whereas, the ever highest area (5.55 Mha), Production (3.17 Mt) was recorded during the 2021-22 (Table-13, Fig. – 13.1).

- **Urdbean :** From 2013-14 to 2021-22, the total acreage under Urdbean has almost slightly (±) being showed, however, the maximum growth rate in production and productivity was recorded during 2016-17 over previous year, whereas, the ever highest area (5.60 Mha) was recorded during the 2018-19 (Table-13, Fig. – 13.2).

(Table-13): Yearly Growth rate of Mungbean and Urdbean

(Area- Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)- %)

Year	Mungbean						Urdbean					
	Area	YGR	Prod.	YGR	Yield	YGR	Area	YGR	Prod.	YGR	Yield	YGR
2013-14	3.38		1.61		475		3.06		1.70		555	
2014-15	3.02	-11	1.50	-6	498	5	3.25	6	1.96	15	604	9
2015-16	3.83	27	1.59	6	416	-16	3.62	12	1.95	-1	537	-11
2016-17	4.33	13	2.17	36	500	20	4.48	24	2.83	46	632	18
2017-18	4.24	-2	2.02	-7	477	-5	5.28	18	3.49	23	662	5
2018-19	4.75	12	2.46	21	516	8	5.60	6	3.06	-12	546	-17
2019-20	4.58	-4	2.51	2	548	6	4.53	-19	2.08	-32	459	-16
2020-21	5.13	12	3.09	23	601	10	4.14	-9	2.23	7	538	17
2021-22	5.55	8	3.17	3	570	-5	4.63	12	2.78	25	599	11
CAGR	**6%**		**9%**		**2%**		**5%**		**6%**		**1%**	

Note: YGR – Yearly Growth Rate over the Previous Year; **CAGR-** Compound Annual Growth Rate
Source: DES, Min. of Agri. & FW, GoI, (DA&FW).

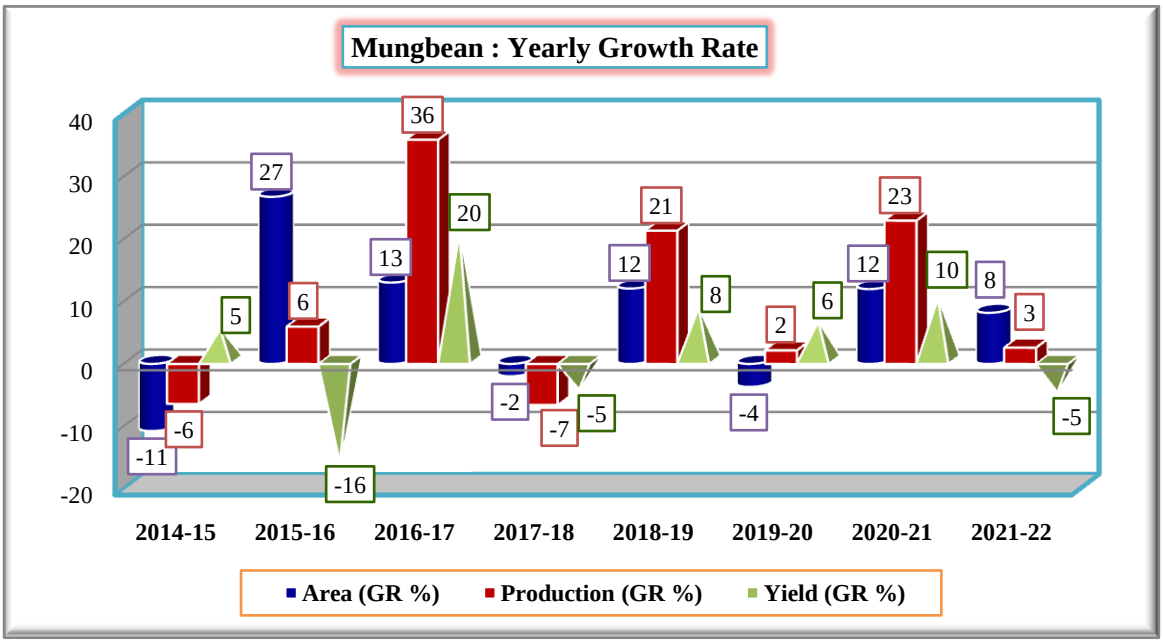


Fig. - 13.1 : Yearly Growth rate of Mungbean

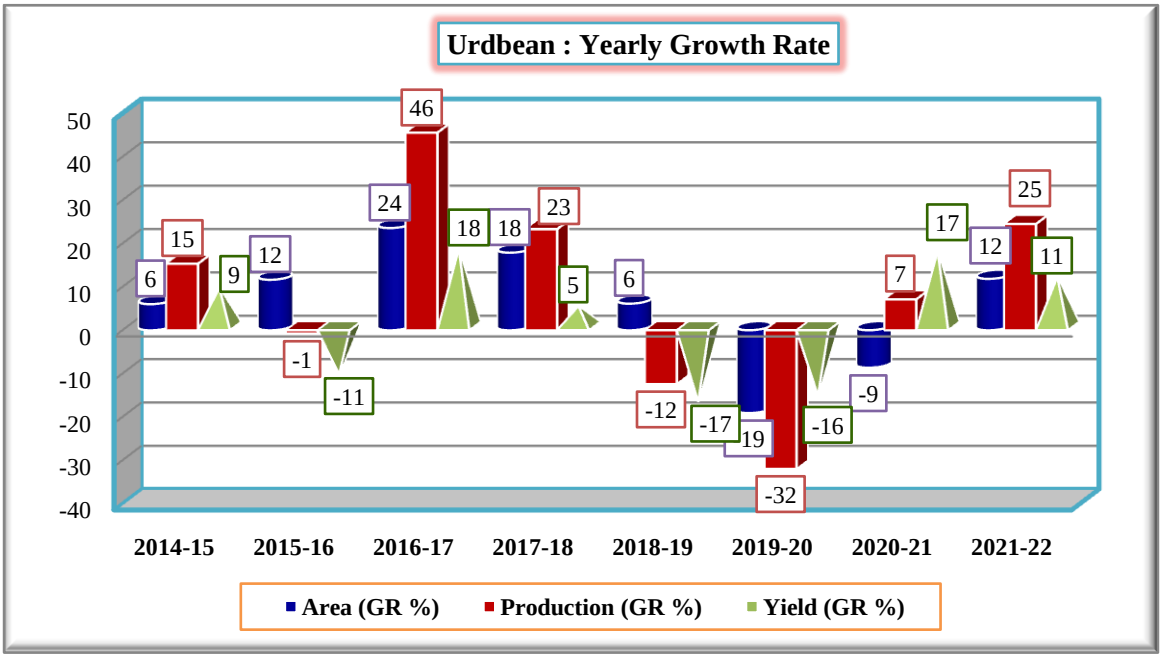


Fig.- 13.2: Yearly Growth rate of Urdbean

1.4.4 Yearly Growth Rate : Lentil and Fieldpea

Lentil : From 2013-14 to 2021-22, maximum growth rate is observed during 2020-21 in Area (13%), production (35%) and in productivity (20%) than previous year (Table-14, Fig.- 14.1).

Fieldpea: Maximum growth for acerage reported during 2016-17 (17%) and production (36%) over previous year 2015-16 and also recorded ever highest in APY in last 07 years (Table- 14, Fig.- 14.2).

(Table–14) Yearly Growth rate of Lentil and Fieldpea

(Area- Million ha, P- Million tones, Y-kg/ha, Growth Rate (GR)- %)

Year	Lentil						Fieldpea					
	Area	YGR	Prod.	YGR	Yield	YGR	Area	YGR	Prod.	YGR	Yield	YGR
2013-14	1.34		1.02		759		0.96		0.92		960	
2014-15	1.47	10	1.04	2	705	-7	0.98	1	0.89	-4	912	-5
2015-16	1.28	-13	0.98	-6	765	9	0.90	-7	0.74	-17	821	-10
2016-17	1.46	15	1.22	25	838	10	1.06	17	1.01	36	955	16
2017-18	1.55	6	1.62	33	1047	25	0.83	-22	0.99	-2	1204	26
2018-19	1.36	-12	1.23	-24	901	-14	0.61	-26	0.81	-18	1338	11
2019-20	1.30	-4	1.10	-10	847	-6	0.60	-2	0.86	6	1440	8
2020-21	1.47	13	1.49	35	1017	20	0.64	7	0.88	2	1375	-5
2021-22	1.41	-4	1.27	-15	899	-12	-	-	-	-	-	-
CAGR	**1%**		**3%**		**2%**		**-6%**		**-1%**		**5%**	

Note: YGR – Yearly Growth Rate over the Previous Year; **CAGR**- Compound Annual Growth Rate

Source: DES, Min. of Agri. & FW, GoI, (DA&FW).

