

Curriculum Vitae of Shailendra Sharma



Name: Shailendra Sharma

Designation: Professor and Dean, Faculty of Agriculture

Department: Genetics & Plant Breeding department

Coordinator: Department of Plant Protection

Professor In-Charge/Director: Charak School of Pharmacy

Ex-Head: Genetics & Plant Breeding department

Ex-Coordinator: DST FIST research project

Institute/University: Chaudhary Charan Singh University, Meerut, India

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National level exams qualified:

ICAR NET-2003; GATE-1999; CSIR-SRF

Honors/Awards

- Awarded with **Humboldt (Alexander von Humboldt)** fellowship to carry out research in, Germany.
- Awarded with **JSPS (Japan Society for the Promotion of Science)** fellowship to carry out research in Japan.
- Awarded with **DBT-Ramalingaswami Re-Entry Fellowship (Scientist D equivalent)**.
- **Visiting Senior Fellow** at Murdoch University, Western Australia.

Professional Experience and Training relevant to the Project

Shailendra Sharma has about 20 years of experience (post Ph.D.) working with genetics and biotechnology of cereal species including wheat, barley, rice and bio-energy grasses like *Miscanthus* and sugarcane. For last several years, he has been working on the development of molecular markers and disease resistance studies in wheat. He is also involved in QTL mapping studies in wheat, barley and *Misacnathus*. He is teaching various courses at M.Sc. and Ph.D level. He has supervised several masters, M.Phil. and doctoral students

ADMINISTRATIVE EXPERIENCE AT CCSU, MEERUT (past and present)

Ex-Head: Genetics and Plant Breeding Department (2020-2023)

Coordinator: Plant Protection Department

Professor In-Charge/Director: Charak School of Pharmacy

Member: Centre for International Cooperation cell of CCSU

Ex-Coordinator: DST FIST research project

Controller, Deputy Controller: Evaluation Centre

Member: Executive council

Member: Academic council

RDC/DRC convenor

BoS convenor I: for M.Sc (AG.) GPB

Coordinator: Phd programme

Coordinator: LLM/M.Ed. entrance exam

Examiner and Observer for various exams

External Expert

Other administrative experience

Entrance examination observer for different exams

Anti ragging squad

Member for various committee at university level

Question paper setter

External subject expert for recruitment of Faculty members

External subject expert for recruitment of research fellows in various institutes across India.

External expert for various exams/viva voce

Nodal Officer from University for teacher's felicitation (of Saharanpur district) on 5.9.2021.

B. RESEARCH EXPERIENCE AT CCSU, MEERUT

Ongoing/Completed Research Projects

S. No.	Title of Project	Funding Agency	Designation	Year of sanction and Duration
1.	Dissecting resistance to plant parasitic nematodes in wheat using molecular breeding and functional genomics	DBT (Govt. of India)	Principal Investigator	2017, Five years
2.	High resolution QTL mapping for iron (Fe), zinc (Zn), grain protein, and phytate contents and their introgression in high yielding wheat cultivars-	DBT (Govt. of India)	Principal Investigator	2019, Approved for 3 years
3.	Characterization of Genetic Resources: Germplasm Characterization and Trait Discovery in Wheat using Genomics Approaches and its Integration for Improving	DBT (Govt. of India)	Principal Investigator	2020, Approved for 5 years

	Climate Resilience, Productivity and Nutritional quality			
4.	Rice based functional characterization of important wheat genes involved in iron uptake translocation and regulation	DBT (Govt. of India)	Mentor	2020-2022
5.	DST-FIST Grant	DST (Govt. of India)	Coordinator (Till 26.6.2023) and Principal Investigator (contd.)	2022-2027

C. Publications: 66

i10 index: 31; Citation: 2275; Total impact factor: 172

Peer-reviewed publications (chronological order)

Sharma V, Gangurde SS, Nayak SN, Gowda AS, Sukanth BS, Mahadevaiah SS, Manohar SS, Choudhary RS, Anitha T, Malavalli SS, Srikanth SN, Bajaj P, **Sharma S**, Varshney RK, Latha P, Janila P, Bhat RS and Pandey MK (2023) Genetic mapping identified three hotspot genomic regions and candidate genes controlling heat tolerance-related traits in groundnut. ***Front. Plant Sci.*** 14:1182867. doi: 10.3389/fpls.2023.1182867 (Impact Factor: 6.2)

