

DR. RAJIV KUMAR PATHAK

ASSOCIATE PROFESSOR (Plant Protection/Horticulture)

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Personal profile

Date of Birth : 22nd June, 1965
Nationality : Indian
Languages Known : Hindi, English
Marital Status : Married

Educational Qualification

Educational status	Class/Division	Percentage of marks	University
B. Sc (Ag.) Hons.	I st Position in University	76.2%	Kanpur Univ., Kanpur
M.Sc. (Ag.) Plant Pathology	I st	85.4%	CSAUAT, Kanpur
M.Sc. (Ag.) Horticulture	I st	70.87%	Kanpur Univ., Kanpur
Ph.D. Plant Pathology	I st	82.3%	CSAUAT, Kanpur

Awards and Honours

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- Awarded fellow of Academic of Plant Sciences, India (FAPS) by APSI, Muzaffarnagar.
 - Recipient of Gold Medal for securing first position in B.SC. (Ag.) from Directorate of Higher Education U.P. and Silver Medal from Janta College Bakewar (Etawah) U.P.
 - Awarded University fellowship for Ph.D. Programme.

Publications

Research Papers (Published)

1. **Kumar, Rajiv** and S.B. Singh 1994. Chemical control of leaf spot of sunflower. **Ann. Pl. Protec. Sci.** 2(2) : 76-78.
2. **Kumar, Rajiv** and S.B. Singh 1994. Reaction of sunflower germplasm to leaf spot (*Alternaria alternata*) in Uttar Pradesh. **Farm Sci. J.** 6-9, 181-182.
3. **Kumar, Rajiv** and S.B. Singh 1996. influence of weather factors on *Alternaria* leaf spot development in sunflower. **Indian J. Mycol. Pl. Pathol.** 26 (2) : 196-198.
4. **Kumar, Rajiv** and S.B. Singh 1996. Changes of biochemical constituents of sunflower leaves in relation to *Alternaria* blight development. **Indian J. Mycol. Pl. Pathol.** 26 (2) : 234-236.
5. Lakpale, N., **Rajiv Kumar** and N. Khare. 1996. Studies on toxin produced by *Rhizoctonia solani* causing sheath blight of rice. **Indian J. Mycol. Pl. Pathol.** 26 (3) : 263-265.
6. **Kumar, Rajiv** and S.B. Singh 1997. Field evaluation of fungitoxicents for the control of leaf spot of sunflower (*Alternaria alternata* (fr.) Keissler. **Ad. Plant Sci.** 10 (1) : 233-235.
7. **Kumar, Rajiv** and S .B. Singh 1997. Efficacy of seed dressing fungicides on seed germination and seedling infection of sunflower. **Ann. Pl. Protec. Sci.** 5(2) : 193-194,
8. Thrimurthy, V. S., N. Lakpale and **Rajiv Kumar**. 1997. A technique for sclerotial viability determination of *Rhizoctonia solani* (Kuhn), the causal organism of sheath blight of paddy. **J. Mycol. Pl. Pathol.** 27 (2) : 231.
9. **Kumar, Rajiv** and N. Lakpale, 1997. Influence of some cultural factors on growth and sclerotial production of *Rhizoctonia solani* Kuhn : Inciting web blight of mungbean. **GEOBIOS.** 24 (4) : 278-280.
10. Lakpale, N., V, S. Thrimurthy and **Rajiv Kumar**. 1997. Influence of crop duration on development of sheath blight of rice. **J. Mycol. Pl. Pathol.** 27 (3) : 343-344,
11. **Kumar, Rajiv**, N, Lakpale and N. Khare 1997. Studies on mode of perpetuation and spread of *Alternaira alternata* (Fr) Keissler causing leaf spot of sunflower. **Plant Dis. Res.**12(2):162-163.
12. **Kumar, Rajiv**, V. S, Thrimurthy and N. Lakpale. 1997. Field evaluation of some new fungicides against sheath blight of rice. **Ann. Pl. Protec. Sci.** 5 (2) : 199-201,
13. **Kumar, Rajiv** and N, Lakpale. 1998. In vitro production and activity of enzymes by *Altenaria alternata* (Fr.) Keissler. **GEOBIOS.** 25 (4) : 258-260.
14. Thrimurthy, V. S., N. Lakpale, A. S. Kotasthane and **Rajiv Kumar**. 1998, Assesment of agressiveness among isolates of *Xanthomonas oryzae* pv *oryzae*. **J. Mycol. Pl. Pathol.** 28 (3):322-323.
15. Malani, S. S., N, Khare, N. Lakpale and **Rajiv Kumar**. 1998. Efficacy of some fungicides - against powdery mildew of grasspea (*Lathyrus sativus* L.), **Ann. Pl. Protec. Sci.** 6 (2) : 131-135.
16. **Kumar, Rajiv** and S.B. Singh 1998. Factors affecting the development of leaf spot (*Alternaria alternata* (fr.) Keissler of sunflower. **GEOBIOS** 25 (1) : 41-45.