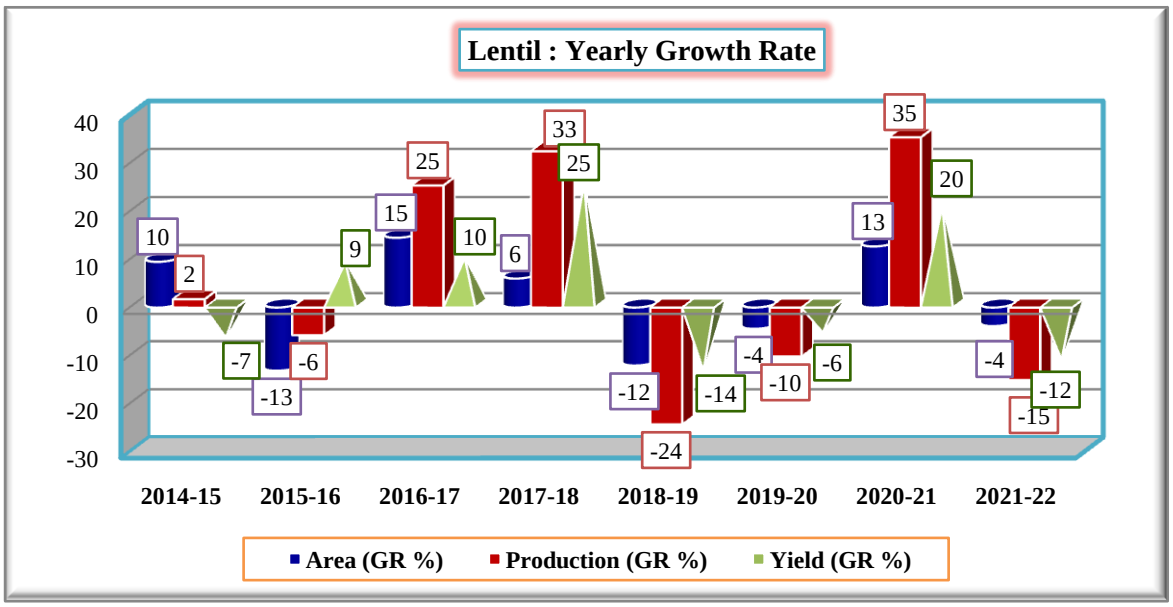


Fig. – 14.1 : Yearly Growth rate of Lentil

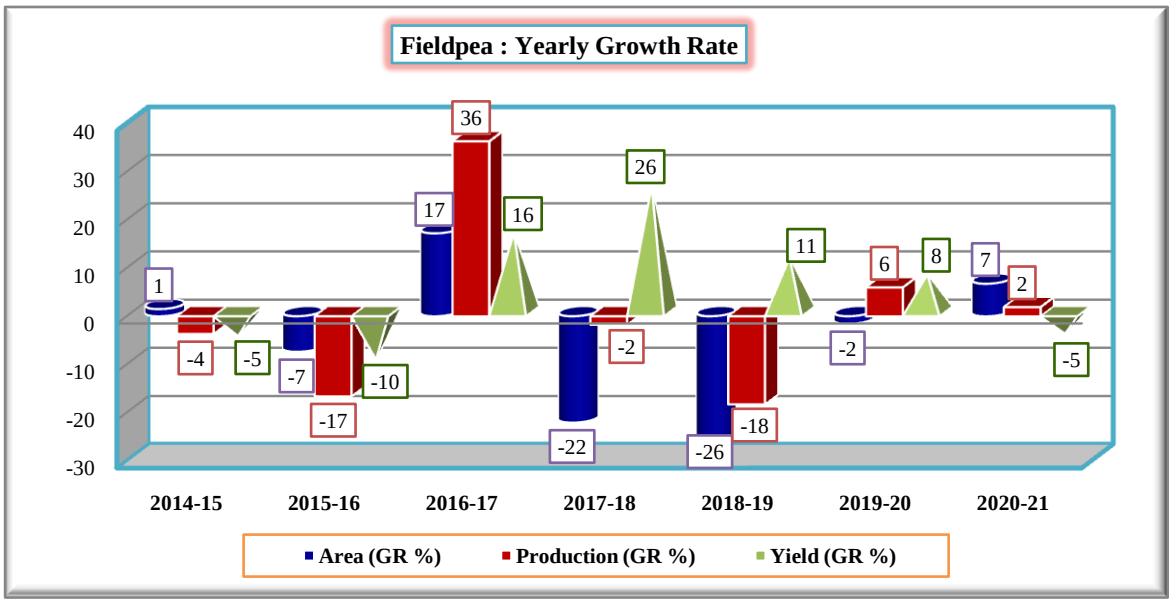


Fig. – 14.2: Yearly Growth rate of Fieldpea

Unit – II
National Pulses Availability and Global Trade Scenario

2.1 Per capita availability of pulses in India

- As a result of self suffiency in pulses production and continuous increase in population, the per capita availability of pulses has almost slightly (±) being showed. The *per capita* per day availability of pulses in 2013 was 43 g that increase to a provisional level of 45 g in the year 2021. The *per capita* per year availability shows the same increasing trend from 15.8 kg in 2013 to 16.4 kg in 2021.

Per capita availability enhanced during 2017-18. In conformity to FSA- 2013 to ensure nutritional security to vegetarian population, the per capita per day availability of pulses is attend at the level of 55 g per head/day *i.e* 20 kg/annum/person *(Table-15, Fig.-15).*

(Table- 15): Per capita availability of pulses in India

Year	Pulses Availability	
	(g *per capita per* day)	(kg *per capita* per year)
2013	43.29	15.80
2014	46.30	16.90
2015	43.84	16.00
2016	43.01	15.70
2017	54.79	20.00
2018	51.23	18.70
2019	42.47	17.20
2020	43.84	17.50
2021 (P)	44.93	16.40

Note: *2021 (P) - Provisional figures are based on 4th Advance Estimates of Production for 2020-21, Net imports during Apr. 2020- Mar. 2021 and Stock position as on 27-10-2021.*

Source: Directorate of Economics and Statistics, Min. of Agriculture & FW, GoI, (DA&FW).

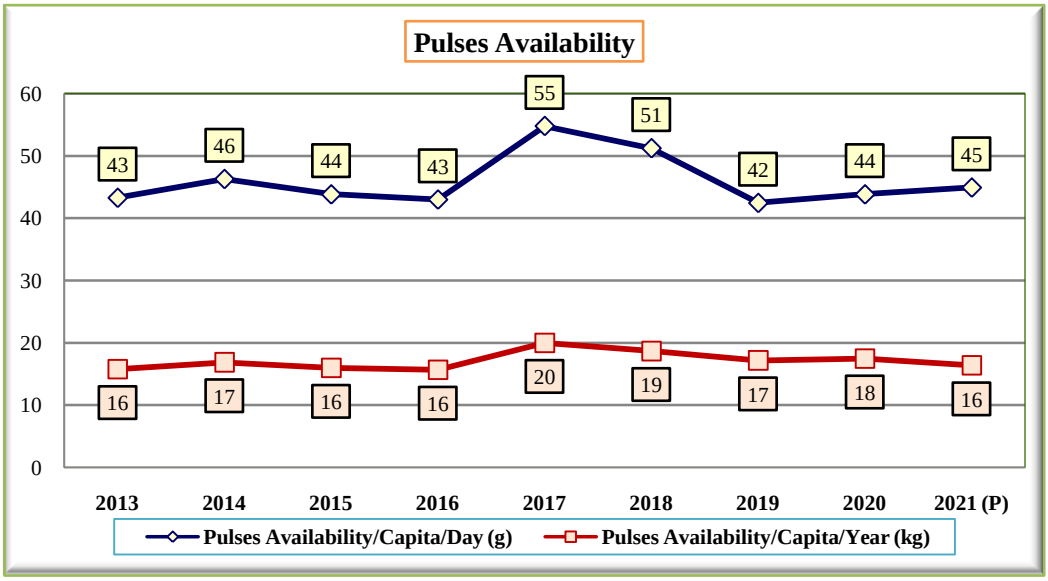


Fig.- 15 : Per capita availability of pulses in India

2.2 Pulses Import/Export and Availability

Import: From the year 2017-18 to 2021-22, the mixed trend of pulses import was observed. The pulses import range was 23.16 to 56.08 Lakh tonn during last five year and higest import was reported in 2017-18 (56.08 Lakh tonn). Overall, there has been a decline scenario/trend observed in pulses importing and saving foreign currency (Table 16).

(Unit-Lakh Tonnes)

Crop	2017-18	2018-19	2019-20	2020-21	2021-22
Peas /Matar	4.13	8.51	6.67	0.46	0.01
Gram/Chana	28.77	1.86	3.71	2.95	2.02
Mung	9.81	0.84	0.69	0.82	1.96
Urd	3.47	4.90	3.12	3.35	6.12
Lentil/Masur	7.97	2.49	8.54	11.16	6.67
Tur/Arhar	1.93	5.31	4.50	4.43	8.40
Total Pulses	**56.08**	**23.91**	**27.23**	**23.16**	**25.18**

Export: From 2017-18 to 2021-22, there was slight changes observed in pulses exports. The lowest exports were made in the year 2017-18. The export trend hike about 34% over the previous year.

(Unit-Lakh Tonnes)

Crop	2017-18	2018-19	2019-20	2020-21	2021-22
Peas /Matar	0.11	0.02	0.03	0.09	0.57
Gram/Chana	0.04	2.29	1.34	1.59	1.15
Mung	1.28	0.11	0.13	0.13	0.28
Urd	0.17	0.07	0.09	0.15	0.55
Lentil/Masur	0.12	0.15	0.20	0.18	0.21
Tur/Arhar	0.08	0.09	0.11	0.19	0.36
Total Pulses	**1.79**	**2.74**	**1.90**	**2.32**	**3.12**

{Chickpeas contributes the single largest share in India's export basket of pulses registering 54% share in the total pulses export during 2017-18 to 2021-22 followed by Mung (16%), Urd (9%), Pea, Lentil and Tur (7%) respectively}.

(Table- 16): India's Imports and Exports of pulses

(Quantity – Lakh tonnes, Values -Crore)

Year	Import		Exports	
	Import Quantity	Import Value	Export Quantity	Export Value
2017-18	56.08	19548.42	1.79	2888.06
2018-19	23.91	7232.73	2.74	1721.60
2019-20	27.23	9235.97	1.90	1147.45
2020-21	23.16	10923.13	2.32	1639.50
2021-22	25.18	14131.30	3.12	2023.63

Source: *DGCI&S, Ministry of Commerce & Industry, Kolkata.*

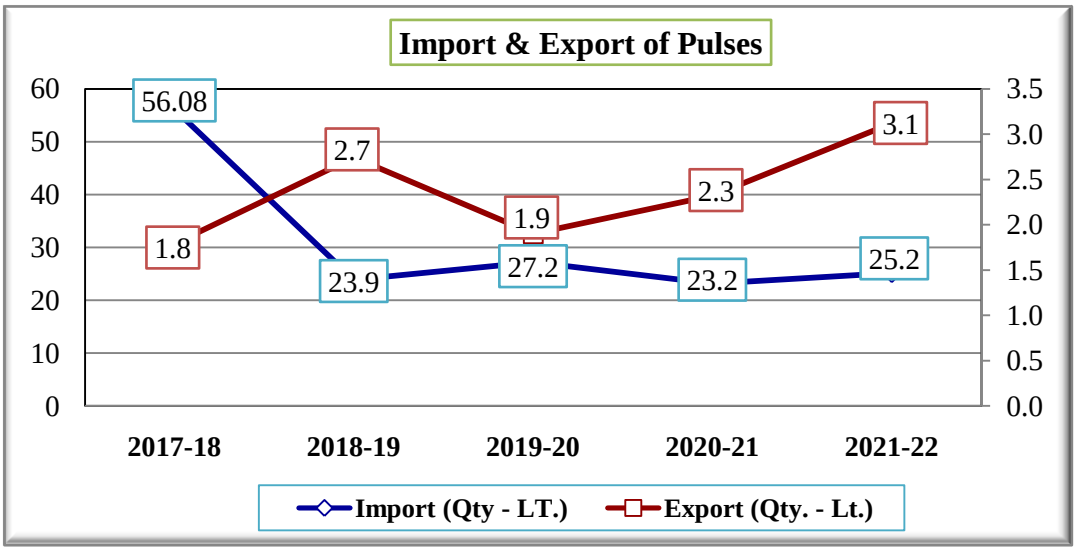


Fig.- 16 India's Import & Export of Pulses

(Table- 17): India's Imports and Exports of pulses v/s agriculture

(Rs.in Crore)

Year	Import					Exports				
	Total Pulses		Total Agriculture		Total National Imports	Total Pulses		Total Agriculture		Total National Exports
	Actual Value	% to Agri.	Actual Value	% to National		Actual Value	% to Agri.	Actual Value	% to National	
2014-15	17063	14.1	121319	4.4	2736676	1218	0.5	239681	12.6	1896348
2015-16	25619	18.3	140289	5.6	2490303	1656	0.8	215396	12.5	1716384
2016-17	28523	17.3	164726	6.4	2577671	1271	0.6	226652	12.3	1849433
2017-18	18748	12.3	152095	5.1	3001028	1470	0.6	251563	12.9	1956514
2018-19	7233	5.3	137019	3.8	3594674	1722	0.6	274571	11.9	2307726
2019-20	9236	6.3	147446	4.4	3360954	1147	0.5	252976	11.4	2219854
2020-21	10923	7.1	154510	5.3	2915958	1639	0.5	308830	14.3	2159043

Source: DGCI&S, Ministry of Commerce and Industry, Kolkata.

