

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

RAJYA SABHA
UNSTARRED QUESTION NO-2416
ANSWERED ON- 21/03/2025

**DEVELOPMENT OF HIGH-YIELDING, CLIMATE-RESILIENT AND BIOFORTIFIED
CROPS BY ICAR**

2416. SHRI M. SHANMUGAM:
SHRI VAIKO:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

- (a) whether the Indian Council of Agricultural Research (ICAR) has developed high-yielding, climate-resilient and biofortified varieties of crops, including both field and horticultural crops in the country;
- (b) if so, the details thereof;
- (c) the manner in which these new crop varieties will be made accessible to farmers and the support system to help farmers adopt these new varieties; and
- (d) the details of discount and assistance provided to farmers for adopting these varieties, including quality seeds of cereals, pulses, oilseeds and green manure crops?

ANSWER

THE MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE
(SHRI BHAGIRATH CHOUDHARY)

(a) & (b): During 2014-2024, National Agricultural Research System (NARS) including ICAR Institutes and State/Central Agricultural Universities (CAU/SAU) under the aegis of Indian Council of Agricultural Research (ICAR) has developed 2900 location specific improved field crop varieties/ hybrids including 1380 of cereals, 412 of oilseeds, 437 of pulses, 376 of fibre crops, 178 of forage crops, 88 of sugarcane, and 29 of other crops. Out of these 2900 varieties, 2661 varieties (cereals 1258; oilseeds 368; pulses 410; fibre crops 358; forage crops 157, sugarcane 88 and other crops 22) are tolerant to one or more biotic and/or abiotic stresses. Of these 537 varieties have been developed specially for extreme climate using the precision phenotyping tools. During this period 152 biofortified varieties of rice (14), wheat (53), maize (24), millets (26), oilseeds (21), pulses (9) and grain amaranth (5) have been released. Similarly, in Horticultural crops, during the last ten years (2014-2024), a total of 819 varieties have been released and notified comprising of perennial spices (60), seed spices (49), potato & tropical tuber crops (71), plantation crops (26), fruits crops (123), vegetable crops (429), flowers & other ornamental plants (53) and medicinal and aromatic plants (8); 19 of which are biofortified varieties.

(c): Systematic efforts have been undertaken to produce breeder and quality seeds of these varieties as per the indents received from different agencies. Breeder seed production in sufficient quantity has been planned from Rabi 2024-25 and processing for Kharif 2025 for expediting delivery of seed to the farmers. All breeder seed production/ variety developers centres have been instructed to share the available breeder/stock seed with the seed production agencies like National Seed Corporation Ltd. (NSCL), State Seed Corporations, Public Sector Undertaking, Private Sector, FPOs and other agencies for faster downstream multiplication of foundation and certified seed for making seed of these varieties available to the farmers. The seed production is also undertaken at farmers' fields through Farmers' Participatory Seed Production Programme for faster multiplication.

All possible efforts are made for creating awareness about these varieties among the seed production agencies and farmers through Doordarshan channels, All India Radio, print, electronic and social media. Frontline demonstrations of these improved crop cultivars are regularly conducted throughout the country by ICAR institutions and SAUs. Krishi Vigyan Kendras (KVK) demonstrate these improved crop cultivars to farmers. Seeds of these improved crop cultivars are also provided to the farmers under the Scheduled Caste Sub Plan (SCSP) and North East Himalaya (NEH) region programmes.

(d): The Government of India is implementing Seed Village Programme component of the Sub-Mission on Seed & Planting Material (SMSP) under National Food Security & Nutrition Mission. The objective of this scheme is to make available the seeds of climate resilient, biofortified and high-yielding varieties to the farmers at the village. Under this programme, the financial assistance for distribution of foundation/certified seeds is 50% of seed cost in cereals and 60% in oilseeds, fodder and green manure crops for production of quality seeds for one acre per farmer. National Mission on Edible Oils - Oilseeds (NMEO-OS) has been approved for boosting domestic oilseed production and achieving self-reliance (Atmanirbhar Bharat) in edible oils during 2024-25 to 2030-31. Pattern of assistance under NMEO-OS is enclosed at **Annexure**.

[Part (d) of Rajya Sabha USQ No. 2416 dated 21/03/2025]

Pattern of assistance/ patterns of fund sharing under NMEO-OS

Sl. No.	Component	Pattern of sharing (GOI:State)	Assistance
1	Purchase of breeder seed	100%	100% cost of seed
2	Seed Distribution in Clusters	60:40/90:10	100% cost of seed in value chain clusters
3	CFLD / FLD / Special Demonstrations (TRFA and Intercropping)	100%	Rates for FLD/ CFLD/ Block Demonstration for various oilseeds crops to be declared by the DA&FW periodically
4	State Level Demonstrations	60:40 / 90:10	
5	Seed hubs and Storage units	100%	Seed hubs: - Rs.50 lakhs for infrastructure - Rs.100 lakhs in revolving funds Storage units: - Rs.100 lakhs per Storage unit
6	Farmer Trainings and Farmer Field Schools	60:40 / 90:10	Rs. 30,000 per batch of 30 Farmers 1 FFS per 1000 ha @ Rs. 35,000 per ha
7	Management and Outreach Assistance for VCPs	60:40 / 90:10	@1.5% of Training and Seed distribution cost
8	Post-Harvest Infrastructure Support	60:40 / 90:10	33% of the project cost upto a maximum of `Rs. 9,90,000
9	Flexi Fund	60:40 /90:10	As per the KY guidelines
