

Dr. Krishna Kumar Choudhary

Assistant Professor

Department of Botany

School of Basic and Applied Sciences

Central University of Punjab

City Campus, Mansa Road

Bathinda- 151001, Punjab, INDIA

Email ID: choudhary.krishna2@gmail.com

Phone: +91-7860953153



Area of Specialization: Stress Physiology, Air pollution and Climate change, Crop Nutrition

Education:

Degree	Institution	Year
Ph.D.	Banaras Hindu University, Varanasi, India	2015
M.Sc.	University of Allahabad, Allahabad, India	2009
B.Sc.	University of Allahabad, Allahabad, India	2007

Experience:

Position held	Place of work	Start date	End Date	Total Experience
Assistant Professor	Centre for Plant Sciences School of Basic and Applied Sciences Central University of Punjab Bathinda-151001 India	18/11/16	-	Continuing
Visiting Scientist	Institute of Soil, Water and Environmental Sciences Agricultural Research Organisation (ARO) Volcani Center Bet Dagan- 50250 Israel	04/01/16	26/10/16	10 Months

Fellowships:

Fellowship	Duration
ARO Postdoctoral Fellowship, Ministry of Agriculture and Rural Development, Israel	Jan. 04, 2016 - Oct. 26, 2016
Rajiv Gandhi Senior Research Fellowship, UGC, New Delhi, India	April 01, 2012 – March 31, 2015
Rajiv Gandhi Junior Research Fellowship, UGC, New Delhi, India	April 01, 2010 – March 31, 2012
UGC Research Fellowship, New Delhi, India	Oct. 14, 2009 – March 31, 2010

Awards:

Award	Year
Best Poster Presentation Award – Water-Soil-Nutrients: Integrated solutions for assuring global food and water security. 29 th Feb. – 2 nd March, 2016. The 12 th Dahlia Greidinger International Symposium 2016 held at Technion-IIT, Haifa Israel.	2016
3rd Best Poster Presentation Award - Current status and new horizons of ecological sciences and environmental biotechnology (ESEB-13). 1 st – 3 rd March, 2013. National conference held at Department of Botany, Banaras Hindu University, Varanasi, India.	2013
NET (CSIR) – Life Sciences	2011
GATE (MHRD) – Life Sciences	2010

Teaching Assignments:

1. Ecology, Environment and Biodiversity – Theory and Practical
2. Plant Biosystematics: Cryptogams – Theory and Practical
3. Plant Biosystematics: Phanerogams – Theory and Practical
4. Anatomy and Developmental Biology of Plants - Theory and Practical
5. Economic importance of Plants (IDC) - Theory

Research Projects:

1. Response of mung bean (*Vigna radiata* L.) cultivars to resource availability: high salinity and nitrogen fertilization. Funding agency: UGC-BSR, Sanctioned amount: 10 Lacs (INR).
2. Pilot study for tropospheric ozone biomonitoring within the ICP Vegetation – Asia network with sensitive (S-156) and resistant (R-723) cultivars of kidney bean.
3. Response of Tropical mung bean (*Vigna radiata* L.) cultivars to foliar spray of ascorbic acid against salinity stress. Funding agency: CUPB-RSM, Sanctioned amount: 03 Lacs (INR).

Research guidance:

1. M.Sc. – 10 (6 Completed, 4 Ongoing)

Peer Recognition:

1.	Editorial Board Member as Review Editor (Environmental Toxicology), Frontiers in Environmental Science
2.	Life Member, Indian Science Congress
3.	Life Member, Trends in Biosciences
4.	Life Member, Advances in Life Sciences

Publications: Total - 13, Cumulative impact factor: ~17.5, Citations: ~ 130, h-index: 06, i10 index: 04

Research Articles:

