

CURRICULUM VITAE

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PRESENT POSITION: Associate Professor, Department of Botany (Plant Nutrition), University of Lucknow

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Distt.- Siddharth Nagar, U. P., Pin – 272189.

ACADEMIC QUALIFICATIONS

High School- Hindi, English, Math-2, Science-2, Biology Social Science, U.P. Board, 1988

Intermediate- Physics, Chemistry, Biology, Hindi, English, U.P. Board, 1990

B. Sc.- Botany, Zoology, Chemistry, Avadh University Faizabad, 1993

M. Sc.- Botany, (Specialization in Plant Pathology), Dr. R. M. L. A. University. Faizabad, 1996

Ph. D.- Botany, Lucknow University, 2003

Title of the Thesis- “Response of Legumes to Zinc Nutrition.”(Submitted- Dec. 2002).

Specialization- Stress Physiology, Plant Nutrition, Reproductive Biology of Zn Stress Plants.

Diploma in Computer Application (D.C.A.).

Teaching Experience- 1: Working as Associate Professor, Department of Botany, University of Lucknow. 07-06-2022 - to date.

2: Worked as Associate Professor, Botany, Techno Institute of Higher Studies, Faizabad Road, Lucknow. 10-08-2017 - to 06-06-2022.

3: Worked as Assistant Professor, Department of Botany, P.M.S. Girls Degree College, Lucknow. 16-08-2016 - to 09-08-2017.

4: Worked as Assistant Professor, Department of Botany, SCBIHE, Prabandh Nagar, IIM Road, Lucknow, 25-06-2013 - to 15-8-2016.

5: Worked as Guest Lecturer in Department of Botany, Lucknow University, Lucknow for **M. Sc. Plant Science 2006- to - 2017.**

6: Worked as **Assistant Superintendent Examination (UG)**, Lucknow University, 2011- 2017.

Administrative Experience:

- 1:** Worked as **Young Scientist (DST)** in Department of Botany, Lucknow University, Lucknow. 25-08-2007 to 24-08-2010.
- 2:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2011**, (Conduct and Processing Cell) Lucknow University.
- 3:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2011 BP**, (Conduct and Processing Cell) Lucknow University.
- 4:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2012**, (Conduct and Processing Cell) Lucknow University.
- 5:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2013**, (Evaluation and Result Cell) Lucknow University.
- 6:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2013 BP**, (Conduct and Processing Cell) Lucknow University.
- 7:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2014**, (Evaluation Cell) Lucknow University.
- 8:** Worked as **Assistant Superintendent (Asstt.OSD) B. Ed. Examination 2014**, (Evaluation and Result Cell) Lucknow University.
- 9:** Working as **Assistant Superintendent (Asstt.OSD) UG Examination 2015**, (Evaluation Cell) Lucknow University.
- 10:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2015 BP**, (Evaluation Cell) Lucknow University.
- 11:** Worked as **Assistant Superintendent (Asstt.OSD) B. Ed. Examination 2016**, (Evaluation and Result Cell) Lucknow University.
- 12:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2016 BP**, (Evaluation Cell) Lucknow University.
- 13:** Worked as **Assistant Superintendent (Asstt.OSD) B. Ed. Examination 2016**, (Evaluation and Result Cell) Lucknow University.
- 14:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2016**, (Evaluation Cell) Lucknow University.
- 15:** Worked as **Assistant Superintendent (Asstt.OSD) UG Examination 2017**, (Evaluation Cell) Lucknow University.

Research Publications:

Published Paper: 18

International: 9

National: 8

Book/ Book chapters: 3

Total Impact Factor 2016: 11.55

Paper Presented in Symposium /Seminar : 19

ANNEXURE-I

Publications:

