



# Breakout Session - 3: 'Bringing Back Glory of Millets; Moving Towards Atma Nirbharta in Edible Oils'

**Chair**

**Shri Piyush Goyal, Hon'ble Minister**

M/o Commerce & Industry, Consumer Affairs and Food & PD and Textiles

**Moderator**

**Dr. T. Mohapatra, Secretary (DARE) & DG (ICAR)**

**24.02.2022**



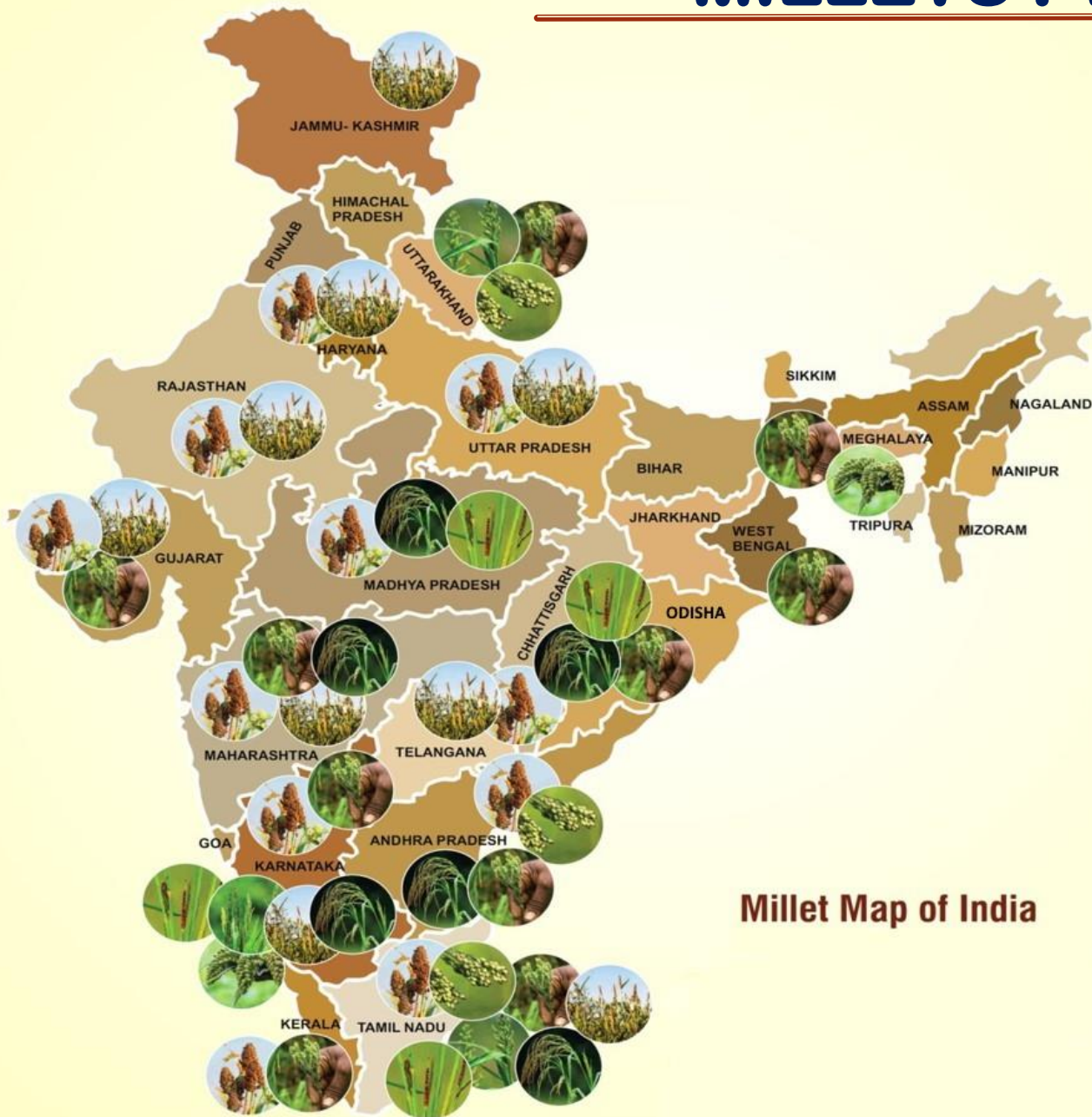
# Budget Announcements

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- Year 2023 has been announced as the International Year of Millets. Support will be provided for Post-harvest Value Addition, enhancing domestic consumption & branding millets products Nationally & Internationally
- To reduce dependence on import of oil, a rationalized & comprehensive scheme to increase domestic production of oilseeds to be implemented



