CURRICULUM VITAE

Dr. HEMANT DASILA

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OBJECTIVE

To accept the challenges and achieves success in all sphere of the profession by holding a position with responsibility in an organization and explore efficient innovative ideas.

AREA OF INTEREST

Agricultural Microbiology & Biotechnology, Agricultural Data Interpretation and Analysis, Microbial Genomics and Proteomics, Microbial Metabolism.

EDUCATIONAL QUALIFICATIONS

Qualification	Board/ University	Institution	Division	Percentage
Ph.D. Microbiology (Major) Molecular Biology & Biotechnology (Minor)	GBPUAT Pantnagar	C.B.S.H.	Ist	73.4% (course work)
M.Sc. (Microbiology)	GBPUAT Pantnagar	C.B.S.H.	Ist	73.30%
B. Sc. (Biotechnology)	Kumaun University Nainital	Kumaun	Ist	67.40 %

PRESENT STATUS

- **Assistant Professor, Department of Microbiology, Akal College of Basic Sciences, Eternal University, Baru Sahib Himachal Pradesh, India. (2022-Present)**
- **Major Guide (Advisor)- 1 MSc Microbiology Student**

ADDITIONAL QUALIFICATIONS

- **Certified Quality Control programme of Life Sciences Sector Skill Development Council (LSSSDC-2021)** under Skill India Programme of Government of India.

RESEARCH CURRICULUM

- Ph.D. Thesis (**2021 Thesis Submitted**) entitled, "**Combined in vitro/in vivo approach for screening, selection and optimization of phosphate solubilizing bacteria (PSB) and its application to enhance agronomic performance of wheat**" under the supervision of **Dr. Manvika Sahgal,** Senior Research Officer (S.R.O), Department of Microbiology, CBSH, G.B. Pant University of Agriculture & Technology, Pantnagar-263145, Uttarakhand.
- M.Sc. Thesis (2016) entitled, **"Assessment of *Pseudomonas fluorescens* AS15 inoculation on growth and establishment of *Dalbergia sissoo* nursery",** under the supervision of **Dr. Manvika Sahgal,** Senior Research Officer (S.R.O), Department of Microbiology, CBSH, G.B. Pant University of Agriculture & Technology, Pantnagar-263145, Uttarakhand.

PARTICULARS OF EXPERIENCES

- **Post Graduate Teaching Assistant for two courses "Microbial Genetics (BBM-510)"; "Application of Microbial Methods (BBM-610)"** at the Department of Microbiology, College of Basic Sciences & Humanities, **G.B. Pant University of Agriculture & Technology, Pantnagar**-263145, Uttarakhand, INDIA. (IInd Semester, 2017-2018 to IInd Semester, 2018-19)

- **Graduate Teaching Assistant for three courses "Microbiological Techniques (BBM-300)" and "Introductory Microbiology (BBM-300)" and "Application of Microbial Methods (BBM-610)"** at the Department of Microbiology, College of Basic Sciences & Humanities, **G. B. Pant University of Agriculture & Technology, Pantnagar**-263145, Uttarakhand, INDIA. (IInd Semester, 2014-15 to IInd Semester, 2015-16).

AWARDS

- **NET** (Agricultural Microbiology)-2019
- **GATE-Life Science**-2019: **AIR (All India Rank: 662)**
- **GATE-Life Science**-2018: **AIR (All India Rank: 1229)**
- **AMI** (Association of Microbiology of India) Award; International Conference, Lucknow-2017.

MEMBERSHIPS

- Annual membership of Association of Microbiologists of India; No. 2633/2010

TECHNICAL EXPOSURE

- **Microbiology:**
  - All the basic techniques in microbiology including isolation, handling, and maintenance of bacterial and fungal strains.
  - Aseptic techniques, sterilization, inoculation, and incubation.
  - Colony counting, hemocytometer counting, Simple and differential staining, etc.
  - Simple and Compound Microscopy, Lyophilization, Sonication.
  - UV-VIS Spectrophotometer, Centrifugation.
- **Biochemical Techniques**
  - Biochemical Characterization of microbial cultures, Qualitative and quantitative estimation of carbohydrates, proteins and fats.
- **Molecular Biology & Biotechnology**
  - Genomic material isolation from Bacteria/Fungi (DNA, RNA or Plasmid)
  - PCR
  - Agarose gel electrophoresis and documentation,
- **Statistical tools:**
  - ANOVA, Principal Component Analysis, t-test, chi-square test, RBD, Correlation and Regression coefficient, Principal Component Analysis (PCA), Principal Coordinate analysis (PCoA), Diversity Indices etc.
  - **Software:** MS-EXCEL
    - SPSS
    - ORIGIN
    - R-Software
    - Digital Expert
    - Past-04

