Personal Data Sheet (PDS) Format of

## **Dr. Mohammad Munir Hossain**

## Mailing Address

Principal Scientific Officer & Officer in charge Bangladesh Jute Research Institute Regional Station, Chandina, Cumilla -3503





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## **Personal Information**

1.	Name	•	Dr. Mohammad Munir Hossain
2.	Father's Name	:	Osman Goni
3.	Mother's Name	:	Meher Afroz
4.	Husband' Name (If applicable)	:	N/A
5.	Gender	:	Male
6.	Present address	:	Bangladesh Jute Research Institute, Regional Station Chandina, Cumilla-3503
7.	Permanent address	:	Mohammad Hossain Patwari Bari, Patwari hat Road, South Falcon, Kamal Nagar, Lakshmipur-3731
8.	Date of Birth	:	10 <sup>th</sup> May, 1979
9.	Age (As on 01-01-2023)	:	43 years 07 months 22 days

# **10.** Educational Qualifications

SL.	Degree/	Institute/	Year of	Division/grade	
	Diploma/Certificate	<b>Board/University</b>	Passing	/Class	
i.	PhD	Biotechnology Research Institute, University Malaysia Sabah	2023	Awarded	
ii.	Master of Science	Bangabandhu Sheikh Mujibur Rahman Agricultural University	2010	CGPA 3.90 (Out of 4.00)	
iii.	B.Sc. Ag. (Hons)	Sher e Bangla Agricultural University	2001	Second Class	
iv.	Higher secondary School Certificate	Lakshmipur Government College, Cumilla Board	1996	First Division	
<b>v.</b>	Secondary School Certificate	Lakshmipur Adarsha Samad Government High School, Cumilla Board	1994	First Division	

# 11. Field of Specialization

SL.	Areas of Specialization		
i.	Management of agricultural research Farm		
ii.	Seed and fiber production of Jute and allied fiber crops		
ii.	Post harvest processing of bast fiber		

## 12. Training

## (a). In country

SL.	Organization	Year	Duration		Name of programme
No.			Mon	Da	
			s.	ys	
i	Bangladesh Jute research Institute	2005	0	06	Orientation cum Technology Transfer Training
ii	Bangladesh Jute research Institute	2005	0	02	Modern Jute and seed production and storage Technology
iii	Bangladesh Academy for rural development	2006	0	02	Awareness Building on the Recent Advances of Agricultural Biotechnology and Biosafety
iv	Bangladesh Academy for rural development	2007	4	0	Foundation Training Course for National Agricultural Research System Scientists
v	Bangladesh Rural Development Training Institute, Sylhet	2007	0	2	Rural Development and Poverty Alleviation
vi	Bangladesh Road Transport Authority, Narayanganj	2007	0	22	Basic Driving Training in Light Transport Vehicle
vii	Graduate Training Institute Mymensingh	2010	0	14	Research Methodology
viii	Bangladesh Jute research Institute	2012	0	4	Technical Report Writing and Editing
ix	Bangladesh Agricultural Research Council	2012	0	2	Soil Fertility and Fertilizer Management for crops and cropping Pattern
X	Bangladesh Agricultural Research Council	2012	0	2	Seed Quality Management
Xi	Bangladesh Jute research Institute	2023	0	1	Personal Ledger (PL) account IBAS++

## (b). Abroad: Nil

SL. No.	Organization	Year	Duration		Name of programme	

## 13. Experience

SL.	Positions	Period				
No.		From	То	Total (Yr./Mo)		
i	Scientific officer	01/11/2004	23/11/2015	11 years 0 months 11		
				days		
ii	Senior Scientific Officer	24/11/2015	04/12/2022	07 years 10 days		
iii	Principal Scientific officer	05/12/2022	Till now	-		

### **14.** Publications

#### a. Full scientific articles as Principal author

- Hossain, M. M., Subbiah, V. K., & Siddiquee, S. (2022). Augmented Retting Effect on Kenaf Fibers Using Alkalophilic Pectinase-Producing Bacteria in Combination with Water Solvents. *Applied Sciences*, *12*(14), 7136. <u>https://doi.org/10.3390/app12147136</u>
- Hossain, M. M., Siddiquee, S., & Kumar, V. (2022). Bacterial Retting Agents: Sustainable Bioremediation of Bast Fiber Farming Strains. In book Microbes and Microbial Biotechnology for Green Remediation. (1st Edition - August 1, 2022) https://www.elsevier.com/books/microbes-and-microbial-biotechnology-for-greenremediation/malik/978-0-323-90452-0
- Hossain, M. M., Siddiquee, S., & Kumar, V. (2021). Water Sources Derived Bio Retting Effect on Kenaf Fiber Compositions. Journal of Natural Fibers, 1-14. (https://doi.org/10.1080/15440478.2021.1982829
- 4. **Hossain, M. M.,** Siddiquee, S., & Kumar, V. (2021). Isolation of Alkalophilic Pectinolytic Bacteria and their Bio Retting Effect on Kenaf Fiber Compositions. Alinteri Journal of Agriculture Sciences, 36(2), 156-165. https://doi.org/10.47059/alinteri/V36I2/AJAS21129