# MILLETS : THE NUTRI-CEREALS



Millet Map of India



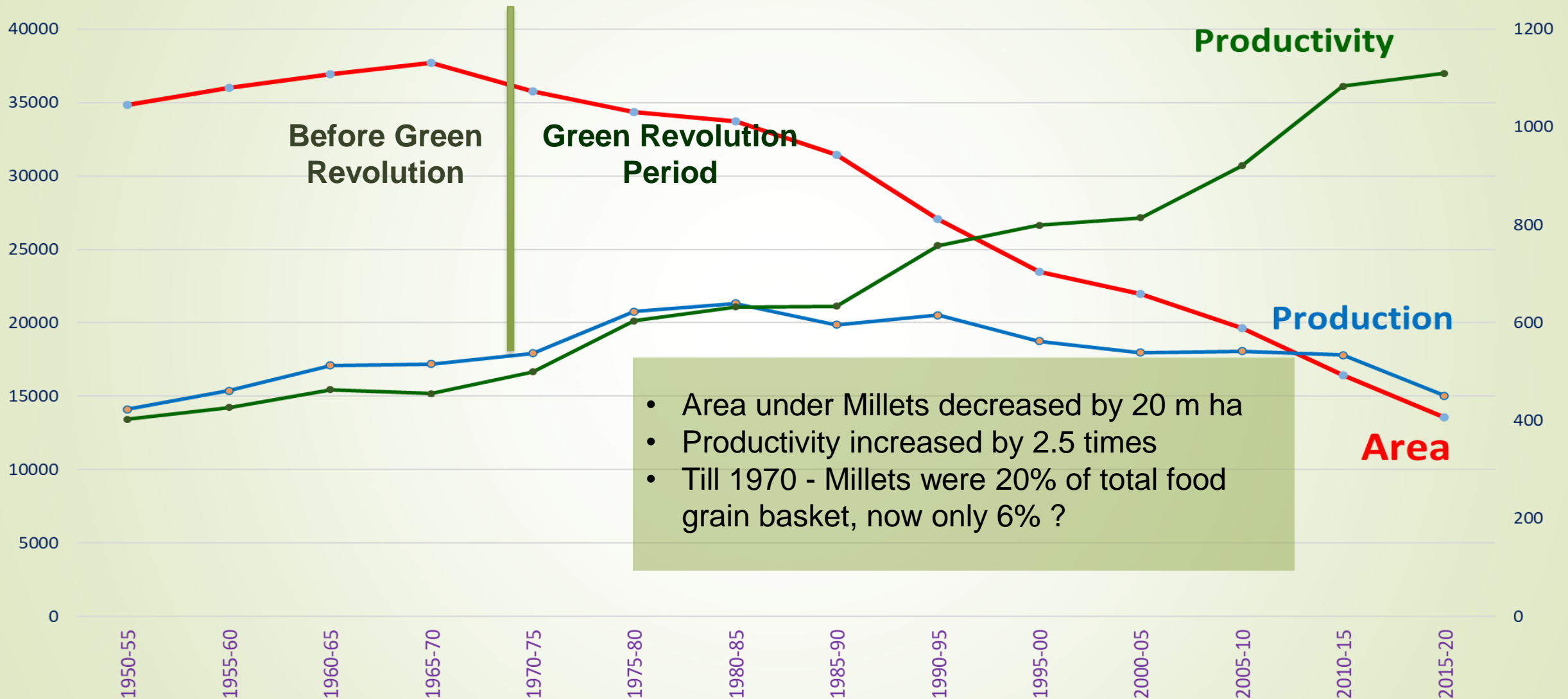
- Earliest evidence found in Indus civilization : 3000 BC.
- Ancient food grains first plants domesticated for food.
- Grown in 131 countries. Millets traditional food for 59 crore people in Asia & Africa.

- Millets are collective group of small seeded annual grasses that are grown as grain crops, primarily on marginal land in dry areas of temperate, sub tropical and tropical regions.