17. **Kumar, Rajiv** and N. Lakpale. 1999. Impact of fungicidal application on some organic constituents of rust infected groundnut leaves. **GEOBIOS**. 26 (I) : 67-68.
18. **Kumar, Rajiv**, N. Rai and N. Lakpale. 1999. Field reaction of some chilli genotypes for leaf curl virus in Chhattisgarh region of India. **Orissa J. Hort.** 27 (I) : 100-102
19. **Kumar, Rajiv** and N. Lakpale. 2000. Efficacy of different fungicides against *R. solani* Kuhn, the incitant of web blight of mungbean. **Ad. Plant Sci.** 13 (I) : 327-328.
20. Rai, N.; **Rajiv Pathak** and T. Tirkey 2000. Studies on relationship between environmental conditions on tomato leaf curl virus (TLCV) incidence. II. Screening of tomato genotypes and their stability against TLCV. **Progressive Horticulture** 32 (1-2).

Research Papers (Presented)

1. **Kumar, Rajiv**, S.B. Singh and U.K. Tripathi 1993. Changes in biochemical constituents of sunflower leaves in relation to disease development. **International Conference on Biotechnology in Agriculture and Forestry**.
Organised by C.S.A.U.A.T., Kanpur and IARI, New Delhi from 15-18 February.
2. Tripathi, U.K., S.B. Singh and **Rajiv Kumar** (1993). Changes in biochemical constituents in relation to alternaria leaf spot disease of sesame caused by *Alternaria alternata* (Fr.) Keissler. **International Conference on Biotechnology in Agriculture and Forestry**.
Organised by C.S.A.U.A.T., Kanpur and IARI, New Delhi from 15-18 February.
3. Thrimurthy, V. S., **Rajiv Kumar**, N. Lakpale and K. C. Agrawal, 1996. Studies on consistency of some differential varieties against bacterial blight pathogen of rice "**International Symposium on rainfed rice for sustainable food security**" organized by **ARRW and ICAR at CRRI**, Cuttack from 23 to 25 September
4. Thrimurthy, V.S., **Rajiv Kumar**, R.K. Dantre, N. Lakpale, S.S. Chandrawanshi and K.C. Agrawal, 1996. Evaluation of hybrid rice against important biotic stress of Chhattisgarh region (M.P.). "**International Symposium on rainfed rice for sustainable food security**" organized by **ARRW and ICAR at CRRI**, Cuttack from 23 to 25 September .
5. **Kumar, Rajiv**, N. Lakpale and N. Khare. 1997. In vitro production and activity of enzymes by *Alternaria alternata*. **6th National symposium on biological diversity and human welfare organised by APSI at Rishikesh** from 28-30 Sept. : 47 pp (Abst.).
6. Malani, S.S., N. Khare, N. Lakpale and **Rajiv Kumar**.1997. Influence of dates of sowing on powdery mildew of grasspea incited by *Erysiphe pisi* Syd. **6th National symposium on biological diversity and human welfare organised by APSI at Rishikesh** from 28-30 Sept. : 47-48 pp (Abst.).
7. Agrawal, K. C., V. S. Thrimurthy, N. Lakpale and **Rajiv Kumar**.1997. Varieties for effective management of bacterial blight of rice. **International Conference on Integrated Plant Disease Management for Sustainable Agriculture organised by IPS, ICAR and IARI, New Delhi** from 10-15 Nov. : 171 (Abst.).
8. **Kumar, Rajiv**, S. B. Singh and N. Lakpale. 1997. Studies on mode of survival and spread of *Alternaria alternata* (Fr) Keissler; inciting leaf spot of sunflower. **International Conference on Integrated Plant Disease Management for Sustainable Agriculture organised by IPS, ICAR and IARI, New Delhi** from 10-15 Nov. : 382 (Abst.).

