



**Dr. PANKAJ SHARMA**

Principal Scientist (Plant Pathology)

Email: [pksvirus@gmail.com](mailto:pksvirus@gmail.com)

1. Date of birth : May 17, 1972
2. Education Qualification : Ph.D. (Plant Pathology)
3. Joining Date in ICAR : March 15, 2005
4. Joining Date in DRMR : Dec. 10, 2008
5. Discipline/Specialization : Plant Pathology/*Sclerotinia sclerotiorum*
6. Research Experience : 15 yrs
7. Training/advance exposure in the area of work :
  - Advances in Detection of seed transmitted plant viruses, AAU Anand 2004.
  - Serological and nucleic acid based methods for the detection of plant viruses. ICRISAT Hyderabad 2004.
  - Crop disease management-needs and outlook for transgenic, microbial antagonists and botanicals. GBPUAT, Pantnagar 2006.
  - Bio-control of plant pathogens. IARI, New Delhi 2007.
  - ACIAR-GRDC project on *Oilseed Brassica Improvement in China, India and Australia*. University of Melbourne (Australia) 2009.
  - 1<sup>st</sup> Annual World Congress of Microbes, Beijing (China) 2011.
  - 14<sup>th</sup> International Rapeseed Congress, Saskatoon (Canada) 2015.
  - GCIRC Technical meeting SLU, Alnarp (Sweden) 2017.
8. **Contribution to the Scientific advancement**
  - Epidemiology of Sclerotinia rot of Indian mustard (*Brassica juncea* L.) investigated, forecasting models were developed and validated.
  - More than 7000 Brassica germplasm, breeding lines were screened with standardized stem inoculation technique against Sclerotinia stem rot and reported tolerant sources.
  - 65 geographical isolates of *Sclerotinia sclerotiorum* were maintained and their morphological variability, genetic diversity and pathogenicity established.
  - Sclerotinia rot management technology developed and popularized among mustard growers.
  - First report of 21 new diseases from India and worldwide.
9. **Current Research Projects & Future planning of research**
  - Management of Sclerotinia rot in rapeseed-mustard.
  - Incentivizing research in agriculture-Indian mustard.
  - DST-BBSRC Newton-Bhabha project on Genomics-led improvement of biotic and abiotic stress tolerance in mustard rape for economic and environmental sustainability.
10. **Awards/ Recognitions (35)**
  - **Member**, *International Consultative Group for Research on Rapeseed* (GCIRC), France
  - **Sh. P.P. Singhal Memorial Pesticide India Award 2004** Indian Society of Mycology and Plant Pathology. October 7-9, 2004 (Univ of Goa, Goa).
  - **Fellow Award (FPPAI) 2010** by Plant Protection Association of India, NBPGR Regional station, Hyderabad. April 28, 2010.
  - **K.S. Bilgrami Best paper Presentation Award 2010** by Indian Society of Mycology and Plant Pathology. 32<sup>nd</sup> Annual Conference and Symposium, Junagadh Agricultural University, Junagadh. November 24-26, 2010.
  - **Fellow Award (FSPPS) 2011** by Society for Plant Protection Sciences, IARI, New Delhi. Feb 17, 2011.