S. No.	Authors, year, title, journal, volume, page numbers, doi	Impact Factor
1.	Choudhary, K. K. and Agrawal, S.B. (2016). Assessment of fatty acid profile and seed mineral nutrients of two soybean (<i>Glycine max</i> L.) cultivars under elevated UV-B: Role of ROS, Pigments and antioxidants. <i>Photochemistry and Photobiology</i> . 92, 134-143.	2.338
2.	Rai, R., Agrawal, M., Choudhary, K. K. , Agrawal, S. B., Emberson, L. & Buker, P. (2015). Application of Ethylene diurea (EDU) in assessing the	4.527

	response of a tropical soybean cultivar to ambient O ₃ : Nitrogen metabolism, antioxidants, reproductive development and yield. <i>Ecotoxicology and Environmental Safety</i> . 112, 29–38.	
3.	Choudhary, K. K. and Agrawal, S.B. (2015). Effect of elevated ultraviolet-B on four tropical soybean cultivars: Quantitative and qualitative aspects with special emphasis on gas exchange, chlorophyll fluorescence, biomass and yield. <i>Acta Physiologiae Plantarum</i> , 37:31,DOI10.1007/s11738-015-1780-4.	1.608
4.	Choudhary, K. K. and Agrawal, S.B. (2014). Cultivar specificity of tropical mung bean (<i>Vigna radiata</i> L.) to elevated ultraviolet-B: Changes in antioxidative defense system, nitrogen metabolism and accumulation of jasmonic and salicylic acids. <i>Environmental and Experimental Botany</i> . 99,122-132.	3.712
5.	Choudhary, K. K. and Agrawal, S.B. (2014). Ultraviolet-B induced changes in morphological, physiological and biochemical parameters of two cultivars of pea (<i>Pisum sativum</i> L.). <i>Ecotoxicology and Environmental Safety</i> . 100,178-187.	4.527
6.	Choudhary, K. K., Pandey, D. and Agrawal, S.B. (2013). Deterioration of rhizospheric soil health due to elevated ultraviolet-B. <i>Archives of Agronomy and Soil Sciences</i> . 59,1419–1437.	1.681

Book Chapters:

S. No.	Authors, year, title, book, volume, page numbers, Publisher
1.	Pandey B. and Choudhary K. K. (2019) Air pollution: Role in climate change and its impact on crop plants. In Choudhary K. K., Kumar A., Singh A.K. (Eds.). <i>Climate Change and Agricultural Ecosystems: Current Challenges and Adaptation</i> . Elsevier, USA.
2.	Pandey A., Tripathi A., Srivastava P., Choudhary K. K. and Dikshit A. (2019) Plant growth-promoting microorganisms in sustainable agriculture. In Singh A.K., Kumar A., Choudhary K. K. (Eds.) <i>Role of Plant Growth Promoting Microorganisms in Sustainable Agriculture and Nanotechnology</i> . Elsevier, USA.
3.	Kannojiya P., Choudhary K. K. , Srivastava A. K. and Singh A. K. (2018) PGPR Bioelicitors: Induced Systemic Resistance (ISR) and Proteomic Perspective on Biocontrol. In Singh A.K., Kumar A., Singh P.K. (Eds.) <i>PGPR Amelioration in Sustainable Agriculture</i> . Elsevier, USA
4.	Choudhary, K. K., Chaudhary, N., Agrawal, S. B. and Agrawal, M. (2017). Reactive oxygen species: generation, damage and quenching in plants during stress. In V. P. Singh,

	S. Singh, D. K. Tripathi, S. M. Prasad, D. K. Chauhan (Eds.) <i>Revisiting the Role of Reactive Oxygen Species (ROS) in Plants: ROS Boon or Bane for Plants?</i> (pp. 85-115). John Wiley & Sons Limited, Chichester, West Sussex, UK.
5.	Choudhary, K. K. and Agrawal, S. B. (2017). Effect of UV-B radiation on leguminous plants. In E. Lichtfouse (Ed.) <i>Sustainable Agricultural Reviews</i> (pp. 115-162). Springer, Springer International Publishing, Switzerland.

