## BRIEF BIODATA OF Dr. D. R. BHARDWAJ



1.	Name and Address	:	Dr. D. R. BHARDWAJ (DANGAR RAM BHARDWAJ)
			Principal Scientist (Horticulture-Vegetable Science)
			Division of Vegetable Crop Improvement, Indian Institute of Vegetable Research, Post Bag. No
			01, Post Office- Jakhini (Shahanshahpur) Distt: Varanasi-221305 (U.P.)
2.	Date of Birth & Place	:	15-08-1963, Village- Narasara, P.O. Jakhini (Shahanshahpur), DisttVaranasi-221305 (U.P.)
3.	Caste & Category		RAJBHAR

**Educational qualifications** 

Examinations	University/Board	Year	Subjects	Marks (%)	Division
High School	U.P. Board Allahabad (U.P.)	1979	General Subjects	69.60	1 <sup>st</sup>
Intermediate	ntermediate U.P. Board Allahabad (U.P.) 1981 Agriculture		67.70	1 <sup>st</sup>	
B.Sc.	Institute of Agricultural Sciences,	1984	All Subjects of Agriculture	83.60	1 <sup>st</sup>
(Agriculture)	B.H.U., Varanasi (U.P.)		(Elective in Horticulture)		
M. Sc. Ag.	Institute of Agricultural Sciences,	1987	Horticulture (Vegetable Science)	88.80	1 <sup>st</sup>
(Horticulture)	B.H.U., Varanasi (U.P.)				
Ph. D.	Institute of Agricultural Sciences,	1991	Horticulture (Vegetable Science)	80.90	1 <sup>st</sup>
(Horticulture)	B.H.U., Varanasi (U.P.)				

Details of employment, in chronological order (Total Service as Principal Scientist 05.08.2008-till date)

Designation	Organization	Scale of pay with	Per	iod	Nature of work		
		AGP	from	to			
Principal	ICAR-IIVR Varanasi (U.P.)	Rs.1,88,200/- (7 <sup>th</sup>	17-06-2015	Till date	Research (Vegetable	Crop	
Scientist		CPC)			Improvement)		
Pr. Scientist	ICAR-IIVR-RRS,	Rs.37400-67000/-	01-07-2014	16-06-2015	Research (Vegetable	Crop	
and Head)	Kushinagar (U.P.)	GP Rs. 10,000/-			Improvement) and Managem	nent	
Principal	ICAR-IIVR Varanasi (U.P.)	Rs.37400-67000/-	05.08.2008	30-06-2014	Research (Vegetable	Crop	
Scientist		GP Rs. 10,000/-			Improvement)		
Sr. Scientist	ICAR-IIVR Varanasi (U.P.)	Rs.12000-18300/-	05.08.2000	04.08.2008	Research (Vegetable	Crop	
					Improvement)		
Scientist (Sr.	ICAR-IIVR Varanasi (U.P.)	Rs.10000-15200/-	05.08.1996	04.08.2000	Research (Vegetable	Crop	
Scale)					Improvement)		
Scientist	ICAR-IIVR Varanasi (U.P.)	Rs.2200-4000/-	05.12.1992	04.08.1996	Research (Vegetable	Crop	
					Improvement)		
Scientist	ICAR-CSRRI-Karnal	Rs.2200-4000/-	10.07.1992	04.12.1992	Research (Vegetable	Crop	
	(Haryana)				Improvement)	_	
Scientist	ICAR-IIHR Bengaluru	Rs.2200-4000/-	10.01.1992	09.07.1992	Research (Vegetable	Crop	
(Training)	(Karnataka)				Improvement)		
Scientist	ICAR-NAARM-Hyderabad	Rs.2200-4000/-	05.08.1991	09.01.1992	Research Management		
(training)							

Awards//Official Appreciation

Sl. No.			the	Awarding Organization (Place/Country) Ye		National//Professional
	Award/Recognit	tion				Society
Nationa	l Awards					
1.	Dr. Rajendra Pra	isad Puras	kar	Indian Council of Agricultural Research, N. Delhi	2013	National Award
2.	Dr. Rajendra Pra	sad Purasl	kar	Indian Council of Agricultural Research, N. Delhi	2014	National Award
3.	Dr. Rajendra Pra	sad Purasl	kar	Indian Council of Agricultural Research, N. Delhi	2019	National Award
Nationa	l and State Level	Academy	y Fellov	w Award		
4.	NAAS Fellow	National	Acadeı	ny of Agricultural Sciences, New Delhi	2020	National level Award
5.	Fellow award	Uttar Pra	idesh A	cademy of Agricultural Sciences, Lucknow (U.P.)	2014	State Level Award
6.	Fellow award	Indian A	cademy	of Horticultural Sciences, New Delhi	2015	Horticultural Academy
Professi	onal Societies Aw	ards				
7.	Fellowship Awar	rd	Hi-Tec	ech Horticultural Society, Meerut (U.P.)		Professional societies
8.	Fellowship Award Hi-		Hi-Tec	ch Horticultural Society, Meerut (U.P.)		Professional societies
9.	Young	Scientist	Bioved	Bioved Institute of Agricultural Technology and Research,		Professional societies
	Associate Award		Allaha	bad (U.P.)		
10.	Fellow Award		Indian	Society of Plant Genetic Resources-NBPGR, N. Delhi	2013	Professional societies

11.	Fellow Award	Indian Societ	v of Vegetahl	e Science, Va	ranasi		2013	Profess	sional societies
12.						·.)	2009		sional societies
	Young Fellow Award		Council for Promotion of Horticulture, Meerut (U.P.) 2009 Professional societies						
Instituti	onal Appreciation								
13.		ciation For						ICAR-	National
	International Training on			f Vegetable	Research,	Varana	si	Institut	te
	the Future for 21 countries	(U.P.)							
	g Awards/recognitions to I								
14.	Rajarshi Tandon Rajabhash			Council of Ag				2007	National Award
15.	Ganesh Shankar Vidyarthi Patrika "Sabjee Kiran"			Council of Ag	ricultural R	esearch,	N. Delhi	2007	National Award
16.	Sardar Patel Outstanding In	nstitution Awa	rd Indian (	Council of Ag	ricultural R	esearch,	N. Delhi	2003	National Award
17.	Chaudhary Devi Lal Out Award	tstanding AIC	CRP Indian C	Council of Ag	ricultural R	esearch,	N. Delhi	2002	National Award
18.	Best Annual Report Award	1	Indian (	Council of Ag	ricultural R	esearch,	N. Delhi	2002	National Award
19.	Best KVK Award for Zone Officer for the period at I (U.P.)			Council of Ag	ricultural R	esearch,	N. Delhi	2014	National Award
Best Pap	pers/ Posters award								
20.	Best paper award: on "Re	eaction of Sc	hool for E	Biosciences	& Biotecl	nnology,	BBAU,	2008	Conference
	bitter gourd (Momordica	charantia Lu	cknow (U.P.	.) Seminar o	n "Sustain	able Hoi	rticultural		award
	L.) to leaf distortion mos		esearch in	India: Pe	erspective,	Prioriti	ies and		
	2008	Pr	eparedness"						
21.	Best Paper Award: on	"Sexual 1st	Vegetable So	cience Congre	ess on "Em	erging C	hallenges	2019	Conference
	Reproduction in Dioeciou		_	Research & H			_		award
	gourd: Sex Inheritance, di		_	ndian Society			,		
	and molecular marker a			elhi, ICAR-	_				
	identification in			grated Develo		,			
	population".	8	,		,	1 , ~,	,		
Member	r Secretary/Member of imp	ortant comn	ittees (Policy	v decision ma	king bodie	es/commi	ittees of na	ational l	level)
22.	Member secretary of Q			ouncil of					1-04-2007 to 31-
	Varanasi for the period 200		gricultural	Research,					ICAR F. No.
	_	N	lew Delhi				1(11)/201	1-1A,V(	Pt), July 3, 2012
23.	Member secretary of QR			ouncil of	National				1-04-2007 to 31-
	(VC) for the period 2007-2		gricultural	Research,					ICAR F. No.
			lew Delhi						Pt), July 3, 2012
24.	Member- Imposition of res			ne Ministry/	National				5-CS-FFC; Dated
	cultivation of high standir			mer Welfare			03-07-201	15	
	the border belt of Indo-Bar h as Major Function	ngladesh a	nd ICAR-Nev	w Deini					