2.3 India's Import & Export Trade of Major Pulses (2021-22)

S.No.	Crop	Major countries *(In terms of Quantity)*	
		Major Import Sources	Major Export Destinations
1	Pea	**(100% contribution)** i) UAE (65%) ii) Canada (32%) iii) USA (3%)	**(100% contribution)** i) UAE (87%); ii) Thailand (4%); China (4%); iii) Iran (1%); iv) Bangladesh (1%); v) Nepal (1%)
2	Lentil	**(99% contribution)** i) Canada (78%) ii) Australia (20%) iii) UAE (1%)	**(95% contribution)** i) UAE (61%); ii) Bhutan (8%); iii) Bangladesh (8%); iv) Netherland (6%); v) Nepal (5%); vi) USA (3%), vii) Kenya (1%), viii) Qatar (1%), ix) Japan (1%)
3	Tur/Pigeon pea	**(98% contribution)** i) Mozambique (38%) ii) Myanmar (24%) iii) Tanzania (23%) iv) Malawi (7%) v) Sudan (6%)	**(100% contribution)** i) UAE (60%); ii) USA (13%); iii) Nepal (9%); iv) Canada (6%); v) Malaysia (2%); vi) Singapore (2%); UK (2%); vii) Qatar (2%) viii) Australia (1%)

S.No.	Crop	Major countries *(In terms of Quantity)*	
		Major Import Sources	**Major Export Destinations**
4	Urdbean	**(99% contribution)** i) Myanmar (96%) ii) Singapore (3%)	**(94% contribution)** i) China (44%); ii) Nepal (14%); iii) USA (13%); iv) Canada (9%); v) UK (6%); vi) Qatar (2%); vii) UAE (2%); viii) Netherland (2%); ix) Djibouti (1%).
5	Mungbean	**(96% contribution) :** i) Mozambique (32%); ii) Tanzania (16%); iii) Myanmar (16%); iv) Afghanistan (11%); v) Brazil (7%); vi) Argentina (4%); vii) UAE (3%); viii) Kenya (3%); ix) South Africa (3%).	**(88% contribution)** i) China (44%); ii) Nepal (14%); iii) USA (13%); iv) Canada (9%); v) UK (6%); vi) Qatar (2%); vii) UAE (2%); viii) Netherland (2%); ix) Djibouti (1%); Singapore (1%).

Source: *Deptt. of Commerce, Min. of Commerce & Industry, GoI. (%) figures in parenthesis indicates percentage share of global import/export. ;*

2.4 Availability Status: Total Pulses & Crop-Wise (2015-16 to 2021-22)

Crop-wise availability of Pigeonpea, Chickpea, Lentil, Mungbean and Urdbean based on domestic production, import and export is summarized under *Table 18. It* is evident from table that the domestic availability of pulses has increased by 40% in Total pulses and 29% in Gram during 2017-18, 53% in Tur, 85% in Fieldpea during 2016-17, Lentil by 50% in 2020-21, Mung & Urd 55% in 2018-19 over 2013-14.

(Table-18): Import, Export and Availability

(Unit-Lakh Tonnes)

Crop	Year	Production	Import	Export	Availability	Total Availability for Domestic Consumption
Tur/ Arhar	2015-16	25.61	4.63	0.04	30.24	30.20
	2016-17	48.73	7.04	0.12	55.77	55.64
	2017-18	42.90	4.13	0.11	47.03	46.92
	2018-19	33.15	5.31	0.09	38.46	38.37
	2019-20	38.92	4.50	0.11	43.42	43.31
	2020-21	43.16	4.43	0.19	47.59	47.40
	2021-22	42.20	8.40	0.36	50.61	50.25
Gram	2015-16	70.58	10.31	2.17	80.89	78.72
	2016-17	93.78	10.81	0.88	104.58	103.71
	2017-18	113.79	9.81	1.28	123.61	122.32
	2018-19	99.38	1.85	1.73	101.23	99.50
	2019-20	110.79	3.69	0.79	114.48	113.69
	2020-21	119.11	2.94	1.24	122.05	120.81
	2021-22	135.44	2.02	0.96	137.45	136.49
Mung	2015-16	15.93	0.87	0.04	16.80	16.76
	2016-17	21.65	0.86	0.06	22.52	22.45
	2017-18	20.23	0.52	0.10	20.75	20.65
	2018-19	24.55	0.84	0.11	25.39	25.28
	2019-20	25.09	0.69	0.13	25.78	25.65
	2020-21	30.85	0.82	0.13	31.67	31.54

Crop	Year	Production	Import	Export	Availability	Total Availability for Domestic Consumption
	2021-22	31.66	1.96	0.28	33.61	33.34
Urad	2015-16	19.45	4.94	0.03	24.40	24.37
	2016-17	28.32	4.88	0.04	33.20	33.16
	2017-18	34.92	2.95	0.07	37.87	37.81
	2018-19	30.60	4.90	0.07	35.50	35.43
	2019-20	20.81	3.12	0.09	23.93	23.85
	2020-21	22.30	3.35	0.15	25.64	25.49
	2021-22	27.76	6.12	0.55	33.88	33.32
Lentils/ Masur	2015-16	9.76	12.60	0.12	22.36	22.24
	2016-17	12.24	8.29	0.16	20.53	20.38
	2017-18	16.22	7.97	0.12	24.18	24.07
	2018-19	12.28	2.49	0.15	14.77	14.62
	2019-20	11.03	8.54	0.20	19.57	19.38
	2020-21	14.94	11.16	0.18	26.10	25.92
	2021-22	12.69	6.67	0.21	19.36	19.15
Peas	2015-16	7.42	22.45	0.06	29.87	29.81
	2016-17	10.11	31.73	0.08	41.84	41.76
	2017-18	9.93	28.77	0.04	38.70	38.66
	2018-19	8.12	8.51	0.02	16.63	16.61
	2019-20	8.60	6.67	0.03	15.27	15.24
	2020-21	8.77	0.46	0.09	9.23	9.14
	2021-22#	11.99	0.01	0.57	11.99	11.43
Other Pulses	2015-16	14.49	2.50	0.01	16.99	16.97
	2016-17	16.48	2.37	0.01	18.85	18.85
	2017-18	16.17	2.10	0.03	18.27	18.24
	2018-19	12.68	2.01	0.11	14.69	14.57
	2019-20	15.02	2.23	0.11	17.25	17.14
	2020-21	15.51	1.65	0.34	17.16	16.81
	2021-22	11.29	2.43	0.34	13.71	13.37
Total Pulses Crops	2015-16	163.23	58.31	2.47	221.55	219.07
	2016-17	231.31	65.98	1.34	297.29	295.95
	2017-18	254.16	56.25	1.75	310.41	308.67
	2018-19	220.76	25.91	2.30	246.67	244.37
	2019-20	230.25	29.45	1.46	259.70	258.24
	2020-21	254.63	24.81	2.32	279.44	277.12
	2021-22	273.02	27.60	3.27	300.62	297.35

Source: Production- DES, GoI, Import & Export- Ministry of Commerce & Industry.

Calculated as per its share in Rabi Pulses, since the DES figures are not available for Peas during these years.

2.5 Global Scenario: Crop-Wise (2021-22)

The total world acreage under pulses as recorded during 2021 is about 954.39 Lha with production at 889.67 Lt. and productivity 932 kg/ha (Table-19, Fig.-19).

In the world, pulses are grown by 171 countries. Beansdry was cultivated by 104 countries, which contributed about 38 % area to total world area, Gram by 47 contributed about 16%, Cowpea by 37 contributed 16%, Peasdry by 96 contributed 7%, Tur by 24 contributed 7% and Lentil by 43 contributed by 6%. The share to World production of Beans dry was 31% followed by Gram 18%, Peas 14%, Cowpeas 10%, Lentil 6% and Tur 6%.

(Table-19): Global Ranking: Crop-wise

{Area-lakh ha, Production-lakh tonnes, Yield-kg/ha}

Crop	Area	% Contri.	Production	% Contri.	Yield	Country's Rank
Gram	150.05	16	158.72	18	1058	1st
Tur/Arhar	63.57	7	54.77	6	862	1st
Lentil	55.86	6	56.10	6	1004	2nd
Peas	70.44	7	124.04	14	1761	4th
Beans Dry	359.21	38	277.15	31	772	1st
Cowpeas	149.11	16	89.86	10	603	-
Others	106.16	11	129.03	15	1215	-
Total Pulses	**954.39**		**889.67**		**932**	**1st**