- 5. Hossain, M. M., Siddiquee, S., & Kumar, V. (2021). Critical Factors for Optimum Biodegradation of Bast Fiber's Gums in Bacterial Retting. Fibers, 9(8), 52. https://www.mdpi.com/2079-6439/9/8/52
- Hossain, M. M., Siddiquee, S., & Kumar, V. (2020). Screening of Alkalophilic Pectinolytic Bacteria from Wet Paddy Soil and Kenaf (*Hibiscus cannabinus*) Retting Niche. Short Communication in Biotechnology, 4: 43-49.
- 7. **Hossain, M.M**; Khan, M.; Ali, S.; Alam, M. (2010). Performance of capsularis jute (corchorus capsularis) varieties in relation to seed yield and disease incidence grown in late season. I. Sher-e-Bangia Agric. Univ., 4(2): 27-30. ISSN 1997-6038**2010**.
- Hossain. M. M. (2009). Physical quality of jute seed produced in conventional and late-season methods. The Journal of Rural Development. V.36(2): p. 21-32.
- Hossain, M. M. M. A. A khan and A. K. M Shahadat Hossain (2010). Seed borne fungal infection of jute seed as affected by conventional and late-season seed production methods. Bangladesh Journal of Seed Science and Technology. V.14 (1&2): p. 215-220
- Hossain, M. M., Khan M. A. A., Ali, S. M. And Rahman M. S., (2013). Germination and electrical conductivity of jute seed as affected by different sowing and production methods. Bangladesh Journal of Jute and fibre Research. BJRI. Dhaka -1207. 2013. V (1-5), P.91-97
- 11. Hossain M. M., M. A. A. Khan, Md. Tofail Hosain, A. S. M. Fazle Bari and M. Hasanuzzaman.2013. Two Physiological Seed Testing Methods Used as an Indicator of jute Seed Quality and their Consequences. International Journal of Agriculture and Crop Sciences. Vol., 6 (0), 0000, 2013

#### **b. Full scientific articles as associate author**

 A. K. M. S. Hossain, S. R. Bhuiyan, Hossain M. M., and M. Z. Ullah (2011). Genetic variability and heritability studies for yield and yield related traits in wild Corchorus spp. International Journal of Sustainable Agricultural Technology.V.7(5): p. 32-39.

- M. J. Alam, R. Khatun, F. Mahmud, M. S. H. Bhuiyan and Hossain, M. M. (2010). Genetic divergence in white jute, (C. Capsularis). Journal of Shere –Bangla Agricultural University. 4(2): p. 22-26.
- Ali. S. M. Mahbub, M. M. Haque, Z. U. Ahmed, M. N. Uddin, and Hossain M. M. (2013). Yield improvement of jute seed by application of Nitrogen and phosphorus. Bangladesh journal of jute and fibre Research. BJRI. Dhaka. V (1-5). P. 91-97.

#### Scientific Note, Technical Paper in Workshop, Seminar etc.

#### (i) Principal Author- 14

- Hossain, M. M., Siddiquee, S., & Kumar, V. (2021). Augmented bio degumming effect on kenaf bast fiber composition using isolated alkalophilic *Bacillus sp.* KRB56 with seawater macerating solvent. The 7<sup>th</sup> INTERNATIONAL BIOTECHNOLOGY SYMPOSIUM "BIOTECHNOLOGY IN SOLVING GLOBAL ISSUES" 19-21 August 2021, Kota Kinabalu, Sabah, Malyasia.
- Hossain, M. M., Siddiquee, S., & Kumar, V. (2021). Isolation of alkalophilic pectinolytic bacteria and their bio retting effect on kenaf fiber compositions [Conference paper]. 4th International Conference on Multi-Disciplinary Research Studies and Education (ICMDRSE -2021) 29th 30th June 2021 at Kuala Lumpur, Malaysia, 36.
- 3. **Hossain. M. M. (2011).** Fertilizer management of Jute, kenaf and Mesta crop (in Bangla). Published as seminar paper, Organized by Bangladesh Fertilizer Association (B.F.A.) in association with International Potash Institute (IPI), Switzerland.p.20-21
- Hossain M. M., M. A. Khan, Z. A. Rafique (2013). Comparative study of yield and yield parameters of BJRI and exotic tossa jute. In annual Research Report, Agriculture Research on Jute 2012-13. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.127
- Hossain M. M., M. A. Alam, and M. T. Hossain. (2013). Effect of plant Population on deshi jute for quality seed production. In annual Research Report, Agriculture Research on Jute 2011-13. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.138