	Name of the project	PI/	Sponsoring Organization	Duration
		Co-PI		
(A) N	Network Research Projects			
1.	Network project on: "Improvement of underutilized vegetable crops".	Co-PI	AP Cess Fund Indian Council of Agricultural Research, N. Delhi	2004-2008
2.	Network project on: "Exploration, Evaluation, conservation and Documentation of Vegetable Germplasm of India under NATP (Plant Biodiversity)".	Co-PI	Indian Council of Agricultural Research, New Delhi	2000-2005
3.	Network project on: "Development of hybrids of okra, capsicum, cauliflower, cucumber, bitter gourd, bottle gourd, muskmelon, water melon, and carrot & production technology".	Co-PI	Uttar Pradesh Council of Agricultural Research (UPCAR), Lucknow (U.P.)	2000-2004
4.	Network project on: "Report on the establishment of the National Information Sharing mechanism on the Implementation of the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture".	Co-PI	Food and Agriculture Organization (FAO) through ICAR-NBPGR New Delhi	2011-2013

5.	Network project on "Promotion of Hybrids in Vegetable Crops"	. Co-P	Indian Council of Agric Research, N. Delhi	cultural 1999-2005
(B) In	-house Research Projects		•	<u>.</u>
	Name of the project	PI/ Co-PI	Sponsoring Organization	Duration
1.	Mega Programme: Integrated gene management; Sub Project 1.17: Genetic improvement of seed propagated gourds	PI	ICAR-IIVR, Varanasi (U.P).	2018-2019 till date
2.	Mega Programme: Integrated gene management; Sub Project 1.11: Genetic improvement of pumpkins and cucumber.	Co-PI	ICAR-IIVR, Varanasi (U.P).	2018-2019 till date
3.	3. Mega Programme: Integrated gene management; Sub Project 1.17:	Co-PI	ICAR-IIVR, Varanasi (U.P).	2018-2019 till date
4.	Mega Programme 2: Seed Enhancement in vegetables	Co-PI	ICAR-IIVR, Varanasi (U.P).	2016– 2017 to 2017- 2018
5.	Mega Programme: Integrated gene management; Sub Project 1.4: Genetic improvement of gourds.	PI	ICAR-IIVR, Varanasi (U.P).	2012-2013 to 2017-2018
6.	Mega Programme: Integrated gene management; Sub Project 1.10: Genetic improvement of underutilized vegetable crops, vegetable soybean, leafy and other root vegetables.	Co-PI	ICAR-IIVR, Varanasi (U.P).	2012-2013 to 2017-2018
7.	Mega Programme: Integrated gene management; Sub Project 1.5: Genetic improvement of melons, pumpkins and cucumber.	Co-PI	ICAR-IIVR, Varanasi (U.P).	2012-2013 to 2017-2018
8.	Mega Programme: Integrated gene management; Sub Project 1.1: Management of vegetable genetic resources including underutilized crops.	Co-PI	ICAR-IIVR, Varanasi (U.P).	2012-2013 to 2017-2018
9.	Genetic improvement of gourd crops.	PI	ICAR-Indian Institute of Vegetable Research, Varanasi (U.P).	1998-99 to 2012- 2013
10.	Genetic improvement of Luffa sp.	Co-PI	Seed Production Centre, Kushinagar; ICAR-IIVR, Varanasi (U.P).	2008-2009 to 2011-2012
11.	Genetic improvement of minor gourd crops (Snake gourd, Tar Kakri, ivy gourd, round melon, kakrol, kartoli and snake gourd).	Co-PI	Seed Production Centre, Kushinagar; ICAR-IIVR, Varanasi (U.P).	2008-2009 to 2011-2012
12.	Development of PCR based marker for sex expression in pointed gourd.	Co-PI	ICAR-IIVR, Varanasi (U.P).	2008-2009 to 2011-2012
13.	Vegetable Improvement (Cucurbits).	PI	Project Directorate of Vegetable Crops, Varanasi (U.P).	1994-95 to 1997- 1998
14.	Vegetable Improvement.	PI	Project Directorate of Vegetable Crops, Varanasi	1992-93 to 1993- 1994

Externally Funded Projects Handled and Funds attracted

Sl.	PI/	Title	Year		Amount	Funding	Status of project
No.	Co-PI		From	To	(Rs.Lakh)	Agency	
1.	Co-PI	"Exchange and Evaluation of Elite Varieties"	1992	1995	10.0	World	Completed and
		Collaborative Vegetable Research in South East				Vegetable	report submitted
		Asia				Centre,	
						Taiwan	
2.	Co-PI	"DUS test guidelines of cucurbitaceous crops"	2010	2012	56.71	PV&FRA	Completed and
							report submitted
3.	Co-PI	Evaluation of Hybrids in Vegetable crops	1999	2000	65.0	UPCAR	Completed and
						(U.P.)	report submitted
4.	Co-PI	Development of hybrids of okra, capsicum,	2000	2004	32.52	UPCAR	Completed and
		cauliflower, cucumber, bitter gourd, bottle gourd,				(U.P.)	report submitted

		muskmelon, water melon, and carrot & production					
		technology					
5.	Co-PI	Exploration, Evaluation, Application and Documentation of Vegetable Germplasm of India under NATP (Plant Biodiversity)	1999	2003	20.0	ICAR network projects	Completed and report submitted
6.	Co-PI	"Development of hybrids in vegetable crops"	1999	2005	330.0	ICAR network projects	Completed and report submitted
7.	Co-PI	Report on the establishment of the national information sharing mechanism on the implementation of the global plan of action for the conservation and sustainable utilization of plant genetic resources for food and agriculture	2004	2006	Rs. 26, 00, 000/	FAO	Completed and report submitted
8.	Co-PI	Improvement of underutilized vegetable crops	2004	2008	94.81	ICAR-AP CESS Fund	Completed and report submitted
9.	Co-PI	Effect of Oxytocin injection on yield of bottle gourd	2011	2013	Inst. Funds	ICAR-ICMR	Completed and report submitted
10.	Co-PI	Promotion of vegetables for nutritional security in Eastern Uttar Pradesh and Motihai (Bihar)	2015		30.0 lakhs	NHB, New Delhi	Continue
11.	Co-PI	Farmers FIRST project	2017		200 Lakhs	ICAR	Continue