Source: *FAO Statistics 2021.*

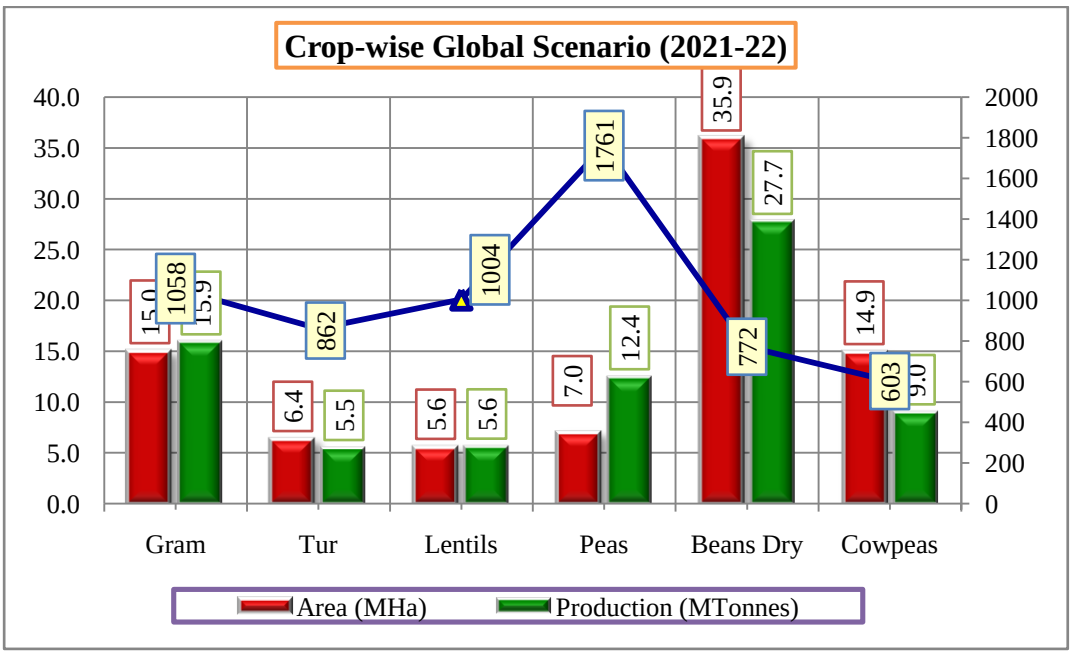


Fig.-19: Crop-wise Global Scenario

Unit –III
Major Interface /Coordination /Extension Activities

3.1 Meetings/Workshop/Conference/ Trainings (01.04.2022 to 31.03.2023)

Purpose/Theme
• Meeting to discuss on "Farming strategy for revival of sunflower cultivation and to analyze reason for reduction in area of Sunflower" under Chairmanship of Agriculture Commissioner on (05th April, 2022). • 17th Meeting of General Council (GC) of National Food Security Mission (NFSM) scheduled to be held under the chairmanship of Hon'ble Union Minister of Agriculture & Farmers Welfare on (25th April, 2022). • Organized "Kisan Bhagidari Prathmikta Hamari" Campaign under Azadi Ka Amrit Mahotsav from 25th April, 2022 to 30th April, 2022 (At KVK-Narsingpur/Sagar/Morena on 26th April, 2022). • National Conference on Agriculture-Kharif Campaign/CDDs Review Meeting (19-20, April, 2022). • Pre-sowing Brain storming session to promote Pigeon pea for Kharif, 2022 under the chairmanship of Secretary (A&FW) on (18th May, 2022). • Attended 23rd Meeting of Central Zonal Council at Bhopal under the chairmanship of the Hon'ble Minister for Home Affairs & Cooperation on (22nd August, 2022). • National Conference on Agriculture-Rabi Campaign/CDDs Review Meeting (07thSept. 2022). • Review meeting of Targeting Rice Fallow Area (TRFA) Programme implementing States on under the Chairmanship of Agriculture Commissioner, DA & FW on (05th Sept., 2022). • Review of state wise Rabi target vis-a-vis progress of Rabi sowing including rainfall situation and issues related to inputs on (29th Nov. 2022). • Meeting to discuss/present the action taken by States/UTs on the recommendations of Conference of Chief Secretaries held from 15th to 17th June, 2022 at Dharamshala under the chairmanship of Secretary (A & FW) on (02nd Dec.2022). • Meeting with CDDs regarding Monitoring of NFSM (OS) Scheme under the chairmanship of DC (Oilseeds) on (05th January, 2023). • 22nd Meeting of National Food Security Mission-Executive Committee (NFSM-EC) under the chairmanship of Secretary (A&FW) on (24th January, 2023). • Meeting (hybrid mode) to discuss the progress of Seed Hubs of Oilseeds, Pulses and Millets, Crop Diversification Programme and KVKs under the Co-Chairmanship of secretary (A&FW) and Secretary (DARE) & DG (ICAR) on (07th Feb.2023). • Meeting with all CDDs on crop situation under the chairmanship of Joint Secretary (Crops) on 07th March, 2023. • Global Event for International Year of Millets (IYM) 2023 at NASC Complex, IARI, Pusa, New Delhi on 18th March, 2023.

3.2 Notes/Technical Reports

Technical Report	Report Submitted
Submission of All India weekly crop weather prospects reports in respect of Kharif/Rabi/Spring/Summer Pulses & all crops of Kharif/Rabi/Spring/Summer of Assigned States of Madhya Pradesh & Chhattisgarh.	Regular/Weekly
All India Crop-wise Harvesting status of Kharif/Rabi/Spring/Summer Pulses.	Regular/Weekly
Submission of Input material for uploading over social media platform.	Regular/Weekly
Issuance of crop specific advisories of Kh/Rabi/Spring/Summer to assigned states.	Regular/Monthly

- National Conference on Agriculture-Strategy Note/Input on Kharif/Rabi/Spring/Summer Pulses.
- Organization and participation in the 4th Poshan Pakhwada-2022-23.
- Report on participation in the Kisan Mela conducted in KVKs (Narsinghpur/Morena/Sagar) on 26.04.2022 during Kisan Bhagidari, Prathmikta Hamari.
- Inputs on preparation of CDDs Review meeting PPT/National Conference on Agriculture Kharif-2022.
- Report of yield performance of Rapeseed-Mustard as per Crop Cutting Experiments undertaken in various scheme in assigned states.
- Note on Rabi crop scenario-2022-23 and prospects of spring-summer-2023 of assigned states.
- Note on higher/low area coverage of Arhar, Lentil, Gram, Urd, Mungl in the country.
- Note on Pulses Scenario and Strategies-Kharif/Rabi /Spring-summer– 2022-23.
- Note on districts having higher yield and lower yield over National Average Yield and State average Yield and normal APY of Arhar, Lentil and Gram.
- Note on focused districts of Urd & Mung on the basis of higher yield and area.
- Note on Area Coverage of Summer Mung and Estimated Production during Spring/Summer Mung-2022.
- Brief reports/Inputs on Production estimates Scenario & crop diversions etc. on Kharif/Rabi Pulses.
- Fixation of Pulses National Production Targets- 2022-23.
- Progress Report of Seed Minikits of Pulses under National Food Security Mission (NFSM) for Kharif/Rabi/Summer-2022-23.
- Compilation of All India (State-wise/District-wise) Allocation and Supply of Seed Minikit of Pulses (Kharif/Rabi/Summer-2022-23) in Aspirational & Backward districts.
- Note of 23rd Meeting of Central Zonal Council at Bhopal under the chairmanship of the Hon'ble Home Minister & Cooperation Minister.
- Report on NLMT-NFSM visit report of Chhattisgarh state visited during Kharif-2022.
- Compiled success stories on NFSM-Pulses/other CSS programmes/schemes of assigned states.
- Compilation of All India progress of District-wise/Crop-wise Seed minikit & varietal performance report (Seed minikit distributed between 2019-20 to 2021-22.
- Submission of Success Story/ case study on the subject 'Promotion of Climate Resilient Farming.
- Brief report on Oilseeds Seed Minikit Monitoring Report of 2021-22 in Madhya Pradesh and Chhattisgarh.
- Inputs for preparation of speeches of HAM, MoSs and talking points for Secretary (A&FW).
- Note on Arhar during Kharif, 2022: Status of Sowing, harvesting, production estimates and area affected due to Rains/Mandous Cyclonic Storms.

Technical Report	Report Submitted
• Monitoring Report of Kharif-2022 & Rabi-2022-23 Oilseeds programme of Assigned States. • Note on Mung production and export status (TN Association of Import & Export). • Note/PPT on key reasons for fluctuations in the production of Tur and Urad. • Note for CDDs review meeting/ Global Event for International Year of Millets (IYM) 2023. • Information sought by PMO: Details of Events/Conferences/Exhibitions (For Last One Year). • Preliminary assessment report of crop damage due to rainfall/flood/drought/hailstorms etc. of Kharif/Rabi pulses/crops. • Issuance of advisory on impact of prevailing terminal heat stress on wheat crop in Assigned states. • Fixation of National Production Targets of Pulses for the year 2023-24. • Inputs/Comments on Annual Action Plan of NFSM Crops of Assigned State for the year 2023-24.	

3.3 Other Administrative Activities

S. No.	Activities	Date/Duration
1	Observance of Anti Terrorism Day	20.05.2022
2	Celebration of International Yoga Day	21.06.2022
3	Observance of Sadbhavna Diwas	19.08.2022
4	Hindi Saptah	06.09.2022 to 12.09.2022
5	Hindi Diwas	14.09.2022
6	Hindi Mas	01.09.2022 to 30.09.2022
7	Hindi Pakhwada	14.09.2022 to 28.09.2022
8	Hindi Samanya Gyan Partiyogita	29.09.2022
9	Observance of Vigilance Awareness Week	31.10.2022 to 06.11.2022
10	Observance of Unity Day	31.10.2022
11	Constitution Day	26.11.2022
12	Hindi Workshop (Quarterly)	17.06.2022, 21.09.2022, 23.12.2022, 24.03.2023
13	Hindi Meeting (Quarterly)	17.06.2022, 21.09.2022, 23.12.2022, 24.03.2023
14	Observance of Swachata Pakhwada	14.12.2022 to 31.12.2022

Unit – IV : State Profile –Assigned States

4.1 Madhya Pradesh State Profile

4.1.1 Agro-Climatic Zones of Madhya Pradesh

I	Chhattisgarh Plains (1) – Balaghat
II	Northern Hills of Chhattisgarh (05) – Mandla, Dindori, Shahdol, Umaria, Anuppur
III	Kymore Plateu & Satpura Hills (08)–Jabalpur, Seoni, Katni,Panna, Satna, Rewa, Sidhi, Singrauli
IV	Vindhyan Plateu (06) – Bhopal, Sehore, Raisen, Sagar, Damoh, Vidisha
V	Central Narmada Valley (03) – Narsinghpur, Hoshangabad, Harda
VI	Grid Zone (07) – Gwalior, Guna, Ashoknagar, Shivpuri, Sheopur, Morena, Bhind
VII	Bundelkhand Zone (04) – Datia, Niwari, Tikamgarh, Chhatarpur
VIII	Satpura Plateu (02) – Chhindwara, Betul
IX	Malwa Plateu (10)–Indore,Ujjain, Dhar, Dewas, Shajapur, Agar-Malwa, Neemuch,Mandsaur, Ratlam, Rajgarh,
X	Nimar Valley (04) – Khandwa, Kargone, Barwani, Burhanpur
XI	Jhabua Hills (02) – Jhabua, Alirajpur

4.1.2 STATE PROFILE IN MADHYA PRADESH

Particulars		**Status**
Population	(Crore)	7.27 (Male- 3.77, Female-3.51)
Population Growth	(%)	20.35 – 2011
Revenue Districts /Tehsil	**(Nos.)**	**55/428**
Block/Janpad Panchayat	(Nos.)	333 (89 Tribal Blocks)
Village Panchayat/Tot. Village	(Nos.)	23006/54903 as per 2011 censure
Krishi Upaj Mandi	(Nos.)	500-600
Average Annual Rainfall	(mm)	1160 mm

Land Use Pattern (Area : lakh ha)		**Agricultural land use (Area : lakh ha)**	
Geographical Area	**307.56**	Net sown area	157.99
Cultivable area	158.72 (52%)	Double Cropped Area	83.62
Forest area	87.08 (28%)	Gross cropped area	238.17
Land under non-agricultural use	19.92 (6%)	Kharif Area	152.52
Permanent pastures	13.48 (4%)	Rabi Area	85.65
Cultivable wasteland	8.67 (3%)	Cropping Intensity	152%
Barren and uncultivable land	14.06 (5%)		
Current fallows	7.69 (3%)		

Particulars		**Status**		
Operational Land Holding (Area : Lakh ha, Number-Lakh)				
Average Size of Social Groups		**Average Size (ha)**	**Numbers (%)**	**Area (%)**
Marginal	(< 1 ha)	0.49	38.91 (44%)	19.15 (12%)
Small	(1 to 02 ha)	1.42	24.49 (28%)	34.66 (22%)
Semi Medium	(02 to 04 ha)	2.73	16.55 (19%)	45.10 (28%)
Medium	(04 to 10 ha)	5.76	7.89 (9%)	45.45 (29%)
Large	(10 ha & Above)	15.73	0.89 (1%)	14.00 (9%)
Total		1.78	88.73	158.36

Irrigation (lakh ha)		Sources of Irrigation (Area : lakh ha)	
Net irrigated area	128.82	Canals	10.91 (16%)
Gross irrigated area	162.83	Tanks	1.49 (2%)
Rainfed area	60%	Open wells	24.03 (35%)
		Bore wells/Tube Wells	17.93 (26%)
		Other Sources	14.25 (21%)
		Total Irrigated Area	68.61

Major Soils (Area - lakh ha)			
1. Alluvial Soil	33.5 (11%)	2. Deep Medium black soils	162.1 (53%)
3. Shallow & Medium Black Soil	30.6 (10%)	4. Mixed Red & Black Soil	81.1 (26%)

Source- ENVIS, Centre of M.P. State. TKA-Total Kharif Area; TRA* - Total Rabi Area; TPI*- Total Production in India

