

Profile of Dr ANUPAM BARH



Name: Dr. Anupam Barh

Designation: Scientist Sr. Scale

Date of Birth: 06.05.1987

Area of Specialization/interest: Genetics and Plant Breeding, with interest in Soil and water conservation, mushroom breeding, ideotype breeding, molecular marker selection, DNA barcoding, bioremediation, pathway analysis, proximate studies etc.

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Detail Profile

1.0 Education

Degree	Year of Passing	University/Institution
Ph.D. (Genetics and Plant Breeding) Minor: Molecular biology and Biotechnology	2016	G. B Pant University of Agriculture and Technology, Pantnagar
M.Sc. (Genetics and Plant Breeding)	2012	G. B Pant University of Agriculture and Technology, Pantnagar
B.Sc. (Ag.)	2010	G. B Pant University of Agriculture and Technology, Pantnagar

2.0 Professional History

Position	Period (From-To)	Institution & Place of posting
Scientist Sr. Scale	Aug, 2022 – Till date	ICAR-IISWC, Dehradun
Scientist Sr. Scale	Jan, 2020 – Aug, 2022	ICAR-DMR, Solan
Scientist	Jan 2016 – Dec , 2019	ICAR-DMR, Solan

3.0 Publications (summary)

S. No	Publication	Number
1	Research Publications	66
2	Books	
	Authored	1
	Edited	0
3	Book Chapters	8
4	Lead Papers	2
5	Radio Talks	0
6	Technical/Research Reports/ Compilation / Bulletins	7

7	Extension Folders/Leaf lets	1
8	Symposia/Workshop/Seminar Papers	56
9	Popular article	25
10	Professional Trainings	6
12	External projects handled	02

4.0 Most Important 5 Publications

1. Barh, A., Sharma, K., Bhatt, P., Annepu, S. K., Nath, M., Shirur, M., ... & Dutta, U. (2022). Identification of Key Regulatory Pathways of Basidiocarp Formation in *Pleurotus* spp. Using Modeling, Simulation and System Biology Studies. *Journal of Fungi*, 8(10), 1073.
2. Barh, A., Sharma, V. P., Annepu, S. K., Kamal, S., Sharma, S., & Bhatt, P. (2019). Genetic improvement in *Pleurotus* (oyster mushroom): a review. *3 Biotech* 9: 322.
3. Barh, A., Kamal, S., Kumari, B., Annepu, S. K., Kumar, S., Shirur, M., & Sharma, V. P. (2021). Effects of Nitrogen Supplementation with Wheat Straw on Productivity of *Pleurotus djamor* (Rumph. Ex FR.) Boedijn. *Bangladesh Journal of Botany*, 50(2), 227-233.
4. Barh, A., Kamal, S., Sharma, V. P., Sharma, K., Kumari, B., & Nath, M. (2023). Identification and morpho-molecular characterization of low spore strain in oyster mushroom. *Molecular Biology Reports*, 50(6), 5029-5038.
5. Annepu, S. K., Sharma, V. P., Barh, A., Kamal, S., Shirur, M., Kumar, S., ... & Kumar, R. (2023). Influence of Heat Treatment and Solid-State Fermentation on the Lignocellulosic Fractions of Substrates Supporting *Lentinula edodes* (Berk.) Pegler Cultivation: Implications for Commercial Production. *Fermentation*, 9(2), 130.

Google Scholar Link: <https://scholar.google.com/citations?user=xfuoEDoAAAAJ&hl=en>

Research Gate link: https://www.researchgate.net/profile/Anupam-Barh?ev=hdr_xprf

5.0 Awards/Fellowships/Recognitions

S. No.	Name of the Award/Fellowship /Recognition	Awarding organization	Year of award
1	Yadivindra young scientist award	Mushroom society of India	2021
2	Recipient of Dow Agro Sciences scholarship program for Ph.D. from 2012-2015	Dow Agro Sciences	2012
3	Runner up in poster Presentation	NASA-2014 GBPUAT, pantnagar	2014

6.0 Research Projects as PI & Co-PI

S.No.	Title of Project	Role	Funding Agency	From	To
1	Genetic Improvement of oyster Mushroom	PI	ICAR	2016	2018
2	Strainal Improvement in <i>Pleurotus</i> spp	PI	ICAR	2018	2021
3	Development of linkage maps for <i>Agaricus bipsorus</i> .	PI	ICAR	2017	2021
4	Development of high yielding strains of button mushroom	Co-PI	ICAR	2018	2021
5.	Strainal Improvement in shiitake mushroom	Co-PI	ICAR	2018	2021

6.	Strainal Improvement in Paddy straw mushroom	Co-PI	ICAR	2018	2021
7.	Development of potential strains in <i>Pleurotus</i> spp and <i>Lentinula edodes</i> and <i>Flammulina velutipes</i>	PI	ICAR	2021	Aug-2022
8.	Standardization of substrate formulations for mushrooms	Co-PI	ICAR	2021	Aug-2022
9.	Development of potential strains in button mushroom (<i>Agaricus bisporus</i>)	Co-PI	ICAR	2021	Aug-2022
10.	Development of potential strains in <i>Volvariella volvacea</i> , <i>Calocybe indica</i> and <i>Macrocybe giganteum</i>	Co-PI	ICAR	2021	Aug-2022
11.	Collection and characterization of indigenous Shiitake and DNA barcoding of Oyster (<i>Pleurotus</i> sp.) mushroom germplasm for commercial exploitation	Co-PI	DBT	2019	Aug-2022
12.	Bio-sorption of heavy metals using <i>Pleurotus</i> spp. (oyster mushroom) from waste-water for irrigation suitability	PI	ICAR	2023	Continuing

7.0 Strains/varieties/ technologies developed and released

S.No.	Strains/varieties/ technologies	Role
1	Button mushroom variety A-63	Co- developer
2	Button mushroom variety NBS-5-59	Co- developer
3	Button mushroom variety NBS-1-14	Co- developer
4	Variety of milky mushroom CI-01	Co- developer
5.	High yielding strain of oyster mushroom H-3	Developer
6.	High yielding strain of paddy straw mushroom DMRO-1072	Co- developer
7.	High yielding strain of paddy straw mushroom Vv- 05-19	Co- developer
8.	Low cost Ready to fruit kit mushroom	Developer