

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

**LOK SABHA**  
**UNSTARRED QUESTION NO. 1219**  
TO BE ANSWERED ON 09/02/2021

**TECHNOLOGIES FOR AGRICULTURAL ADVANCEMENT**

1219. SHRI BHOLANATH (B.P. SAROJ):

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

- (a) the details of new technologies which are being developed for agricultural advancement and doubling the income of farmers during the last three years, particularly during COVID-19 period;
- (b) the targets set/achieved so far; and
- (c) whether the Government has any plans/schemes to support the farming community and if so, the details thereof?

**A N S W E R**

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE  
कृषि और किसान कल्याण मंत्री **(SHRI NARENDRA SINGH TOMAR)**

(a) Yes, Sir. The Indian Council of Agricultural Research (ICAR) is engaged in developing high-yielding, disease/pest resistant varieties and technologies in crops, horticulture, animal and fisheries science which have enabled food and nutritional security in the country. During the last three years, a total 838 high yielding and trait specific field crop varieties have been developed by ICAR of which 578 are climate resilient, 41 short duration and 47 biofortified varieties. During last three years, 3.53 lakh q breeder seed of 1330 varieties of 61 field crops has been produced as per the indents received from DAC&FW and supplied to the seed producing agencies.

Integrated Farming System (IFS) models (63 till date) developed by ICAR have the potential to enhance the income of farmers. During the last 3 years 18 IFS models, 14 bankable projects on IFS and organic farming packages for 22 cropping systems were developed. During the last 3 years, a total 77 machines and processing equipment were developed to promote mechanisation of small farms & reduce postharvest losses. Total 101 technologies for processing and on farm value addition were also developed. In fisheries, ICAR developed breeding and seed production technologies of 9 food fishes and 12 ornamental fishes, demonstrated cage culture in reservoirs and open sea, developed several

cost-effective feeds for fish and shell fish, developed and demonstrated culture technology of pacific white shrimp, farming in inland saline regions of north India and developed and commercialized several nutraceuticals from seaweeds and other aquatic organisms for human health. For health management and increase in productivity of animals of livestock & poultry, ICAR developed vaccines against avian influenza virus, sheep pox, Infectious bursal disease in poultry, Classical Swine Fever and heat tolerant FMD vaccine of livestock.

(b) The R&D efforts undertaken by ICAR are farmer centric. With the purpose of providing technology support to the farmers and the providing technology backstopping of various farmer centric schemes of the Government ICAR sets targets. During 2020 alone, 345 varieties of different crops were developed. The details regarding the targets set by ICAR during the last 3 years with respect to the key thrust areas and the achievements are given in table below.

Particulars/Thrust Areas	Achievements during the last 3 years	
	Targets	Achievements
No. of Varieties of different field crops	730	838
Breeders seed of crops produced & distributed (lakh q.)	2.67	3.53
No. of Varieties of horticultural crops	140	174
Breeders/Truthfully labeled seed of horticultural crops produced & distributed (thousand q.)	57.7	102.3
Technologies on Soil & Water conservation	88	81
Technologies on Sustainable Cropping and Farming System Research Climate Resilient Agriculture and dryland farming	73	67
Farm implements/machine for production agriculture	38	42
Machines/equipment/pilot plant for processing of agricultural produce	32	35
Number of products and processes developed	93	101
Fish Production from project reservoirs (kg/ha/yr)	430	690
Production from project wetlands (kg/ha/yr.)	1800	1849
On Farm Trials (OFT) (in lakh)	1.06	1.11
Field Level Demonstrations (FLD) (in lakh)	5.64	7.02
Training of farmers (in lakh)	42.47	43.39
Training of Extension Personnel (in lakh)	4.05	3.51
Seed production (in lakh quintal)	5.45	5.37
Production & distribution of Planting material (in lakh)	1056.52	1173.03
Production & distribution of livestock strains and fingerlings (in lakh)	315.09	605.15
Testing of soil samples (in lakh)	18.92	21.86
Mobile based agro-advisories to farmers (in lakh)	1518.62	2289.74
Participation of farmers in extension activities (in lakh)	450.71	470.83

(c) The Government has undertaken several focused developmental programmes, schemes, reforms and policies towards enhancing the income of farmers. These include; Income support to farmers through PM KISAN, Pradhan Mantri Fasal Beema Yojana, Soil health card scheme, promotion of FPOs, A national Bee & Honey Bee Mission, interest subvention facilities to animal husbandry and fisheries, Pradhan Mantri Krishi Sinchayi Yojana, Micro Irrigation Fund, Agricultural Mechanisation, Setting up of e-NAM extension Platforms, introduction of Kisan Rail, & creation of Start-up Eco-system in agriculture and allied sector. All these policies and programmes are being supported by higher budgetary allocations, non-budgetary financial resources through creation of corpus funds, and supplementary income transfers under PM-Kisan. The most recent major intervention includes the “Atma Nirbhar Bharat- Agriculture package” which includes comprehensive market reforms and creation of Agriculture Infrastructure Fund worth Rs. 1.0 lakh crores.

For providing technology support to the farming community and other stakeholders, ICAR has created the countrywide network of 722 Krishi Vigyan Kendras (KVKs). Besides the Institutes are also supporting the farming community through schemes viz., Tribal Sub Plan, North Eastern Hill Specific Scheme, Mera Gaon Mera Gaurav (MGMG). Through these interventions, critical inputs besides training and capacity building activities are undertaken. Apart from these schemes, various other extension programmes/ activities at the institute level are organised for capacity building and entrepreneurship generation of the farming community throughout the year. The Council has also established 50 Agri Business Incubators at various ICAR Research Institutes to promote entrepreneurship in agriculture among farmers & budding entrepreneurs.

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