4.1.3 Crop Scenario (Normal – Season-wise)

Madhya Pradesh		Area in 000 ha, Production in 000 Tonnes & Yield in Kg/ha				
Crop Scenario		(2017-18 to 2021-2022)			Season-wise % Share	
Crop	Season	Area	Production	Yield	Area	Production
Cereals						
Rice	Kharif	21.13	44.66	2113	53	47
	Rabi	0.20	0.59	2922	0.3	0.3
	Total	**21.34**	**45.25**	**2121**	21	15
Wheat	Rabi	59.94	186.40	3110	98	99
Jowar	Kharif	1.38	2.70	1966	3	3
Bajra	Kharif	3.21	7.29	2275	8	8
Maize	Kharif	13.48	39.76	2950	34	42
	Rabi	0.18	0.69	3854	0.3	0.4
	Total	13.66	40.46	2962	13	14
Small millet	kharif	0.98	0.85	867	2	1
Barley	Rabi	0.57	1.21	2135	1	1
Total Cereals	**kharif**	**40.17**	**95.27**	**2372**	**64**	**88**
	Rabi	**60.89**	**188.89**	**3102**	**62**	**80**
	Total	**101.06**	**284.16**	**2812**	**63**	**1**
Pulses						
Tur	Kharif	3.11	3.54	1139	14	29
Gram	Rabi	25.43	34.93	1374	70	75
Urd	Kharif	17.59	8.14	463	81	67
	Rabi	0.47	0.61	1313	1	1
	Total	18.06	8.75	484	31	14
Moong	Kharif	1.05	0.49	466	5	4
	Rabi	4.03	4.65	1153	11	10
	Total	5.08	5.14	1011	8	8
Lentil	Rabi	4.86	4.72	971	13	10
Other Pulses	Kharif	0.04	0.02	407	0.2	0.1
	Rabi	1.52	1.41	929	4	3
	Total	1.56	1.43	915	2	2
Total Pulses	**Kharif**	**21.79**	**12.18**	**559**	**35**	**11**
	Rabi	**36.31**	**46.33**	**1276**	**37**	**19**
	Total	**58.10**	**58.51**	**1007**	**36**	**17**
Oilseeds						
Groundnut	Kharif	2.65	4.53	1708	4	8
Sesamum	Kharif	3.40	1.54	452	5	3
Niger seed	Rabi	0.22	0.07	334	2	1
Soyabeen	Kharif	57.62	53.07	921	90	90
Rapseed and Mustard	Rabi	8.21	12.10	1474	91	96
Linseed	Rabi	0.72	0.47	658	8	4
Total Oilseed	**Kharif**	**63.94**	**59.23**	**926**	**87**	**83**
	Rabi	**8.98**	**12.66**	**1410**	**12**	**17**
	Total	**72.92**	**71.18**	**986**		
Commercial Crop						
Sugarcane	Kharif	1.04	57.93	55810	14	77
Cotton	Kharif	6.03	16.71	2771	85	22
Foodgrains	**Kharif**	**61.96**	**107.45**	**1734**	**38**	**31**
	Rabi	**97.20**	**235.22**	**2420**	**61**	**68**
	Total	**159.16**	**342.67**	**2153**		
Source: *– DES, GOI*						

4.1.4 Central Sponsored Scheme/Central Sector Scheme

S.No.	**Central Sponsored Scheme/Central Sector Scheme -12**
1.	Food & Nutrition Security (Erstwhile- NFSM) Programmes Pulses ; Rice; Wheat;Coarse Cereals; Nutri-Cereals; TRFA-Pulses Cotton; Sugarcane
2.	NMEO- Oilseeds
3.	RKVY- Rashtriya Krishi Vikas Yojna
4.	PKVY-Paramparagat Krishi Vikas Yojna
5.	NMAET- Sub-mission of Seed and Planting Material (SMSP)
6.	NMAET- Sub-mission of Agriculture Extension (SMAE)
7.	NMAET-SMFWM - Sub-mission on Farm Water Management
8.	Pradhan Mantri Krishi Sinchai Yojna (PMKSY)
9.	SASA – State Agricultural Statistical Authority.
10.	Prime Minister Crop Insurance Scheme (PMFBY)
11.	Soil Health Card Scheme (Central)
12.	National e-Governance Plan (NeGPA)

4.1.5 Seed Hub & EBSP Centres of Pulses, Oilseeds, Millets in Madhya Pradesh

ALL INDIA (No of centre)	**150**	**35**	**25**	**12**	**18**
Madhya Pradesh	**Seed hub (Pulses)-16**	**Seed hub (Oilseeds)-6 (5+1)**	**Seed hub (Millets)-2**	**EBSP (Pulses)-3**	**EBSP (Millets)-1**
	AICRP (Pulses), RVSKVV,Gwalior	CoA-Khandwa	College of Agriculture, Rewa	JNKVV, Jabalpur	College of Agriculture, Rewa, JNKVV, Jabalpur
	AICRP (Pulses), RAK CoA, Sehore	ZARS-Morena JNKVV- Jabalpur	AICRP, Dindori	RVSKVV,Gwalior	
	AICRP, Indore	RARS-Sagar		ICAR-IIPR-Phanda Bhopal	
	AICRP, Khargone	JNKVV-Jabalpur (ZARS, Chhindwara)			
	KVK, Ujjain	ICAR-IISR Indore			
	KVK, Dewas	KVK Bankhedi **(NGOs)**			
	KVK, Datia				
	KVK, Morena				
	AICRP (Pulses), JNKVV, Jabalpur				
	AICRP (Pulses), ARS, Sagar				
	KVK, Betul				
	KVK, Narsinghpur				
	KVK, Damoh				
	KVK, Harda				
	KVK, Tikamgarh				
	ICAR-IIPR Regional Station, Phanda, Bhopal				

4.1.6 States Varieties of Major & Potential Crops (Within 10 Years 2012 to 2023)

Crops	Release/ Notified Year	Varieties
Cereals		
Paddy	2016	JR 767, Swarna Shreya
	2018	DRR Dhan 50 (IET 25671), Improved Chinnor, Improved Jeera Shankar, JR-81, JRB-1 (IET 23422)
	2019	JR 206 (IET 26079)
Wheat	2016	MPO 1255 (MPO (JW)1255), Pusa Malwi (HD 4728)
	2017	HI 1605 (Pusa Ujala), HI 8759 (PUSA TEJAS), Pusa Wheat HI 8759 (TEJAS), Pusa Tejas (HI 8759)
Sorghum	2016	Raj Vijay Jowar -1862
Maize	2017	GK 3150, Shalimar Pop Corn-1 (KDPC-2)
	2018	LG 34.05 (BL 900)
	2019	Jawahar Maize 218
Little millet	2016	Jawahar Kutki 4 (JK 4)
Pulses		
Chickpea	2013	Raj Vijay Gram 203 (RVG 203) JSC 56
	2014	JG 12
	2015	RVG 202 (JSC 55)
	2016	JG 36 (Jawahar Gram 36), JGK 5
	2018	Phule Vikrant (Phule G 0405)
	2019	IPC 2006-77, Raj Vijay Gram 205 (RVG 205) (RVSSG 32), Raj Vijay Kabuli Gram 111 (RVG 111) (RVSSG 24), Raj Vijay Kabuli Gram 151 (RVG 151) (RVSSG 37), Raj Vijay Gram 204 (RVG 204) (RVSSG 8102)
	2020	Pusa Chickpea 10216 (BGM 10216), Pusa Parvati (BG3062), Phule Vikram, Jawahar Gram 24 (JG 24) (JG 2016-24)
	2021	RG 2015-08 (CG Lochan Chana), Raj Vijay Gram 204 (RVG 204) (RVSSG 8102), Pusa Chickpea 20211 (Pusa Chickpea Manav), PDKV Kanak (AKG-1303), Samriddhi (IPCMB19-3), Kota Kabuli Channa-3 (RKGK 13-414), Raj Vijay Gram 210 (RVG 210), Raj Vijay Kabuli Gram 121 (RVKG 121)
	2023	ADVIKA (NC 7)
Pigeon pea/Tur	2013	PKV, Tara (TAT-9629), ICPH 2671
	2020	Bheema GRG-152
	2023	PDKV Ashlesha (AKTM 1637), Phule Trupti (Phule Tur-10-1), Renuka (BDN 2013-2)
Green gram	2016	IPM 410-3 (Shikha), IPM 205-7 (Virat)
Urd	2019	PDU 1 (Basant Bahar), IPU 11-02
	2020	IPU 13-1, IPU 10-26
	2021	IPU 17-1
	2023	Dristi (IPU 17-2), TJU 339 (Trombay Jawahar Urd 339), TJU 130 (Trombay Jawahar Urd 130)
Lentil	2013	IPL 316
	2014	Raj Vijay Lentil 31 (JL 31)

Crops	Release/ Notified Year	Varieties
	2017	RVL 11-6, L 4717 (Pusa Ageti Masur)
	2018	Kota Masoor 2 (RKL 14-20), L 4727, Kota Masoor-1(RKL 607-1)
	2019	RVL 13-7 (Raj Vijay Lentil 13-7), RVL 13-5 (Raj Vijay Lentil 13-5)
	2020	L 4729, Kota Masoor 3 (RKL 605-03), IPL 53
	2021	RKL 58 F 3715 (Kota Masoor 4)
Pea	2014	IPFD 10-12
	2016	IPFD 11-5
	2017	IPFD 12-2
	2018	Pant Pea 243, IPFD 2014-2
Oilseeds		
Soybean	2015	NRC 86 (Ahilya 6)
	2017	Pant Soybean 23(PS 1523), PRAGYA (RVS-18), Raj Soya -18 (Pragya), RAJ Soya 24 (RVS 2002-04)
	2021	IS 138 (NRC 138)
Linseed	2016	JLS-79
	2018	Jawahar Linseed Sagar-95 (JLS-95) (SLS-95), JLS-66 (SLS 66), Utera Alsi (RLC-143) , Utera Alsi (RLC-143)
Niger	2016	JNS-30
	2017	GNNIG-3, Jawahar Niger Selection 28 (JNS 28)
Sunflower	2014	JS 20-34