1. **G.C. Pathak** (2021). Impact of Zn Nutrition on Crop & Human Health. A Statistical approach to Nutrition and Human Health ISBN 9-789386-661029: 27-36.
2. N. Pandey, B. Gupta and **G.C. Pathak** (2013). Enhanced yield and nutritional enrichment of seeds of *Pisum sativum* through foliar application of zinc. *Scientia Horticulture* **164**: 474-483.
3. N. Pandey, B. Gupta and **G.C. Pathak** (2013). Foliar application of Zn at flowering stage improves plant's performance yield and yield attributes of black gram. *Indian J. Exp. Biol.* **51**: 548-555.
4. **G.C. Pathak**, B. Gupta and N. Pandey (2012). Improving reproductive efficiency of chickpea by foliar application of zinc. *Brazilian J. Plant Physiol* **24** (3): 173-180.
5. N. Pandey, B. Gupta and **G.C. Pathak** (2012). Antioxidant responses of pea (*Pisum sativum* L.) genotypes to zinc deficiency. *Russian J. Plant Physiol.* **59** (2): 198-205.
6. B. Gupta, **G.C. Pathak**, and N. Pandey (2011). Induction of Oxidative Stress and Antioxidant Responses in Black gram (*Vigna mungo* L.) by Zinc stress. *Russian J. Plant Physiol.* **58** (1): 85-91.
7. **G.C. Pathak** and N. Pandey (2010). Improving Zn density and seed yield of green gram by foliar application of Zn at early reproductive phase. *Indian J. Plant Physiol.* **15** (4): 338-342.
8. N. Pandey, **G.C. Pathak** and A.K. Singh (2010). Differential sensitivity of maize to Zn deficiency and high light intensity. *Plant Stress.* **4** (1): 18-24.
9. **G.C. Pathak**, D.K. Pandey, B. Gupta and N. Pandey (2009). Zinc homeostasis is critical for optimized antioxidant defenses in faba bean. *Indian J. Plant Physiol.* **14** (1): 60-66.
10. N. Pandey, **G.C. Pathak**, D. K. Pandey and R. Pandey (2009). Heavy metals, Co, Ni, Cu, Zn and Cd, produce oxidative damage and evoke differential antioxidant responses in spinach. *Brazilian J. Plant Physiol.* **21**(2): 103-111.
11. B. Gupta, **G.C. Pathak**, D.K. Pandey and N. Pandey (2009). Responses of antioxidative defense system to water stress in two black gram genotypes. *Res. Environ. Life Sci.* **2**(2): 115-118.
12. D.K. Pandey, B. Gupta, **G.C. Pathak**, and N. Pandey (2009). Growth and metabolic effects of Boron deficiency in red kidney bean (*Phaseolus vulgaris* L. var. Kashmiri) grown in sand culture. *Res. Environ. Life Sci.* **2**(2): 131-135.
13. N. Pandey, **G.C. Pathak** and C.P. Sharma (2009). Impairment in reproductive development is a major factor limiting seed yield of black gram under zinc deficiency. *Biologia Plant.* **53**(4) 723-727.
14. N. Pandey, **G.C. Pathak** and C.P. Sharma (2006). Zinc is critically required for pollen function and fertilization in lentil. *J. Trace Element Med. Biol.* **20** (2): 89-96.
15. N. Pandey and **G.C. Pathak** (2006). Nickel toxicity induces oxidative stress and water deficit in green gram. *Indian J. Plant Physiol.* **11** (2): 113-118.
16. **G.C. Pathak**, N. Pandey and C.P. Sharma (2005). Zinc regulation of antioxidant defense in green gram (*Vigna radiata* L.). *J. Plant Biol.* **32** (3): 211-216.
17. N. Pandey, **G.C. Pathak**, A.K. Singh and C.P. Sharma (2002). Enzymic changes in response to zinc nutrition. *J. Plant Physiol.* **159**: 1151-1153.
18. N. Pandey, A.K. Singh, **G.C. Pathak** and C.P. Sharma (2002). Effect of zinc on antioxidant response in maize leaves. *Indian J. Exp. Biol.* **40**: 954-956.

Paper Presented in Symposium /Seminar:

1. **G.C. Pathak** (2020). Role of Plants in Improving Immunity against Viral Diseases Including Corona, International Conference on Immunity & Immunochemistry: Combating COVID-19 I.T. College, Lucknow, 30-31 May.2020.
2. **G.C. Pathak** (2020). Role of Zn in enhancing nutritional value and in antiviral immunity, National E-Conference-NCCIRT-20, AIDC Lucknow, 30-31 May.2020.
3. R. Pandey, **G.C. Pathak** and N. Pandey (2013). Nickel toxicity induced changes in maize (*Zea mays* var. K-25). BRD University, Lucknow, 20-21 March.2013. pp.
4. B. Gupta, **G.C. Pathak** and N. Pandey (2011). Modulation of antioxidative defense system in water stressed black gram genotypes by Zn. XXXIV All India Botanical Conference, Lucknow, 10-12 Oct.2011. pp. 273.
5. N. Pandey, B. Gupta and **G.C. Pathak** (2010). Floral analysis as a tool to define the zinc nutritional status in black gram. Presented in "National Conference of Plant Physiology 25-27 Nov. 2010 BHU Varanasi.
6. **G.C. Pathak**, B. Gupta and N. Pandey (2009). Improving reproductive efficiency, Zn density and seed yield of green gram (*Vigna radiata* L.) through foliar application of Zn at early reproductive phase. In 'National Conference on Frontiers in Plant Physiology Towards Sustainable Agriculture'05-07 Nov. 2009, Assam Agriculture University Jorhat, Assam.
7. **G.C. Pathak**, B. Gupta and N. Pandey (2008). Improving reproductive efficiency of chickpea (*Cicer arietinum* L.) through foliar application of Zn at early reproductive phase. Presented in 'Golden Jubilee Conference on Challenges and Emerging Strategies for Improving Plant Productivity' 12 -14 Nov. 2008, IARI New Delhi. pp.302.
8. N. Pandey, **G.C. Pathak** and C.P. Sharma (2005). Nickel toxicity induces change in Fe metabolism and water status of green gram. Third International Conference on Plants and Environmental Pollution. 29 Nov.-2 Dec.2005. pp.114.
9. N. Pandey, **G.C. Pathak** and R. Pandey (2005). Nickel toxicity mediated oxidative damage in roots of *Vigna radiata* (L.) Wilczek syn. Var. K-851 and water status of green gram. Third International Conference on Plants and Environmental Pollution. 29 Nov.-2 Dec.2005. pp.101.
10. N. Pandey and **G.C. Pathak** (2004). Nickel toxicity induces oxidative stress and water deficit in green gram. National Seminar on Plant Physiology. 27-29 Dec.2004.pp.159-160.
11. N. Pandey, **G.C. Pathak** and C.P. Sharma (2004). Zinc is critically required for reproductive development of lentil. International Symposium on Trace Elements and Health. 10-13 Oct.2004. 2005. pp.48.
12. **G.C. Pathak**, A.K. Singh and N. Pandey (2003). Oxidative damage in maize lines grown under high light intensity and low zinc supply. National Symposium on Crop Productivity in an Ecofriendly Environment: Physiological and Molecular Approaches. 15-17 Oct. 2003. pp. 32.
13. **G.C. Pathak** and N. Pandey (2003). Response of *Vigna radiata* L. var. Type-9 to varying levels of zinc supply. National Conference on Biodiversity and Applied Biology of Plant. 8-10 Oct.2003. pp. 39.
14. A.K. Singh, **G.C. Pathak** and N. Pandey (2003). Antioxidative capacity of maize lines differing in their sensitivity to zinc deficiency. National Conference on Biodiversity and Applied Biology of Plants. 8-10. Oct 2003. pp. 36-37.
15. N. Pandey, **G.C. Pathak** and A.K. Singh (2003). Micronutrient deficiency induced oxidative damage and antioxidant defense response in tomato. 2nd International Congress of Plant