Chaturvedi D, Pundir S, Singh VK, Kumar D, Sharma R, Roeder MS, Sharma S, **Sharma S** (2023) Identification of genomic regions associated with cereal cyst nematode (*Heterodera avenae* Woll.) resistance in spring and winter wheat. ***Scientific Reports*** 13, 5916 (2023). <https://doi.org/10.1038/s41598-023-32737-8> (Impact Factor: 4.99)

Vikas Kumar Singh, Deepti Chaturvedi, Saksham Pundir, Deepak Kumar, Rajiv Sharma, Sundeep Kumar, Shiveta Sharma, **Shailendra Sharma**. (2023) GWAS scans of cereal cyst nematode (*Heterodera avenae*) resistance in Indian wheat germplasm. ***Molecular Genetics and Genomics*** 298(3):579-601. doi: [10.1007/s00438-023-01996-5](https://doi.org/10.1007/s00438-023-01996-5). (Impact Factor: 3.0)

Pundir S, Singh VK, Kumar S, Chaturvedi D, Kumar D, Kanwar RS, Kumar A, Börner A, Sharma S, **Sharma S**. (2022) Validation of resistance to cereal cyst nematode (*Heterodera avenae*) and yield performance study in doubled haploid lines of wheat (*Triticum aestivum* L.). ***Genetic Resources and Crop Evolution*** 70, pages107–113 DOI:10.1007/s10722-022-01495-3. (*Corresponding author. Impact Factor: 1.87*)

Shukla Gyanika, Sharma Shiveta, Gaurav Akash, **Sharma Shailendra** (2022) Physiological role and biofortification of zinc in wheat (*Triticum aestivum* L.). ***Plant Physiology Reports*** (<https://doi.org/10.1007/s40502-022-00677-6>)

Pundir S, Sharma R, Kumar D, Singh VK, Chaturvedi D, Kanwar RS, Röder MS, Börner A, Ganai MW, Gupta PK, Sharma S, **Sharma S** (2022) QTL mapping for resistance against cereal cyst nematode (*Heterodera avenae* Woll.) in wheat (*Triticum aestivum* L.). ***Scientific Reports*** 12, 9586 (2022). <https://doi.org/10.1038/s41598-022-12988-7>. (Impact Factor: 4.99)

Kalpana Singh, Dinesh Kumar Saini, Gautam Saripalli, Ritu Batra, Tinku Gautam, Rakhi Singh, Sunita Pal, Manoj Kumar, Irfat Jan, Sahadev Singh, Anuj Kumar, Hemant Sharma, Jyoti Chaudhary, Kuldeep Kumar, Sourabh Kumar, Vikas Kumar Singh, Vivudh Pratap Singh, Deepak Kumar, Shiveta Sharma, Sachin Kumar, Rahul Kumar, **Shailendra Sharma**, Shailendra Singh Gaurav, Pradeep Kumar Sharma, Harindra Singh Balyan, Pushpendra Kumar Gupta (2022) _WheatQTLdb V2.0: a supplement to the database for wheat QTL. **Molecular Breeding** 42, 56 (2022). (IF: 3.2)

Kumar S, Jacob SR, Mir RR, Vikas VK, Kulwal P, Chandra T, Kaur S, Kumar U, Kumar S, **Sharma Shailendra**, Singh R, Prasad S, Singh AM, Singh AK, Kumari J, Saharan MS, Bhardwaj SC, Prasad M, Kalia S, Singh K. (2022) Indian Wheat Genomics Initiative for Harnessing the Potential of Wheat Germplasm Resources for Breeding Disease-Resistant, Nutrient-Dense, and Climate-Resilient Cultivars. **Frontiers in Genetics**. 29; 13: 834366. doi: 10.3389/fgene.2022.834366. (Impact Factor: 4.5)

Rakhi Singh, Gautam Saripalli, Tinku Gautam, Anuj Kumar, Irfat Jan, Ritu Batra, Jitendra Kumar, Rahul Kumar, Harindra Singh Balyan, **Shailendra Sharma**, Pushpendra Kumar Gupta (2022) Meta-QTLs, ortho-MetaQTLs and candidate genes for grain Fe and Zn contents in wheat (*Triticum aestivum* L.). **Physiology and Molecular Biology of Plants**. 28(3):637–650. 10.1007/s12298-022-01149-9. (Corresponding author. Impact Factor: 3.2)

Parveen Malik, Jitendra Kumar, Shiveta Sharma, Prabina Kumar Meher, Harindra Singh Balyan, Pushpendra Kumar Gupta, **Shailendra Sharma** (2022) GWAS for main effects and epistatic interactions for grain morphology traits in wheat. **Physiology and Molecular Biology of Plants**. 28(3):651–668. 10.1007/s12298-022-01164-w. (Corresponding author. Impact Factor: 3.2)