Books:

S. No.	Authors, year, title, volume, page numbers, ISBN, Publisher
1.	Choudhary K. K. , Kumar A., Singh A.K. (2019) Climate Change and Agricultural Ecosystems: Current Challenges and Adaptation. Volume I, eBook ISBN: 9780128175224, Paperback ISBN: 9780128164839, Elsevier, USA.
2.	Singh A.K., Kumar A., Choudhary K. K. (2019) Role of Plant Growth Promoting Microorganisms in Sustainable Agriculture and Nanotechnology. Volume I, ISBN: 9780128170045, Elsevier, USA

Papers presented in Conferences/Seminars/Symposia:

1.	Krishna Kumar Choudhary, <u>Asher Bar-Tal</u> , Uri Yermiyahu, Guy Tamir and Raneen Shawahna, Bio Stimulants and Phosphorus Effects on Drip Irrigated Tomato. “ BIOFECTOR meeting, September, 2016” held at Prague, Czech Republic.
2.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Deterioration of pea (<i>Pisum Sativum</i> L.) rhizospheric soil health under elevated ultraviolet-B irradiation in the Indo- Gangetic plains of India. “ Water-Soil-Nutrients: Integrated solutions for assuring global food and water security, The 12th Dahlia Greidinger International Symposium ” 29 th Feb. – 2 nd March, 2016, held at Technion-IIT, Haifa Israel. (won best poster presentation award)
3.	<u>Suruchi Singh</u> , Krishna Kumar Choudhary, S.B. Agrawal and M. Agrawal, Variations In Response Patterns Among Two Genotypes Of Chickpea Against Ambient And Elevated UV-B: Antioxidative Enzyme Profile, Nitrogen Metabolism And Accumulation of Salicylic Acid And Jasmonic Acid. “ Agriculture and Climate Change - Adapting Crops to Increased Uncertainty (AGRI 2015) ” 15 th -17 th February 2015, Amsterdam, Netherlands.
4.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Evaluation of yield and seed quality of two cultivars of soybean under elevated Ultraviolet-B irradiation “ Tropical Ecology Congress

	– 2014” 10-12 December, 2014, International conference held at School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India.
5.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Evaluating the response of mung bean (<i>Vigna radiata</i> L.) cultivars against ambient and elevated level of ultraviolet-B radiation “ Current status and new horizons of ecological sciences and environmental biotechnology (ESEB-13) ” 1-3 March, 2013, National conference held at Department of Botany, Banaras Hindu University, Varanasi, India. (won 3 rd best poster presentation award)
6.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Response of two high yielding mung bean cultivars to elevated ultraviolet-B “ 100th Indian Science Congres ” 3-7 January, 2013, held at University of Calcutta, Kolkata, India.
7.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Effect of elevated ultraviolet-B radiation on physiology, nitrogen metabolism and yield of two cultivars of pea (<i>Pisum sativum</i> L.) “ Anthropogenic Impact on Environment and Conservation Strategy. 2-4 november, 2012 ” 4 th International conference held at Department of Botany and Zoology, St. Xavier’s College, Ranchi University, Ranchi, India.
8.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Effect of elevated ultraviolet-B radiation on mung bean rhizosphere “ International Conference On Mycology and Plant Pathology Biotechnological Approaches ” 27-29 february,2012, International conference held at Department of Botany, Banaras Hindu University, Varanasi, India.
9.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Reactive oxygen species generated due to elevated ultraviolet- B radiation led stimulation of antioxidative defence system in mung bean “ Reactive Oxygen Species: Roles in Animal and Plant Biology ” 23-24 december, 2011, national seminar held at Department of Biochemistry, Lucknow University, Lucknow, India.
10.	<u>Krishna Kumar Choudhary</u> and S.B. Agrawal, Effect of supplemental ultraviolet-B irradiation on growth, photosynthesis and antioxidative defence system of <i>Glycine max</i> L. “ Emerging Trends in Plant Sciences ” 3-4 march, 2011. national symposium held at Department of Botany, Banaras Hindu University, Varanasi, India.

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