<http://www.fao.org/3/w1808e/w1808e0c.htm>

Top 5 States	Millet Crops
Rajasthan	Bajra/Sorghum
Karnataka	Jowar/Ragi
Maharashtra	Ragi/Jowar
Uttar Pradesh	Bajra
Haryana	Bajra

# INDIA : AREA, PRODUCTION & YIELD OF MILLETS



- Area under Millets decreased by 20 m ha
- Productivity increased by 2.5 times
- Till 1970 - Millets were 20% of total food grain basket, now only 6% ?

# NFSM: Programme and Status of millets:

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**NFSM** includes Sub-Mission on Nutri cereals from 2018-19

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NFSM – Submission Nutri Cereals in 14 states 212 districts

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Hilly and NE State can choose any district. Nutri-cereals programme proposed for all States.

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Production has increased from 164 lakh tons in 2017-18 to 180 lakh tons in 2020-21

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Productivity increased from 1163 kg/ha in 2017-18, to 1322 kg/ha in 2020-21.

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Export of Millets increased from 21.98 million US \$ in 2017 to 24.73 million US \$ in 2020.

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Release of 154 high yielding, disease resistant varieties of 10 Nutri-Cereal crops. This includes 9 bio fortified varieties.

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Increased availability of quality seed of new high yielding varieties and hybrids- 5780 qtls produced in 2020-21.

# Bringing back glory through SEVEN SUTRAS

	<b>Enhancement of Production/ Productivity:</b>	<b>DA&amp;FW &amp; DARE</b>
	<b>Nutrition &amp; Health</b> benefits:	<b>Health/FSSAI</b>
	<b>Value-addition, Processing &amp; Recipe Development:</b>	<b>MOFPI&amp; Tourism</b>
	<b>Entrepreneurship / Startup/Collective Development:</b>	<b>Commerce &amp;DA&amp;FW</b>
	<b>Awareness</b> creation – Branding, Labelling & Promotion:	<b>ALL</b>
	<b>International outreach :</b>	<b>Commerce and MEA</b>
	<b>Policy interventions</b> for mainstreaming:	<b>Dept of Food and PD and DA&amp;FW</b>



# Incentivising Millet cultivation, Farm gate processing, Value chains, Value addition and Market linkages is the key to Growth of Millets



# Road Map for Nutricereals

## (Enhanced Income, Production, Consumption, Nutrition, and Exports)

- Access to quality seeds, enhancing seed and varietal replacement and strengthening community seed systems
- Vertical expansion – Increased productivity through trait led genomics
- All season cultivars, short duration hybrids with erect leaf ideotypes for high density planting and product diversification in Pearl Millet for demand led infusion
- Horizontal Expansion- Non Traditional States
- Health benefit Awareness led Demand generation and area expansion
- Incentivising cultivation
- Better agronomy, Good Agricultural practices and watershed development
- Cooperative, collective and FPO led farming
- Pre- and Post Harvest Mechanisation
- Quality standards for procurements, Value addition and Value chain strengthening
- Farmgate processing linked with food processing industry
- Digital buyer seller markets for domestic and global exports
- Mainstreaming Millets for Nutrition in public funded programs



# ANTICIPATED OUTCOMES TO BE REALIZED

- Quality seeds available to increase productivity
- Increased demand and availability – acceptance in diets
- Diversified cropping systems
- Mainstreaming of Millets as enhanced nutrition
- Improved Processing and value addition techniques , reducing costs and increasing incomes
- Narrowing R&D gaps Value chain in Millets in Africa through South-south cooperation initiatives.
- Enlarged landscape for domestic and export markets
- Upscaled Millet supply chains, and enabled Millets seed, food, feed, fodder and biofuel industry
- Increased participation and linkages of Stakeholders – Research, Academia, Industry, Professional Communities, NGOs, etc.
- Fillip to Startups and entrepreneurship ecosystem
- India to emerge as a Global hub for Millets.

# Steps for International Year of Millets (IYoM), 2023

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Discussion with States, Processors, Chefs/ Nutritionists, Farmers/FPOs in June, 21.

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Position paper on millets prepared and shared with stakeholders.

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Logo and Slogan for IYOM 2023 competition held.

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Focal Institute- Indian Institute of Millet Research (IIMR).

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Knowledge partner- International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

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Stakeholder Convention- Sept, 21 : Draft Blue Print presented.

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6 Task forces constituted in Sept, 21.