[Parveen Malik](#), [Jitendra Kumar](#), [Shiveta Sharma](#), [Rajiv Sharma](#) & [Shailendra Sharma](#) (2021). Multi-locus genome-wide association mapping for spike-related traits in bread wheat (*Triticum aestivum* L.). **BMC Genomics** 22, 597 (DOI: <https://doi.org/10.1186/s12864-021-07834-5>) (Corresponding author. Impact Factor: 4.55)

Parveen Malik, Jitendra Kumar, Sahadev Singh, Shiveta Sharma, rabina Kumar Meher, Mukesh Kumar Sharma, Joy Kumar Roy, Pradeep Kumar Sharma, Harindra Singh Balyan, Pushpendra Kumar Gupta, **Shailendra Sharma** (2021) Single-trait, multi-locus and multi-trait GWAS using four different models for yield traits in bread wheat. **Molecular Breeding**. 41, 46. (DOI: <https://doi.org/10.1007/s11032-021-01240-1>). (Corresponding author. Impact Factor: 3.2)

Singh K, Batra R, Sharma S, Saripalli G, Gautam T, Singh R, Pal S, Malik P, Kumar M, Jan I, Singh S, Kumar D, Pundir S, Chaturvedi D, Verma A, Rani A, Kumar A, Sharma H, Chaudhary J, Kumar K, Kumar S, Singh VK, Singh VP, Kumar S, Kumar R, Gaurav SS, **Sharma S**, Sharma PK, Balyan HS, Gupta PK. WheatQTLdb: a QTL database for wheat. **Molecular Genetics and Genomics**. 2021 Jun 11. doi: 10.1007/s00438-021-01796-9. (Impact Factor: 3.0)

Deepak Kumar, Shiveta Sharma, Rajiv Sharma, Saksham Pundir, Vikas Kumar Singh, Deepti Chaturvedi, Bansa Singh, Sundeep Kumar & **Shailendra Sharma** (2021) Genome-wide association study in hexaploid wheat identifies novel genomic regions associated with resistance to root lesion nematode (*Pratylenchus thornei*). **Scientific Reports** 11:572)- (Corresponding author. Impact Factor: 4.99)

Gupta PK, Balyan HS, **Sharma S**, Kumar R (2021) Biofortification and bioavailability of Zn, Fe and Se in wheat: Present status and future prospects. **Theoretical and Applied Genetics** 134: 1-35. (Impact Factor: 5.69)

Gupta PK, Balyan HS, **Sharma S**, Kumar R (2020) Genetics of yield, abiotic stress tolerance and biofortification in wheat (*Triticum aestivum* L.). **Theoretical and Applied Genetics**. 133(5):1569-1602. DOI: 10.1007/s00122-020-03583-3. **(Impact factor: 5.69)**.

P.K. Gupta, H.S. Balyan, P.K. **Sharma**, S.S. Gaurav, Shailendra Sharma, Rahul Kumar, Sachin Kumar, Shiveta Sharma, Kalpana Singh, Ritu Batra, Gautam Saripalli, Tinku Gautam, Rakhi, Sunita Pal, Irfat Jan, Anuj Kumar, Kuldeep Kumar, Manoj Kumar, Sahadev Singh, Sourabh Kumar, Vivudh Pratap, Hemant Sharma, Deepti Chaturvedi, Parveen Malik, Vikas Kumar Singh, and Anjali Verma; and Deepak Kumar and Saksham (Department of Botany, Ch. Charan Singh University, Meerut, India). (2020) **Annual wheat Newsletter** Vol. 66 27-36.

Dong H, Liu SY, Clark LV, **Sharma S**, Gifford JM, Juvik JA , Lipka A and Sacks EJ (May 2019) Winter hardiness of *Miscanthus* (II): Genetic mapping for overwintering ability and adaptation traits in three interconnected *Miscanthus*. **Global Change Biology Bioenergy** 11(5): 706-726. (<https://doi.org/10.1111/gcbb.12587>). **(Impact factor: 6.2)**.

P.K. Gupta, H.S. Balyan, P.K. Sharma, **Shailendra Sharma**, Sachin Kumar, Kalpana Singh, Ritu Batra, Jitendra Kumar, Gautam Saripalli, Tinku Gautam, Rakhi Singh, Sunita Pal, Anuj Kumar, Irfat Lateef, Kuldeep Singh, Sourabh Kumar, Vivudh P Singh, Hemant Sharma, Deepti Chaturvedi, and Parveen Malik (2019) **Annual wheat Newsletter** Vol. 65 20-27.

