

Department of Genetics & Plant Breeding

**College of Agriculture
G.B. Pant University of Agriculture & Technology
Pantnagar-263145, Uttarakhand**

Achievements

Faculty Awards/honours

- AICRP on Rice received Golden Jubilee Best Centre Award 2015 by ICAR during 50th Annual Group Meeting of ACRIP-Rice held at Indian Institute of Rice Research, Rajendra Nagar, Hyderabad from April 11 to 15, 2015.
- AICRP on Rapeseed-Mustard received Best Centre Award by ICAR during 20th Annual Group Meeting of AICRP-RM held at S.D. Agricultural University, Sardarkrushinagar (Gujarat) from July 5-7, 2013.
- AICRP on Sorghum received Best Centre Award 2010 by ICAR during 41st Annual Group Meet of ACRIP-Sorghum held at University of Agriculture Sciences, Dharwad from April 15 to 17, 2011.
- Department of Genetics & Plant Breeding received Department Excellence Award 2013 of College of Agriculture, GBPUAT, Pantnagar.
- Dr. J.P. Jaiswal was honored with Faculty Excellence Award 2013 of College of Agriculture, GBPUAT, Pantnagar.
- Dr. H.S. Chawla was honored with Faculty Excellence Award 2014 of College of Agriculture, GBPUAT, Pantnagar.
- Dr. N.K. Singh was honored with Faculty Excellence Award 2014 of College of Agriculture, GBPUAT, Pantnagar.
- Dr. H.S. Chawla delivered Prof. F.C. Steward Memorial Lecture in 35th Annual Meeting of PTCA (India) & Natl. Symp. on Advances in Plant Molecular Biology & Biotechnology, March 10-12, 2014.
- Dr. Salil K. Tewari was conferred with “Fellow of Confederation of Horticulture Associations of India” during International Conference on Water Quality and Management for Climate Resilient Agriculture held at Jalgaon , May 28-31, 2013
- Dr. Salil K. Tewari Co-Chaired the Session in the International Conference on water quality and Management for climate resilient Agriculture held at Jalgaon , May 28-31, 2013
- Dr. Salil K. Tewari was honoured as Guest of Honour in the inaugural function of KisanBharti Clones at Bilaspur (U.P.) on Nov.23, 2013.
- Dr. P.S.Shukla has been nominated member of the Board of Management, JNKVV, Adhartal, Jabalpur, M.P.
- Dr. P. S. Shukla has been nominated member of the Board of Management, Balmangalam School Pantnagar, U.S. Nagar.
- Dr. P. S. Shukla received Shatabadi Award 2013 by Vigyan Parishad Prayag Sakha MGCGB, Chittrakoot, Satana M.P.
- Dr. M. K. Karnwal , JRO, Plant Breeding Received outstanding contribution recognition certificate by the Indian Red Cross Society, Pantnagar, December 3, 2013
- Dr. A. S. Jeena had been awarded “Fellow of SSDAT, Meerut” during National Conference on Emerging Problems and Recent Advances in Applied Sciences: Basic to Molecular Approaches, Feb. 8-9, 2014 at Ch. Charan Singh University, Meerut.
- Dr. Salil K. Tewari. Elected Vice-President, Indian Society of Agroforestry, 2015-17
- Dr. Salil K. Tewari Fellow, Indian Society of Genetics & Plant Breeding, 2014
- Dr. Birendra Prasad was honored with Agri Innovation Award 2015 by GKV, Society Agra, U.P.

Varieties released during 2010-2015

Crop	Varieties
1. Wheat	UP 2584, UP 2684, UP 2748, UP 2784, UP 2785
2. Rice	Pant Sugandh Dhan 21 ,Pant Dhan 23, Pant Dhan 24, Pant Sugandh Dhan 25,Pant Dhan 26,Pant Sugandh Dhan 27
3. Maize	Pant Sankul Makka 2, Pant Sankul Makka 4
4. Barley	UPB 1008, PRB 701
5. Pulses	Moong bean: Pant Mung 7, Pant Mung 8 Urdbean: Pant Urd 6 Field pea: Pant Pea 86, Pant Pea 96, Pant Pea 155, Pant Pea 157 Pigeon pea: Pant Arhar 3 Lentil: Pant Lentil 9 Chickpea: Pant Kabuli Chana 2, Pant Gram 3 (Desi) and Pant Gram 4 (Desi)
6. Soybean	Pant Soybean 19, Pant Soybean 20, Pant Soybean 21, Pant Soybean 22, Pant Soybean 23
7. Oil seeds	Pant Rai 19, Pant Rai 20, Pant Rai 21, Pant Brassica 21, Pant Hill Toria 1, Pant Sweta, Pant Toria 508.
8. Millets	Finger millet: PRM 1, PRM 2 Barnayard millet: PRJ 1 Grain amaranth: PRA 1, PRA 2, PRA 3 Proso millet: PRC 1 Buck wheat: PRB 1
9. Cowpea	UPC 628, Pant Lobia 2 (Grain), Pant Lobia 5 (Grain)
10. Fodder crops	Sorghum: Pant Chari 7, Pant Chari 8 Oat : Pant Forage Oat 3
11. Sugarcane	Co Pant 3220, Co Pant 5224