Research Products/process Developed

	rch Products/process Developed	
Devel	opment of Crop Variety & Coverage Area	
	Crop Variety/hybrid Developed	
1.	Sponge gourd: Kashi Divya (VR-1)- The Gazette of India-No. 408; S.O.	Continuous seed production is going on
	456(E.), 16 <sup>th</sup> March 2012, Sl. No27 (Ministry of Agriculture, Department of	from 2012 In the year 2015-16 total
	Agriculture and Cooperation), Release through AICRP (VC) and Central Sub-	223.0 kg seeds were produce Seeds
	Committee on Seed Standards/Central Seed Committee, notification and	being produced and cultivar covered
	<b>Release.</b> (PI of project and Developer of variety).	large area even before release seed.
2.		ntinuous breeder seed production as per
	(E), 25 <sup>th</sup> April, 2006, Sl. No69 (Ministry of Agriculture, Department of	indent of seed commissioner N. Delhi,
	Agriculture and Cooperation). Release through State Level Release Committee	MOUs: Dinkar seeds Pvt. Ltd.
	and Central Sub-Committee on Seed Standards/Central Seed Committee,	Sabarkantha (Gujarat); Breeder seeds-
	<b>notification and Release</b> . (PI of project & Developer of variety). Sl. No. 69.	Year-2017 (5.0kg), 2018(15.5kg), &
		2019 (10.5 kg); Institute Seeds-2017-
		2108 (730.0 kg produced). Every year
		breeder seed production is going on as
		per indent.
3.	Bottle gourd: Kashi Bahar (VRBH-1, Hybrid). The Gazette of India-No.398;	In the year 2017-2018 total 21.00 kg
	S.O.597 (E), 25 <sup>th</sup> April, 2006, Sl. No97 (Ministry of Agriculture, Department of	hybrid seeds were produced.
	Agriculture and Cooperation). Release through State Level Release Committee	
	and Central Sub-Committee on Seed Standards/Central Seed Committee,	
	<b>notification and Release.</b> (PI of project & Developer of variety). Sl. No. 97.	
4.	Pointed gourd: Kashi Alankar (VRPG-1). The Gazette of India-No. 655; S.O.	In year 2016 total 2000; year 2017-1680
	858(E.), 1 <sup>st</sup> June, 2007, Sl. No21(Ministry of Agriculture, Department of	and year 2018-2100 cuttings multiplied
	Agriculture and Cooperation, Department of Agriculture and Co. operation)).	and distributed every year among
	Release through State Level Release Committee and Central Sub-Committee	growers after multiplication
	on Seed Standards/Central Seed Committee, notification and Release.	
	(PI of project and Developer of variety).	
5.	Pointed gourd: Kashi Suphal (VRPG-2). The Gazette of India-No. 575; S.O.	In year 2016 total 1825; year 2017-1561
	692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare,	and year 2018-2106 cuttings multiplied
	Department of Agriculture and Co. operation)). Release through State Level	and distributed every year among
	Release Committee and Central Sub-Committee on Seed Standards/Central	growers after multiplication
	Seed Committee, notification and Release.	
	(PI of project and Developer of variety).	
6.	Bitter gourd: Kashi Mayuri (VRBTG-5). The Gazette of India-No. 575; S.O.	Seeds are being multiplied for
	692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare,	distribution of vegetable growers
	Department of Agriculture and Co. operation)). Release through State Level	
	Release Committee and Central Sub-Committee on Seed Standards/Central	

	·	T
	Seed Committee, notification and Release.	
	(PI of project and Developer of variety).	
7.	<b>Bottle gourd: Kashi Kiran (VRBG-4)</b> . The Gazette of India-No. 575; S.O. 692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through <b>State Level Release Committee and Central Sub-Committee on Seed Standards/Central</b>	Seeds are being multiplied for distribution of vegetable growers
	Seed Committee, notification and Release.	
	(PI of project and Developer of variety).	
8.	Bottle gourd: Kashi Kirti (VRBOG-63-02). The Gazette of India-No. 575; S.O. 692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through State Level Release Committee and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.  (PI of project and Co-developer of variety).	Seeds are being multiplied for distribution of vegetable growers
9.	<b>Bottle gourd: Kashi Kundal (VRBOG-16).</b> The Gazette of India-No. 575; S.O.	Seeds are being multiplied for
	692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through <b>State Level Release Committee and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.</b> (PI of project and Co-developer of variety).	distribution of vegetable growers
10.	Sponge gourd: Kashi Rakshita (VRSGH-1, Hybrid). The Gazette of India-No.	Seeds of Kashi Rakshita a in 2018-19
10.	575; S.O. 692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through AICRP (VC) and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.  (PI of project and Co-developer of variety).	total 96.0 kg produced and distributed to growers.
11.	Sponge gourd: Kashi Shreya (VRSG-194). The Gazette of India-No. 575; S.O.	Seeds are being multiplied for
	692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through <b>AICRP</b> (VC) and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.  (PI of project and Co-developer of variety).	distribution of vegetable growers
12.	Sponge gourd: Kashi Saumya (VRSGH-3, Hybrid). The Gazette of India-No.	Seeds of Kashi Saumya in 2018-19,
12.	575; S.O. 692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through State Level Release Committee and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.  (PI of project and Co-developer of variety).	total 41.0 kg produced and distributed to growers.
13.	Sponge gourd: Kashi Jyoti (VRSG-1-17). The Gazette of India-No. 575; S.O. 692(E), 5 <sup>th</sup> February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through State Level Release Committee and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.  (PI of project and Co-developer of variety).	Seeds of Kashi Jyoti in 2018-19, total 30.0 kg produced and distributed to growers.
14.	Kashi Amulya (VRPG-89). The Gazette of India-No. 575; S.O. 692(E), 5 <sup>th</sup>	Nearly 4000 clones (planting materials)
	February 2019. Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation)). Release through State Level Release Committee and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release.	Kashi Amulya (VRPG-89) were raised and distributed to the growers
	(PI of project and Co-developer of variety).	
15.	Ridge gourd: Kashi Shivani (VRRG-27). The Gazette of India-No. 2878; S.O. 3666(E.), Sl. No. 6. 6 <sup>th</sup> December, 2016 Ministry of Agriculture and Farmers Welfare, Department of Agriculture and Co. operation). Release through AICRP (VC) and Central Sub-Committee on Seed Standards/Central Seed Committee, notification and Release. PI of Project and Co-Developer (PI of project and Co-developer of variety).	In the year 2018 total 3.0 kg seeds produced and distributed to vegetable growers.
Dorro	lopment of Technologies	

**Development of Technologies** 

	Technology	Association
1.	Transcriptome sequencing of bitter gourd	Shukla, A., Singh, V.K., Bhardwaj, D.R.,

