**School Name: School of Genomics and Molecular Breeding (SGMB)**

**Name**  **: Dr. Suryakant Manik**

**Designation**  **:** Scientist

#### Major Research Area : Plant Pathology

#### Research Area : NA

##### **Email**  **:** suryakant.manik@icar.gov.in

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**Academics:** Mr. Suryakant Manik did his graduation with B.Sc. (Agriculture) from the College of Agriculture, Odisha University of Agriculture and Technology (O.U.A.T.), Bhubaneswar, Odisha. He completed his Post-Graduation in Plant Pathology (M.Sc. Agriculture) with ICAR-National Talent Scholarship Award (2017) from the Faculty of Agriculture, Bidhan Chandra Krishi Viswa Vidyalaya (BCKV), Mohanpur, West Bengal. He enrolled his Ph. D. programme, with the IARI Fellowship, in the Discipline of Plant Pathology (Plant Virology specialization) at ICAR- IARI, New Delhi in 2019, and completed his Ph.D. research work entitled as “*Effect of exogenously applied nano-conjugated dsRNA against groundnut bud necrosis virus infection in tomato*”. He qualified ASRB-ARS Exam -2021 and joined as a scientist (Plant Pathology) in the ICAR-Indian Institute of Agricultural Biotechnology (IIAB) on 11th April, 2023.

**Publication:**

1. Samal, I., Bhoi, T.K., Majhi, P.K., Murmu, S., Pradhan, A.K., Kumar, D., Saini, V., Paschapur, A.U., Raj, M.N., **Manik, S.**, Behera, P.P., Mahanta, D.K., Komal, J., Alam, P. and Balawi, T.A. (2023). Combatting insects mediated biotic stress through plant-associated endophytic entomopathogenic fungi in horticultural crops. *Front. Plant Sci.*, *13*, p. 1098673
2. Pattanayak, S., Das, S. and **Manik, S.** (2023). Defense Mechanism of Fig (*Ficus carica*) Against Biotic Stresses: An Advanced Role Model Under Moraceae. In *Fig (Ficus carica): Production, Processing, and Properties* (pp. 283-310). Cham: Springer International Publishing.
3. Acharya, L.K., **Manik, S.**, Khokkar, M.K. and Kumar, A., Kishor, N. and Birah, A. (2023). Major and emerging diseases of Cotton in India and their integrated management (pp. 476-489). Prakhar Goonj Publishing.
4. **Manik, S.**, Acharya, L. K., Khokhar, M.K. and Birah, A. (2022). Antiviral Drugs: A Nascent Approach to Plant Viral Disease Management. *Just Agriculture Publishing*, *2* (12).
5. **Manik, S.** and Chakraborty, S. (2021). Phytomelatonin: A potential plant growth and stress regulator in plants. *Agrobios Newsletter Publishing*, *12* (11), pp. 87-88.
6. Chakraborty, S., **Manik, S.**, Samanta, S. and Barman, M. (2021). Protein secretion system in plant pathogenic bacteria. *Agrobios Newsletter Publishing*, *12* (09), pp. 93-94.
7. Majhi P.K. and **Manik S.** (2022). ‘Objective Plant Science: A competitive Approach’. Astral Publication

**Research Area**

Name of the Projects:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Project Title** | **Project type and Duration** | **PI/ Co-PI** |
| **1** | Exploring the influence of temperature and water activity on the growth, sporulation and aflatoxin production of *Aspergillus* spp and bioprospecting of associated genes. | **Institutional Project, 2024-2027** | **PI** |
| **2** | Establishment of information resources and prediction servers for the genes related to yield traits, biotic stress and abiotic stress in agriculturally important crops | **Institutional Project, 2024-2027** | **Co-PI** |
| **3** | Genome Editing for sustainable food systems. (Assigned crop: Urad bean) | **ICAR sponsored** | **Co-PI** |

**Expertise**

1. Identification, morphological and molecular characterization of different plant pathogens

2. dsRNA designing, preparation and its conjugation with nanoparticles and testing bio efficacy

3. Maintenance of fungal and viral culture associated with plant diseases