Books:

- Roy, D. 2010. Biotechnology. Narosa Publishing House Pvt. Ltd. New Delhi & Alpha Science, U.K.
- Roy, D. 2012. Plant Breeding- A Biometrical Approach. Narosa Publishing House Pvt. Ltd. New Delhi & alpha Science, U.K.
- Roy, D. 2012. Biometrial Genetics- Analysis of Variation. Narosa Publishing House Pvt. Ltd. New Delhi & Alpha Science, U.K
- Prasad, B. and Kumar, S. 2013. Reshaping Technology for Agricultural Development. Satish Serial Publishing House, New Delhi, pp 466.
- Kumar, S. and Prasad, B. 201) Modern Technology for Sustainable Agriculture. New India Publishing Agency, New Delhi, pp 390.
- Kumar, S., Prasad, B., Pushpanjali and Bahuguna, A. 2013 Agricultural Sustainability and Approaches. Biotech Books, New Delhi, pp 439.
- Prasad, B. and Bahuguna, A. Agricultural Technology – A new paradigms Biotech Books, New Delhi-2
- Shukla, P.S. and Prasad, B. 2015. Advances in Seed Sciences and Technology, Biotech Books, New Delhi-2
- Tewari, S.K.Sah,V.K., Singh, V. and Dubey, A. 2015.Souvenir cum Abstracts – National Seminar on Holistic Development of Agroforestry: Potential and Policy Issues. Agroforestry Research Centre, GBP

Technical bulletin:

- Chawla, H.S., Shrotria P.K., Khulbe, R.K., Singh, Y.V. 2011. A Decade of varietal Development Research. Published by Directorate of Experiment Station, GBPUA&T, Pantnagar.
- Tewari, S.K., Kaushal, R. and Misra, N.P. 2011. Vavharik Baans Utpadan (in Hindi). Published by Directorate of Publication, GBPUA&T, Pantnagar.

Research Papers

Year	Number of Papers
2010-11	27
2011-12	25
2012-13	28
2013-14	60
2014-15	55

Students awards/achievement

a. Awards/honours/recognition (give details)-

- ❖ SaurabhBadoni, ID No. 37173, Ph. D. student under Dr. J.P. Jaiswal was awarded Young Scientist Award 2013 by Uttarakhand State Council for Science & Technology.
- ❖ Naveen C. Gahyatri, ID. No. 44048, Ph. D. student was awarded CSIR Fellowship & Qualified ARS NET 2013.
- ❖ RitushaTewari, ID No. 35765, M. Sc. student under Dr. J.P. Jaiswal was awarded Dow Agro Science scholarship.
- ❖ Jitendra Kumar Meena selected for Ph. D (Genetics) at IARI Delhi
- ❖ MahakTufchi Id. No. 40999 Ph. D. student was awarded NET certificate in Agriculture Biotechnology by ASRB (ICAR) in 2013.
- ❖ AnupamBarh Id. No. 32983 Ph. D. student under Dr. N.K. Singh was awarded Dow Agroscience scholarship.
- ❖ Research paper entitled “Improvement of popular wheat variety for rust resistance through marker assisted breeding” of SaurabhBadoni, ID No. 37173, Ph. D. student of Dr. J.P. Jaiswal was selected by Directorate of Wheat Research (ICAR), Karnal in All India Level Competition for its presentation in the Borlaug Global Rust Initiative (BGRI) Technical Workshop 2013 held in New Delhi, India during August 19-22, 2013.
- ❖ Anupama Singh, Ph. D. student qualified the ARS- NET 2013.

