

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

RAJYA SABHA
UNSTARRED QUESTION NO. 1927
ANSWERED ON- 17/03/2023

CONTRIBUTION OF RESEARCH INSTITUTES UNDER DARE

1927 **SMT. SANGEETA YADAV:**

Will the Minister of *Agriculture and Farmers Welfare* be pleased to state:

- (a) whether it is a fact that Department of Agriculture Research and Education (DARE) contributes significantly to the India's research performance, if so, the details thereof;
- (b) major research findings in the field of agricultural research by institutes under DARE in last five years;
- (c) number of peer reviewed journal articles published in international journals by the faculty members and research scholars of institutes under DARE in past five years along with brief details;
- (d) the number of women scientists in these research institutions, institute-wise; and
- (e) whether allocated budget has been sufficient to carry out research activities?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE
(SHRI NARENDRA SINGH TOMAR)

(a) and (b): Yes sir, the institutes under the Department of Agricultural Research and Education/Indian Council of Agricultural Research (ICAR) contributes significantly to research performance by developing crop varieties, production and protection technologies and their dissemination. The major research activities/ achievements during 2017-18 to 2021-22 are as under:

(i) Crop Science institutes have developed a total of 1640 field crop varieties. The breeder seed production was 118665.8 quintals in year 2017-18, 117771.6 quintals in year 2018-19, 116573.3 quintals in year 2019-20, 115516.7 quintals in year 2020-21 and 101617.5 quintals in year 2021-22.

(ii) Horticulture institutes have characterized 2533 germplasm for different traits, developed 1128 pre-breeding lines, produced Breeders/Truthfully Labelled seeds of vegetables and spices and tropical tuber crops and mushroom spawn in a quantity of 925.76 quintals and 14145.60 MT respectively, during 2018-22

(iii) Natural Resource Management institutes have developed 53 multi-enterprises integrated farming system, 88 biocontrol agents, 31 bio pesticides, 41 bio fertilizers, 31 fertilizer prescription equations with ready rockoner, a seed treatment machine for coating of seeds with different micro-organism and identified 104 crop varieties suitable for organic farming, and standardized drip irrigation and fertigation schedules for 34 crops and cropping systems were developed. Sixty-eight climate resilient technologies were demonstrated in 446 villages on 13967 farmer's field.

(iv) Animal Science Institutes have First de novo genome assembly (3Gb) of Indian Mithun (*Bos frontalis*), with coverage of 91.5% and annotation of 28,044 protein-coding genes has been done. Yak Insurance Policy has been approved by National Insurance Company Ltd with the help of ICAR-National Research Centre on Yak (NRCY).

(v) Fisheries Research Institutes have developed 23 Fish Feeds, 26 value added commercial products from the fish and fish waste. In addition, developed 6 craft and gears including multipurpose deep-sea fishing vessel “Sagar Harita” that has helped in commercial fishing in deeper waters in Gujarat, Tamil Nadu, Kerala, Andhra Pradesh and Odisha. Agricultural engineering institutes have developed 258 improved farm implements, 47 process protocols of agro-produces and 40 value added products, fabricated 6620 units of different research prototypes for supply, and evaluated 46097 Breeders’/ Commercial Cotton samples.

(vi) Agricultural Engineering institutes have developed 258 improved farm implements, 47 process protocols of agro-produces and 40 value added products, fabricated 6620 units of different research prototypes for supply

(vii) Agricultural institutes have produced 37801.5 lakh tons’ quintal seeds, 1204.51 lakh planting material and 872.17 lakh fingerlings and conducted 274736 front-line demonstrations during 2018-23. Established 19 new KVKs. Organized 113617 various types of training programmes benefiting 32.58 lakh farmers including farm women and rural youth to upgrade the knowledge and skill.

(viii) National Agriculture Innovation Fund (NAIF) has granted 91 patents, filed 78 patents and published 107 patent applications. 09 Design applications, 29 trademark applications and 39 were filed plant varieties were filed at Protection of Plant Varieties and Farmers’ Rights.

(c): Number of peer reviewed articles on different aspects published in international journals during past five years are as under:-

2018 =	4702
2019 =	4755
2020 =	5376
2021 =	6817
2022 =	7472

These articles cover the research, development technologies and dissemination related Crops Science, Animal Science, Fisheries Science, Horticulture Sciences, Agricultural Engineering, Natural Resource Management, Agricultural Extension and Agricultural Education.

(d): There are 1133 women scientists in the institutes of ICAR. The Institute-wise list is attached in **Annexure-I**.

(e): Government allocates necessary budgets to DARE/ICAR to carry out research activities in agricultural and allied sectors as per the national priorities. The Budget Estimate (BE) of DARE for the year 2023-24 is Rs 9504 crores as compared to the BE as Rs 8658.89 crores for the year 2022-23 reflecting an increase of 9.76%.

