

Dr Jai Pal Sharma
Associate Professor & Head



Specialization: Tree Improvement and Genetic Resources

Contact: +91 252324 (O)

Mobile: 8894671991

E.mail: jaiuhfrajgarh@rediffmail.com

Ongoing Research Projects

- DUS Centre for Willow (*Salix* species) by PPV&FRA, ICAR (Principal Investigator).
- DUS Centre for Seabuckthorn (*Hippophae rhamnoides* L.) by PPV&FRA, ICAR (Principal Investigator).

Important Research Publications

- **Sharma JP**, Thakur S, Sankhyan HP, Devi S, Bhagta S, Thakur L, Mehta D, and Thakur S. 2025. Altitudinal, latitudinal and environmental impact on adaptive and morphological characters in Indian willow (*Salix tetrasperma* Roxb.). *Israel Journal of Plant Sciences* 72(3-4): 188-204.
- Sharma Aditi, Bhardwaj DR, Thakur CL, Katoch Naveen, Verma Sachin and **Sharma Jai Pal**. 2025. Assessment of biomass and carbon stock in subtropical Sal (*Shorea robusta* Gaertn. f.) forests in the North Western Himalayas. *Scientific Reports* 15: 37827
- Rajinder Kumar, **Sharma JP**, Sankhyan HP, Kumar R and Chauhan Ankita. 2025. Evaluating genetic variation in growth, needles, wood and oleoresin traits among various half-sibfamilies of *Pinus roxburghii*. *Journal of Environmental Biology*. 46(5):729-738
- Sharma Aditi, Bhardwaj DR, Thakur CL and **Sharma Jai Pal**. 2025. Floristic diversity and dominance patterns of Sal (*Shorea robusta* Gaertn. f.) forests in North Western Himalayas: implications for conservation and sustainable management. *Frontiers in Forests and Global Change*. 8
- Srivastava T, **Sharma JP**, Anchal, Thakur S, Mahajan A and Kail, Vineeta. 2025. Stability analysis of willow clones: optimizing selection for commercial and industrial utilization. *Trees: Structure and Function* 39: 56.
- Anchal, **Sharma JP**, Tushal, Thakur Spana, Sharma Parul and Thakur Anamika. 2024. Genetic structure and gene flow among populations of willow (*Salix* species): *Ecological Genetics and Genomics* 32: 100283
- Raina Ashima, Vaidya Pratima, **Sharma Jai Pal**, Sharma Hukam Chand and Bhardwaj Satish Kumar. 2024. *Parthenium hysterophorus* L. impact on floristic diversity in Dhauladhar foothills of Himachal Pradesh. *Environmental Science and Pollution Research* 31, 38128–38141
- Kaur M, Thakur S, Choudhary OP, Kaur R, Kaila V, **Sharma JP**, and Bharti. 2023. Effect of salt stress on morpho-physiological and anatomical attributes of *Salix* clones. *Israel Journal of Plant Sciences* (3-4):253-267
- Palial G, Thakur S, Sharma R, **Sharma JP** and Dhakad AK. 2023. Genetic divergence and correlation estimates for quantitative traits in *Salix*. *Acta Physiologiae Plantarum* 45:99
- Thakur S, Singh A, Chhabra R, Kaur M, Gupta N, Bhardwaj U and **Sharma JP**. 2023. GC-MS analysis for phytochemical profiling of different *Salix* clones. *Russian Journal of Plant Physiology* 70:122