	De Novo transcriptome sequencing of bitter gourd using Illumine next- generation sequencer, from root flower buds, stem and leaf samples of	Kumar, R., Rai, A., Rai, A.K., Mugasimangalam, R., Arameswaram, S.,
	gynoecious line (gy323) and monoecious line (DRAR1). A total of 65,540	Singh, M. and Naik, P.S. 2015. De Novo
	transcripts for GY323 and 61,490 for DRAR-1 were obtained, identified 80	Assembly of bitter gourd transcriptomes:
	WRKY transcription factors and established gene symbol, <i>gy</i> -1.	Gene expression and Sequence Variations
		in gynoecious and monoecious lines. <i>PLOS/ONE</i> , <b>DOI</b> : 10.1371, 1-19. NAAS
		Rating= 8.77.
2.	Inheritance of 100 percent absolute gynoecious line "Gy263"	Ram, D., Kumar, S., Singh, M., Rai, M.
	First time identified and established gynoecious line in bitter gors. In heritance	and Gautam, Kalloo.2006. Inheritance of
	of gynoecism in bitter gourd was studied in a 100% gynoecious line (Gy263B). The $F_2$ and test cross segregation data revealed that gynoecism in Gy 263b is	gynoecism in bitter gourd ( <i>Momordica</i> charantia L.). <b>Journal of Heredity</b> , <b>97</b> (3):
	under the control of a single, recessive gene. Following the gene nomenclature	294-295. NAAS Rating=8.57
	of cucurbits, it is proposed that the gene symbol gy-1, be, be assigned for the	
	expression of gynoecism in bitter gourd which is being utilized largely now in	
2	hybrid seed production.	M : 0: 1 0 : 1 A X 0: 1
3.	Early sex determination in pointed gourd Pointed gourd is dioecious in nature and identification and detection of male and	Major Singh, Sanjeev Kumar, A.K. Singh, <b>D. Ram</b> & G. Kalloo. 2002. Female sex-
	female flower is very difficult. In pointed gourd female sex associated RAPD	associated RAPD marker in pointed gourd
	marker obtained which is helpful in early assessment of gender.	(Trichosanthes dioica Roxb.). Current
		Science, 82:131-132. NAAS
4	Le vitre propagation of going gover (Mamardian dialog Bark) and	Rating=6.88.
4.	In vitro propagation of spine gourd (Momordica dioica Roxb.) and assessment of genetic fidelity of micropropagated plants using RAPD	Rai, G.K., Singh, M., Rai, N.P.,
	analysis.	<b>Bhardwaj, D.R.</b> and Kumar, S. 2012. In vitro propagation of spine gourd
	Spine gourd (Momordica dioica Roxb.) is generally propagated through	(Momordica dioica Roxb.). Physiol. Mol
	underground tubers (male and female 6xplants6y) and getting sufficient quantity	Biol. Plants, DOI10.1007/S12298-012-
	of tubers is difficult. Therefore an experiment was conducted to multiply the	0109-7, 273-280. NAAS Rating=7.15
	crop through clonal propagation. An efficient protocol for rapid in vitro clonal propagation of Spine gourd ( <i>M. dioica</i> Roxb.) genotype RSR/DR-15 (female)	
	and DR/NKB-28 (male) was developed through enhanced axillar shoot	
	proliferation from nodal segments. Maximum shoot proliferation of 6.2shoots	
	per 6xplants with 100% shoot regeneration frequency was obtained from the	
	female genotype on MS medium supplemented with 0.9 microMN6-BA and 200	
	mgl-1 casein CH. No polymorphism was detected revealing the genetic integrity of <i>in vitro</i> propagated plants. This micro propagation procedure could be useful	
	for raising genetically uniform planting material.	
5.	Inheritance in Parthenocarpic pointed gourd-Seedless pointed gourd is first	Kumar, S., Singh, B.D., Pandey, S. and
	report and its inheritance is most important. The inheritance of five stem and	<b>Ram, D</b> . 2008. Inheritance of stem and
	leaf morphological character was studied in progeny of a perennial dioecious species, <i>Trichosanthes dioica</i> Roxb. from the female clone IIVRPG-102	leaf morphological traits in pointed gourd
	pollinated by the male clone IIVRPG-N. Because mature seeds failed to	(Trichosanthes dioica). Journal of Crop
	germinate even after scarification, embryos from almost fully developed seeds	<i>Improvement</i> , DOI:10.1080 J131, 225-233. Taylor & Francis, Thomson Reuter,
	were excised and cultured in vitro. Fifty-two plants were raised in a glasshouse,	Impact 6.78.
	and segregation was observed for sex expression, stem shape (angular>round),	_ *
	stem pubescence (pubescent>smooth), tendril coiling (coiled>uncoiled), tendril	
	branching (branched>unbranched), and leaf pubescence (smooth>pubscent). Stem gene(s) linked to the pubescence ( <i>sst</i> ), stem shape ( <i>rst</i> ), tendril coiling	
	(stl), tendril branching (utl), and leaf pubescence (plf) are governed by a single	
	gene which is first report in pointed gourd.	
New '	Traits/ Genes Identified	
l	Traits/ Genes Identified Details	

	Traits/ Genes Identified	Details
1.	<b>Bitter gourd:</b> 'Gynoecious' line GY-63;	New gene "GY-63" developed. This is the first report in this crop and being
	Registered with ICAR-NBPGR, N. Delhi as	utilized for hybrid & high pistillate cultivars development. At ICAR-IIVR
	IC 296539; INGR-03037	five hybrids are being evaluated; seeds Gynoecious line is available and
		distributed to research organization
2.	Pointed gourd: 'Parthenocarpic' seedless line	New pt gene (parthenocarpic/ seedlessness) developed. This is the first
	of pointed gourd, IIVRPG-105; Registered	report in this crop and being utilized for seedless/ less seeded cultivars. One
	with ICAR-NBPGR, N. Delhi as IC296492;	less seeded cultivar Kashi Amulya has been developed from ICAR-IIVR,

	INGR-03035	Varanasi (U.P.)
3.	Carrot: "CMS" A-line and B-line in tropical	This is the first report in tropical carrot which is very useful in development
	carrot Registered with ICAR-NBPGR, N.	of hybrids.
	Delhi as (IC570071, fertile CR-27F); <b>INGR-</b>	
	10110.	
4.	Sponge gourd: Cluster bearing sponge gourd	This is the first report in which being used cluster bearing cultivars and
	"VRSG-52-1" Registered with ICAR-	hybrids in sponge gourd.
	NBPGR, N. Delhi as INGR-10159	

Publications (Total Research papers published= 108) A-Research papers (Best 30 research papers)

Sl. No.	Author(s)	Title of an article	Name of Journal	Year	Volume	Page No.	Jrn. ID	NAAS Rate
1.	Shukla, A., Singh, V.K., <b>Bhardwaj,</b> <b>D.R.</b> , Kumar, R., Rai, A., Rai, A.K., Mugasimangalam, R., arameswaram, S., Singh, M. and Naik, P.S.	De Novo assembly of Bitter gourd Transcriptoms: Gene Expression and sequence variations in gynoecious and monoecious lines	PLOS/ONE	2015	DOI:10.1371	1-19	P004	9.23
2.	Ram, D., Kumar, S., Singh, M., Rai, M. and Kalloo, G.	Inheritance of gynoecism in bitter gourd (Momordica charantia L.)	Journal of Heredity	2006	97	294-295	J231	8.09
3.	Rai, G.K., Singh, M., Rai, N.P., Bhardwaj, D.R. and Kumar, S.	In vitro propagation of spine gourd (Momordica dioica Roxb.).	Physiol Mol Biol. Plants. S12298-012- 0109-7	2012	DOI10.1007	273-280	P060	7.35
4.	Major Singh, Sanjeev Kumar, A.K. Singh, <b>D.</b> Ram. & G. Kalloo.	Female sex-associated RAPD marker in pointed gourd ( <i>Trichosanthes dioica</i> Roxb.)	Current Science	2002	82	131-132	C155	6.97
5.	Singh PK, N Rai, H Lal, DR Bhardwaj, Reshmi Singh and AP Singh (2010).	Correlation path and cluster analysis in hyacinth beanb (Lablab purpureus (L.) Sweet).	Journal of Agricultural Science and Technology	2010	7(4)	1117- 1124	(J019)	6.70
6.	Ram, D.; De, Nirmal; Prakash, Chander and Kalloo, G.	Inter association of physio-phenological traits in selected cucumber ( <i>Cucumis sativus</i> L.) genotypes under field conditions.	Indian J. of Agril. Sciences	2001	71 (10)	644-647	1023	6.17
7.	Ram, D., Kalloo, G. and Singh, M.	Genetic analysis in bitter gourd ( <i>Momordica charantia</i> L.) using modified triple test cross.	Indian J. of Agril. Sciences	2000	70 (10)	671-673	1023	6.17
8.	Ram, D.; Sanjeet Kumar, Banerjee, M.K. and Kalloo, G.	Occurrence, identification and preliminary characterization of gynoecism in bitter gourd.	Indian J. of Agril. Sciences	2002	72 (6)	348-349	1023	6.17
9.	Ram, D.; Kalloo, G. and Singh, M.	Combining ability of quantitative characters in bitter gourd	Indian J. of Agricultural Sciences	1999	69 (2)	122-125	I023	6.17