Kumar M , Rakesh Sharma V, Kumar V, Sirohi U, Chaudhary V, Sharma S, Saripalli G, Naresh RK, Yadav HK, **Sharma Shailendra** (March, 2019) Genetic diversity and population structure analysis of Indian garlic (*Allium sativum* L.) collection using SSR markers. **Physiology and Molecular Biology of Plants**. 25(2):377-386 **(Corresponding author. Impact Factor: 2.4)**

Dong H , Liu SY , Clark LV, Sharma S, Gifford JM, Juvik JA , Lipka A and Sacks EJ (March, 2018) Genetic mapping of biomass yield in three interconnected *Miscanthus* populations. **Global Change Biology Bioenergy** 10:165-185. **(Impact factor: 6.2)**.

Chaudhary V, Kumar M, **Sharma S**, Kumar N, Kumar V, Yadav HK, Sharma S, Sirohi U (May, 2018) Assessment of genetic diversity and population structure in gladiolus (*Gladiolus hybridus* Hort.) by ISSR markers. **Physiology and Molecular Biology of Plants**. 24: 493-501. **(Corresponding author. Impact Factor: 2.4)**

Kumar N, Kumar M, Yadav H, **Sharma S**, Singh S (2017) Genetic diversity and population structure analysis of chrysanthemum (*Dendranthema grandiflora* Tzvelev) germplasm based on RAPD markers. **Journal of Environmental Biology**. 38: 457-464. **(Impact factor: 0.78)**.

Marzin S, Hanemann A, **Sharma S**, Hensel G, Kumlehn J, Knogge W, Schweizer G, Röder MS (2016) Are pectin esterase inhibitor genes involved in mediating resistance to *Rhynchosporium commune* in barley? **PloS One** 11: e0150485. **(Impact factor: 3.24)**.

Glowacka K, Ahmed A, **Sharma S**, T Abbott, J Comstock, S Long, EJ Sacks (2016) Can chilling tolerance of C₄ photosynthesis in *Miscanthus* be transferred to sugarcane? **Global Change Biology Bioenergy** 8: 407-418. **(Impact factor: 6.2)**.

Sharma S (2016) Genomics approaches used to control plant parasitic nematodes. **International Journal of Current Microbiology and Applied Sciences**. 5: 823-828.

Porash Kumar, Mukesh Kumar, R. K. Naresh , Navneet Kumar, Pradeep Chaudhary and **Shailendra Sharma** (2016) Evaluation of genetic diversity among *Gladiolus* (*Gladiolus hybridus* hort.) germplasm using issr markers. **Int. J. Agricult. Stat. Sci. 12: 277-283**

Sharma S (2016) A brief look into *Pratylenchus* genus root lesion nematodes and their screening procedures(2016) **Progressive Agriculture 16: 141-144**

Sharma S (2016) Survey of traditional approaches used in the management of root lesion nematodes (RLNs) affecting crop plants. **Annals of Horticulture Journal 9:1-3**

Sharma S (2016) Experiences with some chemical approaches used for controlling plant parasitic nematodes. **Annals of Horticulture Journal 9: 13-15.**

Sharma S (2015) Recent chemical and biological control measures for rice blast disease-Review. **Progressive Agriculture 15:157-161 .**

Sharma S (2015) Current advances on marker assisted breeding for rice blast disease. **Biotech Today: An International Journal of Biological Sciences 5: 62-67.**

Sharma S (2015) Short survey of recent transgenic and biotechnology approaches used to control rice blast Disease. **Biotech Today: An International Journal of Biological Sciences 5:7-10**

Sharma S, Sharma S, Singh RK, Vaishampyane A (2015) Study of Nutrient use efficiency of rice plants inoculated with IAA mutants . **Progressive Agriculture 15: 162-165**

Galal A, Sharma S, **Sharma S**, S Fatouh Abou-Elwafa, Sharma S, F Kopisch-Obuch, E Laubach, DPerovic, F Ordon, C Jung (2014) Comparative QTL Analysis for Marker-Assisted Breeding of Root Lesion Nematode Resistance in Barley. **Theoretical and Applied Genetics. 127: 1399-407. (Impact Factor: 5.67)**

