

ISSN 1012-9279 (Print)
ISSN 2412-7558 (Online)



Bangladesh Journal of Plant Pathology

Volume 32, No. 1&2, 2016

CONTENT

- | | | |
|----|--|---|
| 1 | Survey, collection and vegetative compatibility group analysis and distribution of <i>Fusarium oxysporum</i> f. sp. <i>cubense</i> of banana in Bangladesh | M. Sakhawat Hossain, M. S. Nahar and M. G. Saha |
| 7 | Integrated management of stem rot of potato caused by <i>Sclerotium rolfsii</i> | M. T. Rubayet and M. K. A. Bhuiyan |
| 15 | <i>In-vitro</i> evaluation of <i>Trichoderma harzianum</i> against soil-borne fungi of economic importance | M. I. Faruk and M. L. Rahman |
| 25 | Efficacy of BAU-Biofungicide on brown spot and bacterial leaf blight disease and vigour index of rice | Hyat Mahmud, Ismail Hossain and M. U. Ahmad |
| 33 | Effect of bio-control agents, plant extracts and chemicals on disease incidence of rice | M.A.U. Razu and I. Hossain |
| 37 | Management of diseases of inflorescence of mango | M. M. Hasan, I. Hossain, M. A. U Razu |
| 43 | Comparative efficacy of BAU-Biofungicide and some chemical fungicides in controlling leaf blast and brown spot of rice | M. Dey and M. S. Monjil |
| 49 | Bathua (<i>Chenopodium album</i>): first report in Bangladesh as alternate host of <i>Stemphylium botryosum</i> | K. H. Alam and M. H. Rashid |
| 53 | Management of health and quality of hybrid rice seed | M. Shahrin, I.M. Rashed, I. Jahan, M.R. Islam and Delwar M. Hossain |
| 61 | Management of bacterial leaf blight and algal rust of guava in the nursery | M. A. Akter, M.S.N. Sathe and I. Hossain |
| 67 | Fungi association and toxin production in stored milled rice | T. H. Ansari, M. S. Hossain, M. A. Ali, S. Banik, M. A. Siddique, S. Hosen and M. Ahmed |
| 75 | Analysis of banana bunchy top virus gene expression ratio in banana crop grown in Sindh province of Pakistan | Nehafta Bibi, Munawar Saleem Ahmad and Muhammad Zeeshan Hyder |
| 83 | Evaluation of some chemicals for soil drenching in controlling stem canker and black scurf of potato | M. M. Rahman, M.F. Rahman, M. A. Ali, T. K. Dey, M. U. Ahmad and M. Sultana |

This volume was published with the financial assistance of
the Ministry of Science and Technology
Government of the People's Republic of Bangladesh

OBITUARY

We deeply mourn the sad demise of Professor Dr. M.A. Wadud Mian who died in 19.06.2016 (Innalillahi..... rajiun.). Professor Dr. M.A. Wadud Mian, son of Mr. Mofiz uddin Ahmad was born in a respectable family in 01.05.1932 in the village: Batazor, Upazilla: Gournadi, District: Barishal. He was married with Momotz Wadud. He was a father of two sons (Sayeed Wadud and Muyeed Wadud) and a daughter (Anita Wadud). He was graduated in 1955 in Botany from the University of Dhaka and also obtained M.Sc. in Mycology and Plant Pathology from the same University in 1956. Later on he earned Ph.D degree in Plant Pathology from the University of Texas A & M, USA.



Prof. Mian started his service life at the beginning of 1957 as a Research Assistant of Bangladesh Jute Research Institute, Dhaka. On 20.10.1957 he joined as a Lecturer in the Department of Botany, University of Dhaka. Thereafter, Prof. Mian joined to Bangladesh Agricultural University (BAU), the then East Pakistan Agricultural University on 01.07.1962 as a Senior lecturer of the Department of Plant Pathology. In 1973 he was appointed as a Professor of Plant Pathology at BAU. During his service life at BAU he extended his brilliant service in different important academic and administrative positions including Head of Department of Plant Pathology, Dean of Faculty of Agriculture, Coordinator of Advanced Studies and Research, Advisor of Students Affairs, Member of Syndicate, Provost of students Hall. After 22 years of prolonged service at BAU he joined as a Professor in the Department of Crop Science in January 1984 at the University of Maidugury (UNIMAID), Nigeria. There, he hold good number of important positions viz. Head, Department of Crop Science, Dean of Faculty of Agriculture, Dean of School of Postgraduate Studies, Member of Senate, Member of Senate Business Committee, Chairman of Governing Council of College of Agriculture, Chairman of Human Resource and Development. In 1999 he returned to Bangladesh.