- **Sharma JP**, Sankhyan HP, Thakur S, Jha SK, Sharma R, Poonam Kanwar Gautam V and Sankhyan Neeraj. 2022. Genetic diversity and population structure of Indian willow (*Salix tetrasperma* Roxb.) along its distributional range in the Himalayan region. *Indian Journal of Genetics and Plant Breeding* **82**(01): 73–80
- **Sharma JP**, Sankhyan HP, Thakur S, Jha SK, Sharma R, Poonam Kanwar and Gautam V. 2021. Genetic diversity and population structure of Indian willow (*Salix tetrasperma* Roxb.) along its distributional range in the Himalayan region. *Ecological Genetics and Genomics* **21**:100096
- Thakur Sapna, Singh NB, Thakur Sanjeev, **Sharma JP**, Sankanur M, Gupta RK and Bhat SS. 2018. Line × tester analysis for growth and biomass characteristics of *Salix*. *Genetika* **50**(1): 95-106
- Thakur Sapna, Singh NB, **Sharma Jaipal**, Thakur Sanjeev and Gupta RK. 2014. Developing climatic resilience *Salix* clones through control breeding. *Indian Journal of Genetics and Plant Breeding* **74**(4) Suppl. :572-577
- Singh NB, **Sharma JP**, Chaudhary P and Gupta RK. 2014. Genotype X environment interaction and growth stability of exotic tree willow (*Salix* spp.) clones. *Indian Journal of Genetics and Plant Breeding* **74**(2): 222-228
- Choudhary, Punit, Singh NB, Verma Archana and **Sharma JP**. 2013. Crossability relationship among tree willows (*Salix* spp.) and molecular genetic variation among their progenies. *Indian Journal of Genetics and Plant Breeding* **73**(3): 302-309
- **Sharma JP**, Singh NB, Sankhyan HP, Chaudhary Punit and Huse SK. 2011. Estimation of genetic parameters of newly introduced tree willow clones in Himachal Pradesh, India. *Genetika* **43**(3), 487-501
- **Sharma, JP**; Thakur Sanjeev, Singh NB and Thakur Sapna. 2017. Performance of willow (*Salix* species) families at close spacing. *Indian Journal of Ecology* **44** Special Issue (6): 000-000
- Singh, NB; **Sharma, JP**; Singh, Manoj and Sankhyan, HP. 2015. Performance of new clones of willow (*Salix* species) developed through inter and intraspecific hybridization and open pollinated progenies. *International Journal of Farm Sciences* **5**(3) : 134-144
- Choudhary Punit, Singh NB, **Sharma JP**, Thakur IK, Sharma Avanish and Verma Archana. 2011. Phenological behaviour and reproductive biology of important fast growing *Salix* species. *Indian J. Ecol.* **38** (Special Issue): 99-106

Books and manuals

- Sharma JP, Thakur Sanjeev, Singh NB and Dogra RK Dogra. 2013. Cytogenetics and Cytology: a practical approach. Directorate of Extension Education, YS Parmar UHF, Nauni, Solan HP.
- Thakur IK, Singh NB and Sharma JP. 2013. Forest Tree Seed Technology: a practical approach. Directorate of Extension Education, YS Parmar UHF, Nauni, Solan HP.
- Sankhyan HP, Singh NB and Sharma JP. 2014. Bans utpadan – sehajsaaraltaknique. Extension Bulletin No 4. Directorate of Extension Education, UHF Nauni.
- Singh NB, Sharma JP and Thakur Sanjeev Thakur. 2015. Kisanokeliyebahupyogipodha – beuns. Extension Bulletin No4. Directorate of Extension Education, UHF Nauni.
- Singh NB, Sharma JP and Thakur Sanjeev. 2015. Poplar ki Khaetipodha – beuns. Extension Bulletin No3. Directorate of Extension Education, UHF Nauni.
- Singh NB, Gupta Dharmesh, Sharma JP and Benal Vikas. 2015. Vishwvidyalayeke anumodit byuns pr shiitake ki kheti. Extension Bulletin No6. Directorate of Extension Education, UHF Nauni.
- Sharma JP, Thakur Shikha, Sharma Aditi and Sankhyan HP. 2023. Willow (*Salix*) ki upyogita avm prjatio ki vishishta, ekrupta tatha sthativ (DUS) parikshan ke liye disha nirdeshika. Extension Bulletin No TIGR/TB/2023/14

