

## PDS (Personal Data Sheet) Format

1. Name : Kbd. Dr. Md. Younus Ali
2. Father's name : Md. Zillar Rahman P.K.
3. Mother's name : Mst. Abaya Begum
4. Spouse name : Mst. Jannatul Ferdausi
5. Gender : Male
6. Date of joining in present position : 05.12.2022
7. Designation (In present) : Principal Scientific Officer (PSO)
8. Present Address : Fibre Quality Improvement Division, BJRI, Dhaka-1207
9. Permanent Address : Vill.- Tollarola, Post.- Kolakopa, Upazila- Gabtoli,  
Zilla- Bogura
10. Date of birth : 25 October, 1976
11. Age (as on 01-01-2023) : 46 years 2 months 28 days
12. Education Qualification :

Degree/Diploma/ Certificate	Board/University	Year of Passing	Division/Class/ Grade
Doctor of Philosophy (Ph.D)	Bangladesh Agricultural University, Mymensingh	2022	Awarded
M. S in Agricultural Chemistry	Bangladesh Agricultural University, Mymensingh	2003	1 <sup>st</sup> Class
B. Sc. Ag	Bangladesh Agricultural University, Mymensingh	1998 (Held in 2001)	2 <sup>nd</sup> Class
H. S. C	Rajshahi	1993	1 <sup>st</sup> Division
S. S. C	Rajshahi	1991	1 <sup>st</sup> Division

11. **Field of Specialization:** Soil Science (Water and Soil Microbiology and Jute Retting)

### 12. Training

#### (a) In Country

Sl. No.	Organization	Year	Duration		Name of programme
			Months	Days	
1	Department of Soil Science, Bangladesh Agricultural University, Mymensingh	2017	0	01	Operation and Maintenance of Sophisticated Equipment
2	National Agricultural Training Academy, Gazipur	2015	0	04	E-agriculture and it's Development Initiatives
3	Bangladesh agricultural Research Council, Dhaka	2014	0	03	Use of Fertilizer Recommendation Guide-2012
4	BARC, Dhaka	2013	0	02	Agro forestry Technologies developed through SPGR project
5	BARC, Dhaka	2013	0	02	Agro forestry practices in Bangladesh
6	Bangladesh agricultural Research Institute, Gazipur	2012	0	06	On-Farm Research Methodology
7	Bangladesh Jute Research Institute, Dhaka, Bangladesh	2012	0	04	Technical Report Writing and Editing Course

Sl. No.	Organization	Year	Duration		Name of programme
			Months	Days	
8	Bangladesh agricultural Research Institute, Joydebpur, Gazipur	2012	0	03	Use and Maintenance of Modern Lab Equipments for NARS Scientists
10	Bangladesh Academy for Rural Development, Cotbari, Comilla	2006	04	00	Foundation Training Course
11	BRTC Training Institute, Narayanganj	2006	0	26	Basic Driving Training in L.T.V
12	Bangladesh Jute Research Institute, Dhaka, Bangladesh	2006	01	00	Advanced Computer Training Program
13	Bangladesh Jute Research Institute, Dhaka, Bangladesh	2005	0	06	Orientation-cum-Technology Transfer Training Workshop

(b) Abroad					
Sl. No.	Organization	Year	Duration		Name of programme
			Mons.	Days	

13. Experience			
Position	Period		
	From	To	Total (Years/Months)
Scientific Officer (SO)	01-11-2004	28-3-2012	7 years 4 months
Senior Scientific Officer (SSO) (CC)	29-3-2012	23-11-2015	3 years 07 months
Senior Scientific Officer (SSO)	24-11-2015	05.12.2022	7 years 00 months 12 days
Principal Scientific Officer (PSO)	05-12.2022	Present	
Associate Scientist of M4C Project on jute production in Charland areas of Bangladesh	March 2013	October 2015	2 years 8 months

#### 14. Publication

(A) a) Full scientific paper as principal author, b) Full scientific paper as Co-author

(B) Popular Article/Monograph/Bulletin

(C) List of seminar Papers/Workshop Proceedings (Presented/Published)

(A)	Scientific journals	No. of publication
(i)	Full paper	33
	(a) Paper Revised Reported International Journal	07
	Principal author	-
	Co-author (4-10)	07
	(b) Other International & National Journal	26
	Principal Author (1-3)	03
	Co-author (11-33)	23
	Short Communication	0
	Principal Author	
	Co-author	