9. Thrimurthy, V.S., **Rajiv Kumar**, N. Lakpale and K. C. Agrawal. 1997. Variation in host-pathogen interaction in a resistant rice variety to *Xanthomonas oryzae* pv *oryzae* **International Conference on Integrated Plant Disease Management for Sustainable Agriculture organised by IPS, ICAR and IARI, New Delhi** from 10-15 Nov. : 421 (Abst.).
10. Lakpale, N., **Rajiv Kumar** and N. Khare. 1997. Evaluation of some botanicals for their antimicrobial properties. Paper presented in **National symposium on Recent advances in diagnosis and management of important plant disease** organised by Indian Phytopathological Society at CSAUA T, Kanpur from 19-20 Dec. : 18.
11. **Kumar Rajiv**, N. Lakpale and V.S. Thrimurthy. 1997. Field reaction of some wild rice (*Oryza nivara*) accessions to two important diseases **National symposium on Recent advances in diagnosis and management of important plant disease** organised by Indian Phytopathological Society at CSAUA T, Kanpur from 19-20 Dec.: 40.
12. **Kumar Rajiv** and V. S .Thrimurthy 1999. Evaluation of rice donors against three important diseases. **Indian Phytopathological Society, 51st Annual meeting and National symposium on seed health care and phytosanitation for sustainable Agriculture**, organised by IISR and Ganna Kisan Sansthan, Lucknow from Feb 17-19: 21 (Abst).
13. Thrimurthy, V.S. and **Rajiv Kumar** 1999. Reaction of hybrid rice accessions against bacterial blight disease in Chhattisgrh region of India. Indian Phytopathological society, **51st Annual meeting and national symposium on seed health care and Phytosanitation of sustainable agriculture**, organised by IISR and Ganna Kisan Sansthan, Lucknow from Feb .17 -19 : 21.
14. Thrimurthy, V.S, **Rajiv Kumar** and N. Lakpale. 1999. Relative efficacy of Biopesticide formulations against sheath blight of rice. Paper presented in 21st Annual Conference of **Indian Society of Mycology and Plant Pathology** held at AAU, Jorhat (Assam) from March 26-27.29(2) : 275.
15. Thrimurthy, V. S., N. Lakpale and **Rajiv Kumar**. 1999. Evaluation of pyramid lines against isolates of *Xanthomonas oryzae* pv *oryzae* on rice. 21st Annual Conference of **Indian Society of Mycology and Plant Pathology** held at AAU, Jorhat (Assam) from March 26-27.29 (2) : 282
16. **Kumar, Rajiv** and V.S. Thrimuty 2001. Evaluation of new fungicides formulations for sheath blight control. Workshop Cum Seminar on **Sustainable Agriculture for 21st Century** held at Indira Gandhi Agricultural University, Raipur (Chhattisgarh) from January 20-21, 2001, pp 92.
17. Pathak, R.K.; A.K. Sacheti, A.M.Yasin, V.S.Mehrotra and B.Devi 2006). Study of Vocational Aspirations and Preferences of students, parents and school leavers of Sehore District of M.P. in Agriculture and Allied Sector. National Seminar on Vocational Education and Training – Present Practices and Future Directions, held at PSSCIVE, Bhopal.