Balyan D, Sirohi A, Kumar M, Kumar V, Malik S, Sharma, Sharma S, **Sharma S** (2014) Comparative genetic diversity analysis in chrysanthemum: A pilot study based on morpho- agronomic traits and ISSR markers. **Scientia Horticulturae 167: 164–168. (Corresponding author. Impact Factor: 4.34)**

Sharma S, S Sharma, A Hirabuchi, K Yoshida, K. Fujisaki, A Ito, A Uemura, R Terauchi, S Kamoun, Kee H. Sohn, J D. G. Jones & H Saitoh (2013) Deployment of *Burkholderia glumae* type III secretion system as an efficient tool for translocating pathogen effectors to monocot cells. **The Plant Journal 74: 701-712. (Impact factor: 7.2).**

Fekih R, H Takagi, M Tamiru, A Abe, S Natsume, HYaegashi, **Sharma S, S Sharma, H Kanzaki, H Matsumura, H Saitoh, C Mitsuoka, H Utsushi, AUemura, E Kanzaki, S Kosugi, KYoshida, Liliana Cano, S Kamoun, R Terauchi** (2013) MutMap+: Genetic Mapping and Mutant Identification without Crossing in Rice. **PLoS One 8: e68529. (Impact factor: 3.24).**

Matthies Inge E, **Sharma S**, Weise Stephan, Röder Marion S (2012) Sequence variation in the barley genes encoding sucrose synthase I and sucrose phosphate synthase II, and its association with variation in grain traits and malting quality. **Euphytica 184: 73-83. (Equal first authorship; corresponding author, Impact Factor: 2.18).**

- Sharma , **Sharma S**, Keil Tobias, Laubach E berhard, Jung C (2011) QTL analysis of root-lesion nematode resistance in barley: 1. *Pratylenchus neglectus*. **Theoretical and Applied Genetics**. **122**: 1321-1330. (Impact Factor: 5.69).
- Nezhad Khalil Zaynali, Weber WE. Roeder MS, **Sharma S**, Lohwasser U, Meyer RC, Saal B, Boerner A (2012) QTL analysis for thousand-grain weight under terminal drought stress in bread wheat (*Triticum aestivum* L.). **Euphytica** **186**: 127-138. (Impact Factor: 2.18).
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- Sharma s, Sharmas S, Keil T, Laubach E, Jung C et al. (2011) Screening of barley germplasm for resistance to root lesion nematodes. **Plant Genetic Resources** (Characterization and utilization) **9**: 236-239. (Impact Factor: 1.08)
- Sharma S, Sreenivasulu N, H V Thammegowda, Seiler C, Sharma S, K Nezhad, Akhunov E, Sehgal K S, Röder Marion S (2010) Delineating the structural, functional and evolutionary relationships of sucrose phosphate synthase gene family II in wheat and related grasses. **BMC Plant Biology** **10**: 134. (Impact Factor: 4.21).
- Kumar V, Sharma S, Sharma AK, Sharma S, Bhat KV (2009) Comparative analysis of diversity based on morpho-agronomic traits and microsatellite markers in common bean. **Euphytica** **170**: 249-262. (Impact Factor: 2.18).
- Kumar V, Sharma S, Sharma AK, Kumar M, Sharma S, Malik S, Singh KP, Sanger RS, Bhat KV (2009) Genetic diversity in Indian common bean (*Phaseolus vulgaris* L.) using random amplified polymorphic DNA markers. **Physiology and Molecular Biology of Plants** **14**: 383-387. (Impact Factor: 3.2).
- Bansal S, Mishra A, Tomar A, **Sharma S**, Khanna VK, Garg GK (2008) Isolation and temporal endospermal expression of g-kafirin gene of grain sorghum (*Sorghum bicolor* L. moench) var. M 35-1 for introgression analysis of transgene. **Journal of Cereal Science** **48**: 808–815. (Impact Factor: 3.61).
- Mir R, Rustgi S, **Sharma S**, Singh R, Goyal A, Kumar J, Gaur A, Tyagi AK Khan H, Sinha MK, Balyan H S and Gupta P Ket al. (2008) A preliminary genetic analysis of fibre traits and the use of new genomic SSRs for genetic diversity in jute. **Euphytica** **161**: 413-427. (Impact Factor: 2.18).
- Sharma S, **Sharma S**, Singh RK, Vaishampaya A (2008) Colonization behavior of bacterium *Burkholderia cepacia* inside the *Oryza sativa* roots visualized using green fluorescent protein reporter. **World journal of Microbiology and Biotechnology**. **24**: 1169-1175. (Impact Factor: 4.20).
- Kumar V, **Sharma S**, Kero S, Sharma S, Sharma AK, Kumar M, Bhat KV (2008) Assessment of genetic diversity in common bean (*Phaseolus vulgaris* L.) germplasm using amplified fragment length polymorphism (AFLP). **Scientia Horticulturae** **116**: 138-143. (Impact Factor: 4.34)
- Singh R, N Kumar, R Bandopadhyay, S Rustgi, **Sharma S**, Balyan HS, Gupta PK (2006) Development and use of anchored-SSRs to study DNA polymorphism in bread wheat (*Triticum aestivum* L.). **Molecular Ecology (Resources)** **6**: 296-299. (Impact Factor: 8.10).

