GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

LOK SABHA
UNSTARRED QUESTION NO. 2836
TO BE ANSWERED ON 18TH MARCH, 2025

ADOPTION OF HYBRID TECHNOLOGIES IN CULTIVATION OF PULSES AND OILSEEDS

2836. SHRI RAJA RAM SINGH:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि और किसान कल्याण मंत्री be pleased to state:

(a) the details of measures which have been taken by the Government to accelerate the adoption of hybrid technology in the cultivation of pulses and oilseeds to reduce dependency on imports;

(b) whether the Government intends on introducing any schemes to adopt hybrid varieties of pulses and oilseeds, if so, the details thereof;

(c) whether the Government has constituted any committee to assess the suitability of hybrid seeds in specific climatic regions also ensuring economic viability for farmers; and

(d) the details of current hybrid varieties for various crops and productivity of each hybrid variety, State/UT-wise?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
कृषि और किसान कल्याण राज्य मंत्री (SHRI BHAGIRATH CHOUDHARY)

(a) & (b):

- The Government has launched the National Mission on Edible Oils- Oilseeds (NMEO-OS), for enhancing domestic oilseed production and achieving self-reliance (Atmanirbhar Bharat) in edible oils. The Mission has provision of creating 600 Value Chain Clusters across the country, collectively covering more than 10 lakh hectare annually.
- A Consortia Research Platform on Hybrid Technology for higher productivity in selected field crops including oilseeds (Indian Mustard) and Pulses (Pigeonpea) is in operation since 2014-15 to accelerate the development of hybrids.
- For promotion of sunflower hybrids, a scheme “Revival of sunflower cultivation project” is in operation for production and distribution of about 15000 q of certified seeds of 10 hybrids in sunflower growing regions of the country.
- National Food Security Mission, Government of India, supported Front-Line Demonstration on Pigeonpea, sunflower and castor hybrids on farmers’ field.
- A network project on “Enhancing Pigeonpea production and productivity in India using short duration high yielding Pigeonpea varieties and hybrids” is operated.
- In order to address the issue of availability of quality seed to farmers, 34 oilseeds and 150 pulses seed hub centres are established at Indian Council of Agricultural Research (ICAR) institutes and State Agricultural Universities (SAUs).

(c): Yes, All India Coordinated Research Projects on different oilseeds and pulses are the nodal agencies for assessing yield performance and stability of the hybrid technology in specific zone and make final recommendation for its release at the national level. After release and notification, the hybrids/varieties are included into seed chain for seed multiplication. Simultaneously, the Front-Line Demonstrations are also conducted to demonstrate the production potential and estimating benefit cost ratio of the technology in the farmers field for first time under the supervision of the scientists.

(d): The details of current hybrids of different oilseeds and pulse crops are given at **Annexure**.

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Annexure

[Part (d) of Lok Sabha USQ No. 2836 dated 18TH MARCH, 2025]

Details of current hybrids of different pulses & oilseeds

S.No.	Crop	Year	Hybrid	Maturity days	Productivity (q/ha)	Recommended States
1.	**Pigeonpea**	2020	IPH 15-03	153-155	16.0 q/ha	Punjab, Delhi, Haryana and Uttar Pradesh
		2021	IPH 09-5	150-155	18.22 q/ha	North Western Plain Zone (NWPZ)
		2024	Pusa Arhar Hybrid 5	163 – 170	23.24 q/ha	Delhi
2.	**Sunflower**	2020	KBSH- 78	82-85	17-23 q/ha (I) and 10-12 q/ha (R)	Zone 5 of Karnataka
		2021	Tilhan Tech SUNH-1 (IIOSH-15-20)	90–100	20.0 q/ha, oil yield 7.46 q/ha	Uttarakhand, Jammu & Kashmir, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, Telangana.
		2021	PSH 208	97-100	24.2 q/ha, oil yield 10.8 q/ha	Punjab
		2022	KBSH-85	90–100	yield 18.3 q/ha, oil yield 6.62 q/ha	Gujarat, Maharashtra and Northern Karnataka, Andhra Pradesh, Southern Karnataka, Tamil Nadu and Telangana (Karnataka Zone- 4,5,6 and 7)
		2022	BLSFH-15004	95–100	19.6 q/ha, oil yield 7.38 q/ha	Bihar, Haryana, Punjab, Odisha, Chhattisgarh, Maharashtra, Karnataka and Telangana
			Arko Provo (WBSH-2021)	105–110	32.5 q/ha	West Bengal
		2023	RSFH-700	90-95	16-17 q/ha	Karnataka
		2023	Sunflower COH 4 (CSH 15020)	90-95	21.82 q/ha (*Kharif*), *Rabi* 18.98 q/ha	Tamil Nadu
		2024	Tilhan Tec-SUNH-2 IIOSH-460	90-100	15.70 q/ha	Uttarakhand, Jammu & Kashmir, Gujarat, Maharashtra, Northern Karnataka, Andhra Pradesh, Southern Karnataka, Tamil Nadu and Telangana and All India
		2024	KBSH-88	86-88	15.59 q/ha	Uttarakhand, Jammu & Kashmir, Gujarat, Maharashtra, Northern Karnataka, Andhra Pradesh, Southern Karnataka, Tamil Nadu and Telangana
		2024	PDKV Suraj (PDKVSH 964)	89-90	18-22 q/ha	Maharashtra

