

Improving seeds varieties of crops

1832. SHRI GARIKAPATI MOHAN RAO: Will the Minister of AGRICULTURE be pleased to state:

- (a) whether Government/ICAR has taken any steps for improving seed varieties of various crops including pulses, cereals and oilseeds;
- (b) if so, the details thereof; and
- (c) the financial allocations made during each of the last three years for the purpose?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. SANJEEV KUMAR BALYAN): (a) Yes, Sir.

(b) Indian Council of Agricultural Research (ICAR) has undertaken basic and strategic research programmes for improving seed varieties of various crops at 26 commodity/theme based research institutes in the country and has developed a base for applied research in different crops by 22 All India Coordinated Research Projects (AICRPs) and 11 All India Network Projects (AINPs) mostly situated in State Agricultural Universities (SAUs) to develop location specific improved seed varieties and technologies as per the agro-ecological needs.

The efforts of ICAR have resulted in the release of 295 high yielding improved seed varieties/hybrids of various crops including pulses, cereals and oilseeds during the last three years are given in statement (*See* below). Early maturing and thermo tolerant crop varieties with higher nutrient and water use efficiency for newer niches and cropping systems have also been developed and released for cultivation.

(c) The allocation of Plan funds for the purpose during the last three years *viz.*, 2011-12, 2012-13 and 2013-14 are ₹ 392.77 crores, ₹ 410.00 crores and ₹ 375.00 crores, respectively.

Statement

Crop-wise list of improved varieties/hybrids released during the last three years (2011-2013)

Crops	Varieties/hybrids released
Cereals (176)	
1. Rice (66)	SJR-5; Indam 200-017; NDR 2065; Chandrama; IGRKVR-1244; Indira Barani Dhan-1, Punjab basmati-2, Mugad Siri-1253, CR Dhan 500, TRY 3, ADT 49, ADT 50, Gujarat Anand Rice-2, NK 5251, JGL 3844, JGL 3828, US 382, Arize Tej, PNPB 24, NPB 924-1, GNR-2, RH-1531, NDGR201, JKRH 3333, CO 4, Narendra Sugandha Dhan, Narendra Usar Dhan 2009, Luna Barial, Improved Lalat, Luna Sankhi, Improved Tapaswini, Poorna Bhog, Sumit, Jala Mani, Jayanti Dhan, Satyabhama, Pyari, HUE, CO4 (Hybrid), Sheethal, Siddhi, CNR 2, CR Sugandh Dhan 907, CSR 43, US 305, Ankur 7434, PAC 807, JKRH 401, SHIATS Dhan-1, VNR 2375 Plus, DRR Dhan-40, Arize Dhani, Malviya Basmati Dhan 10-9, Vallabh Basmati-21, NP 218, NP 124-8, NP 209, US 314, 27P52, 27P63, KPH 199, KPH 371, GAR-1, Pratap-1, Pusa Basmati-1509, Pusa-6.
2. Maize (32)	DKC 9081, IG 8011, IG 8237, Vivek Maize Hybrid 43, Vivek Maize Hybrid 39, P3501, SMH-3904, CO 6, KMH-25K60, KMH 3712, KMH-218 Plus, KMH-3426, NMH-731, NMH-803, HM-12, Vivek Maize hybrid, Hishell, CMH 08-282, Shalimar Maize Composite-3, KDM-438, Pant Shankar Makka-1, Pratap QPM Hybrid-1, P1864, Sun Vaaman, NSCH-12, NMH 1242, LG 32-81, BIO 605, KDMH 017, BIO 9544, S 6217, Bisco 97 Gold.