- Hossain, M. M. M. T. Hossain, and O. Ahmed. 2014. Determination of critical period for weed control of deshi jute for fibre at medium high land in Comilla region. In annual Research Report, Agriculture Research on Jute 2013-14. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.213
- Hossain M. M. and M. T. Hossain. (2014). Study on production cost and return of jute (*C. capsularis and C. olitorius*) and *kenaf (H. cannabinus*) seed in late season. In annual Research Report, Agriculture Research on Jute 2013-14. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.124
- 8. **Hossain**, **M. M.** (2019). Formulation of Kenaf core mediated microbial consortia and its application for bast fibre retting. in post graduate seminar, Biotechnology research institute, University Malyasia Sabah, 23(PP-07), p-17
- Hossain M. M., (2019). Isolation, characterization, and identification of alkalophilic pectinolytic bacteria from wet land paddy soil and kenaf (Hibiscus cannabinus) retting niche. In post graduate seminar, Biotechnology research institute, University Malyasia Sabah, 24(PG-49), p-63
- Hossain M. M., (2020). Screening and molecular identification of alkalophilic pectinolytic bacteria isolated from soil and retting niche. In post graduate seminar, Biotechnology research institute, University Malyasia Sabah, 25(PG-25), p38
- Hossain M. M., (2020). Optimization of Alkalophilic Polygalacturonase Production Using Kenaf Core Particles as Substrate with Isolated Bacillus sp. Strain In post graduate seminar, Biotechnology research institute, University Malyasia Sabah, 26(PG-21), p28
- 12. Hossain M. M., (2021). Retting Efficiency and Composition of Kenaf Bast Fiber using Bacillus Spp. as Retting Agents In post graduate seminar, Biotechnology research institute, University Malyasia Sabah, 26 (PG-21), p21.

- 13. Hossain, M. M., O. Ahmed, and M. M. Rahman. (2012). Study on seed production cost and return for jute (*C. capsularis, C. olitorius*) and kenaf (H. cannabinus) at late season. In annual Research Report, Agriculture Research on Jute 2011-12. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.133
- 14. Hossain M. M., (2021). Augmented Bio Degumming Effect on Kenaf Bast Fiber Composition Using Isolated Alkalophilic Bacillus sp. KRB56 with Seawater Macerating Solvent In post graduate seminar, Biotechnology research institute, University Malyasia Sabah, 26 (PG-10), p18

#### (ii) Associate Author- 9

- M. A. Mian, M. R. Islam, Q. A, Rahman, Hossain, M. M. and M. A. Alam (2012). Effect of plant population of deshi jute for quality seed production. In annual Research Report, Agriculture Research on Jute 2011-12. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.138.
- 2. M. A. A. Khan and **Hossain M. M.** (2011). Health Status of Jute seed produced in conventional and late sowing method and performance of ten jute varieties in late sowing seed production method. IJSG, publication. Technical paper published in international seminar on strengthening of Collaboration for jute, kenaf and allied fibres research and development. p 111-117.
- M. M. Rahman, M. A. Khan, Z. A. Rafique, Hossain M. M. and M. B. Hossain. (2012). Comparative study of yield and yield parameters of BJRI and exotic jute. In annual Research Report, Agriculture Research on Jute 2011-12. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.126
- 4. M. M. Rahman, M. R. Islam, M. A. Khan, Hossain M. M., and O. Ahmed. (2012). Effect of variety and sowing spacing on the yield of *olitorius* jute. In annual Research Report, Agriculture Research on Jute 2011-12. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.128
- Q. A. Rahman, M. R. Islam, M. A. Khan Hossain M. M., and M. M. Rahman. (2012). Study on production cost and return of jute at farmer's level. In annual Research Report, Agriculture Research on Jute 2011-12. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.132