		(Momordica charantia						
10.	Bhardwaj, D. R.; Gautam, K.K; Saha, S.; Nagendran, K.; Pandey, K.K.; Singh, A.K.; Singh, P.M. and Singh, B.	L.)  Mining the source of resistance the downy mildew and gummy stem blight in bottle gourd (Lagenaria siceraris) accessions	Indian J. of Agricultural Sciences	1999	69 (2)	122-125	1023	6.17
11.	Ram, D. and Rajput, C.B.S.	Line x Tester analysis in French bean (Phaseolus vulgaris)	Indian J. Horticulture	1999	56 (2)	169-172	I058	6.13
12.	Ram, D.	Non-hierarchical Euclidean cluster analysis in pointed gourd ( <i>Trichosanthes</i> dioica Roxb.)	Indian J. Horticulture	2001	58 (3)	264-268	I058	6.13
13.	Pal, A.K.; Ram, D.; Maurya, A.N. & Rajput, CB.S.	Heterosis over mid and better parents under line x tester design in cowpea.	Indian J. Horticulture	2002	59 (3)	279-287	I058	6.13
14.	Pal, A.K.; Ram, D., Maurya, A.N. & Rajput, CB.S.	Combining ability for green pod yield and its traits in cowpea.	Indian J. Horticulture	2002	59 (4)	395-401	I058	6.13
15.	Pal, S.N., Ram, D., Pal, A.K. and Ganesh Singh	Combining ability studies for certain metric traits in bottle gourd [Lagenaria siceraria Standl.].	Indian J. Horticulture	2004	61 (1)	46-50	I058	6.13
16.	Pal, S.N., Ram, D., Pal, A.K. and Gingh, G.	Heterosis studies in bottle gourd [Lagenaria siceraria (Mol.) Standl.].	Indian J. Horticulture	2005	62 (3)	253-256	I058	6.13
17.	Ram, D.; Rai, M.; Verma, A. and Singh, Y.	Genetic variability and association analysis in <i>Luffa</i> sp.	Indian J. Horticulture	2006	63 (3)	294-297	I058	6.13
18.	Nirmal, Ram, Dangar and Pandey Sudhakar	Physiological traits as determined of yield in muskmelon under field conditions.	Indian J. Horticulture	2008	65 (1)	40-43	1058	6.13
19.	Singh, M.K., Bhardwaj, D.R., Solankey, S.S. and Pandey, A.K.	Morphological analysis defines the genetic diversity of Indian bitter gourd (Momordicacharantia)	Vegetos	2014	27 (1)	170-173	V004	6.00
20.	Bhardwaj, D. R. and Kumar, Akhilesh	Field screening of pointed gourd germplasm against root knot nematode.	Indian Journal of Entomology	2008	70 (2)	176	I046	5.89
21.	Singh, M.K., Bhardwaj, D.R. and Upadhyay, D.K.	Genetic architecture and association analysis in bitter gourd (Momordica charantia L.) landraces	The Bioscan	2014	9 (2)	807-811	T017	5.26
22.	Kumar, S., Singh, B.D., Pandey, S. and <b>Bhardwaj,</b> <b>D.R.</b>	Inheritance of stem and leaf morphological traits in pointed gourd	Journal of Crop Improvement	2008	22 (2)	225-233	J142	5.12

		(Trichosanthes dioica)						
23.	Ram, D., Banerjee, M.K., Pandey, S. and Srivastava, U.	Collection and evaluation of of kartoli ( <i>Momordica dioica</i> Roxb. Ex. Willd.)	Indian J. Plant Genet. Resour	2001	14 (2)	114-116	I071	5.12
24.	Ram, D. and Srivastava, U	Some lesser-known minor cucurbitaceous vegetables: Their distribution, diversity and uses.	Indian J. Plant Genet. Resour.	1999	12(3)	307-316	I071	5.12
25.	Ram, D., Gupta, V.K.; Kalloo, G. Tomar, J.B. and Srivastava, U.	Green hot spot: Eastern Uttar Pradesh a core site of intensive vegetable cultivation and production.	Indian J. Plant Genet. Resour.	1999	12(2):	247-253	I071	5.12
26.	Ram, D., Kalloo, G., Banerjee, M.K. and Singh, Billu	Seedless and long duration fruiting pointed gourd (Trichosanthes dioica Roxb.)	Indian J. Genet. Plant Resour.	2003	16(2)	163-164	I071	5.12
27.	Ram, D., Rai, Mathura, Pandey, Sudhakar, Singh, B., Lal, Hira and Pal, A.K.	An Under- Exploited Species- Bankunari (Solena amplexicaulis): Its Exploration and preliminary evaluation.	Indian J. Plant Genet. Resour.	2003	16(3)	267-268	I071	5.12
28.	Ram, D., Kalloo, G. and Singh, Billu.	Gynoecious line of bitter gourd (Momordica charantia L.).	Indian J. Plant Genet. Resour.	2003	16(2):	165-166	I071	5.12
29.	Vishwa Nath, Lal, H., Rai, M., Rai, N. and <b>Ram, D.</b>	Hierarchical clustering and character association studies in cowpea [Vigna unguiculata (L.) Walp.].	Indian J. Plant Genet. Resour	2009	22(1)	22-25	I071	5.12
30.	Chandra, Umesh, Ram, D. and Kalloo, G	Variability in pointed gourd ( <i>Trichosanthes dioica</i> Roxb.) germplasm collected from eastern Uttar Pradesh.	Indian J. Plant Genet. Resour	1995	8 (1)	149-155	I071	5.12

(B) Books Written & Published

	Title of Book	Author (s0	Year	Published by	Pages	ISBN No.
1.	Vegetable Genetic Resources: Principal and Management	Bhardwaj, D.R	2018	Daya Publishing House: A Division of Astral International Pvt. Ltd. New Delhi-110002	598	978-93- 5124-970-2
2.	Sabion: Anuvanshik Sampada evam Prabhandhan	Bhardwaj, D.R	2018	Daya Publishing House: A Division of Astral International Pvt. Ltd. New Delhi-110002		978-93- 88173-13-1
3.	Sabji Adharit Fasal Paddhati	Bhardwaj, D.R., Singh, P.M., Singh, N., Prasad, R.N., Roy, S. and Singh, B.	2017	ICAR-Indian Institute of Vegetable Research, Varanasi (U.P)	202	978-93- 5268-854-8

4.	Sabji Vigyan:	Bhardwaj, D.R.	2014	Published	by-Satish	Serial	Publishing	662	ISBN: 978-
	Sidhant Evam			House,403,	Express	Tower,	Commercial		93-81226-
	Anupryog (Vol. I)			Complex, A	zadapur, N.	Delhi			78-0
5.	Sabji Vigyan:	Bhardwaj, D.R.	2014	Published	by-Satish	Serial	Publishing	54	ISBN: 978-
	Sidhant Evam			House,403,	Express	Tower,	Commercial		93-81226-
	Anupryog (Vol. II)			Complex, A	zadapur, N.	. Delhi			78-0
6.	Sabji Anusandhan	Bhardwaj, D.R.	2013	Published	by-Satish	Serial	Publishing	58	978-93-
	Evam Utpadan			House,403,	Express	Tower,	Commercial		81226-68-1
	Produgiki (Vol. I)			Complex, A	zadapur, N.	. Delhi			
7.	Sabji Anusandhan	Bhardwaj, D.R.	2013	Published by	y-Satish Se	rial Publi	shing House,	53	978-93-
	Evam Utpadan			403, Expres	s Tower,	Commerci	ial Complex,		81226-68-1
	Produgiki (Vol. II)			Azadapur, N.	. Delhi.				
8.	Sabjion Ka Sankar	Singh, K.P.,	2003	ICAR-Indian	Institute of	of Vegetal	ble Research,	12	-
	Beej Utpadan	Singh, B., Singh		Varanasi (U.	P).				
		P.M., <b>Ram, D.,</b>							
		Swami, T. M. S.,							
		Pandey, K. K.,							
		Kumar, S. &							
		Pandey, S.							

