

Application for the post – Assistant Professor (Plant Pathology)

**To,
Human Resource Department
Dev Bhoomi Group of Institutions**

I Dr. Gagan Kumar, applying for the post of Assistant Professor (Plant Pathology) at Dev Bhoomi Group of Institutions. I have made significant progress in this area so far. I am very much a team member and gets well with my colleagues. My soft personality and friendly attitude towards other colleagues is a special character to have from a member in the lab. My overall intelligence to be very high and I have commendable understanding on the subject of Plant Pathology. During my project work tenure so far, I have demonstrated my ability to plan and execute research activities independently. I have a fair good command over written and spoken English. I have also shown excellent perseverance under difficult situations and very well a team member. I have tremendous potentiality to become a good teacher and researcher as I have very good understanding of the subject and approach to the problems with very innovative ways. Dev Bhoomi Group of Institutions working with very high quality research and academic program in the field of agriculture. I am sure that I will surely be an asset to your esteemed institution. I have very much potential to justify my selection for the post of Assistant Professor (Plant Pathology).

Curriculum Vitae

Name : Gagan Kumar
Date of Birth : Oct 23, 1987
Father's Name : Shri Sitab Singh
Marital Status : Married
Category/Religion : OBC/Hindu
Language Known : Hindi & English
Sex : Male
Nationality : Indian



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Educational Qualifications:						
Examinations	Board/ University	Year	Division	% Marks	Subject	
High School	U.P. Board Allahabad	2002	Second	45.30	Science	
Intermediate	U.P. Board Allahabad	2004	First	61.60	Agriculture	
B.Sc. (Ag.)	C.C.S.U. Meerut (U.P.)	2009	First	64.21	Agriculture	
M.Sc. (Ag.)	N.D.U.A.&T., Kumarganj, Faizabad (U.P.)	2012	First	78.92	Plant Pathology	
Ph.D. (Ag.)	Banaras Hindu University	2018	First	70.91	Plant Pathology	
NET	ASRB	2013	-	-	Plant Pathology	

Research Detail:	
M.Sc. (Ag.) Plant Pathology	Thesis title: “Management of stem gall disease in coriander”
Ph.D. (Ag.) Plant Pathology	Thesis title: “Studies on <i>Fusarium udum</i> – Pigeonpea interaction”

Professional Experience:			
Organization / Institution	Position Held	Start Date	End Date
Department of Mycology and Plant Pathology, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh	Junior Research Fellow	26 July 2014	25 July 2016 (1 years 11 months 29 days)
Department of Mycology and Plant Pathology, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh	Senior Research Fellow	26 July 2016	31 March 2018 (1 years 8 months 5 days)
Doon (PG) College of Agriculture Science and Technology, Salaqui, Dehradun, Uttrakhand	Assistant Professor	04 September 2018	04 July 2019 (10 months)
Department of Plant Pathology, School of Agriculture, Lovely Professional University, Phagwara, Punjab	Assistant Professor	12 July 2019	05 May 2020 (9 months 24 days)
Total Experience		5 Years 3 Months 28 Days	

Awards and Honors	
1.	UGC Research Fellowship (BHU) – 2012
2.	Asian PGPR Society Membership - Asian PGPR Society for Sustainable Agriculture Alabama, USA.
3.	APS Student Travel Award – 2017

(A). Publication:

(a). Research article:

1. Adesh Kumar, Vipul Kumar, **Gagan Kumar**, Naresh Kumar Bhadana, & Kabrabam Suraj Jackson. (2019). In vitro and in vivo bio efficacy of some new generation fungicides and antagonistic microbes against Ascochyta blight caused by *Ascochyta rabiei* on Chickpea. **Think India Journal**. 22(34), 262-282. UGC care list.
2. Adesh Kumar, Naresh Kumar Bhadana, **Gagan Kumar**, and Vipul Kumar. (2019). “Chemical and Biological Management of Alternaria Leaf Spot of Aloe Vera”. **Think India Journal**. 22(16), 1871-1893. UGC care list.
3. **Gagan Kumar**, Raina Bajpai, Ankita Sarkar, Raj Kumar Mishra, Vijai Kumar Gupta, Harikesh B. Singh, and Birinchi K. Sarma (2019). Identification, characterization and expression profiles of *Fusarium udum* stress-responsive WRKY transcription factors in *Cajanus cajan* under the influence of NaCl stress and *Pseudomonas fluorescens* OKC. **Scientific reports. Nature**. 9(1), 1-9. WOS, Scopus (Impact factor: 4.52/SJR: 1.414/NAAS value: 10.01)
4. Shweta Meshram, Jai Singh Patel, Sudheer K. Yadav, **Gagan Kumar**, Dhananjaya P. Singh, Harikesh B. Singh, and Birinchi K. Sarma. (2019). *Trichoderma* mediated early and enhanced lignifications in chickpea during *Fusarium oxysporum* f. sp. *ciceris* infection. **Journal of Basic Microbiology**. 59(1), 74-86. WOS, Scopus (Impact factor: 1.76/SJR: 0.529/NAAS value: 7.76).
5. Minto Kumar, Jai Singh Patel, **Gagan Kumar**, Ankita Sarkar, Harikesh B. Singh, & Birinchi K. Sarma. (2017). Studies on *Pseudomonas* and *Trichoderma*-mediated root exudation pattern in chickpea against *Fusarium oxysporum* f. sp. *ciceris*. **Journal of Agricultural Science and Technology**. 19, 269-278. WOS, Scopus (Impact factor: 0.37/SJR: 0.473/NAAS value: 6.83).
6. **Gagan Kumar**, Jai Singh Patel, Sudheer K. Yadav, Ajay Kumar & Ravi Prakash Saxena. (2016). Evaluation of coriander germplasm against stem gall disease of coriander (*Coriandrum sativum* L.). **Journal of Pure and Applied Microbiology**. 10(2), 1319-1325. WOS, Scopus (Impact factor: 0.10/SJR: 0.124).
7. Ajay Kumar, S. P. Pathak, S. K. Singh & **Gagan Kumar** (2015). Evaluation of potato genotypes against early blight of potato (*Solanum tuberosum* L.). **Research in Environment and Life Sciences**. 8 (3): 489-492. NAAS value: 3.74.
8. **Gagan Kumar**, Ravi Prakash Saxena, Sudheer K. Yadav, Jai Singh Patel & Ankita Sarkar (2014). Effect of temperature on the efficacy of fungicide and biocontrol agent with incidence of stem gall disease of coriander. **Trends in Biosciences**. 7(19), 3038-3046. NAAS value: 3.94.
9. **Gagan Kumar**, Sudheer K. Yadav, Jai Singh Patel, Ankita Sarkar & L. P. Awasthi (2014). Management of stem gall disease in coriander using *Pseudomonas* and *Trichoderma* (bioagents)

and fungicides. **Journal of Pure and Applied Microbiology**. 8(6), 4975-4978. **WOS, Scopus (Impact factor: 0.10/SJR: 0.124).**

(b). Review Paper

1. Gagan Kumar & Adesh Kumar. (2019). Salinity Stress in Crop Plants: Mechanism and Management. **Think India Journal**. 22(16), 1196-1201. **UGC care list.**

2. Gagan Kumar, Adesh Kumar & Vipul Kumar. (2019). Seed bio-priming: Step toward disease management. **Think India Journal**. 22 (34), 699-704. **UGC care list**

3. Gagan Kumar, Anupam Maharshi, Jai Singh Patel, Arpan Mukherjee, Harikesh B. Singh & Birinchi K. Sarma. (2017). *Trichoderma*: a potential fungal antagonist to control plant diseases. **SATSA Mukhapatra-Annual Technical Issue**. 21, 206-218. **NAAS value: 4.19.**

4. Gagan Kumar & Birinchi K. Sarma (2016). Eco-friendly Management of Soil-borne Plant Pathogens through Plant Growth-Promoting Rhizobacteria. **SATSA Mukhapatra-Annual Technical Issue**. (20), 167-171. **NAAS value: 4.19.**

5. Ranvijay Singh, Rahul Kumar, Pintoo Kumar and Gagan Kumar (2014). Important Diseases of Zaid and Rabi Crops and their management (Hindi article). **Adhunik Kisan Magazine** (April-June 2014 issue Page no. 18-22).