PUBLICATIONS

- **Patent- 1**
- **Review Paper-2**
- **Research Papers –9**
- **Book Chapters -9**
- **Conferences- 3**
- **Popular Article- 1**

Patent

1. Manisha, Tiwari H., Nautiyal M., Kumar D., Kumar A., **Dasila H.,** Maithani D., Jain G (2023) "A liquid biodegradable fertilizer material made of biological components". Indian Patent.

Reviewer

- Present reviewer in **"Journal of Applied Biology and Biotechnology" (UGC care Journal).**

Research Papers

1. **Dasila, H.,** Sah, V. K., Jaggi, V., Kumar, A., Tewari, L., Taj, G and Sahgal, M **(2023).** Cold tolerant Phosphate solubilizing Pseudomonas strains promote wheat growth and yield by improving soil phosphorous (P) nutrition status. ***Frontiers in Microbiology,*** , *14*, 515. **(IMPACT FACTOR 6.01, NAAS RATING-12.6).**
2. Suyal, D.C., Gola, U., Kour, S., Kaur, T., Perveen, K., Bukhari, N. A., Maithani D, **Dasila, H** and Singh, M **(2023).** Prokaryotic diversity and community structure in the rhizosphere of Lantana weed (Lantana camara L.). ***Frontiers in Plant Science***, *14*, 1364. **(IMPACT FACTOR 6.62, NAAS RATING-13.2).**
3. **Dasila H.,** Sah V.K., Jaggi V., Sahgal M **(2022) "**Impact of Phosphate Solubilizing Bacteria on Soil Enzyme Activity and Plant Vigor in Four Wheat Genotype**" Indian Journal of Ecology** 49(4): 1341:1350. (**NAAS RATING-5.79).**
4. **Dasila, H.,** Sah, V. K., Jaggi, V., & Sahgal, M. (2022). Phosphate solubilizing bacteria (PSB) a potential tool to enhance soil health and wheat vigor parameters in pot trial experiment. **Pharma Innovation** 11(3):1829-1835. (**NAAS RATING-5.23).**
5. **Dasila, H.,** Joshi, S., Sahgal, M., Tiwari, (2018) Talaromyces Sp. are associated with Shisham nursery disease in Pantnagar, A Terai region of Western Himalyas. **Ecology Environment and Conservation**, 24(3), 556-560. (**NAAS RATING-5.23).**
6. **Dasila, H.,** Anjul, R., Damini, A. R., Manvika, S., & Salil, T. (2018). Interaction between *Dalbergia sissoo Roxb*. and *Pseudomonas koreensis* AS15 Strain is Cultivar Specific. **Inter J Curr Microbiol App Sci,** *7*(10), 297-306. (**NAAS RATING-5.38).**
7. Srivastva P., Jaggi P., **Dasila H.,** Sahgal M (2020) Identification and characterisation of siderophore positive Pseudomonas from North Indian Rosewood (*Dalbergia sissoo*) roxb. forest ecosystem. **International Journal of Agricultural Science and Research**., 10(4):239-256. (**NAAS RATING-3.6).**

8. Jaggi V., Joshi S., **Dasila H.,** Sahgal M., (2020) Functional and molecular characterization of wheat rhizosphere bacteria and their antagonistic activity against wheat foliar blight pathogens. **Journal of Experimental Biology and Agricultural Sciences**., 8(5):605-620.
9. Himanshi, D.P., **Dasila, H.,** & Sahgal, M. (2019). Assessment of Antifungal Efficacy of Green Synthesized Sulphur Nanoparticles Using Ocimum Basilicum Leaves Extract. **Journal of Emerging Technologies and Innovative Research.,** 6(5):2349-2358.