Awards & Recognitions

- **Best Poster Presentation Award** for poster presentation of the research entitled “Traditional consumption patterns of wild edible plants in the Dodra- Kawar Region of Himachal Pradesh” by Shikha Bhagta, Usha Sharma, **Jai Pal Sharma**, Sarita Devi, Ajay Bragta, Nagender Pal Butail and Manish Chauhan in National Conference on Sustainable on Indigenous Knowledge System for Sustainable Future: A Roadmap to Viksit Bharat-2047 organized by College of Horticulture and Forestry Thunag held on February 13-14, 2025 at Thunag, Mandi, HP.
- **First prize to oral presentation Award** for presentation of the research entitled “Exploring the Medicinal Flora of Thunag Valley: Leveraging Traditional Knowledge for Sustainable Healthcare Solutions” by Aruna Mehta, Sunil Marpa, Neena Kumari, **Jai Pal Sharma**, Yourmila Kumari, Garima, Kashish, and Neha Thakur in National Conference on Sustainable on Indigenous Knowledge System for Sustainable Future: A Roadmap to Viksit Bharat-2047 organized by College of Horticulture and Forestry Thunag held on February 13-14, 2025 at Thunag, Mandi, HP
- **Best oral presentation Award** for presentation of the research entitled “Development and Evaluation of Climate - Resilient Clones of Willows (*Salix* species)” by **Jai Pal Sharma**, Tushal, HP Sankhyan, Shikha Bhagta, Sapna Thakur and Vineeta Kaila in 1st International conference on “Future strategies for sustainable agriculture and technology impact on human health and environment (FSATHE)” held on March 1-3, 2024 at Abhilashi University, Chail Chowk, Mandi, HP.
- **Best Poster Presentation Award** for poster presentation of the research entitled “Performance of Half-Sib Progenies for Morphometric and Fodder traits of *Grewia optiva* Drummond” by Shikha Bhagta, **Jai Pal Sharma**, HP Sankhyan, Reena Kumari and Sarita devi in 1st International conference on “Future strategies for sustainable agriculture and technology impact on human health and environment (FSATHE)” e held on March 1-3, 2024 at Abhilashi University, Chail Chowk, Mandi, HP.
- Third prize for poster presentation of the research entitled “Prepotency in half-sib progenies of *Grewia optiva* for morphometric and fodder traits” by Shikha Bhagta, HP Sankhyan and **Jai Pal Sharma** under theme Tree Improvement, Silviculture and Management in NAU-IES-IUFRO Conference held at Nausari Agriculture University, Navsari, Gujrat on February 15-17, 2023
- First prize for presentation of the research entitled “Genetic Diversity of *Populus deltoides* clones on the Basis of Morphological, Wood Traits and Molecular Markers by Shikha Thakur, Sanjeev Thakur, Suman Kumar Jha, **JP Sharma** and RK Gupta under theme Tree Improvement, Silviculture and Management in NAU-IES-IUFRO Conference held at Nausari Agriculture University, Navsari, Gujrat on February 15-17, 2023
- Best poster paper presentation award for presenting the paper entitled “Developing climate resilient *Salix* clones through control breeding” by Sapna Thakur, NB Singh, **JP Sharma**, Rajeev Dhiman and Sneha Dobhal in a National Symposium on “Crop Improvement for Inclusive Sustainable Development” on November 7-9, 2014 at P A U, Ludhiana Organized by Indian Society of Genetics and Plant Breeding (ISGPB) NASC Complex, IARI, New Delhi
- **Brandis Prize** in the year 2014 for the best research paper entitled “Heritability, genetic gain, correlation and principal component analysis in introduced willow (*Salix* species) clones, published in December 2012, in The Indian Forester.
- Best paper award in sub section genetics and biotechnology entitled “growth performance of hybrid seedlings in nursery” by **JP Sharma**, NB Singh and Punit Chaudhary in National seminar on

Forestry and Agriculture organized by KFRI and Gregor Mendel Foundation university of Calicut at KFRI campus Peechi, Thrissure, Kerala on November 7-8, 2013

- Second best paper poster presentation award for presenting the paper entitled, “Phenological behaviour and reproductive biology of important fast growing *Salix* species”(Punit Choudhary, N B Singh, **J P Sharma**, I K Thakur and Avanish Sharma) in IUFRO Symposium on “Short Rotation Forestry: Synergies for wood production and environmental amelioration” held in the Department of Forestry & Natural Resources, PAU, Ludhiana during February 10-12, 2011
- Second best position in Oral presentation on the paper presented entitled “Bamboos and Their Conservation - A suitable Option for Land Use Diversification and Livelihood Security" (Sankhyan H.P., Singh, N.B. and **Sharma, J.P.**) in the International Conference on issues for Climate Change, Land Use Diversification and Biotechnological Tools and Livelihood Security being organized by your good self between October 8-10, 2011 at Meerut.