- **DST Visiting Scientist** Travel Fellowship Award (International Travel Support, ITS) during July 30- Aug.1, 2011 and July 5-9, 2015
- **Prof. H.C. Dube Outstanding Young Scientist Award 2011** by Indian Society of Mycology and Plant Pathology. 3<sup>rd</sup> Global Conference held at MPUAT Udaipur. January 10, 2012.
- **Fellow Award (FISMPP) 2014** by Indian Society of Mycology and Plant Pathology, Udaipur India on Jan 8, 2014.
- **Fellow Award (FINSOPP) 2014** by Indian Society of Plant Pathologists, PAU, Ludhiana, India on Nov. 19, 2014.
- **DRMR Best Scientist Award 2015** ICAR-Directorate of Rapeseed Mustard Research, Bharatpur. 22<sup>nd</sup> Foundation day Oct 20, 2015.
- **Young Scientist Award 2015** by Society for Scientific Development in Agriculture and Technology, National Conference at RVSKVV, Gwalior. Dec 12-13, 2015.
- **Fellow Award 2016** by Bioved Research Institute of Agriculture, Technology & Sciences, Allahabad. Feb 20-21, 2016.
- **DRMR Best Scientist Award 2016** ICAR-Directorate of Rapeseed Mustard Research, Bharatpur. 23<sup>rd</sup> Foundation day Oct 20, 2016.
- **Award for Leadership in Farm management and Apiculture** ICAR-Directorate of Rapeseed Mustard Research, Bharatpur. 23<sup>rd</sup> Foundation day Oct 20, 2016.
- **Outstanding Scientist Award** for Sclerotinia work in Brassica during International Seminar on Oilseed Brassica (ISOB), Jaipur. Feb 23-27, 2017.
- **Distinguished Scientist Award** Society for Scientific Development in Agriculture and Technology during International Conference at MPUAT, Udaipur. Dec 2-4, 2017.

## 11. Publication

### Sclerotinia (19)

- **Sharma, Pankaj**, A. Samkumar, M. Rao, V.V. Singh, L. Prasad, D.C. Mishra, R. Bhattarchatya and N.C. Gupta. 2018. Genetic diversity studies based on morphological variability and molecular phylogeny of *Sclerotinia sclerotiorum* population from Indian mustard (*Brassica juncea*). *Frontiers in Microbiology*. 05 June 2018. <https://doi.org/10.3389/fmicb.2018.01169>
- **Sharma, Pankaj**, P.D. Meena, A. Kumar, V. Kumar and D. Singh. 2015. Forewarning models for *Sclerotinia rot (Sclerotinia sclerotiorum)* in Indian mustard (*Brassica juncea*). *Phytoparasitica* 43:509-516 (DOI: 10.1007/s12600-015-0463-4).
- **Sharma, Pankaj**, P.D. Meena and P.K. Rai. 2017. Epidemiology and recent advances in *Sclerotinia rot* management in *Brassica juncea*. *GCIRC Technical Meeting 2017, Swedish University of Agricultural Sciences, Alnarp, Sweden. 8-11 May 2017*. pp.16.
- **Sharma, Pankaj**, A. Sharma, P.D. Meena and D. Singh. 2015. Pathogenic variability of *Sclerotinia sclerotiorum* isolates on *Brassica* differentials. 14<sup>th</sup> International Rapeseed Congress, Saskatoon, Canada. 5-9 July 2015. pp. 112.
- **Sharma, Pankaj**, A. Kumar, P.D. Meena, P. Goyal, P. Salisbury, A. Gurung, T.D. Fu, Y.F. Wang, M.J. Barbetti and C. Chattopadhyay. 2009. Search for resistance to *Sclerotinia sclerotiorum* in exotic and indigenous *Brassica* germplasm. In *Proceedings of 16<sup>th</sup> Australian Research Assembly on Brassicas. Ballarat (Australia)*. 14-16 September 2009. pp 169-173.

### Brassica (22)

- **Sharma, Pankaj**, S.A.Siddiqui, P.K. Rai, P.D. Meena, J.Kumar and J.S. Chauhan. 2012. Evaluation of *Brassica* germplasm for field resistance against club root (*Plasmodiophora brassicae* Wor.). *Archives of Phytopathology & Plant Protection*. 45 (3):356-359 [DOI:10.1080/03235408.2011.587278].
- Yadav, Rajbir and **Pankaj Sharma**. 2004. Genetic diversity for white rust (*Albugo candida*) resistance in rapeseed-mustard. *Indian Journal of Agricultural Sciences*. 74:281-283.