He was President of Executive Committee of Bangladesh Phytopathological Society in 2009 – 2011. With earnest request of Chairman he served as a Team Leader of Evaluation Committee of Wheat and Maize Improvement Project of Bangladesh Agriculture Research Council (BARC) and Pest management Project of Bangladesh Cotton Development Board. Moreover, in 2001 in honour of BARC and Bangladesh Academy of Agriculture Professor Mian compiled and edited “Agricultural Research in Bangladesh in the 20th Century” that has been considered as a Mile Stone in the history of agriculture in the country. He published good number of research articles in national and International journals.

We remember Professor Dr. M. A. Wadud Mian, the Great scholar, academician and administrator who left the present world for ever on 19.06.2016. May Allah keep his departed soul in heaven for the eternal peace.

Bangladesh Journal of Plant Pathology

(Bangladesh J. Plant Pathol.)

Research Journal of Bangladesh Phytopathological Society

Vol. 32

No. 1&2

2016

EDITORIAL BOARD

Dr. Hamizuddin Ahmed
Chief Editor

Dr. Lutfor Rahman
Executive Editor

Prof. Dr. M.A. Mannan Akanda	Member
Dr. M.A. Bakr	Member
Dr. Tapan Kumar Dey	Member
Prof. Dr. Rafiqul Islam	Member
Prof. Dr. Mamunur Rashid	Member
Prof. Dr. Md. Asad-ud-doullah	Member
Prof. Dr. Mohammad Shahjahan Monjil	Member

Address for correspondence :

Executive Editor

Bangladesh Journal of Plant Pathology

Plant Pathology Division

Bangladesh Agricultural Research Institute,

Gazipur-1701, Bangladesh

Price of each volume:

	<i>Bangladesh</i>	<i>overseas</i>
Individual	Tk. 500.00	US\$ 10
Institution	Tk. 1500.00	US\$ 25

Bangladesh Phytopathological Society

Executive Committee (2016-2018)

- President : Prof. Dr. Ismail Hossain, Dept. of Plant Path., BAU, Mymensingh
- Sr. Vice President : Prof. Dr. Md. Khurshed Alam Bhuiyan, Dept. of Plant Path., BSMRAU, Gazipur
- Vice President : Prof. Dr. Salahuddin Mahmud Chowdhury, Dept. of Plant Path., SAU, Dhaka.
- Treasurer : Dr. Tahmid Hossain Ansari, PSO, Plant Path. Division, BRRI, Gazipur
- General Secretary : Dr. Md. Sakhawat Hossain, Director, Horticulture Research Center, BARI, Gazipur
- Joint Secretary-1 : Prof. Dr. Md. Atiqur Rahman Khokon, Dept. of Plant Path., BAU, Mymensingh.
- Joint Secretary-2 : Dr. Md. Iqbal Faruk, SSO, Plant Path. Division, BARI, Gazipur.
- Office Secretary : Md. Muzahid-E-Rahman, SSO, Plant Path. Division, BARI, Gazipur
- Member : Prof. Dr. Ismail Hossain Mian, Dept. of Plant Path., BSMRAU, Gazipur
- : Prof. Dr. Abdul Mannan Akanda, Vice Chancellor, EXIM Bank Agril. University, Chapainawabgonj.
- : Dr. M.A. Bakr, Ex-Project Director, Pulses and Oilseeds, BARI, Gazipur
- : Dr. Mohammad Hossain, Director, PRC, BARI, Ishurdi, Pabna.
- : Dr. Atika Ayub, CSO and Head, Plant Path. Division, BARI, Gazipur.
- : Dr. Mostafa Kamal, CSO, Plant Path. Division, BRRI, Gazipur.
- : Prof. Dr. Mamunur Rashid, HDSTU, Dinajpur.
- : Dr. Asad-ud-Dullah, SAU, Sylhet.
- : Dr. Shamshur Rahman, CSO, BSRI, Ishurdi, Pabna.
- Ex-officio Member : Dr. M.A. Bari, Ex-Director, HRC, BARI, Gazipur.
- : Dr. Tapan Kumar Dey, Director, PRC, BARI, Gazipur.
- Distinguished Member : Prof. M.A. Wadud Mian, Ex-President, BPS
- : Dr. Hamizuddin Ahmed, Ex-Director (Res.), BARI, Gazipur