Crops	Varieties/hybrids released
3. Wheat (31)	DPW 621-50; WH 1080; MP 3288; KRL-213; HD 2967;KRL-210; HD 3043; AKAW-4627; MP(JW)1201; Raj Vijay Wheat 4106, PBW 644, UAS - 428, CO W2, PDKV Washim, GDW-1255, GW-11, Pusa Pachheti, TL 2969, HPW 349, WH 1105, HI 8713 (Pusa Mangal) (d), HW 5216 (Pusa Thenmalai), DBW 71, UAS 304, MP 3336, DBW 90, DBW 88, HD 3086, HD 3090, Narendra Wheat 4018, K0402 (Mahi).
4. Pearl Millet (18)	PAC 909, 86M66, Mandor Bajra Composite 2, Shine (Hybrid), MP-7872, MP-7792, 86M86, CO 9, Kaveri Super Boss, 86M66, PKV-Raj, ABPC4-3, KBH 108, GHB 905, MPMH 17, HHB 234, Nandi 72, 86M89.
5. Sorghum (13)	CSV 27, CO 30, CSV 26, Phule Panchami, Phule Revati, Co5, CSH-27, SPH-1629, CSH 28, SPV-2033, CSH 30, CSH 31R, Wani 11/6.
6. Barley (6)	UPB 1008, DWRUB64, BH 885, DWRB 91, RD 2786, NDB 1445.
7. Finger Millet (7)	DHRS 1, PRM-2, KMr-301, VL Mandua 347, Indira Ragi-1, Dapoli safed- 1, HIMA.
8. Grain Amaranth (1)	Phule Kartiki,
9. Foxtail Millet (1)	SiA 3085
10. Kodo Millet (1)	Indira Kodo-1
Oilseeds (44)	
11. Rapeseed-Mustard (14)	Pusa Mustard 28, Pant Rai-19, RGN - 236, RGN - 229, Shalimar Sarson - 1, CORAL-437, DRMRIJ 31, RH 0406, Raj Vijay Mustard-2, RH 0749, Pusa Mustard 29, Pusa Mustard 30, RRN 573, Divya-33.
12. Groundnut (10)	Divya, ICGV 00350, HNG-123, Raj Mungfali-1, Gujarat Junagadh Groundnut 31,

	Gujarat Junagadh Groundnut 9, CO 6, Gujarat Junagarh Groundnut-22, Gujarat Junagarh Groundnut-17, Dharani	
13. Sesame (4)	Gujarat Til-4, DSS-9, JLT-408, HT-9713	
14. Soybean (4)	SL744, Pant Soybean 19 (PS 1368), MACS 1188, Pratap Soya 45 (RKS 45)	
15. Sunflower (4)	Bhadra, Kanthi, CO 2, PAC 3794	
16. Castor (3)	DCS-107, JI-273, DSP 222	
17. Linseed (2)	Mau Azad Alsi-2, Jawahar Linseed-41	
18. Niger (1)	UTKAL NIGER-150	
19. Safflower (2)	SSF-708, PKV Pink	
Pulses (39)		
20. Chickpea (9)	Raj Vijay Kabuli gram 101, Raj Vijay gram 201, HK-4, PKV Harita, Raj Vijay Gram 203, L-555, GNG 1958, GNG 1969, NbeG 3	
21. Mungbean (5)	IPM 02-14, Swati, MH-421, BM 2003-2, SML 832	
22. Urdbean (8)	Co6 COBG 653, VBN (Bg) 7, Vishwas, VBN 6, UH-1, DU-1, TU 40, Pratap Urd-1	
23. Pigeon pea (6)	TS-3R, Anand Grain Tur-2, BDN 711, Rajeshwari, Rudreshwar, PKV TARA	
24. Lentil (4)	VL Masoor 514, LL931, VL Masoor 133, IPL-316	
25. Field pea (4)	IPF 4-9, VL Matar 47, HFP 529, Gomati	
26. Cowpea (1)	MFC-08-14	
27. Horse gram (2)	Indira Kulthi-1, Gujarat Dantiwada Horsegram-1	

Crops	Varieties/hybrids released
Fibre crops (14)	
28. Cotton (8)	Nirmal-12, H-1300, Anand Desi Cotton-1, Phule Anmol, Phule Dhanwantary, KR-64, CSHG 1862, RG 542
29. Jute (2)	Pradip, Partho
30. Mesta (3)	AMU-7, Shakti, JBM 71 (Shanti)
31. Sun hemp (1)	Ankur
Forage crops (9)	
32. Forage Bajra (1)	Narendra Chari Bajra-3
33. Forage oat (2)	Shalimar Fodder Oats-1, NDO-2
34. Forage Sorghum (3)	SPSSV 6, Pant Chari 7, Pant Chari-8
35. Anjan Grass (1)	Gujarat Anand Anjan Grass-1
36. Setaria grass (1)	Palam Setaria-1
37. Rice bean (1)	Him Shakti
Sugar crops (13)	
38. Sugarcane (13)	Haryana Ganna 128, CoOr 03151, Karan-9, Co 0237, Co 0403, CoVSI-9805, Pratap Ganna-1, Co 06027, Co 06030, Co 05009 (Karan-10), Uttara, Kanakamahalakshmi, Imarti (CoSe01421)