(c). Book Chapter

1. Gagan Kumar, Raina Bajpai, Basavraj Teli, Jhumishree Meher, M. M. Rashid, & Birinchi K. Sarma. (2020). Management of *Fusarium udum* Causing Wilt of Pigeon Pea. In Management of Fungal Pathogens in Pulses (pp. 191-204). **Springer, Cham. Scopus.**

2. Gagan Kumar, Anupam Maharshi, Sudheer K. Yadav, Richa Raghuwanshi, Harikesh B. Singh & Birinchi K. Sarma. (2019). Role of bacterial endophytes in plant growth and disease management. Book - Microbial antagonist: Their role in biological control of plant diseases. Part II Bacterial antagonists and bacteriophage. **Indian Phytopathology**. 515-531.

3. Gagan Kumar, Basavraj Teli, Arpan Mukherjee, Raina Bajpai & Birinchi K. Sarma. (2019). Secondary Metabolites from Cyanobacteria: A Potential Source for Plant Growth Promotion and Disease Management. In Secondary Metabolites of Plant Growth Promoting Rhizomicroorganisms (pp. 239-252). **Springer, Singapore. Scopus.**

4. Anupam Maharshi, Gagan Kumar, Arpan Mukherjee, Richa Raghuwanshi, Harikesh Bahadur Singh, and Birinchi Kumar Sarma. (2019). "Arbuscular Mycorrhizal Colonization and Activation of Plant Defense Responses Against Phytopathogens." In *Microbial Interventions in Agriculture and Environment*, pp. 219-240. **Springer, Singapore. Scopus.**

5. Sudheer K. Yadav, Jai Singh Patel, Gagan Kumar, Arpan Mukherjee, Anupam Maharshi, Birinchi Kumar Sarma & Harikesh Bahadur Singh. (2018). Factors affecting the fate, transport, bioavailability and toxicity of nanoparticles in the agroecosystem. In Emerging Trends in Agri-Nanotechnology: Fundamental and Applied Aspects (pp. 118-134). **CAB International. Scopus.**

6. Gagan Kumar, Jai Singh Patel, Anupam Maharshi, Arpan Mukherjee, Chetan Keswani, Surya Pratap Singh & Birinchi Kumar Sarma. (2017). PGPR-Mediated Defence Responses in Plants under Biotic and Abiotic Stresses. *Advances in PGPR Research*. 427-437. **CAB International. Scopus**.

7. Jai Singh Patel, **Gagan Kumar**, Ankita Sarkar, Ram S. Upadhyay, Harikesh B. Singh & Birinchi Kumar Sarma. (2016). Evolution of host selectivity, Host resistance factors and Genes responsible for disease Development by *Streptomyces Scabies*. *The Phytopathogen Evolution and Adaptation*. **CRC Press, USA**, pp. 191-220. **Scopus**.

8. Jai Singh Patel, **Gagan Kumar**, Ankita Sarkar, Akanksha Singh, Mushtaq Ahmed, Ram S. Upadhyay & Birinchi Kumar Sarma (2015). Microbial Resources in Management of Pulse Pathogen. *Microbial Empowerment in Agriculture: A Key to Sustainability and Crop Productivity*. **Biotech Book, New Delhi**, pp. 385-416.

(d). Abstract:

1. Nidhi Rai, Raina Bajpai, **Gagan Kumar** and B. K. Sarma (2018). Genome-wide analysis of some transcription factor families in chickpea (*Cicer arietinum*). International Conference on Novel Applications of Biotechnology In Agricultural Sectors: Towards Achieving Sustainable Development Goal (INABASDG-2018) organized by Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, India.

2. **Gagan Kumar**, Sudheer Kumar Yadav and B.K. Sarma (2017). Identification and characterization of biotic (*Fusarium udum*) and abiotic (NaCl) stress responsive WRKY transcription factors in pigeonpea. “National symposium on sustainable disease management: approaches and applications and IPS-MEZ Annual Meeting organized by Department of Plant Pathology, College of Agriculture, GB Pant University of Agriculture & Technology, Pantnagar & Indian Phytopathological Society, New Delhi.