b. Students' placement

S.N.	Name of the Student	Position/Organization
2010-11 Batch		
1.	Mr. Aditya Kumar	Cane Officer, Kashipur (U.K.),
2.	Mr. Ashwani Kumar	P.O. Almora Corporate Bank, Haldwani (U.K.),
3.	Mr. Ayush Poddar	P.O. Bank of Baroda- Kashipur (U.K.)
4.	Mr. Chandan Roy	Assistant Professor, Bihar Ag., Univ., Sabour
5.	Mr. Gaurav Joshi	Agriculture Officer, Andhara Bank, Nargaon, Haryana.
6.	Mr. Gautam Das	Junior Scientist, J.K. Seeds, Hyderabad
7.	Mr. Hitesh Pandey	Agriculture Officer, Union Bank of India, Shahjhanpur, U.P.
8.	Mr. Kuldeep Kumar	Livestock Extension Officer, Uttarakhand Gov.
9.	Mr. K. Yesu Babu	Assistant Agriculture Officer, Andhra Pradesh
10.	Mr. Manoj Singh Dharmshaktu	Manager, Indogulf Fertilizers, Lucknow

11.	Mr. Prafulla Kumar	Assistant Professor, IGKPV, Raipur
12.	Mr. Praveen Kumar	Scientist-B/Jr. Maize Breeder, Lima Grain Pvt. Ltd., Hyderabad.
13.	Ms. Pooja Devi	Maize Breeder in Lima Grain, Hyderabad
14.	Mr. Shivanand Pandey	P.O. Union Bank of India, Gorakhpur(U.P.)
15.	Ms. Aneeta Yadav	Asstt. Prof., Bihar Ag., Univ., Sabour
2011-12 Batch		
16.	Ms. Amrita Singh	P.O., OBC Bank, Khatima (U.K.)
17.	Ms. Anita Verma	Junior Breeder, Monsanto, Bangalore
18.	Ms. Anjali Bist	P.O. Punjab Sind Bank, Dehradun
19.	Mr. Arvind Singh Negi	Junior Scientist, Sun Agro, Haryana
20.	Mr. Kush Dutt Rawat	Junior Breeder, VNR Seeds, Raipur
21.	Ms. Poonam Kharbanda	Asstt, Prof, Zee University, Dehradun
22.	Mr. Pradeep Kumar	P.O. Allahabad Bank, Lucknow
23.	Ms. Richa Gupta	Agriculture Officer, Central Bank of India, Rudrapur
24.	Mr. Rajneesh Singh	P.O., ICICI Bank, Rajasthan
25.	Mr. Sudhir Kumar	Assistant Professor, Bihar Ag. Univ., Sabour
2012-13 Batch		
26.	Ms. ShailySaini	P.O. Canara Bank, Aligarh (U.P.), 2013
27.	Ms. ShikhaArya	P.O. Canara Bank, Dhampur (U.P), 2013
28.	Ms. Ritu Singh	P.O. Canara Bank, Sahranpur(U.P), 2013
2013-14 Batch		
29.	Mr. Deepak Arya	Extension Officer, IFFCO, Bhopal, 2012
30.	Mr. Sudhir Kumar	ARS-Scientist/ICAR (Manipur),2012
31.	Mr. Dharm Nath Kamat	Junior Scientist-cum- Asstt. Professor, RAU, Pusa Bihar
32.	Mr. Jogendra Singh	Asstt. Seed Certification Officer, Kota, Rajasthan

Significant Contribution (National / state level)

Development and release of crop varieties

The department has played a pivotal role in ushering the Green Revolution in India by developing landmark varieties in wheat, rice, maize, pulses, oilseeds, forage, sugarcane and other crops. Till the year 2014-15, about 200 varieties have been developed and commercially released in various crops. One of the most outstanding impacts of the breeding programme has been the massive seed production of various crops and “*Pantnagar Seeds*” is the most popular brand among the farmers of the country. Besides this the Department has also focused research efforts to meet specific requirements of hills of Uttarakhand.

Registration of varieties and germplasm

Besides the varietal release, registration of extant varieties, registration of Farmers’ varieties with Protection of Plant Varieties and Farmers’ Rights (PPV&FR) Authority of Govt. of India, and registration of novel germplasm with National Bureau of Plant Genetic Resources (NBPGR), New Delhi are some of the significant achievements. So far 16 extant varieties (wheat-5, rice-1, pulse crops-7, oilseeds- 1 and sorghum-2), 3 Farmers’ Varieties (Indrasan, Tilakchand and Hansraj varieties of rice), one forage sorghum variety Rampur local, and 26 novel germplasm of different crops have been registered.