INFORMATION FOR CONTRIBUTORS

Membership of the Bangladesh Phytopathological Society is a prerequisite for publishing papers in the Bangladesh journal of Plant Pathology, or at least one of the authors must be a member of the society. The Editorial board, however, may relax this rule in case of contribution of exceptionally merit and contributor from abroad. Materials accepted for publication must be scientifically sound, suitable for the designated readers and prepared according to the guidelines provided below.

- (1) Subject matters of the papers for publication should fall in the following categories:
 - a. Full length papers: Original research on any branch of plant pathology;
 - b. Review papers: Original research on any branch of plant pathology;
 - c. Phytopathological notes: Accounts of plant pathological techniques, original research or new records of plant diseases or plant pathogens.
- (2) The manuscript should be typed double-space on one side of A4 size good quality paper in 12-point preferably in Times New Roman font. Margins should be 4.0 cm from the left and right, and 205 cm from the top and bottom of each page. Submit two copies of the manuscript to the Executive Editor, Bangladesh Journal of Plant Pathology, Plant Pathology Division, Bangladesh Agricultural Research Institute, Gazipur-1701, Bangladesh along with hard copy, a soft copy of the manuscript in word 97-2003/XP format written in CD should be submitted.
- (3) A full length paper should be arranged under the section heading: TITLE, ABSTRACT, INTRODUCTION, MATERIALS AND METHODS, RESULTS AND DISCUSSION, ACKNOWLEDGEMENT (if any) and LITERATURE CITED. Phytopathological notes should be sufficiently brief (less than 4 pages) and arranged without section headings of INTRODUCTION, MATERIALS AND METHODS, and RESULTS AND DISCUSSION.
 - a. Title page-Title page should be independent and contain only Title author's name and their address. The title should be typed in capital letters and must accurately identify and describe the contents of the manuscript. Scientific name (if any) must be in capital letter and italic. The title should be followed by authors' names. The authors' names should be followed by author's addresses. A person who did not take part in research, analysis of data and writing of the paper and who cannot assume responsibility for the technical content of the paper cannot be considered an author. Include each author's complete mailing address and institutional affiliation in the title page. Indicate the author to whom correspondence should be addressed and the author's e-mail address. Indicate whether the research in the portion of a thesis or dissertation.
 - b. Abstract-Start abstract from a separate page. Type the title again on this page but no author's name and address. After the title, type a 150-200 words abstract containing the objectives, very short methodology, important findings of the research and your conclusion.
 - c. Keywords-The keywords and phrases following the Abstract should be alphabetically arranged and should reflect the contents of the paper. Give keywords only in one line.
- (4) The author(s) are responsible to check that all references in the text appear in the section 'LITERATURE CITED' and vice versa. References should come primarily from papers published in professional journals. A small number of abstracts or text book-type references may be included; however, these should not make up the bulk of the references. Personal communication references are permitted, but, again should be kept to a minimum. In text references should be cited giving the cited by giving the author's name followed by the year without any coma in between.
 - a. For two authors' paper, give both authors' last names.
 - i) Ahmed and Hamid (1995) reported the losses due to late blight of potato.
 - ii) The loss due to late blight of potato has been reported by Ahmed and Hamid (1995).
 - iii) Loss due to late blight of potato has been well documented (Ahmed and Hamid 1955).
 - b. Articles with more than two authors are cited by the first authors last name followed "*et al.*", and then the year:
 - i) Effect of environmental factors on diseases development is well documented (MacHardy *et al.* 2001) instead of (MacHardy, W.E. Gadoury and Gessler.C. 2001).
 - ii) Disease development was recorded by MacHardy *et al* (2001). At least 12 diseases of Pulses are in Bangladesh (Ahmed *et al.* 1985) or Ahmed *et al* (1985) recorded at least 12 diseases of Pulses.
 - c. A string of citations should be separated by coma.
 - i) ffect of environmental factors on pathogens is recorded by many researchers (Rowe and Beute 1975, Sutton 1981, Pinkerton *et el.*1998 MacHardy *et al.* 2001.)