3. **Gagan Kumar** and B.K. Sarma (2017). Effect of NaCl stress on plant growth and metabolism of pigeonpea (*Cajanus cajan*). National Symposium on “Pulses for Nutritional Security and Agricultural Sustainability” organized by Indian Society of Pulses Research and Development and ICAR-Indian Institute of Pulses Research, Kanpur.

4. **Gagan Kumar** and Birinchi Kumar Sarma (2017). Salt stress: a serious environmental issue in agriculture production. International conference on Advances in Agricultural and Biodiversity Conservation for Sustainable Development (ABCD, 2017) organized by C.C.S. University, Meerut (U.P.).

5. **Gagan Kumar**, Arpan Mukherjee, Sudheer K. Yadav, Richa Raghuvanshi, Harikesh B. Singh, Birinchi K. Sarma (2017). Role of Bacterial endophytes in plant growth and disease management. “Special symposium on microbial antagonists and their role in biological control of plant diseases” and west zone meet of IPS-2017 organized by Department of Plant Pathology, B. A. College of Agriculture, Anand Agricultural University, Anand and Indian Phytopathological Society.

6. Raina Bajpai, Ruchi Garg, **Gagan Kumar**, H.B.Singh and B.K.Sarma (2016). Expression analysis of ERF transcription factors in *Fusarium udum* challenged pigeonpea. National symposium on Ecofriendly Approaches for Plant Disease Management: Recent Trends and Opportunities organized by Indian Phytopathological Society-MEZ and ICAR- Indian Institute of Pulses Research Kanpur.

7. **Gagan Kumar**, Raina Bajpai and R.P.Saxena (2017). Impact of temperature on the efficacy of fungicide with incidence of stem gall disease of coriander. Varanasi Chapter of Indian Society of Agricultural Engineers and Department of Farm Engineering, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi.

8. **Gagan Kumar**, A.P. Singh and B.K. Sarma (2016). Antifungal activities of different cyanobacterial extracts Against rice sheath blight pathogen *Rhizoctonia solani*. National Conference on Managing Soil Resource for Environmental Sustainability: Challenges & Perspectives (MSRES-2016) organized by Institute of Environment and Sustainable Development Banaras Hindu University, Varanasi-221005.

9. **Gagan Kumar**, A.P. Singh and B.K. Sarma (2016). Screening of different cyanobacterial crude extract against different fungal plant pathogen. National symposium on Ecofriendly Approaches for Plant Disease Management: Recent Trends and Opportunities organized by Indian Phytopathological Society-MEZ and ICAR- Indian Institute of Pulses Research Kanpur.

10. **Gagan Kumar**, Ruchi Garg, Ankita Sarkar and B.K.Sarma (2015). Fluorescent *Pseudomonas* enhances WRKY expression in pigeonpea under biotic stress. National symposium on emerging trends and challenges in plant science research organized by Centre of Advanced Study in Botany, Banaras Hindu University, Varanasi.

11. **Gagan Kumar** and B.K. Sarma (2014). Combined application of *Pseudomonas fluorescens* and *Pseudomonas putida* enhances seed germination in pigeonpea. National Workshop on “Avances in PGPR Research” organized by Department of Mycology and Plant Pathology, Banaras Hindu University, Varanasi & Asian PGPR Society, Hyderabad.

(B). Participation in Seminars, Symposia & Workshops etc.

1. National Workshop on “Avances in PGPR Research” organized by Department of Mycology and Plant Pathology, Banaras Hindu University, Varanasi & Asian PGPR Society, Hyderabad. October 7-8, 2014.

2. International B.H.U. Aumni Meet (IBAM – 2015) & Seminar on “Science and Religion: Mahamana’s Vision”. November 23-24, 2015.

3. National Symposium-cum-Mid Eastern Zonal Meeting on Impact of climate change on plant-microbe interactions and its implications. December 18-19, 2015.

4. 6th International Conference & Indian Chapter of Asian PGPR Satellite Workshop “PGPR for Sustainable Crop Productivity. Indian Phytopathological Society, New Delhi. February 25, 2016.