4.1.7 NFSM Districts in M.P

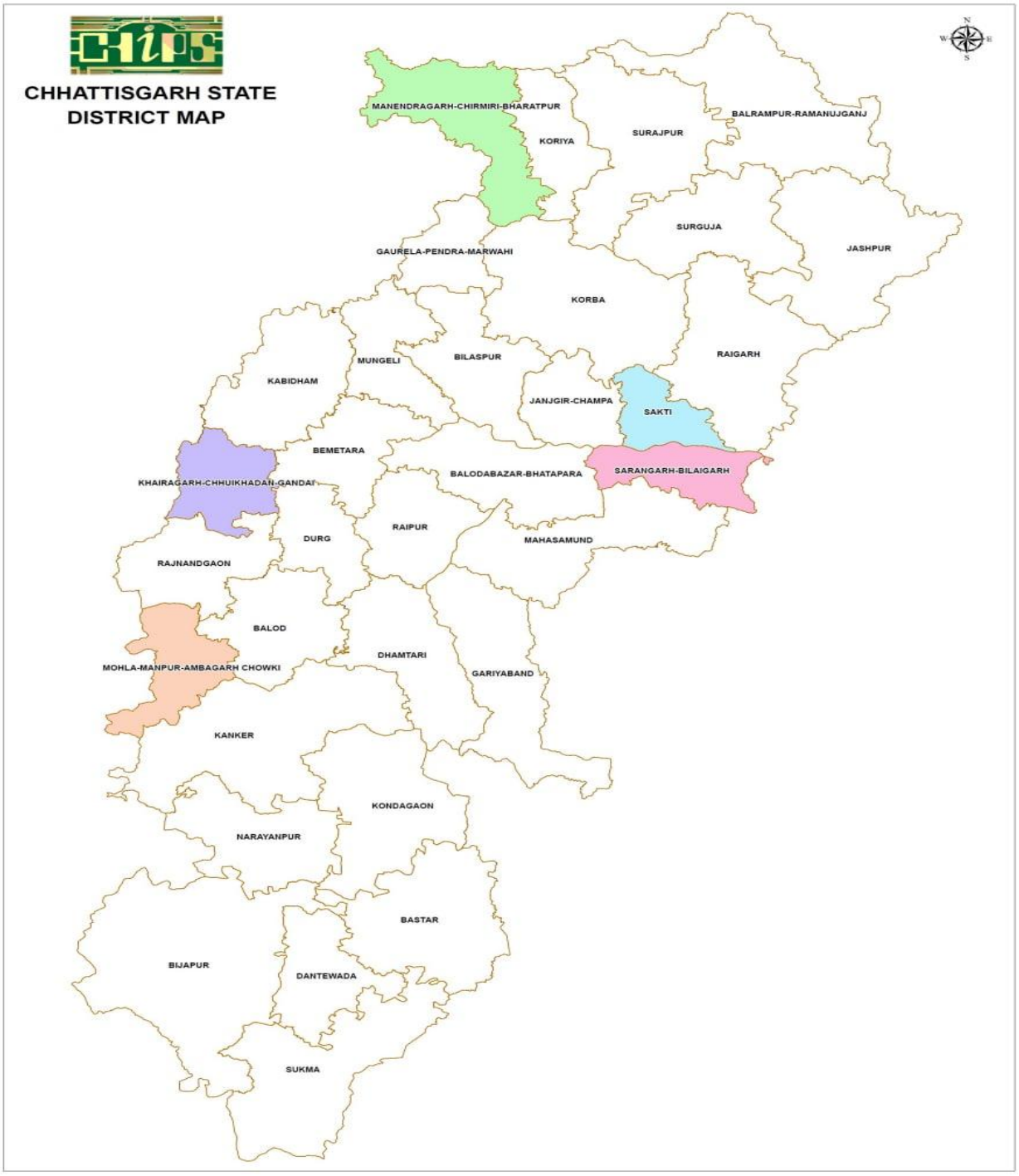
S.No.	Commodities	Madhya Pradesh Districts (Nos.)
i.	NFSM-Wheat (16)	Ashok nagar, Chhatarpur, Guna, Katni, Khandwa, Panna, Raisen, Rajgarh, Rewa, Sagar, Satna, Seoni, Shivpuri, Sidhi, Tikamgarh, Vidisha
ii.	NFSM-Pulse (52)	All the districts
iii.	NFSM-Rice (8)	Anupur, Damoh, Dindori, Katni, Mandla, Panna, Rewa, Sidhi
iv.	**NFSM- Coarse cereals (22)**	
	Maize (15)	Chhindwara, Jhabau, Dhar, Betul, Rajgarh, Khargone, Ratlam, Alirajpur, Seoni, Mandsaur, Burhanpur, Neemuch, Barwani, Singrauli, Dindori
	Barley (8)	Singrauli, Chhatarpur, Tikamgarh, Satna, Rewa, Bhind, Siddhi, Panna
v	**NFSM-Nutri-cereal (24)**	
	Jowar (9)	Alirajpur, Barwani, Betul, Burhanpur, Chhindwara, Dhar, Khargone, Rewa, Sidhi
	Bajra (4)	Bhind, Morena, Sheopurkalan, Shivpuri
	Other millets (15)	Anuppur, Balaghat, Betul, Chhindwara, Damoh, Dindori, Jabalpur, Katni, Mandla, Rewa, Shadol, Seoni, Sidhi, Singrauli, Umaria

S.No.	Commodities	Madhya Pradesh Districts (Nos.)
vi.	**NFSM-Commercial Crops**	
	Cotton (10)	Chhindwara, Dhar, Jabaua, alirajpur, Khargone, Barwani, Khandwa, Burhanpur, Ratlam, Dewas
	Sugarcane (13)	Chhindwara, Mandla, narshinghpur, Dhar, Barwani, Burhanpur, Gwalior, Shivpuri, Datia, Hosangabad, Betul, Jabalpur, Guna
vii	**NFSM-Oilseeds (52)**	All the districts

4.1.8 National Mission on Edible Oils (NMEO) - Oilseeds Districts (52)

Division	Districts	Division	Districts
Bhopal	Bhopal, Sehore, Raisen , Rajgarh, Vidisha.	**Ujjain**	Dewas, Ratlam, Shajapur, Mandsour Nimach, Ujjain, Agar-Malwa.
Jabalpur	Jabalpur, Katani, Narsinghpur, Chhindwara , Seoni, Mandala, Balaghat, Dindori.	**Shahdol**	Shahdol, Umariya, Anuppur.
Indore	Indore, Dhar, Jhabua, Alirajpur , Khargone, Barwani, Khandawa, Burhanpur,	**Chambal**	Shivpur, Morena , Bhind.
Gwalior	Gwalior, Shivpuri, Guna, Ashoknagar, Datia.	**Reewa**	Reewa, Singrauli, Sidhi, Satana.
Sagar	Sagar, Damoh , Panna, Chhattarpur,Tikamgarh, Niwari.	**Narmadapuram/ Hoshangabad**	Hoshangabad, Hard, Betul.

4.2 Chhattisgarh State Profile



4.2.1 Agro-Climatic Zones of Chhattisgarh

4.2.2 Agro Climatic Zone- wise District in Chhattisgarh

(*Area: - Lakh ha)*

Agro Climatic Zone	Districts Included	Total Geog. Area	Net sown area (%)	Soil Type (%)	Irrigation (%)	Cropping Intensity (%)	Rainfall (mm)
C.G. Plains (18 Districts)	Raipur, Balodabajar Bhathpara, Gariyaband, Bilaspur, Gorela Pendra Marwahi, Mungeli, JanjgirChampa, Sakti, Kabirdham, Rajnandgaon, Khairagarh, Manpur Mohala Chowki, Durg, Balod, Bemetara, Dhamtari and Mahasamund are districts included in this plain Zone.	68.49 (50%)	32.95	Entisol -36, Alfisol - 21, Inceptisol-22,Vertisol -8, Alliuvial -3	43	139	1245
Bastar Plateau (7 Districts)	Kanker (North Bastar), Bastar, Kondagaon, Dantewada (South Bastar), Bijapur, Sukma and Narayanpur are districts included in this Zone.	39.06 (29%)	6.40	Entisol - 26, Alfisol - 25, Inceptisol-34, Vertisol -10, Alliuvial - 5	5	122	1468
Northern Hills (9 Districts)	Koriya, Manendragarh – Bharatpur, Sarguja, Surajpur, Balrampur-Ramchandrapur, Jashpur Nagar, Raigarh, Sarangadh and Korba are districts situated in this Zone.	28.47 (21%)	8.35	Entisol - 3, Alfisol - 29, Inceptisol-28,Vertisol - 28,Alliuvial-2	11	135	1510

**** Entisol (Bhata), Alfisol (Matasi), Inceptisol (Dorsa), Vertisol (Kanhar) & Alliuvial (Kachhar)***

4.2.3 Land Use Classification & Basic Details of CG State (2021-22)

Particulars	Chhattisgarh
Population (Crore)	2.56 (Rural – 1.96, Urban -0.60)
Density of Population	189 per sq km
Population Growth (%)	22.61- 2011
Male & Female	1.28 Crore (50.24 %) & 1.27 Crore (49.76 %)
Literacy (Male & Female)	70.28%
Revenue Divisions & Districts (Nos.)	5 & 33
Block/ Janpad Panchayat (Nos.)	146
Village Panchayat (Nos.)	11664
Tehsil (Nos.)	177
Total Village (Nos.)	20619
Krishi Upaj Mandi (Nos.)	73
Annual Rainfall (Ave.)	1255 mm

Land Use Pattern (Area : lakh ha)		**Agricultural land use (Area -lakh ha)**	
Geographical Area	140.45	Net sown area	46.23
Cultivable area	57.12 (41%)	Double Cropped Area	10.90
Forest area	65.69 (47%)	Gross cropped area	57.12
Land under non-agricultural use	7.51 (5%)	Kharif Area	43.48
Permanent pastures	8.95 (6%)	Rabi Area	7.59
Cultivable wasteland	3.61 (3%)	Cropping Intensity	124%
Barren and uncultivable land	2.88 (2%)		
Current fallows	3.01 (2%)		

Operational Land Holding (Area: lakh ha, Number- lakh)

Average Size of Social Groups	**Average Size (ha)**	**Numbers (%)**	**Area (%)**
Marginal (< 1 ha)	0.43	24.34 (61%)	10.40 (21%)
Small (1 to 02 ha)	1.41	8.79 (22%)	12.38 (25%)
Semi Medium (02 to 04 ha)	2.67	4.93 (12%)	13.16 (26%)
Medium (04 to 10 ha)	5.67	1.81 (5%)	10.26 (21%)
Large (10 ha & Above)	16.10	0.23 (1%)	3.72 (7%)
Total	**1.24**	**40.11**	**49.92**

Irrigation (lakh ha)		**Sources of Irrigation (A : lakh ha)**	
Net irrigated area	15.99	Canals	9.74 (45%)
Gross irrigated area	21.41	Tanks	0.27 (1%)
Rainfed area	39%	Open wells	0.16 (1%)
		Bore /Tube-Wells	10.64 (50%)
		Other Sources	0.60 (3%)
		Total Irrigated Area	**21.41**

Major Soils (Area - lakh ha)

Alluvial Soil (Kacchar)	1.38 (2.7%)	Inceptisols (Matasi)	13.54 (26.9%)
Entisols (Bhata)	10.02 (20%)	Vertisols (Kanhar)	11.43 (22.8%)
Alfisols (Dorsa)	13.82 (27 %)	Land Classif. Total	50.19

Major crops	
Kharif	Paddy, Pigeonpea. Soybean, Maize, Mung, Urd, Kulthi
Rabi	Wheat, Gram, Mustard, Safflower, Lathyrus, Field Pea, Lentil, Linseed, Groundnut

Source: http://censusindia.gov.in/2011census/census**,** ENVIS, Centre of CG

4.2.4 Crop Scenario (Normal – Season-wise)

(Area in 000 ha, Production in 000 Tonnes & Yield in kg/ha)