- S. Hossain, Z. Hossain, S. Kibria, Hossain M. M., M. Y. Sarkar, and M. M. Rahman. (2007). Agro-economic performance of jute and Dhaincha cultivation. In annual Research Report, Agriculture Research on Jute 2006-2007. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.139
- Hossain, Z. R.K. Ghose, S. Kibria and. Hossain M. M. (2006). Comparative performance of jute-based cropping pattern with rice-based cropping pattern. In annual Research Report, Agriculture Research on Jute 2005-2006. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.134.
- M. M. Rahman, M. R. Islam, M. A. Khan, M. M. Hossain, and M. B. Hossain 2012. Popularization of different jute and kenaf varieties of BJRI at farmer's level. In annual Research Report, Agriculture Research on Jute 2010-11. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.129
- Hossain Z, M. Al-Mamun, S. Kibria, M. M. Hossain and M. M. Rahman. 2006. Study on economic performance of jute and Dhaincha cultivation. In annual Research Report, Agriculture Research on Jute 2005-2006. Published by Bangladesh Jute Research Institute, Manik Mian Avenue, Dhaka 1207.p.135

#### **11. Research Achievement**

- (i) No. of technology developed:
- (ii) No. of the research program:

(a) Supervised:25 (b) Executed: 35

## 16. Outstanding achievement

### Thesis/ Dissertation on Jute and allied fiber research

i). Hossain M. M. (2010). Quality of jute seed produced in conventional and late season and performance of ten jute varieties in late seasons. Submitted for the partial fulfilment of Master of Science in Seed technology. Bangabandhu Sheikh Mujibur Rahman Agricultural University. Salna, Gazipur Bangladesh.

ii). Hossain M. M. (2022). Enhancement of Kenaf bio degumming process by Sabah isolates - alkalophilic pectinase producing bacteria and aqueous solvents. Submitted for the partial fulfilment of PhD. Biotechnology research institute, University Malaysia Sabah.

### **Award/ Fellowship**

1. Master of Science fellowship awarded by Bangladesh Jute research Institute under the project " পাট ও পাট জাতীয় ফসলের কৃষি প্রযুক্তি উদ্ধাবন ও হস্তান্তর প্রযুক্তি"।

**2.** Foreign PhD study fellowship awarded by Bangladesh Agricultural Research Council (BARC), Ministry of Agricultural, Peoples republic of Bangladesh under the project "National Agricultural Technology project- 2".

### **3. Acquired Skill**

i. Proficient in serving as regional station head responsible for the implementation of research programs focused on regional jute agricultural problems for over eighteen years

ii. Monitoring the daily activities of regional research stations, such as research programs, budget, labor, human resources, APA, shuddachar, NIS, annual planning, and evaluations.

iii. Execution of BJRI central stations development and research program

iv. Execution of BJRI headquarters research programs from all agricultural divisions

v. Experience in Computer literacy- M.S. Word, MS Excel, MS PowerPoint, MSTAT, Minitab, R software, MEGA, etc.

vi. Trainer for the farmers on jute seed production, ribbon retting, and other jute agriculture technologies

vii. Actively participated in RTCC of more significant Chittagong divisions representing BJRI regional stations and regional research-extension review workshops.

vii. Acquired International English Language Test (IELTS), proficiency test band score 6.00

viii. Productions and certifications of TLS, and breeder seed of Jute and allied fiber crops. Gained proficiency of others crops production as part of crop rotation in the station's field, such as rice and mustard with mutual contracts of BADC seed production scheme.

ix. Served as head and focal point of the regional station under the Farm Management Unit of BJRI to achieve the station's goals.

x. Acquired proficiency of the regional stations research program, personnel management, project management, labor management, financial management, administration, and supervision of research programs. Execution in Field Research, report writing, and monitoring.

xi. Acquired proficiency of maintaining linkage with DAE, others research organizations, and progressive jute and allied crops farmers.

xii. Proficient in arranging training, seminars, for different stakeholders, arranging symposiums, report writing, monitoring and evaluation of farm-level project activities.

xii. Directly involved in a variety of releasing processes ZYT, RYT and certification. Involved in the BJRI jute variety, (BJRI deshipat-8) BJC-2197; BJRI deshipat-9 BJC-5003, , BJRI tossa pat -6 (O-3820), BJRI mesta-3(SAMU-93), BJRI kenaf 3 and 4 (Bot kenaf and KE-3) regional yield trial, and NSB evaluation process.

xiii. Involved in the dissemination of BJRI technology to the farmer's level. The ribbon retting, late jute seed, and high-yielding jute, kenaf, and mesta varieties dissemination to farmers level through demonstration, field day, and training executed at Chittagong division.

xiv. Represented the regional station in RATEC of Chittagong division. Member of district and upazilla coordination committee. Actively participated in national, MOA, and BJRI programs.

## VALIDATION

"All the information and data presented here are true to the best of my knowledge".

Horris 9 28/Ø3/2Ø23

(Dr. Mohammad Munir Hossain)