- ii) Ahmed and Hamid (1955, 1989), Mian (1985) reported losses due to potato late blight.
- iii) Loss due to late blight was recorded by Ahmed and Hamid (1955,1989) and Main (1985).
- d. When a book, paper, or article has no definite author, cite it as Anon, and year, e.g., (Anon. 1996) (Anon. is the abbreviation for anonymous).
- e. If you Want to refer a paper found in another article, do so as (Driblick 1983 In: Oobleck 1978).
- (5) In the section LITERATURE CITED, references should be listed alphabetically according to the author's name . If the same author (s) are cited for more than one paper having the same order of authors' names, the papers should be listed in chronological sequence by year of publication . Anon. should be listed as 'Anonymos'.
 - a. Journal article with single author e.g- Bisessar, S.1982 Effect of heavy metals on microorganisms in soil near secondary lead smelter. Wat Air Soil Poll.17:305-308.
 - b. Journal article with two authors e.g- Sivan, A. and Chet, I.1993. Integrated control of *Fusarium* crown and root rot of tomato with *Trichoderma harzianum* in combination with methyl bromide or soil solarization. Crop protect.12:380-386
 - c. Journal article with multiple authors e.g-Schneider, R.W Williams, R.J. and Sinclair, J.B.1976.*Cercospora* leaf spot of cowpea, models for estimating yield loss. Phytopathology 66 (5):384-388.
 - d. Author (s) Unknown or Not Named-If the authorship of a paper or other document is not provided, cite the author using the word Anonymous in the place of the author's name (s) e.g. Anonymous. 2004. Annual internal Review. Bangladesh Rice Research Institute, Joydebpur, Gaziqur. pp. 39-41.
 - e. Book with two authors-Dhingra, P.and Sinclair, A. 1985.Basics plant pathology methods. CRC press. Inc. Boca Raton Florida. pp.13.44 [(pp. 13-44 page means on 13 to 44), p. 13, (p.13 means on page 13), (250 pp means total page of the book)].
 - f. Book with multiple authors- Huth, J., Brogan, M., Dancik, B., Kommedahl, T., Nadziejka, D., Robinson, P. and W. Swanson. 1994. Scientific format and style: The CBE manual for authors, editors, and publishers. 6th ed.Cambridge: Cambridge University Press. 825 pp.
 - g. Book: authors contributing a specific chapter- Kuret, J. and Murad. F. 1990. Adenohypophyseal hormones and related substances. In: Gilman, A., Rall, T., Nies, A., Taylor, P., edited. "The pharmacological basis of therapeutics". 8th ed. New York: Pergamon. pp.1334-60.
- (6) Table and graphs must be typed and drawn respectively on separate sheet. Same data must not be given in both tables and graphs. Data based on which a graph is created should be enclosed on separate sheet.
- (7) All quantitative data must be in metric units. Abbreviations should be as per "Style Manual for Biological editors".
- (8) Picture should be submitted on separate file in JPEG format.
- (9) Manuscript not prepared following the style of the journal will not be accepted.
- (10) For more information contact the Executive Editor (Email:ihmian2007@gmail.com) or consult its latest issue.
- (11) Charges for publication:

Authors Type	Full Paper	Short Note
In country	Tk. 2500.00	Tk. 1500.00
Foreign	\$ 100	\$ 50