Kumar A, Arya L, Kumar V, Sharma S (2006) Inter simple Sequence Repeat analysis of cytoplasmic male sterile, male fertile lines and hybrids of pearl millet (*Pennisetum glaucum* (L.) R.Br.). **The Indian Journal of Crop Science** 1: 117-119.

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Gupta PK, Balyan HS, Bandopadhyay R, Kumar N, Sharma S, Kulwal PL, Rustgi S, Singh R, Goyal A, Kumar A (2005) Development and use of molecular markers for wheat genomics. **Annual Wheat Newsletter** 51: 51-55.

Sharma S, Beharav A, Balyan HS, Nevo E, Gupta PK (2004) Ribosomal DNA polymorphism and its association with geographical and climatic variables in 27 wild barley populations from Jordan. **Plant Science** 166: 467-477. (*Impact Factor: 5.36*).

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Gupta PK, **Sharma S**, Kumar S, Balyan HS, Nevo E (2004) Adaptive Ribosomal DNA polymorphism at a mosaic microsite Neve Ya'ar in Israel. **Plant Science** 166: 1555-1563. (*Impact Factor: 5.36*).

Bandopadhyay R, **Sharma S**, Rustgi S, Singh R, Gupta A, Balyan HS, Gupta PK et al. (2004) DNA polymorphism among 18 species of *Triticum-Aegilops* complex using wheat EST-SSRs. **Plant Science** 166: 349-356. (*Impact Factor: 5.36*).

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Gupta PK, Rustgi S, **Sharma S**, Singh, Kumar R, Balyan HS (2003) Transferable EST- SSR markers for the study of polymorphism and genetic diversity in bread wheat. **Molecular Genetics and Genomics** 270: 315-323. (*Impact Factor: 3.2*).

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Gupta PK, Balyan HS, Prasad M., Roy JK, Kumar N, Sharma S and Kulwal PL (2002) Development and use of molecular markers for genetic mapping and marker-assisted selection in wheat. **Annual Wheat Newsletter 48**: 76-80.

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Book Chapters:

Kumar R., Kumar S., **Sharma S.**, Kumar R. (2021) Genetics and Breeding of Fe and Zn Improvement in Wheat. In: Wani S.H., Mohan A., Singh G.P. (eds) Physiological, Molecular, and Genetic Perspectives of Wheat Improvement. Springer, Cham. https://doi.org/10.1007/978-3-030-59577-7_5. ISBN 978-3-030-59577-7

Windham J., **Sharma S.**, Kashyap M.K., Rustgi S. (2021) CRISPR-Cas12a (Cpf1) and Its Role in Plant Genome Editing. In: Tang G., Teotia S., Tang X., Singh D. (eds) RNA-Based Technologies for Functional Genomics in Plants. Concepts and Strategies in Plant Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64994-4_13. ISBN: [978-3-030-64994-4](https://doi.org/10.1007/978-3-030-64994-4)

Sharma S, Sharma R (2010) Biotechnology and sustainable agriculture, marker assisted selection chapter 18 (p570) in: Stable Food Production and Sustainable Agriculture : A Challenge Ahead in 21st Century. R S Sengar and A K. Sharma (Eds) ISBN : 938001214.

Shiveta Sharma, **Shailendra Sharma** and Akhouri Vaishampayan (2015) Dissection of molecular and physiological mechanism governing the interaction of root lesion nematodes and *Burkholderia* species group of bacteria to host cereals and non- cereal energy plants. Plant-Microbe Interaction by K.Ramasamy and K.Kumar (eds). Second Chapter.New India publishing Agency. ISBN 10: 9383305835, ISBN 13: 9789383305834

Oral presentation/Invited talks/poster presentation in international symposium/conference

Sharma S, R Singh, S Rustgi, HS Balyan and PK Gupta (2004) Development and use of microsatellites for detecting DNA polymorphism, genotype identification and genetic diversity in jute. In: Agricultural Biotechnology International Conference (ABIC 2004). 12- 15 September, 2004, Cologne, Germany.