- **Sharma, Pankaj**, PK Rai and PD Meena. 2017. Present an emerging biotic stress challenges of oilseed Brassica. In *Souvenir: International Seminar on Oilseed Brassica (ISOB), SIAM Jaipur. Feb 23-27, 2017. pp. 27-34.*

#### **New Disease Reports (21)**

- **Sharma, Pankaj**, P.D. Meena and J.S. Chauhan.2013. A new host for *Nigrospora oryzae* (Berk. & Broome) Petch causing stem blight on *Brassica juncea* from India. *J Phytopathology* 161(6):439-441. (DOI: 10.1111/jph.12081).
- **Sharma, P.** P.K Rai, S.A. Siddiqui and J.S. Chauhan.2011. First report of Fusarium wilt in the broomrape parasite growing on *Brassica* spp. in India. *Plant Disease*. 95(1):75 (DOI: 10.1094/PDIS-07-10-0546).
- **Sharma, P.**, N. Singh and O.P. Verma.2012. First Report of Curvularia leaf spot, caused by *Curvularia affinis* on *Dalbergia sissoo*. *Forest Pathology* 42:265-266. [DOI:10.1111/j.1439-0329.2011.00745.x]
- **Sharma, Pankaj**, N. Singh and O.P. Verma.2012.First report on leaf spot of *Nyctanthes arbor-tristis* caused by *Corynespora cassiicola* in India. *Journal of Plant Pathology* 94(4):94 [DOI:10.4454/JPP.V9514SUP.027]

#### **Others (42)**

- Jadon, K.S., R. Shah, H.N. Gour and **Pankaj Sharma**. 2016. Management of blight of pepper (*Capisicum annum var. grossum*) caused by *Drechslera bicolor*. *Brazilian Journal of Microbiology*. 47: 1020-1029. Doi: 10.1016/j.bjm.2016.04.032.
- Jat, B.L., **Pankaj Sharma**, H.N. Gour. 2013. Production of enzymes and toxins by *Colletotrichum gloeosporioides* Penz causing banana fruit rot. *Proc. Nat. Acad. Sci., India Section B: Biological Sciences*. 83(2): 177-180 (DOI: 10.1007/s40011-012-0125-y).
- Kumar, Amit, **Pankaj Sharma** and H. N. Gour 2013. Patho-biochemical Investigations of blight and wilt diseases of tomato (*Lycopersicon esculentum* Mill). *Proc. Nat. Acad. Sci., India Section B: Biological Sciences*. 83(3): 479-483 (DOI: 10.1007/s40011-013-0155-O).
- **Sharma, Pankaj** and H.N. Gour 2011. Interaction of seed-borne fungi and *Rhizobium* on nodulation and plant growth of pea (*Pisum sativum* L.). *Indian Phytopathology*. 64 (1): 91-93.
- Tyagi, S.V.S., **Pankaj Sharma**, S.A. Siddiqui and R.C. Khandelwal. 2010. Combining ability for yield and fruit quality in Luffa. *International Journal of Vegetable Science*.16: 267-277.
- **Sharma, Pankaj** and R.S.Champawat.2000. Seed mycoflora of Jojoba (*Simmondsia chinensis*), their pathogenic potential and control. *Journal of Mycology and Plant Pathology*. 30: 398-401.

#### **Research notes (12)**

- **Sharma, Pankaj**.2009. Club root (*Plasmodiophora brassicae*) reported from Wellington in *Brassica* germplasm. *Sarson News*. 13 (1):6-7.
- **Sharma, Pankaj** and P.D. Meena. 2012. A new report of Phyllody in *Brassica juncea*. *Sarson News*. 16 (1):10.
- **Sharma, Pankaj**, A.K. Sharma and D. Singh. 2016. A success story: Popularization of Sclerotinia rot management technology. *Sarson News*. 19 (2):7.

#### **12. Other achievement if any**

- Participated in 88 seminar, conferences, meetings, workshops and published 115 abstracts.
- Published more than 600 popular articles and delivered 300 TV and radio talks.
- Founder Incharge of KVK (ICAR-DRMR) Gunta-Bansur (March 2012- August 2015).

#### **CONTACT**

Mobile: 9414239831

Phone: 05644-260379/260495 (Ext: 229)

Fax: 05644-260565

Email:pksvirus@gmail.com