(C) Technical/Information Bulletins written

	Title of Bulletin	Authors	No.	Publishers	Year
1.	Sustainable management of plant biodiversity	B. Singh; Rai, Mathura; Ram, D.;	No.	ICAR-	2004
		Kumar, Sanjeet; and Pandey Sudhakar	001	IIVR	
2.	IIVR: Fifteen Years of Accomplishment	Rai, Mathura; Singh, Major; Pandey		ICAR-	2007
		Sudhakar; Singh, B.; Yadav, D.S.; Rai,		IIVR	
		A.B.; Pandey, K.K.; Singh, Jagdish;			
		Pandey, A.K.; Ram, D.; Singh, Neeraj			
		and Rai, Nagendra Rai			
3.	Ash gourd	A.K. Pandey; B. Singh; Major Singh, <b>D.</b>	No.38	ICAR-	2011
		R. Bhardwaj & S. Singh		IIVR,	

(D) Souvenir/Conferences/ Proceedings/ Compendium edited

	Editors	Title	Pub. Source	Year
1.	Rai, M, Pandey, A. K., Rai A. B.,	Krishi Vikas Dwara Jeevikoparjan.	ICAR-IIVR	2007
	Singh, B., Singh, Neeraj, Ram. D. &			
	Singh, R.			
2.	Dwivedi, M. M., A. K. Pandey and	Recent Trends in Vegetable Production,	NHRDF, Nasik, Unit-	2010
	Bhardwaj, D.R.	Processing and Marketing.	Varanasi (U.P.)	
3.	Dwivedi, M.M. & Bhardwaj, D.R.	Organic Vegetable farming for sustainable	NHRDF, Nasik, Unit-	2010
		production and development.	Varanasi	
4.	Kumar, S., Kumar, R., Singh, M.,	Hybrid seed production of vegetable crops	ICAR-IIVR, Varanasi	2007
	Rai, N. & <b>Ram, D.</b>		(U.P.)	
5.	B. Singh, J. Singh, D.R. Bhardwaj	Advanced Vegetable Production Technologies for	ICAR-IIVR, Varanasi	2017
	and Neerai Singh	Enhancing Productivity and Nutritional Security.	(U.P.)	

**Book Chapters** 

20012	Topic	Author(s)	Year	Edited & Published by:	Pages
1.	Cucurbits	Pandey, S. and	2015	Singh, K.P. and Bahadur, A. ISBN 978-93-	157-227
		Bhardwaj, D.R		272-5699-4. Olericulture II, Vegetable Production and Improvement, Kaliyani	
				Publishers.	
2.	Genetic Resources of	Bhardwaj, D.R.,	2014	Singh, K.P. and Bahadur, A. Olericulture I,	374-394
	Vegetable crops	Datta, D. and Pandey,		Kaliyani Publishers.	
		S.			
3.	Role of Plant Growth	Bhardwaj, D.R.,	2011	Edited by: Jag Paul Sharma. ISBN:978-81-	263-282
	regulators in Vegetable	Sharma, J.P. and		272-6738-4, Published by Kalyani	
	Seed Production	Pathania, N.K.		Publishers, New Delhi	
4.	In vitro techniques for	Singh, M.,	2011	Edited by: Jag Paul Sharma. ISBN:978-81-	357-376
	Regeneration of Quality	Bhardwaj, D.R.,		272-6738-4, Published by Kalyani	
	Planting Material in	Rai, G.K., Rai, N.P.,		Publishers, New Delhi	

	Vegetable Crops	Singh, P.C. and Rai, M.			
5.	Bitter gourd. In: Quality Seed Production of Vegetable Crops. Technological Interventions (Vol. II: Crop Specific Aspect)	Bhardwaj, D.R.	2011	Jag Paul Sharma. ISBN:978-81-272-6743-8, Published by Kalyani Publishers, New Delhi	1-18
6.	Cucumber. In: Quality Seed Production of Vegetable Crops. Technological Interventions (Vol. II: Crop Specific Aspect)	Bhardwaj, D.R.	2011	Jag Paul Sharma. ISBN:978-81-272-6743-8, Kalyani Publishers, New Delhi	28-54
7.	Muskmelon. In: Quality Seed Production of Vegetable Crops. Technological Interventions (Vol. II: Crop Specific Aspect)	<b>Bhardwaj, D.R.</b> and Lal, H.	2011	Jag Paul Sharma. ISBN:978-81-272-6743-8, Published by Kalyani Publishers, New Delhi	83-107
8.	Pointed gourd. In: Quality Seed Production of Vegetable Crops. Technological Interventions (Vol. II: Crop Specific Aspect)	Bhardwaj, D.R.	2011	Jag Paul Sharma. ISBN:978-81-272-6743-8, Published by Kalyani Publishers, New Delhi	108-121
9.	Kadduvargiya Sajion: Chichinda. In: Sabjion Kee Adhunik Utpadan Taknik	Ram, D. and Chaube, T.	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co. (Publishing Division, Lucknow).	866-869
10.	Kadduvargiya Sajion: Tinda In: Sabjion Kee Adhunik Utpadan Taknik	Ram, D.	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co. (Publishing Division, Lucknow).	861-863
11.	Kadduvargiya Sajion: Kunduru. In: Sabjion Kee Adhunik Utpadan Taknik	Ram, D. and Chaube, T.	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co. (Publishing Division, Lucknow).	856-560
12.	Kadduvargiya Sajion: Kumhara. In: Sabjion Kee Adhunik Utpadan Taknik	Pandey, Sudhakar and <b>Ram</b> , <b>D</b> .	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co. (Publishing Division, Lucknow).	449-456
13.	Kadduvargiya Sajion: ChikaniTorai. In: Sabjion Kee Adhunik Utpadan Taknik	Ram, D. and Pandey, Sudhakar	2008	International Book Distributing Co. (Publishing Division, Lucknow).	444-448
14.	Kadduvargiya Sajion: Nasdar Torai. In: Sabjion Kee Adhunik Utpadan Taknik	<b>Ram, D.</b> and Pandey, Sudhakar.	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co. (Publishing Division, Lucknow).	435-443
15.	Kadduvargiya Sajion: Parwal <b>In:</b> Sabjion Kee Adhunik Utpadan Taknik	Ram, D.	2008	Published by International Book Distributing Co. (Publishing Division, Lucknow).	418-427
16.	Kadduvargiya Sajion: Tarbooja <b>In:</b> Sabjion Kee Adhunik Utpadan Taknik	Pandey, Sudhakar; Yadav, B.S. and Ram, D.	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co. (Publishing Division, Lucknow).	411-417
17.	Kadduvargiya Sajion: Lauki In: Sabjion Kee Adhunik Utpadan Taknik	Ram, D. and PandeySudhakar	2008	Rai, M. Rai, N. and Rai, A.B. International Book Distributing Co. (Publishing Division, Lucknow).	384-394
18.	Kadduvargiya Sajion: Karela <b>In:</b> Sabjion Kee Adhunik Utpadan Taknik	Ram, D. and Pandey, Sudhakar	2008	Rai, M. Rai, N. and Rai, A.B. International Book Distributing Co. (Publishing Division, Lucknow).	374-383
19.	Sabjion Ki Prajnan Vidhiyan In: Sabjion Kee	Ram, D.	2008	Rai, M.,Rai, N. and Rai, A.B. Published by International Book Distributing Co.	78-113