<b>(B)</b>	Books/ Monographs/ Bulletins/ News letter	
	(i) Books	04
	Principal Author	01
	Co-author	03
	(ii) Bulletins/Report in The Guardian, July 2014	01
	Leaflet	04
	Booklet	02
	Principal Author	
	Co-author	07
	(iii) News letter	03
	Principal Author	01
	Co-author	02
<b>(C)</b>	Seminar/ Workshop/ Symposium Proceedings	
	(i) National seminar/workshop	11
	Principal Author	
	Co-author	11
	(ii) International Workshop/ Seminar	01
	Principal Author	
	Co-author	01

**International Workshop 01:** The Global Institute for Food Security (GIFS), Saskatchewan University, Canada – BARC Technology Centre Workshop, held on 6 February 2020 at Bangladesh Agricultural Research Council, Farmgate, Dhaka-1207, Bangladesh.

**Participants were:** Scientists of NARS institutes, University teachers, Personnel of DAE, BADC, BWMRI, CDB, Hortex Foundation, KGF, IRRI, CIMMYT, FAO and Canada High Commission

**a) Full scientific paper as principal author**

1. **M. Younus Ali**, T. Ahmed, M.D. Hossain and M.S.Ali. 2008. Nutrient status in the soils of some Agro-ecological zones of Bangladesh. *J. Banglades Soc. Agric. Sci. Technol.*, 5(1&2): 193-199.
2. **M. Younus Ali**, M.R. Jamal, T.S. Aqter, S.H. Bhuiyan and G.A. Fakir. 2009. Effect of plant extracts on germination and control of seed borne fungal pathogens of jute. *J. Subtrop. Agric. Res. Dev.* 7(5): 722-728.
3. **M. Younus Ali**, Md. Babul Hossain and Md. Zahid Al Rafiq. 2020. Effect of molybdenum on seed yield and yield contributing characters of tossa jute in late season. *Int. J. Sustain. Agril. Tech.* 16(7): 01-05.

**b) Full scientific paper as Co-author, reported in International Journal: 7 (4-11)**

4. Tanjila Alam Prosun, **Md. Younus Ali**, Most. Monira Yesmin, Markus S Brun, Md. Badiuzzaman khan and M. Harun-Or Rashid. 2020. Identification and Evaluation of Arsenic Tolerant Bacteria for Arsenic Mitigation in Contaminated Soil. *J. Bacteriol Mycol.* 7 (8): 01-07. (IF: 2.1)
5. Arju Miah, Nihar Ranjan Saha, Md. Jahangir Alam, Md. **Younus Ali** and Amit Kumar Basunia. 2020. Characterization of deshi jute (*Corchorus capsularis*) germplasm collected from different sources. *Acta Scientific Agriculture.* 4(7): 173-180.
6. Arju Miah, Nihar Ranjan Saha, AKM Shahadat Hossain1, **Md Younus Ali** and Amit Kumar Basunia. 2020. Genetic variability assessment of Tossa jute (*Corchorus olitorius* L.) genotypes using morpho-agronomic traits. *Acta Scientific Agriculture.* 4(7): 132-138.