RESEARCH ACHIEVEMENTS (Technologies Developed/Evaluated/Adapted)

S. N.	SPECIFICATION OF TECHNOLOGY	TARGETED BENEFICIARY	YEARS	PROJECT	YOUR ROLE	IMPACT (LEVEL OF EXPLOITATION)
1.	Evaluation of the resistant varieties Bamleshwari and Danteshwari approved and under final release from the corresponding committee.	Farmers	1995-99	AICRIP	Team member	Multiple resistant and high yielding varieties for farmers of this region
2.	Identification of important donors of paddy for resistance to the major diseases of Chhattisgarh region viz. Bacterial leaf blight, Blast, Sheath rot, Brown spot and sheath Blight.	Farmers & Plant Breeder	1994-99	AICRIP	Team member	To help plant breeder in evolving resistant varieties
3.	Identification of the pathotypes in <i>Xanthomonas oryzae</i> pv <i>oryzae</i> .	Researchers	1994-99	AICRIP	Team	To know the extent of variation among existing pathotypes
4.	Identification of the variation in virulence among <i>Rhizoctonia solani</i> isolates.	Researchers	1994-99	Departmental	PI	To know the extent of variation among existing pathotypes
5.	Identification of variations in blast pathogens <i>M. grisea</i> under Chhattisgarh conditions	Researchers	1997-99	AICRIP	Team member	To know the extent of variation among existing pathotypes
6.	Actively involved in the variation studies of <i>Sarocladium oryzae</i> .	Researchers	1996-99	Departmental	PI	To know the extent of variation among existing pathotypes
7.	Actively Associated with ad hoc project on "Identification and grouping of entries from elite rice germplasm material on the basis of interaction with selected virulent pathotypes of Chhattisgarh region for Bacterial blight resistance.	Plant Breeder	1997-99	ICAR Adhoc Project	Co-PI	Identification and grouping of material for advanced breeding programme
8.	Associated in evaluation of rice germplasm against biotic stress (BB) and evaluated about 15,800 entries of rice accessing for important donors from the national germplasm.	Plant Breeder	1994-99	ICAR Network project/ AICRIP	Co-PI	Identification of important donor for bacterial blight.
9.	Developed technique for sclerotial viability determination of <i>R. solani</i> .	Researchers	1997	Departmental	Team member	To know the viability of sclerotia in field conditions
10	Standardized mass inoculation technique of <i>R. solani</i> at field level	Researchers	1997	Departmental	Team member	To save the time and labour in artificial inoculation and better performance at field level.

COURSE TAUGHT DURING THE YEAR 1994-2001

A. Teaching

For UG students

1. Principle of Plant Pathology (1+1)
2. Diseases of Horticultural Crops (2+1)

For PG Students

1. Fungicides (2+1)
2. Diseases of Horticultural Crops (3+1)
3. Mycology I (2+1)
4. Mycology II (2+1)
5. Plant Nematology (1+1)
6. Principle of Plant Pathology (2+1)

B. Thesis Guidance (Major Advisor/member of Advisory Committee)

Year	Title of thesis and name of students	M.Sc.(Ag.) Plant Pathology
1995	1. Studies on Rice (<i>Oryza sativa</i> L) seed health evaluation for important pathogens in Chhattisgarh region.- Jay Kumar G.	M.Sc. Plant Pathology
1996	2. Some studies on <i>Sarocladium oryzae</i> (Sawada) Gams and Hawksworth, the incitant of sheath rot of rice. - Satendra Singh	--do--
	3. Studies on powdery mildew of grasspea (<i>Lathyrus sativus</i> L) incited by <i>Erysiphe pisi</i> Syd.- Shyam Sunder Malani	--do--
1997	4. Studies on sheath blight of rice incited by <i>Rhizoctonia solani</i> kuhn. - Mazharul Haque	--do--
1998	5. Management of sheath rot of rice.- Sunil Kumar Thapak	--do--
1999	6. Studies on Macrophomina blight on moongbean by B.S. Banade	--do--
	7. Seed Pathological studies on rice - A.V. Zope	--do--

Work Done as Associate Professor at PSSCIVE

I. Research (As a Coordinator)

- Study of Vocational Aspiration and Preferences of Students and School Leavers of Sehore District of M.P. State in Agriculture and Allied Sector.
- छत्तीसगढ़ राज्य के लिये आवश्यकता आधारित व्यावसायिक पाठ्यक्रम एवं कार्यान्वयन की रूपरेखा