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- Sharma S and Röder MS (2007) Study of sequence polymorphism and genetic diversity of Sucrose Phosphate Synthase Gene in bread wheat and its A, B genome progenitors. International Conference “Molecular Mapping and Marker Assisted Selection in Plants”. pp. 56. October 9-11, Vienna, Austria.
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Invited lecture on “AgriGenomics Approaches for Crop Improvement” at the Botany department of Ch. Charan University Meerut during two days International Workshop on Advanced Biological Techniques and Intellectual Property Rights, July 27-28, 2018.

Kalpana Singh, Ritu Batra, Shiveta Sharma, Gautam Saripalli, Tinku Gautam, Rakhi Singh, Sunita Pal, Parveen Kumar, Manoj Kumar, Irfat Jan, Sahadev Singh, Deepti Chaturvedi, Hemant Sharma, Sourabh Kumar, Vivudh Pratap Singh, Deepak Kumar, Saksham, Anuj Kumar, Kuldeep Kumar, Anshu Rani, Vikas Kumar Singh, Anjali Verma, Jyoti, Sachin Kumar, Rahul Kumar, Shailendra Sharma, Pradeep Kumar Sharma, Harindra Singh Balyan, Pushpendra Kumar Gupta
(2019) WheatQTLdb: A QTL Database for Wheat. In : National Symposium on Database Development and Biocuration December 17-18, 2019 at Department of Plant Molecular Biology University of Delhi South Campus New Delhi, India

Attended International conference on “Crop Genomics: Present & Future” organized by ICRISAT, Hyderabad, India from 6.12.2017 to 8.12.17.

Twelve Presentations (Annual + quarterly;2013-2017) ARPAE-Department of Bioenergy project Urbana-Champaign,USA.

Invited talk entitled “**Exploitation of Innovative Molecular and Genomic Approaches for Crop Improvement**” dated 22.12.2020 in ONLINE FACULTY TRAINING on ‘Application of Molecular and Bioinformatic Tools in Agriculture and Allied Sciences’ w.e.f. December 11, 2020 to December 24, 2020 organized by the Centre of Excellence in Agri Biotechnology at Sardar Vallabhbhai Patel Agricultural University, Meerut established with the funding of CSTUP in collaboration with Bioinformatics Infrastructure Facility funded by DBT, New Delhi.

Invited talk entitled “**Genome Wide Association Studies in Bread Wheat for Traits of Economic Importance**” dated 20.7.2021 in ONLINE FACULTY TRAINING on ‘Application of Molecular and Bioinformatic Tools in Agriculture and Allied Sciences’ w.e.f. July 7, 2021 to July 20, 2021 organized by the Centre of Excellence in Agri Biotechnology at Sardar Vallabhbhai Patel Agricultural University, Meerut established with the funding of CSTUP in collaboration with Bioinformatics Infrastructure Facility funded by DBT, New Delhi.

Delivered an invited lecture entitled “**Application of GWAS In Food Quality Improvement**” in 21-days ICAR-Sponsored Winter School on Biofortification of Staple food crops through Conventional & Molecular Approaches, from 3rd-23rd January, 2022, Organised by Department of Molecular Biology, Biotechnology & Bioinformatics, CCS Haryana Agricultural University, Hisar.

Invited talk on “**Molecular breeding and functional genomics studies for plant parasitic nematodes resistance in wheat**” during IV International Conference on Innovative and Current Advances in Agriculture and Allied Sciences (ICAAAS), 2022 12-14 June, 2022, Shimla, H.P. Organized by: Society for Scientific Development in Agriculture and Technology, Meerut (U.P.), India

Delivered an invited lecture entitled “**Dissecting resistance to plant parasitic nematodes in wheat using molecular breeding and functional genomics**” on 30.3. 2022 during Capacity building workshop in nematode taxonomy and satellite symposium on advances in nematology (21-30, March, 2022) at the department of zoology, CCSU, Meerut.

Delivered an invited lecture entitled “**Plant Parasitic Nematodes the Hidden Enemy of crop plants**” on 26.1.2023 during DST Sponsored STUTI TRAINING PROGRAM (21.1.2023-27.01.2023).