7. Arju Miah, Nihar Ranjan Saha, Amit Kumar Basunia, AKM Shahadat Hossain and **Md Younus Ali**. 2020. Advanced yield trial of early seeding, higher yield and low temperature tolerant breeding lines of white jute. *Acta Scientific Agriculture*. 4(7): 167-172.
  8. Arju Miah, A. K. M. Shahadat Hossain, Nihar Ranjan Saha, **Md. Younus Ali**, Md. Jahangir Alam, Sayma Farabi. 2020. Determining Genetic Diversity of Deshi Jute (*Corchorus capsularis*) for the Improvement of Fibre Yield and Associated Traits. *Intl J Sci Agric*. Vol.4: 66-71
  9. Arju Miah, A. K. M. Shahadat Hossain, Nihar Ranjan Saha, **Md. Younus Ali**, Md. Jahangir Alam, Md. Hasanuzzaman. 2020. An Anatomical Screening of White Jute Accessions for Fibre Content. *Intl J Sci Agric*. Vol. 4: 72-76.
  10. Arju Miah, A. K. M. Shahadat Hossain, Nihar Ranjan Saha, Md. S. M. Shahriar Parvej **Md. Younus Ali**, Sayma Farabi, Amit Kumar Basunia. 2020. Assessment of Genetic Variability in Different Kenaf (*Hibiscus cannabinus*) Germplasm Using Morpho-Agronomic Traits. *Intl. J.Innov.Agric*. Vol.3: 05-12.
- c) Full scientific paper as Co-author, reported in National and International Journal: 23 (11-33)**
11. M. Mahabub Ali, M. Abdur Rahim, Selina Akhter, **M. Younus Ali** and Tahmina. 2013. Identification of cellulosic microorganisms from jute waste and their cellulase activity. *Int. J. Sustain. Agril. Tech*. 9(2): 58-61.
  12. M.S.H. Bhuiyan, M. Maksuder Rahman, M. Shahadat Hossain, **M. Younus Ali** and M.A. Alam. 2013. Development of high yielding jute variety BJRI Tossa pat-5. *Int. J. Sustain. Agril. Tech*. 9(5): 19-23.
  13. A T M M Alam, M F Alom, M B Hossain, M S Hasan and **M. Younus Ali**. 2012. Effect of sowing dates and methods on seed quality of tossa jute. *Bangladesh J.Agric. and Environ*. 8(2):1-5.
  14. M.S.H. Bhuiyan, M. S. Hossain, Izaz Ahmed, **M. Younus Ali**. 2012. Use of leaf color chart for nitrogen management in transplant aman rice. *Int. J. Sustain. Agril. Tech*. 8(12): 1-5.
  15. M.A. Khan, **M. Younus Ali**, B. Hossain and Z.A. Rafique. 2010. Effect of seedling age and planting spacing on seed yield and quality of tossa jute. *Bangladesh J. Seed Sci. & Tech*. 14(1&2): 39-43.
  16. M.R. Jamal, **M. Younus Ali**, T.S. Aqter, M.B. Hossain, G A Fakir and F Yasmin. 2009. Effect of garlic and neem leaf extracts on germination and control of seed-borne fungal pathogens of jute. *Intl. J. Biores*.7 (5): 71-78.
  17. M.B. Hossain, Z.A. Rafiq, **M.Y. Ali**, M.N. Uddin and M. H. Rashid. 2020. Productivity of tossa jute seed as influenced by different planting methods and spacing under puddle condition at planting period. *Bangladesh J. Environ. Sci*. 39, 21-24.
  18. A Miah, NR Saha, **MY Ali**, M Kamrujjaman, MSMS Parvej. 2020. Assessment of Genetic Divergence of Deshi Jute (*Corchorus capsularis*) Germplasms by Using Phenotypic Characters. *Progressive Agriculture* Vol.31 (1): 10-18.
  19. A Miah, NR Saha, MZA Rafiq, **MY Ali**, M Hasanuzzaman. 2020. Performance Study on Yield and Yield Attributes of Seven White Jute Breeding Lines at Different Regions of Bangladesh. *Progressive Agriculture* Vol.31 (1): 19-25.
  20. A Miah, NR Saha, **MY Ali**, M Kamrujjaman, MSMS Parvej, S Farabi. 2020. Genetic Divergence Analysis of Deshi Jute (*Corchorus capsularis*) Based on Fibre Yield and Its Attributing Traits. *Progressive Agriculture* Vol.31 (1): 26-35.
  21. M. Babul Hossain, **M. Younus Ali**, M. Zahid al Rafiq and Izaz Ahmed. 2009. Effect of row spacing and de-heading at different growth stages of jute plant on late jute seed yield. *Int. J. Sustain. Agril. Tech*. 5(4): 63-65.
  22. M. Kamrujjaman, A. Miah, **M. Younus Ali**, S. M. Shahriar Parvej and Muhammad Tanvir Rahman. 2020. Breeding Practices for Combining Yield and Yield Contributing Traits in White Jute (*Corchorus capsularis* L.) Genotypes. *Int. J. Sustain. Agril. Tech*. 16(6): 06-09.
  23. A. K. M. Shahadat Hossain, A. Miah, M. Kamrujjaman, **M. Younus Ali** and S. M. Shahriar Parvej. 2020. Genetic Stability of Selected Tossa Jute (*Corchorus olitorius* L.) Germplasms using Agro-Morphological Traits. *Int. J. Sustain. Agril. Tech*. 16(6): 10-12.