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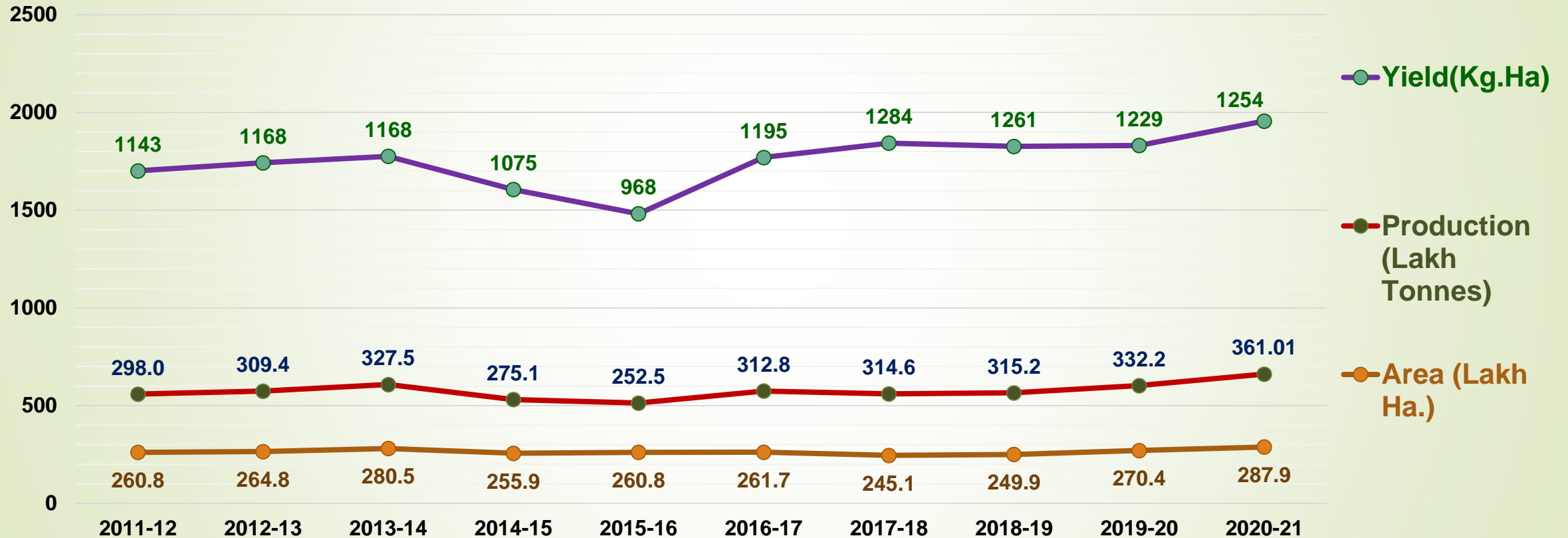
Hon'ble Agriculture Minister letter to all CMs and LGs (Oct, 21).



# Edible Oils

# Oilseeds – APY trend in last ten Years

## Area, Production & Yield of Oilseeds





# Demand, Supply and Import of Edible Oils

(In lakh tonnes)

Year	Demand	Supply	
		Domestic sources	Imports
2016-17	254.16	100.99	153.17
2017-18	249.72	103.80	145.92
2018-19	259.22	103.52	155.70
2019-20	240.71	106.55	134.16
2020-21*	246.16	111.64	134.52

\*as per 4<sup>th</sup> estimate advance  
(Source- Department of Commerce)

# Oilseeds Projection by 2025-26

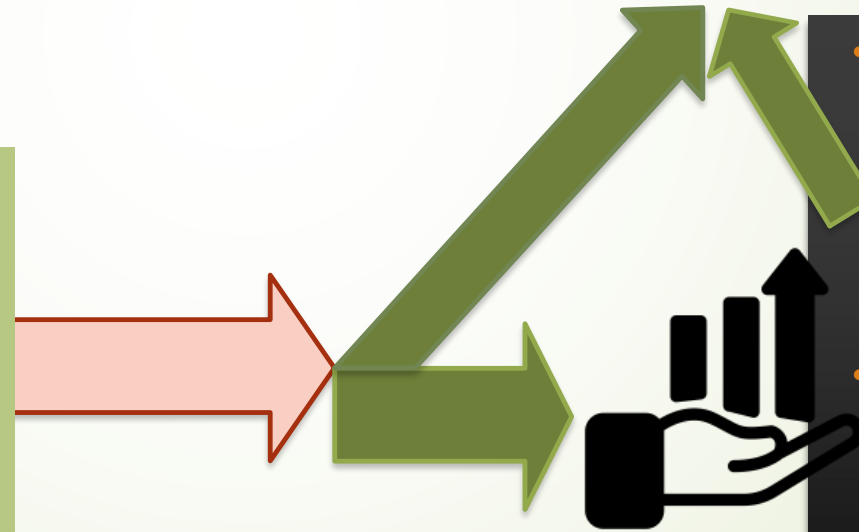
- Area is proposed to be increased by **31%**
- Productivity by **43%**.