Review Paper

1. Upadhayay, D., Kumar, V., Chitara, M. K., Mishra, D., Jha, M. N., Jaiswal, A., Maithani D, **Dasila H,** and Patel, V (2023). Synergistic impact of nanomaterials and plant probiotics in agriculture: A tale of two-way strategy for long-term sustainability. ***Frontiers in Microbiology***, *14*, 835. **(IMPACT FACTOR 6.01, NAAS RATING-12.6).**
2. Maithani, D., Sharma, A., Gangola, S., Bhatt, P., Bhandari, G and **Dasila, H.** (2022). Barnyard millet (Echinochloa spp.): a climate resilient multipurpose crop. **Vegetos, Springer** 1-15**. (NAAS-5.27)**

Book Chapters

1. **Dasila H.,** Joshi D., Shubhi V., Maithani D., Kumar A., Suyal N., Kumar N and Suyal D **(2023)** Hazardous waste: impact and disposal strategies. *Developments in microbiology and Biotechnology*. **Elesvier.**
2. **Dasila, H.,** Maithani, D., Srivastava, P., & Kabdwal, M. **(2023).** Bioremediation: A Sustainable Way for E-waste Management. In *Microbial Technology for Sustainable E-waste Management* (pp. 113-126). Cham: **Springer International Publishing.**
3. Upadhayay V., Maithani D., **Dasila H.,** Taj G and Singh A **(2023).** Microbial services for mitigation of biotic and abiotic stresses in plants. *Developments in microbiology and Biotechnology*. **Elsevier.**
4. Debbarma, Prasenjit, Deep Chandra Suyal, Saurabh Kumar, Divya Joshi, Manali Singh, Jyoti Rajwar, Balwant Rawat, **Hemant Dasila**, Damini Maithani, and Ravindra Soni **(2023).** "Bioremediation of E-waste Through Microbial Exopolysaccharides: A Perspective." In *Microbial Technology for Sustainable E-waste Management*, pp. 245-257. Cham: **Springer International Publishing.**

5. **Dasila H.,** Joshi S., Sahgal M (2020) Dissecting Structure and Function of Plant Rhizomicrobiome: A Genomic Approach. **Rhizosphere Microbes.**
6. **Dasila, H.,** Maithani, D., Suyal, D. C., and Debbarma, P. (2022). Cold-Adapted Microorganisms: Survival Strategies and Biotechnological Significance. In **Survival Strategies in Cold-adapted Microorganisms** (pp. 357-378). **Springer**, Singapore.
7. **Dasila, H., Joshi, S., & Ramola, S (2022).** Soil Microbial Enzymes and Their Importance, Significance, and Industrial Applications. In **Industrial Applications of Microbial Enzymes** (pp. 191-205). **Taylor and Francis.,** CRC Press.
8. Debbarma, P., Joshi, D., Maithani, D., **Dasila, H.,** Suyal, D. C., Kumar, S., & Soni, R. (2021). Sustainable Bioremediation Strategies to Manage Environmental Pollutants. In *Removal of Refractory Pollutants from Wastewater Treatment Plants* (pp. 267-288). **CRC Press.**
9. Maithani, D., Sharma, A., **Dasila, H.,** Tiwari, A., & Upadhayay, V. K. **(2023).** 16 Nanotechnology for Crop Improvement and Sustainable Agriculture. *Advances in Nanotechnology for Smart Agriculture: Techniques and Applications*, 323. **CRC Press**

Confrences:

1. **.Dasila, H., Sah, V.Ks., Jaggi, V and Sahgal, M. 2021.** Statically Proven: Quantitative Response of Phoshate Solubilizing Bacteria On Four Wheat Genotype Is Positive And Occurs In Genotype Specific Manner" (AMI- 2021), February 3rd -6th, 2021. Association of Microbiology of India, Lucknow TERI- Gharwal and University of Delhi, India.
2. **Dasila, H and Sahgal, M. 2022.** Selection and development of nature based P-biofertilizers from forest ecosystems: Studies from lab to field. December 23th -25st 2022. Banaras Hindu University (BHU), Varanasi, India.
3. **Dasila, H and Sahgal, M.** Pathogenecity of fungi associated with diseased Dalbergia sissoo Roxb. in Terai region of Uttarakhand (AMI-2017), November 16th-19th 2017. Baba Bhim Rao Ambedkar University (BBAU), Lucknow, India.

Popular Article:

1. **Dasila, H** (2021). Pesticides use in agriculture: an issue that needs to be addressed. **Agri India** (01/VII/10/0721)

PERSONAL DETAILS

Father's name	**:**	Rajendra Dasila
Mother's name	**:**	Parwati Dasila
Date of Birth	**:**	12/04/1992
Sex	**:**	Male
Marital status	**:**	Single
Languages known	**:**	Hindi, English
Permanent Address	**:**	Damuadhungha Panchakki, Navoday Colony, Haldwani, Distt: Nainital, Pin Code- 263139, Uttarakhand, India