	Adhunik Utpadan Taknik			(Publishing Division, Lucknow).	
20.	Okra. In: Olericulture in India	Singh, K.P. and Ram, D	2008	Rana, M.K Published by Kalyani Publisher, New Delhi	201-225
21.	Cucumber. In: Scientific cultivation of Vegetables	Singh, K.P. and Ram, D.	2008	Rana, M.K). Published by Kalyani Publisher, New Delhi	138-159
22.	Wax gourd In: Scientific cultivation of Vegetables	Pandey, S., Singh, K.P. and <b>Ram, D.</b>	2008	Rana, M.K Published by Kalyani Publisher, New Delhi	89-102
23.	Water melon In: Scientific cultivation of Vegetables	Pandey, S., Rai, M. and <b>Ram, D.</b>	2008	Rana, M.K Kalyani Publisher, New Delhi	271-286
24.	Muskmelon In: Scientific cultivation of Vegetables	Pandey, S., Rai, M. and <b>Ram, D.</b>	2008	Ed. Rana, M.K.). Published by Kalyani Publisher, New Delhi	201-217
25.	Ivy gourd In: Scientific cultivation of Vegetables	Ram, D. and Pandey, S.	2008	Ed. Rana, M.K.). Published by Kalyani Publisher, New Delhi	174-187
26.	Round melon In: Scientific cultivation of Vegetables	<b>Ram, D.</b> and Pandey, S.	2008	Ed. Rana, M.K.). Published by Kalyani Publisher, New Delhi	160-173
27.	Temperate and Sub-tropical Vegetables. <b>In:</b> Biodiversity in Horticultural Crops	Ram, D., Rai, Mathura and Singh, Major	2005	K. V. Peter and Z. Abraham. Published by Daya Publishing House, New Delhi	71-108
28.	Kharbooja Tarbooj, Kheera avum kumhadhh main beej utpadan <b>In:</b> Shak-Bhaji Paudhshala Prabandhan	Pandey, S. and Ram, D. Ram	2003	Published by Indian Institute of Vegetable Research, Varanasi (U.P.)	37-41
29.	Kaddoowargia Sabjion Ka Beej Dwara Paudh Taiyar Karana Evum Unki Dekhbhal. <b>In:</b> Shak-Bhaji Paudhshala Prabandhan	Pandey, Sudhakar and <b>Ram</b> , <b>D</b> .	2003	Published by Indian Institute of Vegetable Research, Varanasi (U.P.)	93-98
30.	Kaddoowargia sabjion main vanaspatik prasaran. <b>In:</b> Shak-Bhaji Paudhshala Prabandhan	Ram, D. and Pandey, Sudhakar	2003	Published by Indian Institute of Vegetable Research, Varanasi (U.P.)	55-60
31.	Kadduvargioy Sabjion In: Sabjion Kee Kheti	Ram, D. and Pandey, S.r	2003	Published by Indian Institute of Vegetable Research, Varanasi	105-139
32.	Lauki, Kerala, Aratori, chikani Tori Me Sankar Beej Utpadan prodyogiki.	Ram, D. and Pandey, Sudhakar	2003	Singh, K.P., Singh, B., singh, P.M., Ram, D., Swamy, T.M., Pandey, K.K., Kumar, S. and Pandey, Sudhakar. Published by ICAR-IIVR, Varanasi (U.P.). <b>In:</b> Sabjion Ka Sankar Beej Utpadan	30-36
33.	Kharbooja, Tarbooja, Khira Evam Kumhara Me Sankar Beej Utpadan	Pandey, Sudhakar and <b>Ram</b> , <b>D</b> .	2003	Singh, K.P., Singh, B., singh, P.M., Ram, D., Swamy, T.M., Pandey, K.K., Kumar, S. and Pandey, Sudhakar. Published by ICAR-IIVR, Varanasi (U.P.). <b>In:</b> Sabjion Ka Sankar Beej Utpadan	37-41
34.	Breeding technique in vegetable crops.	<b>D. Ram</b> and M. Singh	1998	Vikram Mudralaya, Varanasi (U.P.). <b>In:</b> Bharat Me Sabji Utpadam Ki Pramukh Kisme Aur Vikas Ki Taknike (Hindi)	10-22

Popular Articles/ Bulletins/ Short Communications

	Topic	Author (s)	Year	Published in	Pages	Vol.
1.						
2.	Rabi Mausam Me Sabjee Utapadan	<b>D. R. Bhardwaj</b> , Ram Chand, S.K. Verma, Vidhya Sagar, Nakul Gupta and B. Singh	2018	Khad Patrika	31-46	59(9)
3.	Grihvatika Hai Swasthya Evam Poshan Ka Adhara	Marana, D.P, <b>D. R. Bhardwaj,</b> Anand Kumar Singh, Ramesh Singh, K.K. Gautam and Bijendra Singh	2018	Phal-Phool	8-12	1
4.	Breadfruit: A potential super food to combat world hunger.	Durga Prasad Moharana, Anand K. singh, <b>D. R. Bhardwaj</b> and K.K.	2017	Marumegh,	31-33	3(1)

		Gautam.				
5.	Sabjion Evam Phalo Me Bridhi Niyamak Ka Prayog.	Durga Prasad Moharan, <b>D. R. Bhardwaj,</b> Anand Kumar Singh, K.K. Gautam Evam Sunil Gupta	2017	Sabjee Kiran	26-35	11(1& 2)
6.	Purvi Uttar Pradesh Ke Tarai Kshetra Me sabjee Beej utpadan.	Rameshwar Singh, R. B. Yadav, Vikash singh, P. Karmakar, Moti Lal kushwaha, <b>D. R. Bhardwaj</b> Evam B. Singh	2017	Sabjee Kiran	61-67	11(1& 2)
7.	Sansthan Se Viksit Kisme Evam Takniko Ka Prasar.	Neeraj Singh Evam <b>D. R.</b> <b>Bhardwaj</b>	2017	Sabjee Kiran	81-62	11(1& 2)
8.	Sabjee Beej Niskasan Uprant Goode Evam Chilke Ka Upyog.	D. R. Bhardwaj, Tribhuvan Chaube, K. K. Gautam, Durga Prasad Moharana, Ashok Kumar Singh Evam Sunil Gupta.	2017	Sabjee Kiran	83-85	11(1& 2)
9.	ICAR-IIVR Dwara Viksit Unnatshil Kismein.	Singh, B., Singh, M., Lal, H., Rai, N., <b>Bhardwaj, D.R.</b> Pandey, S., Kumar, R., Prasanna, H.C., Chaubey, T., Sanwal, S.K., Tiwari, S.K. and Singh, P.M.	2017	Phal-Phool	4-7	38(1)
10.	Sabjion Ke Bahoomulya Anwanshik Sansadhan	Singh, B., Singh, M., Lal, H., Rai, N., Bhardwaj, <b>D.R. Kumar,</b> R., Prasanna, H.C., Sanwal, S.K., Chaubey, T., Pandey, S., Ranjan, J.K., Tiwari, S.K., Singh, B.K., Karmakar, P., Pragya, Jyoti, Devi, Seth, Tania and Reddy, B.R. and Mamta Singh	2017	Phal-Phool	18-22	38(1)
11.	Mirch Me Sankar Beej Utpadan: Naveentam Taknikian	Kumar, R., Singh, P.M., <b>Bhardwaj, D.R.</b> , Prasanna, H.C., Chaubey, T., Pandey, S., Tiwari, S.K., Singh, B.K., Gautam, K.K., Reddy, Y.S. and Mishra, G.P.	2017	Phal-Phool	26-27	38(1)
12.	Genetic Resources for future	Singh, B., Singh, M., Lal, H., Rai, N., <b>Bhardwaj, D.R.,</b> Kumar, R., Prasanna, H.C., Sanwal, S.K., Chaubey, T., Pandey, S., Ranjan, S.K., Tiwari, S.K., Singh, B.K., Karmakar, P., Pragya, Jyoti, Devi, Seth, Tania and Reddy, B.R.	2016	Indian Horticulture	18-22	38(1)
13.	Vegetable varieties/hybrids from IIVR, Varanasi	Singh, B., Singh, M., Lal, H., Rai, N., <b>Bhardwaj, D.R.,</b> Kumar, R., Pandey, S., Prasanna, H.C., Chaubey, T., Sanwal, S.K., S.K., Tiwari and Singh, P.M.	2016	Indian Horticulture	23-28	38(1)
14.	Innovative tools for hybrid seed production of vegetables	Kumar, R., Singh, P. M., <b>Bhardwaj, D.R</b> ., Prasanna, H.C., Chaubey, T., Pandey, S., Tiwari, S.K., Singh, B.K., Gautam, K.K, Reddy, Y.S. and Mishra, G.P.	2016	Indian Horticulture	29-31	38(1)
15.	Tikhur ki Kheti: Adhik Aya Ka Srout	Patel, V.K., <b>Bhardwaj, D.R.</b> , Gaur, H.R. and Singh, U.	2014	Phal-Phool	33-36	
16.	Nayee Kaddoovargiya Kismo Se Barahyen Amdani	Pandey, Sudhakar and Ram, D.	2013	Maru Bagwani,	30-33	-
17.	Sajion Se Samajik-Arthik Sudhar	Naik, P.S.; Singh, N.; Rai, A.B. and <b>Bhardwaj, D.R.</b>	2013	Kheti:(July Special	20-25	
18.	Varietal development in cabbage and cauliflower.	Singh, M., Pandey, A.K. and <b>Bhardwaj, D.R.</b>	2012	Krishika Shodh Patrika,	50-58	1