## Projection (2025-26)

- Area: 322.8 Lakh Ha
- Yield: 1676 Kg/ Ha
- Production: 541 Lakh MT

## Normal (2016-17 to 2020-21)

- Area: 251.8 lakh Ha
- Yield: 1233 Kg/ Ha
- Production: 310.5 Lakh MT



- **NFSM- Oilseed/ Oilpalm:**  
**Oilseeds:** Supports States, R&D organizations /KVKs/Primary Processors (Seed chain, critical inputs and Transfer of Technology).
- **Oil Palm:** Supports oil palm Potential States, R&D, Industry/ Processors/Seed garden, Gestation support, Machinery Demonstration, Training, Inter cropping etc.



# Objectives

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Increase production of oilseeds by 50% from 361.0 lakh ton in 2020-21 to 541.0 lakh ton in 2025-26.

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Increase domestic Edible Oil production from 125 to 180 lakh tonnes by 2025-26.

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To reduce the import burden on Edible Oils from 60% to 40% by 2025-26.

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Area expansion of Oil Palm under NMEO-OP with a budget of Rs. 11,040 crores.

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Special focus on NE States for Oil Palm cultivation.



# Strategies of Oilseeds & Oil Palm by 2025-26

	Strategies	Interventions
OIL PALM	Area Expansion under Oil Palm additional 6.5 lakh ha.	Quality planting material and production mechanism in the country. Crop management system. Inter cropping during gestation period. Micro Irrigation for all new plantation. Improving adoption of modern harvesting tools and machineries. Assured return of FFBs through Viability Gap payment. Special package to NE states
OILSEEDS	Additional Area Expansion under Oilseeds (around 5 million ha in next 5 years)	Coverage in Rice Fallow Area. Promotion in Non Traditional States. Through inter cropping. Yield increase in Potential Districts.
	Increase of Productivity from 1235Kg/ha. to 1674 Kg/ha.	Increase of SRR from 34% to 47%-Production, Distribution and Promotion of high yielding varieties and varietal replacement. Improved farm machineries for sowing Adoption of Water Management practices, Promotion of micro irrigation, micro nutrients and INM practices.
	Awareness on optimum use of edible oil.	Training of farmers and officers. Awareness campaign

# Strategy for enhancing production of edible Oilseeds

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Development of high yielding varieties/hybrids & cost effective technologies for improving their productivity and production.

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Augmenting availability of quality seeds for the farmers- enhance benchmark of SRR.

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Reducing yield gap in the crops at the farmers fields.

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Minimise post harvest losses.

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# Reducing Yield Gap in Edible Oilseeds

Crop	Existing yield gap (%)	Target for 2025-26 for minimizing yield gap (%) up to
Soybean	50	20
Rapeseed-Mustard	27	15
Groundnut	40	15
Sesame	22	10
Sunflower	160	20
Safflower	81	45
Niger	40	15
Average	60	20

## Interventions:

- With the adoption of available high yielding varieties and matching agronomic and plant protection technologies location specifically, the yield gap be bridged substantially.
- The average yield gap in edible oilseeds is about 60%. We may target to reduce it to 20% in the next five years.
- This may lead to additional production of edible oilseeds to the tune of 13-14 million tons **or additional edible oil production of 3-4 million tons** without bringing any additional area under them.

# Bringing additional area under oilseed crops

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## Observations:

- Presently, 99% cultivation of edible oilseeds is done in their traditional area and only 1% in non-traditional areas. To enhance the production through area expansion, area has to grow both in traditional and non-traditional areas.

## Interventions:

- In non-traditional areas, (North Eastern Hill states, in river beds and along the river embankments) area expansion in rice and potato fallow areas.
- Intercrops and sequential crops with traditional field crops and plantation crops.
- Availability of quality seeds of edible oilseeds be ensured to farmers in both traditional and non-traditional areas through Public Private Partnership
- Development of required processing and marketing infrastructure in non-traditional areas.
- Mechanization of farm operation and contract farming

 **THANK YOU**