24. M. Kamrujjaman, A. Miah, **M. Younus Ali**, S. M. Shahriar Parvej and Muhammad Tanvir Rahman. 2020. Evaluation of Selected Kenaf (*Hibiscus cannabinus* L.) Germplasms using Agro-Morphological Traits. *Int. J. Sustain. Agril. Tech.* 16(4): 21-24.
25. M. Babul Hossain, M. Nasir Uddin, M. Jahangir Alam, **M. Younus Ali** and M. Razib Rahman. 2014. Economic performance of jute cultivation at farm level in some selected areas of Bangladesh. *Journal of Expt. Biosci.* 5(1): 97-104.
26. Md. Nasir Uddin, S. M. Mahbub Ali, Md. **Younus Ali**, Sabera Akter, Md. Delwar Hossain Sarker and Md. Zablul Tareq. 2020. Prestorage seed hardening effects on chemical composition of jute seed. *J. Expt. Biosci.* 11(1): 9-14.
27. M. Ahsan Habib, **M. Younus Ali**, M. Abdul Hye, M. Obaidul Islam. 2010. Effect of split application of N-fertilizer on growth and yield attributes of winter mugbean. *J. Subtrop. Agric. Res. Dev.* 8(2): 784-787.
28. M R Islam, S Sarker, **M. Younus Ali**, M B Hossain and E R Choudhury. 2010. Involvement of brac trained women beneficiaries in income generating activities. *Eco-friendly Agril. J.* 3(6): 278-282.
29. M R Islam, S Sarker, E R Choudhury, **M. Younus Ali** and M B Hossain. 2010. Involvement of brac trained women beneficiaries in decision making role in house hold health care. *Eco-friendly Agril. J.* 3(6): 289-294.
30. M.S.H. Bhuiyan, Izaz Ahmed, M. Kamruzzaman, **M. Younus Ali** and A. Miaii. 2009. Effect of moisture and container on germination storability of ridge gourd seed. *Int. J. Sustain. Agril. Tech.* 5(7): 01-05.
31. E R Choudhury, S Sarkar, M R Islam, **M Y Ali** and M B Hossain. 2010. Farmers characteristics associated with the participation in fish development activities of BAUEC. *Eco-friendly Agril. J.* 3(6): 283-288.
32. Mahbubul Islam, Saheb Ali, M. Momotaz Ali, **M. Younus Ali** and M. Babul Hossain. 2018. Jute fibre yield and economics in charland areas of Bangladesh. *Research in: Agricultural & Veterinary Sciences.* Vol.2, No.1: pp.59-65.
33. Md. Jewel Alam, Md. Azam Uddin, Most. Khairun Nahar, **Md. Younus Ali**, and Kazi Shahanara Ahmed. 2020. Enhancement of maize productivity through using improved techniques of spacing. *J. Expt. Biosci.* 11(2): 27-34.

## B. Books/ Monographs/ Bulletins

Items	Number
<b>i. Books</b>	
- পাট, কেনাফ ও মেস্তা ফসলের বীজ উৎপাদন ও সংরক্ষণ কলাকৌশল বিষয়ক প্রশিক্ষণ সহায়িকা	01
- Programme Completion Report on Improvement of produced jute on the charland through application of improved cultivation and retting practices	01
- রিবন রেটিং প্রযুক্তির উন্নয়ন ও কৃষক পর্যায়ে সম্প্রসারণ কর্মসূচী প্রতিবেদন 2010-2011	01
- রিবন রেটিং প্রযুক্তির উন্নয়ন ও কৃষক পর্যায়ে সম্প্রসারণ কর্মসূচীর সমাপ্তি প্রতিবেদন জুলাই 2010 - জুন 2012	01
- BJRI Annual Research Programme 2019, 2020, 2021, 2022	04
- BJRI Annual Research Report 2019, 2020, 2021	03
<b>ii. Leaflet</b>	04
Principal Author	
Co-author	04
<b>iii. Booklet</b>	02
Principal Author	
Co-author	02
<b>iv. Bulletins/Report on jute production in The Guardian, July 2014</b>	01
<b>iv. Monographs</b>	
Principal Author, Co-author	

### C. Seminar/ Workshop/ Symposium Proceedings

Items	Number
<b>i. National Seminar/Workshop</b>	11
Principal Author	
Co-author	11
<b>ii. International Workshop/ Seminar</b>	01
Principal Author	
Co-author	01

