

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

LOK SABHA
UNSTARRED QUESTION NO. 3714
TO BE ANSWERED ON 11TH AUGUST, 2026

COMMERCIALISATION OF AGRICULTURAL TECHNOLOGIES

3714. SMT. SANGEETA KUMARI SINGH DEO:

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

- (a) the details of the 72 Memoranda of Understanding signed by ICAR with 51 industry partners during 2025–26 for commercialisation of agricultural technologies, indicating the technology, implementing partner and present status;
- (b) the criteria adopted for selection of industry partners and the mechanism established to monitor technology transfer, licensing, field validation and farmer adoption;
- (c) whether any framework has been developed to assess the socio-economic impact of these commercialised technologies on productivity, farm incomes and employment generation; and
- (d) the details of technologies proposed for commercialisation during 2026–27, particularly those relating to climate resilience, mechanisation, precision agriculture and post-harvest management?

ANSWER

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

- (a): ICAR entered into and showcased 72 Memoranda of Understanding (MoUs) with 51 industry partners for the commercialization of agricultural technologies during the period at ICAR's Foundation Day held on 16th July, 2026 in New Delhi. The present status of these MoUs is active and details of the technologies, industry partners are provided in **Annexure-I**.

(b): ICAR has established a three-tier Intellectual Property (IP) Management System and implemented the Guidelines for Intellectual Property Management and Technology Transfer/Commercialization (Revised, 2018) to facilitate the transfer and commercialization of research-based IPs/ technologies/ know-how. Under this framework, 89 Institute Technology Management Units (ITMUs) have been established across ICAR institutes to facilitate intellectual property protection, technology licensing, and industry partnerships. These are supported by 10 Zonal Technology Management Centres (ZTMCs), which coordinate intellectual property protection and maintenance, technology transfer and commercialization, and provide IP management support to ICAR institutes within their respective zones. At the apex level, the Intellectual Property and Technology Management (IP&TM) Unit at ICAR Headquarters coordinates, monitors, and manages the overall IPR portfolio while providing strategic support to ICAR institutes for intellectual property management and technology transfer/commercialization. This well-established institutional framework significantly strengthen collaboration with industry and other stakeholders, thereby accelerating the commercialization and wider dissemination of ICAR technologies.

The industry partners are given equal opportunity through a transparent process, however, the technical capability, manufacturing infrastructure, regulatory preparedness, financial strength, marketing and distribution network, commercialization plan, and commitment towards technology dissemination are obtained under due diligence process.

The licensing terms are evaluated and finalized by the Technology Commercialization Advisory Committee (TCAC) constituted as per ICAR guidelines. Thereafter, License Agreement is executed with the industry partner, enabling technology transfer for commercial production and marketing.

(c): The socio-economic impact of technologies is assessed through institute-specific research and extension activities, including field demonstrations, front-line demonstrations, farmer feedback, adoption studies, and periodic impact assessment studies undertaken by ICAR institutes, wherever applicable and considered appropriate.

(d): Domain/Institute wise technologies proposed/ready to license are enlisted on the website (<https://www.agrinnovateindia.com/#gsc.tab=0>) of AgriInnovate India Limited (a for profit company under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers' Welfare) and a commercial wing of ICAR.

[Part (a) of Lok Sabha USQ No. 3714 dated 11TH AUGUST, 2026]**The Details of 72 MoUs signed by ICAR with different Industries**

