# Journal of Mycology and Plant Pathology

Volume 54 Number 2 (101–226) June 2024



# **Indian Society of Mycology and Plant Pathology**

Maharana Pratap University of Agriculture and Technology Rajasthan College of Agriculture, Post Box 154 Department of Plant Pathology, Udaipur–313 001 Rajasthan, India. www.ismpp.org.in

Online at: https://connectjournals.com/jmpp

# Journal of Mycology and Plant Pathology

Indexed in

Web of Science, UGC Journals Care List & NAAS Score (5.08)

## **Peer-Reviewed Journal**

ISSN 0971-9393 (Print)

https:/doi.org/10.59467/JMPP

ISSN 0975-4180 (Online)

Honorary Fellows : AN Mukhopadhyay, amar.mukhopadhyay@gmail.com; +919793200333

CD Mayee, charumayee@yahoo.co.in; +91 99706 18066 S S Chahal, chahalsspau@yahoo.com; 91 9855978629

C Manoracharya, cmchary@rediffmail.comcmchary@gmail.com; +91 9391164243

Emeritus President: S S Chahal, Ex Vice Chancellor, MPUAT, Udaipur, RJ; chahalsspau@yahoo.com; 91 9855978629

**Executive Council 2024** 

President : Lalit Mahatma

NAU, Navsari, GJ; mahatmalalit@yahoo.co.in; lalitmahatma@gmail.com +91 99980 02503

Vice President : R S Jaiman, SDAU, Sardarkrushinagar, Guj. jaimanrs74@gmail.com; +91 96870 59719

Secretary : Pokhar Rawal, MPUAT, Udaipur, RJ; secretaryismpp@gmail.com; dr.p.rawal@gmail.com;

+91-94600 30583

Treasurer : S K Bhatnagar, MPUAT, Udaipur, RJ; bhatnagardrsk@gmail.com; +91 98292 45858

**Zonal President** 

Eastern Zone
 Western Zone
 Sanjeev Kumar, JNKVV, Jabalpur, MP; sanjeevcoa@gmail.com; +91 79922 09538
 Northern Zone
 Mohd Yaqub, UoK, Pulwama, Jammu; myaqub35@gmail.com; +91 70069 39476
 Sajeena A, KAU, Karamana, Kerala; sajeenamanjima@gmail.com; +91 94461 04347

**Editorial Board 2024** 

Editor-in-Chief: Jameel Akhtar, ICAR-NBPGR, New Delhi; jameel.akhtar@icar.gov.in; +91 9013718834

Managing Editor : Pokhar Rawal, MPUAT, Udaipur, RJ; managingeditorjmpp@gmail.com
 Senior Editors : Arup Kumar Mukherjee, ICAR-NRRI; arupmukherjee@yahoo.com