3.	**Safflower**	2023	ISH-402	121-125	23.25 q/ha,	Telangana, Andhra Pradesh, Maharashtra, Karnataka, Chhattisgarh and Madhya Pradesh
4.	**Sesame**	2020	KBSH- 78	82-85	17-23 q/ha (I) and 10-12 q/ha	Zone 5 of Karnataka
		2021	Tilhan Tech SUNH-1 (IIOSH-15-20)	90-100	20.0 q/ha, oil yield 7.46 q/ha	Uttarakhand, Jammu & Kashmir, Gujarat, Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, Telangana.
		2021	PSH 2080	97-100	24.2 q/ha, oil yield 10.8 q/ha	Punjab
		2022	KBSH-85	90-100	18.3 q/ha, oil yield 6.62 q/ha	Gujarat, Maharashtra and Northern Karnataka, Andhra Pradesh, Southern Karnataka, Tamil Nadu and Telangana (Karnataka Zone- 4,5,6 and 7)
		2022	BLSFH-15004	95-100	19.6 q/ha, oil yield 7.38 q/ha	Bihar, Haryana, Punjab, Odisha, Chhattisgarh, Maharashtra, Karnataka and Telangana
		2022	Arko Provo (WBSH-2021)	105-110	32.5 q/ha	West Bengal
		2023	RSFH-700	90-95	16-17 q/ha,	Karnataka
		2023	Sunflower COH 4 (CSH 15020)	90-95	21.82 q/ha (*Kharif*), *Rabi* 18.98 q/ha	Tamil Nadu
		2024	Tilhan Tec-SUNH-2 IIOSH-460	90-100	15.70 q/ha	Uttarakhand, Jammu & Kashmir, Gujarat, Maharashtra, Northern Karnataka, Andhra Pradesh, Southern Karnataka, Tamil Nadu and Telangana and All India
		2024	KBSH-88	88-90	15.59 q/ha	Uttarakhand, Jammu & Kashmir, Gujarat, Maharashtra, Northern Karnataka, Andhra Pradesh, Southern Karnataka, Tamil Nadu and Telangana
		2024	PDKV Suraj (PDKVSH 964)	89-90	18-22 q/ha	Maharashtra

5.	**Mustard**	2021	SVJH-108	140-145	2.4 t/ha, oil content 41.3%, black and bold seed (6.1 g/1000 seed)	Haryana (irrigated conditions under high and low fertility)
		2021	RCH 1	149-155	26.66 q/ha, oil yield 1040 kg/ha, oil content 39.5%	Jammu, Punjab, Haryana, Delhi and northern Rajasthan.
		2021	PHR 126	145-149	22. 7 q/ha	Punjab
		2024	PA 5210 (5 I J 1110)	130-135	23-30 q/ha	Rajasthan
	Gobhi Sarson	2021	PGSH 1699	168-170	15.81 q/ha, oil yield 642 kg/ha, oil content 41.92%, maturity 168 days, low erucic acid (1.7%) and low glucosinolate (16.87 µmoles/g)	Himachal Pradesh, Jammu and Kashmir and Punjab.
		2021	PGSH 1707	162-165	21.93 q/ha	Punjab
6.	**Castor**	2020	Gujarat Castor Hybrid 10 (GCH 10: Charutar Gold) (SCH 53)	89-112	38.98 q/ha	Gujarat
			RHC-2 (Rajasthan Hybrid Castor-2)	55-60	33.78 q/ha	Rajasthan