Deepti Chaturvedi, Shiveta Sharma and Shailendra Sharma*. Screening of Wheat (*T. aestivum* L.) Genotypes for Resistance Against Cereal Cyst Nematode (*Heterodera avenae*). International Conference on Innovative and Current Advances in Agriculture & Allied Sciences (ICAAAS-2021). (19-21 July, 2021). Organized by Society of Scientific Development in Agriculture and Technology, Meerut (U.P.) India.

Deepak Kumar, Saksham, Shiveta Sharma, Vijai Malik and Shailendra Sharma*. Study of Total Phenolic Content in the Roots of Resistant and Susceptible Wheat Genotypes Infected with *Pratylenchus thornei*. International Conference on Innovative and Current Advances in Agriculture & Allied Sciences (ICAAAS-2021). (19-21 July, 2021). Organized by Society of Scientific Development in Agriculture and Technology, Meerut (U.P.) India

Vikas Kumar Singh, Deepti Chaturvedi, Saksham, Deepak Kumar, Shiveta Sharma and Shailendra Sharma*. Approach Towards Finding the Resistance in Wheat for the Cereal Cyst Nematode (*Heterodera avenae*). International Conference on Innovative and Current Advances in Agriculture & Allied Sciences (ICAAAS-2021). (19-21 July, 2021). Organized by Society of Scientific Development in Agriculture and Technology, Meerut (U.P.) India

National Seminar on Medicinal Plants and Herbal Immune-Boosters in Covid-19 Pandemic and Beyond: Current Scenario and Future Prospects. (09th April, 2021). R.G. (P.G.) College, Meerut
Saksham Pundir, Rajeev Sharma, Deepak Kumar, Ashok Kumar, Shailendra Sharma and Shiveta Sharma*.

QTL Mapping for Resistance to Cereal Cyst Nematodes (*Heterodera avenae*) in Novel ITMI Wheat Mapping Population. National Seminar on Medicinal Plants and Herbal Immune-Boosters in Covid-19 Pandemic and Beyond: Current Scenario and Future Prospects. (09th April, 2021). R.G. (P.G.) College, Meerut

Parveen Malik, Jitendra Kumar, Sahadev Singh, Shiveta Sharma and Shailendra Sharma*. Genome-Wide Association Mapping for Different Agronomic Traits Using Different Methods. National Seminar on Medicinal Plants and Herbal Immune-Boosters in Covid-19 Pandemic and Beyond: Current Scenario and Future Prospects. (09th April, 2021). R.G. (P.G.) College, Meerut

Training attended

Numerous training programmes attended both at national and international level. Also served as resource person.

Resource person

Co-convener of “International Symposium on 100 Years of Wheat Cytogenetics: Its Impact on Crop Improvement” November 3 - 4, 2018. Department of Genetics and Plant Breeding of Ch. Charan Singh University, Meerut.

Organising Secretary of “International Conference on Genomics and Breeding for Crop Improvement and Alumni Meet December 04-06, 2019 Department of Genetics and Plant Breeding, Ch. Charan Singh University, Meerut.

Convener of “A two-day international e-conference on Genetics and Plant Breeding Research in the Post-COVID Era” in June, 2020 at Department of Genetics and Plant Breeding, Ch. Charan Singh University, Meerut.

Panelists in virtual conference on Innovation & Intellectual Property Rights with Special Focus on Entrepreneurship held on 04.12.2020 and jointly organized by PHD Intellectual Property Facilitation Centre, New Delhi and Chaudhary Charan Singh University, Meerut (UP).

Co-organiser of Prakruti Vandhan programme organised on on 29.8.2021. Organised by the Department of genetics and Plant Breeding and HSS foundation.

Organizing committee member of conference entitled “Advances in Agriculture, Technology and Allied Sciences for Sustainable Development (SERS-GEHU: 2021), 09-10 October 2021. **Chaired** poster session I.

Nodal officer of Science week festival held during 22-28 Feb, 2022.

Award

Awarded with “Outstanding Scientist in Agriculture Award” for the contribution in the field of Agri-Genomics during 5th International Conference on Innovative approaches in Applied Science and Technology, 3-5 December, 2021, Lucknow. Organized by: Scientific & Educational Research Society (SERS), Meerut, India Regd. 38/ 2014-15.

Distinguished Scientist Award for outstanding contribution in Genetics and Plant Breeding during IV International Conference on Innovative and Current Advances in Agriculture and Allied Sciences (ICAAAS), 2022 12-14 June, 2022, Shimla, H.P. Organized by: Society for Scientific Development in Agriculture and Technology, Meerut (U.P.), India.