Suresh LM, Maize Pathology Lead-Sub Saharan Africa, CIMMYT, World Agroforestry

Centre (ICRAF); Imsuresh@rediffmail.com

### **Editors**

**Ashish Kumar**, College of Agriculture Jabalpur, ashishkumar@jnkvv.org

B F Rodrigues, Goa University, Goa; felinov@gmail.com

**Basav Raj**, IARI-Regional Station Baner Phata, Pune; rajayb@gmail.com

**Devendra Jain**, MPUAT, Udaipur, RJ; devendrajain@mpuat.ac.in

Lekha, AUJ, Jodhpur, RJ; lekha.rca@gmail.com

**Manjunath Hubballi**, UHS, Bagalkot, KN; *manjunathabtnau@gmail.com* 

**M K Prasanna Kumar**, UAS Bangalore, KN; prasanna@rediffmail.com

**Mohammad Ansar**, BAU, Sabour, Bhagalpur; ansar.patversity@gmail.com

**P D Meena**, ICAR-DRMR, Bharatpur, RJ; pdmeena@gmail.com

**P Nallathambi,** IARI–WRS, Wellington, Ooty, KN; *scientist thambi@yahoo.co.in* 

**P P Thirumalaisamy**, KAU, Thrissur, KL; *thirumalaisamypp@yahoo.co.in* 

**Pranab Dutta**, Central Agricultural University (Imphal), Umaim, Meghalaya; *pranabdutta74@gmail.com* 

R Sriram, IIHR, Bangaluru, KN; sriram1702@gmail.com

**Rashid Pervez**, ICAR-IARI New Delhi; rashidpervez2003@gmail.com

**Ritu Mawar**, ICAR-Central Arid Zone Research Institute, Jodhpur, RJ; *ritumawar1976@gmail.com* 

**Santosh Kumar**, ANDUA&T, Ayodhya, UP; santosh35433@gmail.com

**S K Gupta**, Dr YSPUH & F, Nauni, Solan, HP; skguptampp@rediffmail.com

**S Nakkeeran,** TNAU, Coimbatore, TN; nakkeeranayya@gmail.com

**Sajeena A**, Kerala Agricultural University, Kerala, KL; sajeenamanjima@gmail.com

VB Nargund, nargund56@gmail.com

**Vinodkumar S**, Dalhousie University, Truro Campus, Nova Scotia, B2N 53E, Canada; *vinodfytopathologos@gmail.com* 

### Patrons of the Indian Society of Mycology and Plant Pathology

M/s	Pesticides India Limited, Udaipur	M/s	Bharat Pulverising Mills Private Limited, New Delhi
M/s	Jay Dee Chemicals, New Delhi	M/s	Rallis India Limited, Chandigarh
M/s	Indofil Chemicals Limited, Mumabi	M/s	Kapson Agrochem Private Limited, New Delhi
M/s	M M House, Karnal	M/s	American Spring & Pressing Works Private Limited, Mumbai
M/s	National Organic Chemical Industries Ltd, Mumbai	M/s	Montari Industries Limited, New Delhi
M/s	Bayer (India) Limited, Mumbai	M/s	Northern Minerals Limited, New Delhi
M/s	Gharda Chemicals Limited, Mumbai	M/s	Hindustan Antibiotics Limited, Pimpri, Pune
M/s	Hoechst India Limited, Mumbai	M/s	Micro Chemicals, Mandsaur
M/s	Maharashtra Hybrid Seed Company Limited, Jalna	M/s	Shaili Polymers Private Limited, Ahmedabad

Membership fee and manuscript processing charges for peer reviewed Journal of Mycology and Plant Pathology effective from January 2024 to December 2024

(Published 4 issues / volume / year)

Particulars	India, SAARC Countries & other Developing Countries (₹)	Developed Countries (U S \$)
Annual Membership#		
<ul><li>Scientist</li></ul>	2,000*	200*
- Student	1,500*	120*
Limited Life Membership#		
– For 10 yrs	15,000*	750*
– For 20 yrs	25,000*	1,250*
– For 30 yrs	35,000*	1,500*
Annual Subscription (Institutions/Libraries)	16,000	900
Processing-publication Charges		
<ul> <li>Full length paper/mini review</li> </ul>	2,500	350
<ul> <li>Short communication/New records</li> </ul>	1,500	200
<ul><li>Colour plate (per page)</li></ul>	1,000	200
<ul><li>PDF file (Single paper)</li></ul>	300	50

<sup>\*</sup>Add ₹ 100 or US \$ 10 for first time member admission fee. # Institute Certificate(s) required.

### Note:

- Life Membership may payable in two equal installments in a calendar year.
- DD/Cheque may only be acceptable in the name of 'Society of Mycology and Plant Pathology', Payable at RCA Branch Udaipur, Rajasthan, India

### **Details for e-payment**

The ICICI Bank Ltd., Branch RCA, Udaipur Rajasthan, India

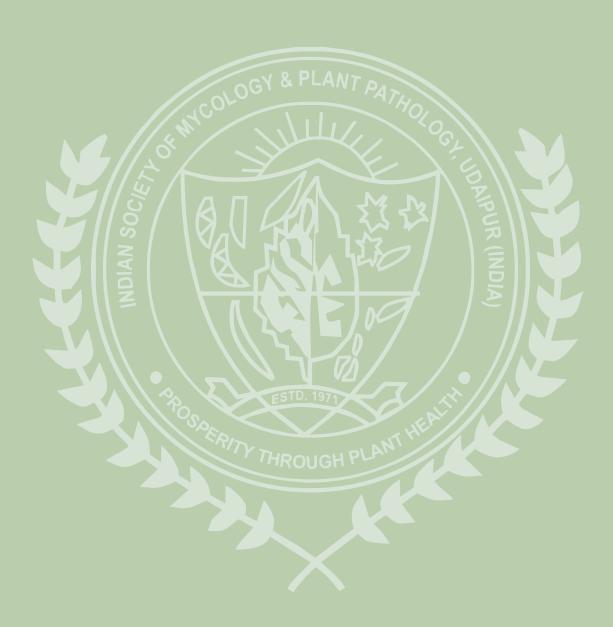
Account No. **693901702014, A/c Name: Society of Mycology and Plant Pathology** IFSC Code: ICIC0006939, Branch Code: 6939, MICR Code: 313229014, SWIFT Code: ICICINBBCTS



Application form for membership can be obtained from the Society Office at Udaipur or download from www.ismpp.org.in

**Copyright:** Indian Society of Mycology and Plant Pathology (ISMPP) has copyright of its peer reviewed publication- *Journal of Mycology and Plant Pathology (JMPP)*. The contents, both text and images of *JMPP* may not be copied, republished, redistributed, modified, edited or extracted for any other use without a written permission of ISMPP. ISMPP has sole authority to grant permission for use of its copyrighted materials to any parties other than the authors and their institutions. However, *JMPP* subscribers have privilege to print and save contents for their professional and teaching use, but not for any commercial purpose.

Edited by Jameel Akhtar and Pokhar Rawal for the Indian Society of Mycology and Plant Pathology, Rajasthan College of Agriculture, Post Box 154, Maharana Pratap University of Agriculture and Technology, Udaipur–313 001, Rajasthan. Printed by Apex Publishing House, B-1 Shiv Park Colony, Durga Nursery Road, Udaipur–313 001, Rajasthan, India.



For online version of JMPP contact e-publishers and distributors www.connectjournals.com/jmpp email: contact@connectjournals.com