5. 6th International Conference “Plant, Pathogen and People” Challenges in Plant Pathology to Benefit Humankind. Indian Phytopathological Society, New Delhi. February 23-27, 2016.
6. National symposium on Ecofriendly Approaches for Plant Disease Management: Recent Trends and Opportunities. Indian Phytopathological Society-MEZ and ICAR- Indian Institute of Pulses Research Kanpur. December 29-30, 2016.
7. National Conference on Managing Soil Resource for Environmental Sustainability: Challenges & Perspectives (MSRES-2016). Institute of Environment & Sustainable Development, Banaras Hindu University, Varanasi. December 9-10, 2016.
8. International Conference on Sustainable Natural Resource Management: from Science to Practice (SNRMSP). Varanasi Chapter of Indian Society of Agricultural Engineers. and Department of Farm Engineering, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi. January 12-13, 2017.
9. National Intellectual Convention on “Resurrection of Agricultural Education & Research in India RAER-2017” Institute of Agricultural Sciences, Banaras Hindu University, Varanasi. August 09-10, 2017.
10. “Special symposium on microbial antagonists and their role in biological control of plant diseases” and west zone meet of IPS-2017 organized by Department of Plant Pathology, B. A. College of Agriculture, Anand Agricultural University, Anand and Indian Phytopathological Society. October 05-07, 2017.
11. International conference on Advances in Agricultural and Biodiversity Conservation for Sustainable Development (ABCD, 2017) organized by C.C.S. University, Meerut (U.P.). October 27-28, 2017.
12. National Symposium on “Pulses for Nutritional Security and Agricultural Sustainability” organized by Indian Society of Pulses Research and Development and ICAR-Indian Institute of Pulses Research, Kanpur. December 02-04, 2017.
13. “National symposium on sustainable disease management: approaches and applications and IPS-MEZ Annual Meeting organized by Department of Plant Pathology, College of Agriculture, GB Pant University of Agriculture & Technology, Pantnagar & Indian Phytopathological Society, New Delhi. December 21-23, 2017.
14. National symposium on smart and sustainable agriculture (AGRICON-2019) organized by Peoples foundation and Lovely Professional University, Phagwara, Punjab. November 23, 2019.

(C). Completion of Online courses

1. Eight-week certificate course on “Nutrition, Therapeutics and Health” successfully completed on 20 November 2017. Indian Institute of Technology, Kanpur and Commonwealth of Learning, Canada. agmoocs.in/v/5a16d5c2f3cf581e718b4575.

2. Six-week certificate course on “जैविक खेती एवं भारत की सहभागिता जैविक प्रतिभूती प्रणाली” successfully completed on 06 November 2017. Indian Institute of Technology, Kanpur and Commonwealth of Learning, Canada. agmoocs.in/v/5a16a2f2f3cf58e9488b456b.
3. Six-week certificate course on “Integrated Disease Management” successfully completed on 16 April 2018. Indian Institute of Technology, Kanpur and Commonwealth of Learning, Canada. agmoocs.in/v/5ae7686af3cf58a29b8b457d.
4. Six-week certificate course on “Detection, Diagnosis and Management of Plant Diseases” successfully completed on 03 December 2019. Indian Institute of Technology, Kanpur and Commonwealth of Learning, Canada. agmoocs.in/v/5deb0987a41bd.
5. Six-week certificate course on “Diagnosis of Crop and Stored Grain Pests and their Management” successfully completed on 31 March 2020. Indian Institute of Technology, Kanpur and Commonwealth of Learning, Canada. agmoocs.in/v/5e8b1141e30c7.

Extracurricular activities

I gained experience in the field of plant pathology and soil microbiology, Antimicrobial compound evaluation against plant pathogen In vitro and In vivo. I has also gained experience in molecular plant pathology and used some techniques like DNA and mRNA extraction from plant, fungi and bacteria, spectrophotometric analysis, gel electrophoresis, RT-PCR, qRT-PCR, HPLC analysis and some bioinformatics techniques in conducting my Ph.D. Having all the basic knowledge of computer application and data analysis.

References

1. Dr. H. B. Singh (Professor)
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E.mail: hbs1@rediffmail.com
2. Dr. B. K. Sarma (Professor)
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DECLARATION

I, hereby, declare that all the information furnished above are true and correct to the best of my knowledge and belief.

Dated: 25/07/2020

Place: Uttar Pradesh

(Gagan Kumar)