Crop Scenario		(2017-18 to 2021-2022)			Season-wise % Share	
Crop	**Season**	**Area**	**Production**	**Yield**	**Area**	**Production**
Rice	Kharif	37.17	66.83	1798	95	95
Wheat	Rabi	1.27	1.70	1342	99	99
Maize	Kharif	1.25	3.39	2713	3	5
Small millet	Kharif	0.75	0.23	311	2	0.3
Ragi	Kharif	0.05	0.01	257	0.1	0.02
Jowar	Kharif	0.03	0.03	1255	0.1	0.05
Barley	Rabi	0.02	0.01	804	1	1
Total Cereal	**Kharif**	**39.25**	**70.50**	**1796**	**96**	**99**
	Rabi	**1.28**	**1.71**	**1335**	**19**	**32**
	Total	**40.53**	**72.21**	**1782**	**85**	**94**
Tur	Kharif	0.53	0.30	571	30	41
Gram	Rabi	3.31	2.49	754	61	70
Urd	Kharif	0.79	0.27	343	46	37
Lentil	Rabi	0.14	0.05	369	2	1
Moong	Kharif	0.06	0.03	458	4	4
	Rabi	0.05	0.01	305	1	0.4
Other Pulses	**Kharif**	**0.35**	**0.14**	**393**	**20**	**19**
	Rabi	**1.92**	**1.01**	**527**	**35**	**28**
	Total	**2.27**	**1.15**	**506**	**32**	**27**
Total Pulses	**Kharif**	**1.74**	**0.74**	**427**	**4**	**1**
	Rabi	**5.45**	**3.58**	**658**	**81**	**68**
	Total	**7.19**	**4.33**	**602**	**15**	**6**
Food grains	**Kharif**	**40.99**	**71.24**	**1738**	**86**	**93**
	Rabi	**6.73**	**5.29**	**787**	**14**	**7**
	Total	**47.72**	**76.54**	**1604**		
Soyabean	Kharif	0.76	0.55	719	46	51
Niger seed	Rabi	0.46	0.09	196	82	40
R&M	Rabi	0.40	0.18	453	70	79
Groundnut	Kharif	0.24	0.37	1535	15	34
Sesamum	Rabi	0.18	0.07	398	32	31
Linseed	Rabi	0.17	0.05	287	29	21
Oilseed	**Kharif**	**1.64**	**1.08**	**658**	**74**	**82**
	Rabi	**0.56**	**0.23**	**404**	**25**	**17**
	Total	**2.21**	**1.31**	**593**		
Sugarcane		0.32	16.17	50997	89	99

Source: **– DES, GOI**

4.2.5 Central Sponsored Scheme/Central Sector Scheme

S.NO	CENTRAL SPONSORED SCHEME/ CENTRAL SECTOR SCHEME
1.	Food & Nutrition Security (Erstwhile- NFSM) Programmes Pulses; Rice; Coarse Cereals; Nutri-Cereals; TRFA-Pulses & TRFA-Oilseeds
2.	NMEO – Oilseeds & NMEO – Oilpalm Tree Bone Oilseeds (TBOs - Olive & Mahua)
3.	**RKVY**- Rashtriya Krishi Vikas Yojna (RPS & RAFTAAR)
4.	**NMSA**-RAD (Rainfed Area Develop).
5.	**PKVY**-Paramparagat Krishi Vikas Yojna.
6.	**SHC** -Soil Health Card.
7.	**NMAET**- SMSP-Sub-mission of Seed and Planting Material
8.	**NMAET** - SMFWM -Sub-mission on Farm Water Management
9	**PMKSY**- Pradhan Mantri Krishi Sinchai Yojna.
10	**IWSM**- Integrated Watershed Management.
11	**NeGPA**- National E Governance Plan of Agri.
12	**NMOP** - National Mission on Oilseeds and Oil Palm

4.2.6 State- Sponsored Scheme

S.No.	State- Sponsored Scheme
1.	Fasal Exhibition Plan
2.	Kisan Samriddhi Yojana
3.	Krishak Samagra Vikas Yojana
4.	Upgrading vigilance of agricultural workers
5.	Minimum Irrigation Scheme
6.	Shakambari Scheme
7.	Establishment of Agricultural Machinery Service Centre
8.	Organic Farming Mission
9.	Rajiv Gandhi Kisan Nyaya Yojana

Source: SDA Agriculture

4.2.7 Seed Hub & EBSP Centres of Pulses, Oilseeds, Millets in Chhattisgarh

S.NO.	No. of Centre (Pulses)-7	No. of Centre (Oilseeds)-1	No. of Centre (Millets)-1	No. of Centre EBSP (Millets)-1
1.	AICRP (Pulses), IGKV, Raipur	KVK Bemetra (Soybean)	AICRP Small millets ZARS, IGKV, Jagadalpur	AICRP Small millets ZARS, IGKV, Jagadalpur
2.	KVK, Bhatapara, Raipur			
3.	KVK, Ambikapur, Surguja			
4.	KVK, Ranandgaon			
5.	KVK, Kawardha,			
6.	KVK, Kanker			
7.	KVK, Janjgir Champa			

4.2.8 Assigned States Varieties of Major & Potential Crops (Within 10 Years 2012 to 2023)

Crops	Release/ Notified Year	Varieties
Paddy	2016	Bhadshabhog Selection-1, Bidhan Rice bean-3 (KRB-19), Chhattisgarh Madhuraj Dhaan-55, Dubraj Selection -1, Kunaram Sannalu (KNM 118) (IET No.23748) , Tarunbhog Selection-1, Vishnubhog Selection-1
	2017	28P09, BS129G (Arize 6129 Gold), Chhattisgarh Zink Rice-1
	2018	Bio-799, Chhattisgarh Ragi-2
	2019	Chhattisgarh Devbhog , PAC-801, Zinco Rice MS
	2020	PAC 8744 (ADV 1603- IET 25785)
Wheat	2018	Pusa Wheat -8777 (HI 8777)
	2021	Hansa Wheat (CG 1023), Kanishka (CG 1029)
Maize	2015	LAXMI 3636 (LTH-22)
	2018	ADV-756 (ADV 0990296), CP.999
Ragi	2018	Chhattisgarh Ragi-2 (BR36), Chhattisgarh Ragi-3
Kutki	2016	Chhattisgarh Kutki-2
Pulses		
Chickpea	2015	RVG 202 (JSC 55)
	2019	IPC 2006-77
	2020	Jawahar Gram 24(JG 24) (JG 2016-24), CG Channa-2
	2021	RG 2015-08 (CG Lochan Chana), Raj Vijay Gram 204 (RVG 204) (RVSSG 8102)
	2023	Pusa JG 16 (BGM 10221 DTIL)
Pigeon pea/Tur	2013	Tara (TAT-9629)
	2020	Bheema GRG-152, Chhattisgarh Arhar-1 (RPS 2007-10)
	2023	PDKV Ashlesha (AKTM 1637), Phule Trupti (Phule Tur-10-1)
Green gram	**2016**	IPM 205-7 (Virat)
Urd	2015	Indira Urd Pratham(RU 03-14)
	2019	PDU 1 (Basant Bahar)
Lentil	2013	IPL 316
	2017	RVL 11-6, L 4717 (Pusa Ageti Masur)
Lentil	2018	Kota Masoor 2 (RKL 14-20), L 4727, Kota Masoor-1 (RKL 607-1)
	2019	RVL 13-7 (Raj Vijay Lentil 13-7) RVL 13-5 (Raj Vijay Lentil 13-5)
	2020	L 4729 Kota Masoor 3 (RKL 605-03), CG Masoor-1 (RL-3-5)
	2021	RKL 58 F 3715 (Kota Masoor 4)
Pea	2014	IPFD 10-12
	2016	Indira Matar 1 (RFP 2009-1)
	2017	IPFD 12-2
	2018	Pant Pea 243, IPFD 2014-2
Oilseeds		
Soybean	2017	RVS 2002-4, Chhattisgarh Soya-1 (CG SOYA-1)
Linseed	2016	Chhattisgarh Alsi-1 (RLC-133)
	2018	Varsha Alsi (RLC-148)
R&M	2016	Raj Vijay Mustard 1
Sunflower	2017	Kaveri Champ
	2018	DSH-185

Source: www.seednet.gov.in, ***AICRP, ICAR, IIPR, Kanpur,*** **ICAR** ***annual report 2022-23.***

4.2.9 National Food Security Mission (NFSM) Districts in CG (2023-24)

S.No.	Commodities	Chhattisgarh Districts (Nos.)
i.	Paddy (14)	Raipur, Baloda Bazar, Rajnandgaon, Kabirdham, Bilaspur, Mungeli, Korba, Raigarh, Gaurela-Pendra-Marwahi (GPM), Korea, Jashpur, Dantewada, Sukma, Bijapur
ii.	Pulses (28)	Raipur, Janjgir-Champa, Gariyaband, Mungeli, Mahasamund, Raigarh, Dhamtari, Korba, Baloda Bazar, Bilaspur, Bemetara, Gaurela-Pendra-Marwahi (GPM), Balod, Rajnandgaon, Dantewada, Durg, Narayanpur, Kabirdham, Sukma, Kondagaon, Jashpur, Kanker, Korea, Bastar, Surajpur, Bijapur, Surguja, Balrmapur
iii.	Nutri-Cereals (10)	Rajnandgaon, Kabirdham, Balrmapur, Surguja, Koria, Kondagaon, Kanker, Sukma, Jagdalpur, Dantewada
iv.	Coarse Cereals (08)	Gariaband, Balrmapur, Surguja, Koria, Surajpur, Kanker, Jagdalpur, Kondagaon

4.2.10 National Mission on Edible Oils (NMEO) Oilseeds Districts in CG (2023-24)

Division	Oilpals (19)	TBOs (21)		Oilseeds (33)	TRFA Oilseeds (13)
		Mahua oil (16)	Olive (05)		
Raipur	Raipur, Gariyaband, Mahasamund,			Raipur, Baloda-Bajar, Dhamtari, Gariyaband, Mahasamund,	Baloda-Bajar, Gariyaband,
Durg	Durg, Kabirdham,			Balod, Bemetara, Durg, Kabirdham, Khairagarh-Chhuikhadan-Gandai, MohlaManpur,Rajnandgaon,	Rajnandgaon, Bemetara,
Bilaspur	Bilaspur, Gaurella-Pendra-Marwahi, Janjgir-Champa, Korba, Raigarh, Sarangarh-Bilaigarh	Bilaspur, Gaurella-Pendra-Marwahi, Raigarh, Janjgir-Champa	Bilaspur, Gaurella-Pendra-Marwahi	Bilaspur, Gaurella-Pendra-Marwahi Janjgir-Champa Koraba, Mungeli, Raigarh, Sakti, Sarangarh-Bilaigarh	Bilaspur, Gaurella-Pendra-Marwahi Mungeli, Raigarh,
Surgaja	Jashpur, Sarguja,	Balrampur-Ramanuganj, Jashpur, Sarguja , Koria, Surajpur,	Balrampur-Ramanuganj, Jashpur, Sarguja,	Balrampur- Ramanuganj, Jashpur, Koriya, Manendragarh-Chirmiri-Bharatpur, Surajpur,Sarguja,	Balrampur-Ramanuganj, Sarguja,
Bastar	Bastar, Bijapur, Narayanpur, Dantewara, Kondagaon, Kanker,	Jagadalpur, Kondagaon, Kanker, Narayanpur, Bijapur, Dantewara, Sukma,		Bastar, Bijapur, Narayanpur, Sukma, Dantewara, Kondagaon, Kanker,	Jagadalpur, Kondagaon, Kanker,

5. Directorate Budget Allocation & Expenditure during 2022-23

(Rs. in Lakh)

Sl.No.	Object Head	Budget Allocation	Expenditure
1.	Salary	109.36	109.36
2.	Medical	1.80	0.74
3.	Domestic Travel Expenses	5.00	4.39
4.	Office Expenses	15.10	14.97
5.	Swachta	0.90	0.90
	Total :	**132.16**	**130.36**

