



Amit Kumar (M. Sc., Ph.D., FIAES)

Scientist C

Host Plant Section

Central Muga Eri Research & Training Institute, Central Silk Board,

Lahdoigarh, Jorhat-785700, Assam

Email: amit_bio80@yahoo.com

Educational Qualifications: M.Sc. Botany (2001)
Ph.D. in Botany (2008)

Area of Research Interest: Climate Change, Plant Physiology & Management, Environment Science

Research Experience:

- Scientist C in Host Plant Section CMER&TI, Central Silk Board, Jorhat, Assam (01 Jan 2019 to till date)
- Scientist C in Central Silk Board, Govt. of India, Bangalore, Karnataka (01 Nov 2018 to 31 Dec 2018)
- Research Associate in CESCRA, IARI, New Delhi (27 July 2012 to 31 March 2017)
- Senior Research Fellow in CESCRA, IARI, New Delhi (19 March 2011 to 26 July 2012)
- Senior Research Fellow in NIH, Roorkee, Uttarakhand (12 Feb 2010 to 18 March 2011)

Academic Experience:

- Assistant Professor in Botany Department, Dayalbagh Educational Institute, Agra (31 Oct 2017 to 30 Oct 2018)
- Assistant Professor in Eternal University, Baru Sahib, Sirmaur, HP (01 June 17 to 26 Oct 2017)
- Assistant Professor in Techwords WGVs, Mangalore, Haridwar, Uttarakhand (15 July 2009 to 10 Feb 2010)
- Temporary Faculty in KLDVA PG College, Roorkee, Uttarakhand (Teaching session 2008-2009)
- Temporary Tutor in KLDVA PG College, Roorkee, Uttarakhand (Teaching session 2006-2007)

Professional Recognition, Awards, Fellowships received:

- **Emerging Scientist Award-2018** in International Conference on Agriculture, Allied and Applied Sciences Held at JNU New Delhi during 28-29 April 2018.
- Awarded **Fellow** of Indian Academy of Environmental Sciences, India (**FIAES**).
- **Young Scientist Grant** from AsiaFlux 2014 & International rice Research Institute, Philippines.
- **Best Paper presentation award** in **National Seminar** on Managing agriculture in changing environment at CESCRA, IARI, New Delhi
- **Second prize** on a debate held at Division of Environmental Science, IARI, Pusa Campus, New Delhi on Environment Vs Development.
- **Associate Editor** in "International Journal of Agricultural and Statistical Science" (SCI Journal).
- **Associate Editor** in "Biochemical and Cellular Achieve" (SCI Journal)
- Indian Council of Agricultural Sciences, National Eligibility Test (**ICAR-NET**) - **2014 (I)** in Economic Botany and Plant genetic resources.
- Indian Council of Agricultural Sciences, National Eligibility Test (**ICAR-NET**) - **2016** in Plant Physiology.
- Graduation Aptitude Test examination (**GATE**) - **2013** in Life Science.
- Uttarakhand State Eligibility for lectureship (**U-SET**) - **2013** in Life Science

Membership of Professional Societies: 1. Indian Academy of Environmental Sciences
2. Society for Conservation of Nature
3. Society of Reproductive Biology

PUBLICATION

(Research Articles **40**; Review Articles **08**; Books & Manuals **06**; Book Chapters **07**; Popular Articles **05**; Report **01**)

