

Dr Shikha Bhagta
Assistant Professor

Specialization: Tree Improvement and forest genetic resources
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Research and Development Projects

1. **Raising Farmers' Income through Cultivation of High-Altitude Medicinal Plants as an Intercrop** — Principal Investigator (PI): Dr. Shikha Bhagta; Funding Agency: National Bank for Agriculture and Rural Development (NABARD), Shimla, Himachal Pradesh; Project Budget: ₹12.42 lakh; Project Duration: 2026–2029 (3 years).
2. **Incubation Center for Facilitating School-to-Work Transition in the Agriculture Sector** — Role: Member; Funding Agency: State Project Director, Samagra Shiksha, Government of Himachal Pradesh; Project Budget: ₹280.00 lakh; Project Period: 2025–2026 (48 weeks).
3. **Establishment of a Sustainable Apple Farming Demonstration Unit Integrating Natural Farming and Micro-Irrigation Systems at KVK Shimla: A Model for Regenerative Agriculture** — Role: Co-Principal Investigator (Co-PI); Funding Scheme: Rashtriya Krishi Vikas Yojana (RKVY); Project Budget: ₹23.00 lakh; Project Duration: 2 years (initiated in 2025–2026).
4. **Farm Field Demonstrations on Integrated Management in Pea: A Natural Farming Approach in Shimla District** — Role: Co-Principal Investigator (Co-PI); Funding Agency: Directorate of Agriculture, Himachal Pradesh, through the Deputy Director of Agriculture; Project Budget: ₹0.50 lakh; Project Period: 2025–2026; **Status: Completed.**
5. **Farm Field Demonstrations on Integrated Management of Early and Late Blight in Tomato at Nerwa, Shimla District, Himachal Pradesh** — Role: Co-Principal Investigator (Co-PI); Funding Agency: Directorate of Agriculture, Himachal Pradesh, through the Deputy Director of Agriculture; Project Budget: ₹0.50 lakh; Project Period: 2025–2026; **Status: Completed.**

Important Research Publications

Research papers other than MSc & PhD in referred journals:

1. Kaur R, Upadhyay V, **Bhagta S**, Chatterjee K, Tanuja, Rana KP and Kaur S. 2025. Growth, biomass and carbon sequestration potential of broad leaf forest in North-West Himalayas. *Agricultural Science Digest*. <https://doi.org/10.18805/ag.D-6380>
2. Sharma, J. P., Thakur, S., Sankhyan, H. P., Devi, S., Bhagta, S., Thakur, L., Mehta, D., & 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. <https://doi.org/10.1163/22238980-bja10129>

3. Kaur R, Handa P, Chauhan M, Sharma K, **Bhagta S** and Puri S. 2025. Biomass allocation and carbon stock of existing agroforestry system in mid-hills of Himachal Pradesh, India. *Plant Archives* 25(1): 599–604. <https://doi.org/10.51470/PLANTARCHIVES.2025.v25.no.1.090>
4. Kumari R, Kumar R, Kumar R, Chauhan A, Devi M, Verma G, **Bhagta S** and Chauhan M. 2025. Nano urea: A step towards precision and sustainable agriculture—A review. *Plant Archives* 25(1): 2498–2503.
5. Chauhan S, Sharma JP, Vaidya P, Sharma N, **Bhagta S** and Anchal. 2025. Influence of aspect on phenology of Himalayan wild cherry (*Prunus cerasoides* D. Don). *International Journal of Bio-resource and Stress Management* 16(4). <https://doi.org/10.23910/1.2025.6130>
6. Chauhan M, Shilpa, Kaur R, Bijalwan P, Negi S and **Bhagta S**. 2023. Biochemical analysis of garlic (*Allium sativum* L.) under integrated nutrient management in North Western Himalayas. *Annals of Phytomedicine – An International Journal* 12(2): 1039–1045.
7. Chauhan M, Shilpa, Dhanai R, Kamran M, **Bhagta S**, Kumari R and Sharma K. 2024. Comparative studies on application of organic and inorganic nutrients on performance of tomato (*Solanum lycopersicum* L.) in North Western Himalayas. *Plant Archives* 24(2): 659–669.
8. Kumari R, Sharma A, Bhagta S and Kumar R. 2018. River bed cultivation: A kind of vegetable forcing for remunerative returns. *International Journal of Current Microbiology and Applied Sciences* 7(4): 359–365.
9. Goswami M, Bhagta S and Sharma D. 2020. *Melia dubia* and its Importance: A Review. *International Journal of Economic Plants* 7(1): 29-33.
10. Sharma JP, Sankhyan HP, Gupta RK, Jha SK and **Bhagta S**. 2019. Principal component analysis of Growth, Leaf and Biomass Traits of Indian Willow (*Salix tetrasperma* Roxb.). *International Journal of Economic plants* 6(4):181-185

Research publications of MSc & PhD:

1. Sankhyan HP, **Bhagta S** and Thakur S. 2019. Evaluation of half sib progenies to identify prepotency of the mother clones of *Grewia optiva* Drummond. *Journal of Pharmacognocny and Phytochemistry* 8(4): 1265-1270.
2. **Bhagta S**, Sankhyan HP, Sharma JP and Kumari R. 2019. Assessment of variability in half sib progenies of *Grewia optiwa* Drummond for various qualitative and quantitative traits in North Western Himalayas. *Internrnational Journal of current Microbiology and Applied Sciences* 8(4):1661-1669.
3. **Bhagta S**, Sankhyan HP, Sharma D and Ashine T. 2019. Correlation and Path Coefficient Analysis in *Grewia optiva* Drummond. *International Journal of Chemical Studies* 7(3):746-749.
4. **Bhagta S** and Sankhyan HP. 2016, Progeny Evaluation of Open pollinated Seedling seed orchard of *Grewia optiva* Drumond.for Seed Germination Attributes, *International Journal on Agriculture Sciences*7(1):103.

5. Sankhyan HP and **Bhagta S.** 2016. Fodder quality analysis of open pollinated seedling seed orchard of *Grewia optiva* Drumond. *The Bioscan* 11(2):709-713.
6. **Bhagta S.**, Sankhyan HP, Thakur S and Sharma SS. 2015, Progeny Evaluation of Open pollinated Seedling seed orchard of *Grewia optiva* Drumm. Burrett for Seed Morphometric Traits. *Indian Journal of Forestry* 38(4):387-391.
DOI:[10.54207/bsmps2000-2019-UTA003](https://doi.org/10.54207/bsmps2000-2019-UTA003)

Extension Publications:

- 1) Sharma J. P., **Bhagta S.**, & Mehta A. (2024). *Willow chhal ke oushdhiye goon*. *Van Sandesh*, January–June 2024, 19–21.
- 2) **Bhagta S.**, Sharma U., Bragta A., Butail N. P., & Sharma J. P. (2025). Wasteland to wealth: A journey towards climate resilience. *LEISA India*, 27(2), 22–24.
- 3) **Bhagta S.**, Sharma U., Bragta A., & Butel N. P. (2025). *Morus alba: पोषण, पर्यावरण और पशुधन के लिए वरदान*. The Pahadi Agriculture e-Magazine, 3(6), Article ID: 10347. <https://www.pahadiagromagazine.in>
- 4) Devi Sarita., Bhagta Shikha & kumari Reena, (2025). हिमाचल प्रदेश में जैव विविधता संरक्षण, *Van Sandesh*, January–June 2025, 30–32.
- 5) Bhagta, S., Sharma, U., Sharma, J. P., Bragta, A., & Butail, N. P. (2026). *गिलोय: स्वास्थ्य और ग्रामीण आजीविका की दिव्य लता*. **The Pahadi Agriculture e-Magazine**, Volume 4, Issue 03, Article ID: 10435, March 2026 www.pahadiagromagazine.in

Manual

Sharma, U., Gautam, S., Bhagta, S., Butail, N., Bragta, A., Sharma, S., Rana, R. K., Sheron, P., Dev, I., & Chandel, R. S. ([n.d.]). *Manual on year-round natural farming practices for sustainable apple cultivation*. Krishi Vigyan Kendra (KVK) Shimla at Rohru, Dr. YS Parmar University of Horticulture & Forestry.

VI. Other information-

1. **Best Poster Presentation Award** for the research entitled “Prepotency in half –sib progenies of *Grewia optiva* for morphometric and fodder traits” at NAU-IES-IUFRO Conference on “Tree Based Diversified Land-use System: Augmenting Livelihood Security and Industrial Growth” in Navsari Agricultural University, Navsari, Gujarat.
2. **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)” held on March 1-3, 2024 at Abhilashi University, Chail Chowk, Mandi, HP.

3. **Best oral presentation** 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.
4. **Best Poster Presentation Award** for poster presentation of the research entitled “Traditional consumption pattern of wild edible plants in the Dodra – Kwar Region of Himachal Pradesh” by **Shikha Bhagta**, Usha Sharma, Jai Pal Sharma, Ajay Bragta , Nagender Pal Butail and Manish Chauhan in **National Conference on Indigenous Knowledge System and Practices for a Sustainable Future: A Roadmap to Viksit Bharat-2047**, to be held on **13-14 February 2025** at the College of Horticulture and Forestry, Thunag, Mandi, Himachal Pradesh.
5. **Best KVK Scientist Award (2026)** – Awarded by the Indian Society of Agriculture & Horticulture Research Development (ISAHRD) during the 13th International Conference on Agriculture, Horticulture & Forestry: Allied Sciences for a Sustainable Himalayan Ecosystem, held at ICFRE–HFRI, Shimla (18–20 March 2026).
6. University merit scholarship during B.Sc, M.Sc and Ph.D Programme.
7. Awarded Gold medal and certificate of honor for securing 1st position in Phd Forestry in 46th annual function by Himotharsh parishad in Una (HP).