19.	Sabjion me Gunwatta evam Niryat Hetu Manak.	Bhardwaj, D. R.; Pandey, A. K.; Lal, Hira, Kumar, Arun andRai, Mathura.	2008	Sabji Kiran (January- December)	1 & 2: 63-67	
20.	Lobia: Ek Bahuuddesiya Fasal.	Lal, Hira; Rai, Mathura; Vishwa Nath, Nagendra Rai and <b>Bhardwaj</b> , <b>D.R.</b>	2008	Sabji Kiran (January- December)	18-20	2
21.	Kaddovargio sabjion Ka Beej Utpadan.	Ram, D.	2007	Sabji Kiran	112	
22.	Tikau Kheti: Kuchh Samyik Pahal.	Chaube, Tribhuwan, Pandey, A.K., Rai, Mathura, <b>Bhardwaj, D.R.</b> and Chaurasia, S. N. S.	2007	Sabji Kiran (July-December)	81-83	2
23.	Sabjeeion Ke Gunwattaukt Utpadan Hetu Purva Prabandhan.	Pandey, A.K., Rai, Gyaendra Kumar, <b>Bhardwaj, D.R.,</b> and Singh, P.M.	2007	Sabji Kiran (July-December)	68-70	2
24.	Sabjee Janandravaya: Mahatawa evam Sarchhan.	<b>Bhardwaj, D.R.,</b> Pandey, A.K., andRai, Mathura	2007	Sabji Kiran. (July-Dec.)	10-14	2
25.	Niryat Ke Liye Upyogi Kadduvargiya Sabjion.	<b>Ram, D.</b> , Sudhakar, Pandey, M. Rai and Singh, A. K.	2007	Sabji Kiran. (January–June)	38-43	1
26.	Khira Vargiya Sabjion me Shankar Beejotpadan.	Ram, D. and G, Kalloo.	2006	Phal-Phool.	3-8	27(3 & 4)
27.	New Vegetables from IIVR, Varanasi.	G, Kalloo, Rai, M., Kumar, R., Prasanna, H.C., Singh, M., Kumar, S., Singh, B.; Ram, D.; Pandey, Sudhakar; Lal, H., Pandey, P.K.; Rai, S.; Pandey, K.K. and Satpathy, S.	2006	Indian Horticulture (May-June)	16-22	51 (3)
28.	Promising Solanaceous and Cucurbitaceous Vegetables.	Rai, M., Kumar S., Pandey, Sudhakar, Singh M., <b>Ram, D</b> . and Prasanna, H.C.	2005	Indian Horticulture (JanMarch)	32-35	
29.	Jaivik Kheti Se Kaddoo Wargia sabjioan Ke Vipran Evam Niryat Me Rojgar.	Ram, D and Rai, Mthura	2004	Niryatak Kheti- Bari (September)	11-11- 12 & 30-32	
30.	Kumhara ki Kheti kyon aur kaise.	Sudhakar Pandey, Promod Kumar Chaube and <b>D. Ram</b> .	2003	Vishwa Krishi Sanchar	17-18	
31.	Parval ki Vagyanik kheti, niriyat ki sambhawnaye.	D. Ram.	2003	Niryatak Kheti- Bari (February)	13	
32.	Popularizing kakrol and Kartoli: The Indigenous Nutritious Vegetables.	Ram, G.,Kalloo, G. and Banerjee, M.K.	2002	Indian Horticulture (Oct-Dece.)		
33.	Kaddoo vargiya sabjioa Ko garmi main kaise ugaiye.)	Sudhakar Pandey <b>,D Ram</b> andM. K. Banerjee	2002	Vishwa Krishi Sanchar	43-46	2
34.	Ghar Ki Bagiya Mein Kaddoovargiya Sabjioa ki Kheti.	G.Kalloo and <b>D. Ram</b>	2001	Phal- Phool (July-Sept.)	8-12	
35.	Hari Sabjee Ke Liye Kunduru Ugaye.	Ram,D. and Pandey A.K.	1998	Phal- Phool (July-Sept.)	30-32	
36.	Lobia ki Vagaynik Kheti.	Ram, D and Singh, J.N.	1991	Farmer and Parliament	35-37	
37.	Sushk Kshetro Me Safal Bagwani Kaise Kare	Singh, J.N. and Ram, D.	1991	Farmer and Parliament	24-28	

10. Affiliation with the professional bodies/institutions/societies

Life member	Professional Bodies/ Institutions/ Societies	Professional bodies/ institutions/societies		
	The Horticultural Society of India		International Journal of Vegetable Science,	
	•		USDA	
Indian Society of Vegetable Science			Indian Society of Vegetable Science, Varanasi	
			(U.P.)	
	Indian Society of Plant Genetic Resources	Referee	Journal of Horticultural Sciences, IIHR,	
		of	Bangalore	
	UPCAR, Lucknow (U.P.)	Journals	Society for Advancement of Horticulture,	

		BCKVV, Nadia ( West Bengal)
Annual Member	Annual member of Progressive Horticulture	Annals of Plant and Soil Research, Agra
	-	(U.P.)
	Journal of Horticultural Sciences	Journal of Research, SKUAST-J, Directorate
		of Research, Jammu.
	Society for Advancement of Horticulture	The Indian Society of Genetics & Plant
		Breeding, IARI, New Delhi
Member of	Indian Society of Vegetable Science	The Indian Journal of Agricultural Sciences,
editorial Board		DIPA (ICAR) New Delhi
	Annals of Plant and Soil Research, Agra (U.P.)	The Indian Journal of Plant Genetic
		Resources, NBPGR, New Delhi

## 11. Other Information

Activities	No.
Research papers published in international proceedings	9
Abstracts published in seminar/congress/conference/symposium etc.	95
Popular articles in leading magazines	35
Extension folder	5
Chapters in Souvenir/ Manuals	29
National, International & state level Conference attended	29
Workshop, brainstorming, field days attended	20
Training imported to officials, progressive farmers	45
Extension/ Transfer of technology through TV (National, D.D. Hello Kisan, E TV., Z. TV & local channel),	51
All India Radio	
Organization of National seminar/Symposium/Conference Group Meeting/ Workshops	21
Organization and participation in brain storming sessions	5
Organization of farmers fair	23
Organization of exhibits for vegetable growers	18
Genetic Resource based field days organization and participation	6
Participation in PPV&FR based awareness programme	3
Participation in other programme organized out-side agencies	35
Lecture delivered in Institutes and Agricultural Universities	5
Development of Audio Visual CDs for vegetable growers	3

## I declare that:

- (1) The information given above, are complete and correct.
- (2) Neither any disciplinary proceedings are in pending nor contemplated against me.
- (3) I have never been dismissed from service nor debarred from holding any future appointment nor convicted for any offence. No criminal case is pending against me.
- (4) In case of concealment/suppression of fact(s), which may be detected at any stage in future, my application is liable to be cancelled/terminated, as the case may be, without notice.

Date:		
		Signature

(D. R. Bhardwaj)