Physiology on sustainable Plant Productivity under Changing Environment. 8-12 Jan. 2003. pp. 392.

16. N. Pandey, **G.C. Pathak**, A.K. Singh and C.P. Sharma (2002). Zinc involvement in reproductive development of black gram. National Symposium on Biosciences: Advances, Impact and Relevance. 27-29 Oct. 2002. pp. 61-62.
17. A.K. Singh, **G.C. Pathak**, D. Pandey and N. Pandey (2002). Heavy metal stress-induced oxidative damage and antioxidant responses in spinach. Second International Conference on Plants and Environmental Pollution. 4-9 Feb. 2002. pp. 64.
18. **G.C. Pathak**, A.K. Singh and N. Pandey (2000). Dry matter production and enzymatic changes in *Vigna mungo* L. I.P.U.-94, subjected to varying levels of zinc supply. National Seminar on Plant Physiological Paradigm for fostering Agro and Biotechnology and Augmenting Environmental Productivity in Millennium 2000. 7-9 Nov. pp.1.
19. A.K. Singh, **G.C. Pathak** and N. Pandey (2000). Zinc stress mediated changes in the antioxidant system in maize. National Seminar on Plant Physiological Paradigm for fostering Agro and Biotechnology and Augmenting Environmental Productivity in Millennium 2000. 7-9 Nov. pp.44.

Attended workshop/Science Congress:

1. Regional Training workshop of resource persons for National Children science Congress, U.P. organized by VICAS under the auspices of NCSTC-DST Government of India during June. 29-30, 2010 at Youth Hostel, Lucknow.
2. Group Monitoring workshop (Fast Track Schemes for Young Scientist) held from 8-10 April 2010 at University of Jammu, Jammu.
3. 89th Session of Indian Science Congress. 3-7 January 2002 at University of Lucknow, Lucknow.

ANNEXURE-II

Experience:-

Review Paper Indian J. Agricultural Sciences.

Research experience:-

- i) **J.R.F.** w.e.f. 01.01.1999 to 31.12.2000 in I.C.A.R. Scheme “**Protective Role of Zinc Against Oxidative Damage In Plants**”, under Dr. Nalini Pandey Botany Department, Lucknow University, Lucknow 226007.
- ii) **S.R.F.** w.e.f. 1.1.01 to 30.09.01 in I.C.A.R. Scheme “**Protective Role of Zinc Against Oxidative Damage In Plants**”, under Dr. Nalini Pandey Botany Department, Lucknow University, Lucknow 226007.
- iii) **S.R.F.** w.e.f. 1.1.02 to 31.5.02- CSIR Scheme “**Reproductive Biology of Zinc Stressed Plants**” under Dr. Nalini Pandey Botany Department, Lucknow University, Lucknow 226007.
- iv) **Research Associate** w.e.f. 7.5.2003– 28.02.06- CSIR scheme: “**Nickel Toxicity Response of Plants and their Dependence on Fe Nutrient Status and Tissue Hydration**” under Dr. Nalini Pandey Botany Department, Lucknow University, Lucknow 226007.
- v) **Young Scientist** w.e.f. 25.08.2007 to 24-08-2010. SERC Fast Track Young Scientist Scheme entitled “**Improving.....reproductive phase.**” sanctioned by the DST, New Delhi, vide letter No. SR/FT/L-76/2006.