[To the part (d) of Rajya Sabha USQ No. 1927 to be answered on 17/03/2023]

S. No	Name of Institute	No. of Women Scientists
1	CAFRI, Jhansi	3
2	CARI, Bareilly	2
3	CAZRI, Jodhpur	17
4	CCARI, Goa	3
5	CCRI, Nagpur	2
6	CIAE, Bhopal	12
7	CIAH, Bikaner	2
8	CIARI, Port Blair	7
9	CIBA, Chennai	17
10	CICR, Nagpur	15
11	CIFA, Bhubaneswar	9
12	CIFE, Mumbai	28
13	CIFRI, Barrackpore	27
14	CIFT, Kochi	31
15	CIPHET, Ludhiana	11
16	CIRB, Hisar	3
17	CIRC, Meerut	1
18	CIRCOT, Mumbai	7
19	CIRG, Mathura	4
20	CISH, Lucknow	4
21	CITH, Srinagar	1
22	CIWA, Bhubaneswar	11
23	CMFRI, Kochi	53
24	CPCRI, Kasargod	30
25	CPRI, Shimla	13
26	CRIDA, Hyderabad	19
27	CRIJAF, Barrackpore	7
28	CSSRI, Karnal	8
29	CSWRI, Avikanagar	3
30	CTCRI, Thiruvananthapuram	16
31	CTRI, Rajahmundry	10
32	DCFR, Bhimtal	6
33	DCR, Dakshin Kannada	5
34	DFR, Pune	2
35	DGR, Junagadh	2
36	DMAPR, Anand	0
37	DMR, Solan	2
38	DOGR, Pune	5
39	DPR, Hyderabad	4
40	DRMR, Bharatpur	3
41	DWSR, Jabalpur	3
42	IARI, New Delhi	140

43	IARI, Assam	2
44	IARI, Jharkhand	6
45	IASRI, New Delhi	18
46	ATARI, Ludhiana	2
47	ATARI, Jodhpur	0
48	ATARI, Kanpur	1
49	ATARI, Patna	0
50	ATARI, Jabalpur	0
51	ATARI, Kolkata	0
52	ATARI, Guwahati	1
53	ATARI, Barapani	2
54	ATARI, Pune	0
55	ATARI, Hyderabad	2
56	ATARI, Bengaluru	0
57	ICAR-NEH Region, Umiam	40
58	ICAR-Eastern Region, Patna	14
59	IGFRI, Jhansi	11
60	IIAB, Ranchi	0
61	IIFSR, Modipuram	2
62	IIHR, Bengaluru	47
63	IIMR, Hyderabad	13
64	IIMR, Ludhiana	6
65	IIOPR, Pedavegi	6
66	IIOR, Hyderabad	16
67	IIPR, Kanpur	13
68	IIRR, Hyderabad	23
69	IISR, Indore	4
70	IISR, Kozhikode	15
71	IISS, Bhopal	12
72	IISS, Mau	7
73	IISR, Lucknow	7
74	IISWC, Dehradun	12
75	IIVR, Varanasi	5
76	IIWBR, Karnal	10
77	IIBM, Bhubaneswar	4
78	IVRI, Izzatnagar	26
79	MGIFRI, Motihari	1
80	NAARM, Hyderabad	2
81	NBAGR, Karnal	5
82	NBAIM, Mau	2
83	NBAIR, Bengaluru	10
84	NBFGR, Lucknow	9
85	NBPGR, New Delhi	41
86	NBSSLUP, Nagpur	13
87	NCIPM, New Delhi	4
88	NDRI, Karnal	33
89	NIFMD, Bhubaneswar	3

90	NISA, Ranchi	3
91	NIANP, Bengaluru	4
92	NIAP, New Delhi	6
93	NIASM, Baramati	2
94	NIBSM, Raipur	3
95	NIHSAD, Bhopal	2
96	NINFET, Kolkata	2
97	NIPB, New Delhi	15
98	NIVEDI, Bengaluru	3
99	NMRI, Hyderabad	4
100	NRC on Banana, Tiruchirappalli	5
101	NRC Camel, Bikaner	2
102	NRC Equines, Hisar	5
103	NRC Grapes, Pune	4
104	NRC Litchi, Muzaffarpur	0
105	NRC Mithun, Nagaland	1
106	NRC Orchids, Pakyong	0
107	NRC on Pig, Guwahati	3
108	NRC on Pomegranate, Solapur	5
109	NRCSS, Ajmer	2
110	NRC Yak, Kameng	3
111	NRRI, Cuttack	20
112	SBI, Coimbatore	27
113	VPKAS, Almora	3
114	ICAR Headquarters.	11
Total		1133