Important Publication

1. N Gupta, KK Yadav, V Kumar, S Kumar, R Chadd **A Kumar** 2018. Trace elements in soil-vegetable interface: Translocation, Bioaccumulation, toxicity and amelioration-A Review. **Science of Total Environment** 651 (2): 2927-2942.
2. KK Yadav, N Gupta, **A Kumar**, LM Reece, N Singh, S Rezania, SA Khan 2018. Mechanistic understanding and holistic approach of phytoremediation: A review on application and future prospects **Ecological Engineering** 120, 274-298
3. K Yadav, N Gupta, V Kumar, SA Khan, **A Kumar** 2018. A review of emerging adsorbents and current demand for defluoridation of water: Bright future in water sustainability **Environment International** 111: 80-108
4. R Bhattacharyya, A Bhatia, TK Das, S Lata, **A Kumar**, R Tomer, G Singh, 2018. Aggregate-associated N and global warming potential of conservation agriculture-based cropping of maize-wheat system in the north-western Indo-Gangetic Plains. **Soil and Tillage Research** 182, 66-77
5. Khan SA., Malla FA, Rashmi, Malav LC., Gupta N., **Kumar A.** 2018. Potential of wastewater treating *Chlorella minutissima* for methane enrichment and CO₂ sequestration of biogas and producing lipid **Energy** 150 (May 2018), 153 – 163
6. U Mina, R Kumar, R Gogoi, A Bhatia, RC Harit, D Singh, **Amit Kumar**, A Kumar 2017. Effect of elevated temperature and carbon dioxide on maize genotypes health index. **Ecological Indicators** <http://dx.doi.org/10.1016/j.ecolind.2017.08.060> R
7. R.K. Fagodiya, H. Pathak, **A. Kumar**, A. Bhatia and N. Jain 2017. Global temperature potential of nitrogen use in Agriculture: A 50-year assessment. **Scientific Report Nature** 7: 44928; doi: 10.1038/srep44928
8. S.K. Malyan, A. Bhatia, **A. Kumar**, R. Singh, S.S. Kumar, R. Tomer, O. Kumar, D.K. Gupta, N Jain, 2016 “Methane production, oxidation and mitigation: A Mechanistic understanding and comprehensive evaluation of influencing factors” **Science of Total Environment**. 572:874–896
9. D.K. Gupta, A. Bhatia, **A. Kumar**, T K Das, N. Jain, R. Tomer, R.K. Fagodiya, R. Dubey, S K Malyan and H. Pathak 2016. Mitigation of greenhouse gas emission from rice wheat system of the Indo Gangetic plains: through tillage, irrigation and fertilizer management. **Agriculture, Ecosystems and Environment**. 230:1-9

10. R. Tomer, A. Bhatia, V. Kumar, **A. Kumar**, R. Singh, B. Singh and S.D. Singh 2014. Impact of Elevated Ozone on Growth, Yield and Nutritional Quality of Two Wheat Species in Northern India. **Aerosol and Air Quality Research** doi: 10.4209/aaqr.2013.12.0354.

BOOKS (PUBLISHED)

- **Amit Kumar**, Anubha Sharma and T. S. Dhaka 2013. The Spices, Plantation Aromatic and Medicinal Plants- In A Nutshell (ISBN: 81-8399-078-9)pp 266
- **Amit Kumar**, Anubha Sharma, Upendra Kumar baliyan and T. S. Dhaka 2015. Economic Botany and Plant Genetic Resources- At a Glance(ISBN: 978-93-82310-04-4)pp 225.
- T S Dhaka, LalitJoesph and **Amit Kumar** 2015 Plant Physiology (ISBN: 978-93-85904-04-02) pp 448.
- RajniBala, T. S. Dhaka and **Amit Kumar Sharma** (Hindi & English)Practical Botany Volume I for Graduation (B. Sc.) pp146.
- RajniBala, T. S. Dhaka and **Amit Kumar Sharma** (Hindi & English)Practical Botany Volume II for Graduation (B. Sc.) pp 284.
- RajniBala, T. S. Dhaka and**Amit Kumar Sharma** (Hindi & English) Practical Botany Volume III for Graduation (B. Sc.) pp 482.

BOOK/MANUAL CHAPTERS

- J Mukherjee, N. Mridha, S. Mondal, D. Chakraborty and **A. Kumar** 2016. "Management of soil health in variable climate" in edited book entitled "Advances in crop environment interaction" (Ed; S. K. Bal et. al.).
- A. Kumar, P. Das, J. Mukherjee, A. Das, N. Mridha, P. Santra and D. Chakraborty 2016. "Digital soil mapping" in edited book entitled "Digital soil mapping through geostatistical approaches using R and QGIS" (Ed; PriyabrataSantra et al.,) NIPA, New Delhi.
- **A. Kumar**, R. Tomer, A. Bhatia, N. Jain and H. Pathak 2015. "Greenhouse Gas Mitigation in Indian Agriculture" accepted in book entitledAgro-Technologies for Adaptation to Climate Change (Edited by H. Pathak and B. Chakrabarti ISBN:978-93-83168-22-4), CESCRA, IARI, New Delhi.
- P. Bhattacharyya, S. Mohanty, R.K. Sarkar, A. Bhatia, N. Jain, **A. Kumar** and H. Pathak 2013 "Measurement of Integrated greenhouse gas flux with eddy covariance technique" published in Measurement of greenhouse gas emission from crop livestock and aquaculture (Ed. H.Pathak, RC Upadhyay, M Murlidhar, P Bhattacharyya and B Venkateswarlu ISBN: 978-81-88708-98-7), IARI, New Delhi pp 18-28.