II. Development

A. As a Coordinator

- Development of Pre-vocational Instructional-cum Practical Manual on Setting up of Floral Shop.
 - Development of Modular Curricula in Horticulture.
 - Development of Pre-vocational Instructional-cum Practical Manual on Production of Essential Oils.
 - Development of Competency based Modular Curricula of Seed Production Technology.
 - Development of Video Script on Layering for CIET, New Delhi.
 - **Coordinated the translation work of the following books.**
 - Fundamentals of Horticulture- PM
 - Fruit Production – Textbook
 - Fruit Production – PM
- Submitted for printing.

B. As a Resource Person/Team Members

- Modularization of Agribusiness Course Curriculum.
- Development of Occupational based NVQ on Poultry Farming.
- Development of Competency Based Curriculum on Agro-forestry.
- Development of Pre-vocational Instructional-cum Practical Manual on Setting up Plant Clinic.
- Identification and reformulation of Short Vocational Courses for Mentally Retarded.
- Compendium of Project for Establishing Small Enterprises in Agriculture.
- Development of Modular Curricula in Medicinal and Aromatic Plants.
- Development of Modular Curricula in Plant Protection.
- Development of Modular Curricula in Agri-business.
- Development of Package of Folders on Vocational Education for Person with Disabilities.
- Development of Modular Package for Certificate Programme (Level-1 Qualification) in Plant Protection.

III. Extensions

A. As a Coordinator

- Sensitization of State Level Officers, NGOs and Other Stake holders of Vocational Education in Maharashtra.
- Orientation Programme on Management of Vocational Schools for the Principals of the Jr. Colleges running five or more Vocational Courses in Andhra Pradesh.
- Sensitization of the Officers of the SC/STs Corporations towards Vocational Education for Western Region.
- Sensitization of the Officers of the SC/STs Corporations towards Vocational Education for Northern Region.

B. As a Resource Person/Team Member

- Orientation Programme for Vocational Teachers of Crop Production, Horticulture, Seed Production Technology and Plant Protection Vocational Course.
- Orientation Programme of the Key Functionaries, Principals and Vice-Principals of Vocational Schools in Bihar.
- Orientation Programme on VEP of Key Functionaries for Tribal Institutions/NGOs in Chhattisgarh.
- Orientation Programme for Key Functionaries from Organizations/ Agencies, Stake holders concerned with upliftment of SCs for Economic Empowerment through Vocational Education for Eastern Region.
- Orientation Programme for Key Functionaries from Organizations/ Agencies, Stake holders concerned with upliftment of SCs for Economic Empowerment through Vocational Education for Southern Region.
- Sensitization of State Level Officers, NGOs and other Stake holders to Vocational Education in Assam.
- Sensitization of SC Key Functionaries of Southern Region towards Vocational Education.
- Development of Vocational Education and Training Programme for Selected Tribal District of Madhya Pradesh.

IV. Training

A. As a Coordinator

- Short-term Teachers Training Programme for Vocational Teachers of Dairying of Andhra Pradesh.
- Teachers Training Programme in Horticulture for Punjab, Haryana and Madhya Pradesh State.

B. As a Resource Person/Team Member

- Short-term Teachers Training Programme for the Teachers of Crop Production, Seed Production Technology and Agriculture including Horticulture in North-Eastern States.

V. Evaluation Studies (As Coordinator)

- Evaluation of Project Hunar in Bihar State

(As Team Member)

- Evaluation Study on VEP in Assam.
- Evaluation of Implementation of VEP in the State of Maharashtra.

IX. Workshop/Seminar/Orientation/Training Programme attended

- Orientation Programme on Value Education for PSSCIVE Staff.
- Orientation Programme for PSSCIVE Faculty in Performance Evaluation and Competency Assessment.
- National Consultation on Vocationalisation of Education organised by PSSCIVE, Bhopal
- Training Programme on District Trainer Skills.

X. Article Published

- Agriculture as a potential sector for self-employment in Madhya Pradesh – Hindustan Times, Bhopal, December 03, 2003.
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