

DEPARTMENT OF BOTANY

GDC KILHOTRAN

The Department of Botany at GDC Kilhotran was established in 2021 and Dr. Barket Ali, Associate Professor took over as First Faculty Member/Head of the Department.

VISION AND MISSION

Plants constitute a beautiful world of thousands of species distributed across the biosphere. They are indispensable for the sustenance of life on earth. Drastic environmental changes in last few decades has further enhanced their importance as the rescuer form this untoward situation. Therefore, familiarity with different perspectives related to plants is pre-requisite.

Keeping pace with the changing environmental and socio-economic scenario, this department is striving to

- Impart basic knowledge of plants to the students, to develop a human-plant friendship.
- Familiarise the students with the importance of plants in the changing environmental conditions and their utility in countering the adversity of the climate change.
- Acquaint the students with the skill that can help them in earning livelihood and make them the entrepreneurs in this field.
- Prepare the students for the advanced research in plant science.

FACULTY PROFILE

Dr. Barket Ali (Ph. D.)

Associate Professor & HoD

Citations of last five years 1627 (Google scholar)

h-index of last five years 18 (Google scholar)

Papers/Articles Published in Journals

1. **Barket Ali** (2017). Practical Applications of Brassinosteroids in Horticulture – Some Field Perspectives. *Scientia Horticulturae* 225, 15-21. (Elsevier)
2. **Barket Ali** (2017). Salicylic acid modulates the antioxidant system mediated resistance to aluminium stress in mung bean (*Vigna radiata* L. Wilczek) plants. *Indian J. Plant Physiology* DOI10.1007/s40502-017-0292-1
3. **Barket Ali** 2021. Salicylic acid: An efficient elicitor of secondary metabolite production in plants. *Biocatalysis and Agricultural Biotechnology* 31, 101884. doi: 10.1016/j.bcab.2020.101884 (Elsevier)
4. **Barket Ali** 2021. Practical applications of jasmonates in the biosynthesis and accumulation of secondary metabolites in plants. *Biocatalysis and Agricultural Biotechnology* 38, 102205. <https://doi.org/10.1016/j.bcab.2021.102205> (Elsevier)
5. **Barket Ali** 2022. Recuperative performance of 4-Cl-IAA and IAA in the fixation and assimilation of nitrogen in *Vigna radiata*. *Journal of Indian Botanical Society* (In press)

Chapters Published in edited Books

1. Dar MI, Naikoo MI, Green ID, Syeed N, **Barket Ali** and Khan FA. 2018. Heavy metal Hyperaccumulation and hyper tolerance in Brassicaceae. In: Hasanuzzaman et al (Eds.) Plants Under Metal and Metalloid Stress Pp 262-275 (**Springer**).
2. **Barket Ali** 2019. Brassinosteroids: The promising plant growth regulators in horticulture. In: S. Hayat et. al. (Eds.) Brassinosteroids: Plant growth and development. (**Springer**).
3. **Barket Ali**, Zahoor A. Wani and Mudasir Irfan Dar. 2021. Brassinosteroids - The Phytohormones with Potential to Enhance the Secondary Metabolite Production in Plants. In M. Shahnawaz (Ed) Biotechnological approach to enhance secondary metabolites: Recent trends and future prospects. Pp. 125-132. **Taylor and Francis Group**. DOI: 10.1201/9781003034957-8
4. **Barket Ali** 2021. Role of salicylic acid in pre- and post-harvest attributes in horticulture. In S. Hayat et al (eds) Salicylic acid: A versatile plant hormone (**Springer**) pp. 47-64. DOI: 10.1007/978-3-030-79229-9_4
5. **Barket Ali** 2022. Exploiting the recuperative potential of brassinosteroids in agriculture. In: A. Krishana and G. Sirhindi (Eds) Jasmonates and Brassinosteroids in Plants: Metabolism, signaling and Applications. **Taylor and Francis Group** (In press) DOI: 10.1201/9781003110651-16
6. **Barket Ali** 2022. Physiological role, toxicity, hyperaccumulation and tolerance of nickel in plants. In: V. Kumar, A. Sharma and R. Setia (Eds.), Appraisal of Metal(oids) in the ecosystem. **Elsevier** (In press).

Conferences/Seminars/symposia/workshops/FDPs attended

1. **Subject refresher course** (Food and Biotechnology 31 Jan 2018 to 20 Feb 2018. UGC Human Resource Development Centre, Aligarh Muslim University, Aligarh)
2. **Two days National Conference** "Present Scenario in Higher Education" 30 & 31 Dec 2019. GDC Kishtwar, J & K.

3. One day **Virtual Symposium on Biophysics** organized by Jamia Milia Islamia, New Delhi. (23 Feb 2021)
4. **One week Faculty Development Program** on “*Safety and hygiene online (cyber) world*”. 01 - 08 March 2021. Teaching and learning Centre, Ramanujan College, University of Delhi.
5. **One week Faculty Development Program** on “*Open source tools for research*”. 03 - 09 April 2021. Teaching and learning Centre, Ramanujan College, University of Delhi.
6. Two days multidisciplinary **National Conference** on “*Recent innovations in Science, Social Science, Humanities and Arts*” organized by GDC Poonch (23-24 March, 2021).
7. **One week Faculty Development Program** on “*National Education Policy-2020: Re-envisioning Higher Education in India*”. 30 Aug - 07 Sep 2021. Teaching and learning Centre, Ramanujan College, University of Delhi.
8. **One week Faculty Development Program** on “Soft Skills and Presentation Skills”. 23-30 September, 2021. HRDC, AMU, Aligarh.
9. **Two Days Virtual International Conference** “7th GOGreen Summit-2021”. Organized by “International society of environmental relationship and sustainability”. Presented a paper entitled “Application of 28-homobrassinolide on the management of NaCl stress in chickpea” 14-15 October, 2021.
10. **One week International Faculty Development Program** on “Soft skills, emotional intelligence and effective classroom management”. 24-30 Oct., 2021. Jointly Organized by JSS College of Arts, Commerce and Science, Mysuru, Karnataka & Malaysian Industrial Relations and Human Resource Association, Malaysia.
11. **Two Days 16th International Symposium** on “Metals in Biology and Medicine” Jointly Organized by Nehru Science Centre, Mumbai and Jamia Milia Islamia, New Delhi. 30 Nov and 1 Dec. 2021. Presented a paper entitled “Metals in plant biology”.
12. **Two Days International Conference on Environment, water, agriculture, sustainability and Health: United together in the battle against pandemic.** Brassinosteroids and salt stress tolerance in plants. 21-22 Jan, 2022. Jointly Organized by Save the environment and Hindu College, University of Delhi, Delhi, India
13. **Two Days Workshop on DNA isolation, diversity assessment and analysis using ISSR markers in plants**, under SERB scientific, social responsibility policy. 11-12 Feb., 2022. Organized by Botany Department, University of Jammu.
14. **Two week Faculty Development Program** on “Higher education in the Post Covid-19 era: Challenges, strategies and innovations” organized by BGSBU Rajouri 14-27 Feb. 2022.
15. **Two Days National Seminar on “Plants and fungi-Polyphasic characterisation and bioprospection”** Organized by Botany Department, University of Jammu. 25-25 March 2022. Paper presented- Effect of Jasmonic acid on the abiotic stress in mung bean plants.
16. **One week Workshop on “Towards Smart Teaching”** organized by BGSBU Rajouri. 4-10 April, 2022.
17. **One week Faculty Development Program on “Emerging trends in Teaching, Learning and Research”** organized by Centre for Hospitality and Tourism, BGSBU Rajouri 23-28 May, 2022