S No	Name of the ICAR Institute	Name of the Innovation	Name of the Licensee
1	ICAR-CIAE, Bhopal	Continuous Feed Banana Fiber Extractor	Jyothee Industries
2	ICAR-CIFT, Cochin	Shrimp Shell Biorefinery	Tangerine Bioscience
3	ICAR-CIRG, Makhdoom	Intra vaginal sponge	Aegipan Animal Biocare Private Limited
4	ICAR-CIRG, Makhdoom	CIRG-Dyl	Bharat Livestock Enterprise & Innovations Pvt. Ltd
5	ICAR-CIRG, Makhdoom	Whey Wonders	Deeva Essential
6	ICAR-CIRG, Makhdoom	Intra vaginal sponge	Nisar Indian
7	ICAR-CISH, Lucknow	Fruit Wash & CISH-Fruit Washing Machine	Meta Agritech Private Limited
8	ICAR-CISH, Lucknow	Autorotatory sticky light trap, ICAR-CISH Multilayered, dual color glue trap	Pimenta Agritech Private Limited
9	ICAR-CISH, Lucknow	Ambika (Mango)	Sheel Biotech Limited
10	ICAR-CISH, Lucknow	Awadh Abhaya	Sheel Biotech Limited
11	ICAR-CISH, Lucknow	Lalit (Guava)	Sheel Biotech Limited
12	ICAR-CITH, Srinagar	Stem Banding for the Management of Woolly Apple Aphid in Apple Orchards	Parashar Agrotech Bio Private Limited
13	ICAR-CITH, Srinagar	Apple hybrid varieties: CITH-Pride & CITH Ammol; Walnut variety: CITH Prolific; and Garlic variety: CITH Jumbo	Shaheen Agro Fresh Private Limited
14	ICAR-CITH, Srinagar	CITH-Ammol (CITH-Ambri-1 × Mollies Delicious): Apple Hybrid	Shaheen Agro Fresh Private Limited
15	ICAR-CITH, Srinagar	CITH-Jumbo (Long Day Garlic Variety)	Shaheen Agro Fresh Private Limited
16	ICAR-CITH, Srinagar	CITH-Pride (Red Delicious × Prima): Apple Hybrid	Shaheen Agro Fresh Private Limited
17	ICAR-CITH, Srinagar	CITH-Prolific (Lateral Bearing Walnut Variety)	Shaheen Agro Fresh Private Limited
18	ICAR-CPRI, Shimla	Aeroponics system Technology	Shashanka Agro Tech Private Limited India

S No	Name of the ICAR Institute	Name of the Innovation	Name of the Licensee
19	ICAR-CRIJAF, Kolkata	Roselle Herbal Brew (Ginger/lemongrass etc. flavour)	Bongveda Wellness Private Limited
20	ICAR-CRIJAF, Kolkata	Bast Fibre Decorticator	Krishi Udyog, Howrah
21	ICAR-CSSRI, Karnal	Halo-Mix	Banaskantha District Co-operative Milk Producers' Union Ltd. (Banas Dairy)
22	ICAR-CSSRI, Karnal	Consortia Microbial Formulations for Salt Affected Soils: Halo-MIX	Trishika Organic Biofertilizers Private Limited
23	ICAR-CTCRI, Trivandrum	ICAR-CTCRI Jamuni – An Elite Line of Purple Taro	Spudnik Farms Private Limited
24	ICAR-DFR, Pune	DFR PHOOL SHAKTI (ROSE) – (A vase life enhancer formula for Rose)	Kudumbashree, State Poverty Eradication Mission
25	ICAR-DFR, Pune	DFR ROSE TEA (The process of making Rose Floral Infusion with the identified rose variety)	Kudumbashree, State Poverty Eradication Mission
26	ICAR-DFR, Pune	DFR-CLEAN AIR CONCEPT	Kudumbashree, State Poverty Eradication Mission
27	ICAR-DFR, Pune	SAHYADRI VAMAN (A unique dwarf tuberose variety)	Kudumbashree, State Poverty Eradication Mission
28	ICAR-IARI, New Delhi	Rice Variety: PB 1509	Abhimanyu seeds Private Limited
29	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Abhimanyu seeds Private Limited
30	ICAR-IARI, New Delhi	Pusa Arhar 16	Ananya seeds Private Limited
31	ICAR-IARI, New Delhi	PMD 10	Bhavish Agrovet LLP
32	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Kurukshetra Agritech Private Limited
33	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Omkar seeds
34	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Onkar Seeds
35	ICAR-IARI, New Delhi	PUSA STFR Meter	Plantris Ventures (OPC) Private Limited
36	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Punjab Seed Co.
37	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Quality Hybrid Seeds Co.
38	ICAR-IARI, New Delhi	Rice Variety: PB 1692	SAI SEEDS
39	ICAR-IARI, New Delhi	Carrot c.v Pusa Rudhira	Satman Agri Shine Seeds
40	ICAR-IARI, New Delhi	Rice Variety: PB 1692	Shankar Seeds