5.1 Technical Assistants under NFSM Scheme during 2022-23

(Rs. in Lakh)

Sl.No.	Object Head	Budget Allocation	Expenditure
1.	Honorarium Fee & Conveyance Allowances	10.17	10.15
2.	TA/DA	0.73	0.65
	Total :	**10.90**	**10.80**

6. MONITORING, FIELD VISITS & ACTIVITIES OF VARIOUS CROP DEVELOPMENTS PROGRAMMES IN ASSIGNED STATES DURING 2022-23

District - Rewa, State-Mahdya Pradesh

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>CFLD Demo.-Soybean (Var. JS 20-69)
Village Khajuhkala, Block-Rewa, Distt. Rewa</td><td>CFLD Demo.-Arhar (BDN-716) + Urd (Indira Urd-1)
Village Khajuhkala, Block-Rewa (Distt. Rewa)</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Interactions with CFLD & Seed Minikits beneficiaries
Distt. Rewa</td><td>Seed Processing Plant (Bhole Beej Utpadak Samiti,
Village- Umri, Block-Rewa, Distt. Rewa</td></tr>
</table>

District - Satna, State-Mahdya Pradesh

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>CFLD-Soybean (Var. JS 20-58),
Vill.- Devipura, Block-Showal, Distt. Satna</td><td>Visit and Interaction with Kardmeshwar Farmers Producer Company Limited Nagoud</td></tr>
</table>

Photographs with Padma Shri Awardee and Organic Herbal & Medicinal Gardens Grower

With of Padma Shri Awardee Shri Babulal Dahiya
At his museum of germplasm collection centre

Visited Shri. Ramlotan Kushwaha's Medicinal Garden and Interacted with Gardener

DISTRICT - DHAMTARI, STATE-CHHATTISGARH

Summer Seed Minikit Distribution under NFSM Scheme Crop/Var.- Urd/Indra Urd 1

New Insect identified in paddy crop namely-Panicle Mite (Spider) & Red Worm

खेतों में पहुंचा निरीक्षण दल, किसानों ने बताई समस्या

कुरुद के ग्राम मोंगरा में केन्द्रीय दल ने किया निरीक्षण, खेतों में कीट व्याधि की समस्या से हुए रुबरु

नवभारत ब्यूरो । धमतरी।

कृषि विभाग के केन्द्रीय निरीक्षण दल ने कुरुद क्षेत्र का दौरा कर किसानों के फसलों का निरीक्षण करने के साथ ही बुआई एवं सामग्री वितरण के संबंध में चर्चा की। इस दौरान किसानों ने निरीक्षण दल को कीट व्याधि के बढ़ते प्रकोप एवं कृषि लागत बढ़ने की समस्या से केन्द्रीय निरीक्षण दल में शामिल डा.एके शिवडहरे कार्यालय संयुक्त संचालक कृषि, दलहन,विकास निदेशालय भोपाल भारत सरकार ने कुरुद विकासखंड के ग्राम मोंगरा में एनएफएसएम प्रदर्शन का निरीक्षण किया, यहां कुल 100 हेक्टेयर के कलस्टर में प्रदर्शन लिया गया है। केन्द्रीय दल ने किसान भारत साहू, कांशीराम, जिलोचन साहू, कौशल साहू, नंदकुमार, कोमल के खेतों में प्रक्षेत्र का निरीक्षण किया,

साथ ही आदान सामग्री वितरण एवं बुआई किस्म के बारे में चर्चा की। किसानों ने दल को बताया कि पीले 2-3 वर्षों से धान में पेनिकल माईट नामक मकड़ी का प्रकोप बढ़ रहा है, शीघ्रकालीन धान के जड़ों में लाल कीड़ा का प्रकोप भी बढ़ा है। उक्त दोनों कीट व्याधि प्रकोप के चलते कृषि लागत में बढ़ोतरी हुई है और उत्पादन भी प्रभावित हुआ है। केन्द्रीय दल ने खेतों में धान के पौधों में मौजूद कीट का निरीक्षण किया। इस दौरान वहां मौजूद कृषि विभाग के अधिकारियों ने बताया कि कृषि विज्ञान केन्द्र कृषि विश्वविद्यालय को इस संबंध में विभागीय रुप से अवगत कराया गया है, लेकिन वहां से स्पष्ट समाधान कारक रोकथाम व बचाव की अनुशंसा अपेक्षित है। निरीक्षण के दौरान अनुविभागीय कृषि अधिकारी मनोज सागर, वरिष्ठ कृषि विस्तार अधिकारी चापएस तोमर, ग्रामीण कृषि विस्तार अधिकारी डीहू राम पटेल सहित अन्य अधिकारी कर्मचारी व किसान मौजूद थे।

कातलबोड़ के किसानों को उड़द का मिनीकिट वितरित

फसल चक्र से मृदा की उर्वरता बढ़ती है : तारिणी

हरिभूमि न्यूज ▶▶कुरूद

ग्राम कातलबोड़ में राष्ट्रीय सुरक्षा मिशन (दलहन) योजना अंतर्गत उड़द मिनीकिट का वितरण किया गया। मुख्य अतिथि तारिणी नीलम चंद्राकर कृषि सभापति जिला पंचायत धमतरी ने किसानों को अपने हाथों से मिनीकिट का वितरण कर फसल चक्र परिवर्तन अंतर्गत दलहन तिलहन की फसल लगाने के लिए प्रोत्साहित किया एवं जैविक खेती को अपनाने पर जोर दिया।

इस दौरान उन्होंने फसल चक्र के फायदे गिनाते हुए कहा कि लगातार एक फसल उगाने से मिट्टी में ह्रास उत्पन होता है। मिट्टी की उपजता कम होती है। इसे तिलहन दलहन की खेती द्वारा पुनःप्राप्त किया जा सकता है। जैविक खेती एक ऐसी प्रक्रिया है जिसके द्वारा भूमि की उपजाऊ क्षमता में वृद्धि हो जाती है। भूमि लंबे समय तक खेती लायक बनी रहती है। जैविक खेती के उपयोग से रासायनिक खाद पर निर्भरता कम होने से लागत में कमी आती है और विषैली फसल लोगों तक नहीं पहुंचती साथ ही साथ फसलों की उत्पादन में वृद्धि होती है।

इस अवसर पर सुनीता साहू सरपंच, देवराय साहू, कामराय साहू, भागीरथी साहू, नरसिंह ठाकुर, हरप्रसाद साहू, बेनीराम साहू, कवलसिंह साहू, सोहनराम, बसंत, हिरामन, रमेश, देवेंद्र, नरेश, गणेशराम, रूपेन्द्र, गुलशन, संतराम, गणपत, बरातू राम व जिले के कृषि विभाग के अधिकारी उपस्थित थे।

Field visit report in Vill.-Mogra & Katalboad Block-Kurud District-Dhamtari Navbharat & Haribhumi newspaper

DISTRICT - GWALIOR, DATIA, SATNA & REWA STATE- MADHYA PRADESH

Seed Minikit Demo.Soybean Var.JS-2069, Gwalior (MP)

NFSM-CSBD –Pulses, Urd-Var.MU-2, Gwalior (MP)

CFLD- Urd Var.- IPU 13-1 KVK-Datia

CFLD-Pulses Urd Var. Indira Urd-1, Datia

Kisan Mela at KVK under Kisan Bhagidari Prathmikta Hamari Campaign under Aazadi ka Amrit Mahotsav

Interaction with Farmers, District- Rewa

NFSM-NLMT VISIT, STATE- CHHATTISGARH (KHARIF 2022)

Seed Minikit of R&M Distribution Var.- RH 725, Kabirdham (CG)

Seed Minikits-Pulses Distribution (Lentil variety KM-2) Village -Sahaspur Dalli, Block- Rajnandgaon

Monitoring of NFSM-Pulses Godown, Village Bijetala, Block-Rajnandgaon

Farmers Feedback/Review of NFSM-Rice Hybrid Rice Village - Barbaspur , Block - Rajnandgaon

NFSM-Rice: Hybrid Rice Cluster Demonstration Variety JK 90-82, Village Barbaspur , Block- Rajnandgaon

NFSM-Rice Stress Tolerance Rice Cluster Demo. Village –Tekapar, Block - Khairagarh

CHHATTISGARH & MADHYA PRADESH FIELD VISIT & OTHER ACTIVITTIES

Seed Minikit Demo.-R&M (Var.-RH-761)
Chitrangi block/Lalmati, Distt.-Singrauli

Seed Minikit Demo- R&M (Var.-RH-761)
Chitrangi block/Lalmati, Distt.-Singrauli

Crop Cutting Experiemnt Var. DRMR-1165-40 Piplya Mana/ Badod, Distt.-Aagar Malwa

CFLD- Chickpea Var. RVG-202, KVK-Balaghat

Seed Minikit Demo.Sesame Var.-GJT-5, Surguja, CG

Kisan Mela at KVK under Kisan Bhagidari Prathmikta Hamari Campaign under Aazadi ka Amrit Mahotsav

CHHATTISGARH & MADHYA PRADESH FIELD VISIT & OTHER ACTIVITTIES

Special Programme- NMEO-OS , Seed Minikit Demo. of Mustard Block –Pali, Village-Chokra Dand

Special Programme- NMEO-OS, Seed Minikit Demo. of Mustard Block–Pali,Village-Chokra Dand

CFLD- Chickpea Var. RVG-202
Village –Masora, Block Kondagoan

Seed Minikit -Oilseeds (Soybean Var.JS-2069)
Village –Maika, Block Sohagpur, Distt.-Shahdol

Celebration of "POSHAN Pakhwada" in the event of International Year of Millets 2023

DISTRICT GUNA & TIKAMGARH, STATE: MADHYA PRADESH

Seed Minikit Demonstration-Urd (var-Vallbh Urd 1)
Block/Village - Raghogarh/Aawan, Distt.-Guna

Cluster Demo.- Soybean (var. JS 2069)
Block/Village - Guna/Madhopura, Distt.-Guna

Germinated seed of harvested Urd crop due to heavy rain
(Var.-Pratap Urd 1), Block- Aron, Disst.-Guna

Seed Production Programme by NSC
Var.-JS 2094,Bold seeded-4-5 seeds/pod (FS)
Block/Village - Aron/Bhador, Disst.-Guna

Crop–R&M (Special programme on R&M) Minikit
Demo. Field Variety- RH 761, Distt.-Tikamgarh

R&M Minikit (Special programme) (var.- RH 761)
Block-Jatara,Village-Birotha,Distt.-Tikamgarh

CHHATTISGARH & MADHYA PRADESH FIELD VISIT & OTHER ACTIVITTIES

NFSM Seed Minikit (Oilseeds) Mustard (var. Giriraj)
Village Masora, Block & Distt.–Kondagoan,

Seed Minikit of Summer Urd , Var.- Indira Urd 1
Distt.- Dhamtari (CG)

Cluster Demo. of Pulses, Tur Var. Pusa 992,
Distt.- Dhar (MP)

NFSM Seed Minikit (Oilseeds) Soybean (var. JS 2034) Village-
Kadipura, Bblock –Nalcha, Distt.- Dhar (MP)

Seed Minikit Demo. of Sesame Var.-GJT -5, Chhatarpur (MP)

Celebration of "POSHAN Pakhwada" in the event of
International Year of Millets 2023

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