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41	ICAR-IARI, New Delhi	Pusa Arhar 16	Sowverest Agritech Solution LLP
42	ICAR-IARI, New Delhi	PUSA STFR Meter	Systronics India Limited
43	ICAR-IGFRI, Jhansi	Berseem Variety: Bundel Berseem-7 (JHB 18-1)	Rasi Seeds (P), Limited
44	ICAR-IGFRI, Jhansi	Oat Variety: Bundel Jai 2004 (JHO 2000-4)	Rasi Seeds (P), Limited
45	ICAR-IIHR, Bengaluru	Trichoderma Harzianum-1% W. P.	K Gen Lifetech
46	ICAR-IIMR, Ludhiana	DMRH 1308 (Maize Hybrid)	Chakra Seeds
47	ICAR-IIMR, Ludhiana	IMH 224 (Maize Hybrid)	Chakra Seeds
48	ICAR-IIMR, Ludhiana	IMH 227 (Maize Hybrid)	Chakra Seeds
49	ICAR-IIMR, Ludhiana	IMH 228 (Maize Hybrid)	Chakra Seeds
50	ICAR-IIMR, Ludhiana	IMH 229 (Maize Hybrid)	Chakra Seeds
51	ICAR-IIMR, Ludhiana	DMRH 1308 (Maize Hybrid)	Yashasvi Agrotech & Renewable Energy Private Limited
52	ICAR-IIOPR, Pedavegi	Motorized backpack machine for ablation and harvesting operations in Oil Palm	MNR Sasyaveda
53	ICAR-IIRR, Hyderabad	DRRH-2	Sri Gangotri Industries and Crop Science Private Limited
54	ICAR-IIVR, Izatnagar	ICAR-IIVR Kashi Garima, Kashi Ratna, Kashi Abhiman	SRGP Agritech Private Limited
55	ICAR-IIVR, Varanasi	Water Spinach - Kashi Manu	Ananya Seeds Private Limited
56	ICAR-IIVR, Varanasi	Pea - Kashi Ageti	Ashoka Agritech Private Limited,
57	ICAR-IIVR, Varanasi	Okra - Kashi Sahishnu	DCM Shriram Ltd. (Shriram Fertilisers & Chemicals)
58	ICAR-IIVR, Varanasi	Spinach Beet Variety (Kashi Baramasi)	DCM Shriram Ltd. (Shriram Fertilisers & Chemicals)
59	ICAR-IIVR, Varanasi	Cowpea Variety - Kashi Nidhi	DCM Shriram Ltd. (Shriram Fertilisers & Chemicals)
60	ICAR-IIVR, Varanasi	Pea - Kashi Ageti	DCM Shriram Ltd. (Shriram Fertilisers & Chemicals)
61	ICAR-IIVR, Varanasi	Radish - Kashi Aadra	DCM Shriram Ltd. (Shriram Fertilisers & Chemicals)
62	ICAR-IIVR, Varanasi	Okra Variety - Kashi Utkarsh	Fateh Seeds
63	ICAR-NAU, Navsari	Liquid Organic Formulation using Banana Pseudostem	Modern Agriculture and Herbs Business Farm
64	ICAR-NBAIR, Bengaluru	White grub (NBAlIH38 strain)	Baroda Agro Chemicals Limited

S No	Name of the ICAR Institute	Name of the Innovation	Name of the Licensee
65	ICAR-NDRI, Karnal	8 Milk Adulteration Detection Kits	Mizala Biovet India (OPC) Private Limited
66	ICAR-NIANP, Bengluru	Fertimin Plus - A supplement for assured fertility in cows	Nandi Agro Vet
67	ICAR-NIANP, Bengluru	Milk Replacer for Lambs & Kids	Nandi Agro Vet
68	ICAR-NIANP, Bengluru	Harit Dhara	Ojas Animal Feeds Private Limited
69	ICAR-NINFET, Kolkata	Artificial Leathers (Vegan Leathers)	Farm Do
70	ICAR-NRC on Mithun, Nagaland	Preg DM- Urine Based Pregnancy diagnosis kit for Mithun	Peptomer Therapeutics Private Limited
71	ICAR-SBI, Coimbtore	Novel Crystal toxin gene against Bollgard 2 resistant Pink Bollworm (PBW)	Rasi Seeds (P), Limited
72	ICAR-VPKAS, Almora	VL Maize Sheller	Parashar Agrotech Bio Private Limited