### 15. Research achievements (SO to SSO)

#### a) List of Technology developed and transferred

Name of research program(s)/Project(s) Developed	Implementation status	Remarks
1. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season	Conducted in 2006 in Rangpur station and repeated up-to 2008 (Tech. Program, 2006-2007)	Results were good
2. Effect of plant density and time of sowing on growth and seed yield of tossa jute in late season	Conducted in 2007 in Rangpur station and repeated up-to 2009 (Tech. Program, 2007-2008)	Results were good
3. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method	Conducted in 2008 in Rangpur station and repeated up-to 2010 (Tech. Program, 2008-2009)	Results were good
4. Effect of variety and time of sowing on seed yield and quality of Kenaf in late season	Conducted in 2008 in Rangpur station and repeated up-to 2010 (Tech. Program, 2008-2009)	Results were good
5. Low cost retting of jute using jute Hessian	Conducted in 2009 and repeated to 2010 (Tech. Program, 2009-2010)	Results were satisfactory
6. Studies on retting and fibre properties of different pipeline and pre-released varieties of jute ( <i>C. capsularis</i> Acc.2197 and <i>C. olitorius</i> Acc.3820)	Conducted in 2010 and repeated to 2012 (Tech. Program, 2010-2011)	Results were satisfactory
7. Collection of retting effluents from different jute growing districts and study of their retting properties	Conducted in 2010 and repeated to 2012 (Tech. Program, 2010-2011)	Results satisfactory
8. Type of Jak for the production of quality fibre in a canal or small ditches	Conducted in 2011 and repeated to 2013 (Tech. Program, 2011-2012)	Results satisfactory
9. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis	Conducted in 2011 and repeated upto 2014 (Tech. Program, 2011-2012)	Results satisfactory
10. Development of power jute ribboner	Conducted in 2012 and repeated to 2013 (Tech. Program, 2012-2013)	Results satisfactory
11. Jute retting in char land areas of Bangladesh	Conducted in 2013, 2014	Results satisfactory
12. Development auto power jute ribboner/ Jute decorticator	Conducted in 2013 and repeated to 2015 (Tech. Program, 2013-2014)	Results satisfactory
13. Whitening of blakish colored fibre of jute using TSP	Conducted in 2018, 2019	Results satisfactory
14. Development of BJRI Jute Harvester	Conducted in 2018, 2019	Results satisfactory

## List of Research programme Supervised and Executed in different years (SO – SSO)

### b) Supervised

<b>2006-2007</b>
1. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season
2. Effect of plant density and time of sowing on growth and seed yield of tossa jute in late season
<b>2007-2008</b>
3. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season
<b>2008-2009</b>
4. Effect of variety and sowing spacing on fibre yield of olitorius jute (BJRI and Indian)
5. Study on production cost and economic return of jute at farmers' level
6. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season
7. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method
8. Effect of seedling age and planting spacing on the yield and quality of modern variety of <i>C. olitorius</i> jute seed in late season
<b>2009-2010</b>
9. Effect of variety and time of sowing on seed yield and quality of Kenaf in late season
10. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method
11. Study on production cost and return of jute at farmers' level
<b>2010-2011</b>
12. Effect of variety and time of sowing on seed yield and quality of Kenaf in late season (2 <sup>nd</sup> year)
13. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method (3 <sup>rd</sup> year)
<b>2011-2012</b>
14. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
15. Optimum field duration of jute crop for economic and viable ribbon retting technique
16. Investigation of jute retting microbes in coastal/saline area and study of their retting efficacy for obtaining better jute fibre
<b>2012-2013</b>
17. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
18. Study of the mechanical efficiency of Power operated Jute Ribboner
19. Role/ Impact of optimum field duration of jute crop in ribbon retting in respect of it's technical and economic viability
20. Investigation of jute retting microbes in coastal/saline area and study of their retting efficacy for obtaining better jute fibre
<b>2013-2014</b>
21. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
22. Role/ Impact of optimum field duration of jute crop in ribbon retting in respect of it's technical and economic viability
<b>2014-2015</b>
23. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
24. Study of the mechanical efficiency of Power operated Jute Ribboner
25. Development and performance study of Auto Power Jute Ribboner
<b>2015-2016</b>
26. Comparative study on microbes of different sources of covering materials on jak before and after the jute retting
27. Development and performance study of Auto Power Jute Ribboner
28. Impact of optimum field duration and time of ribboning after harvest of jute by auto-ribboner in respect of its technical and economic viability

<b>2020-2021</b>
29. Isolation and Identification of jute retting bacterial strains from different natural sources and study of their retting properties

**c) Executed**

<b>2007-2008</b>
1. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season
<b>2008-2009</b>
2. Effect of variety and sowing spacing on fibre yield of olitorius jute (BJRI and Indian)
3. Study on production cost and economic return of jute at farmers' level
4. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season
5. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method
6. Study on weed management in late jute seed crop by increasing plant population
<b>2009-2010</b>
7. Effect of variety and time of sowing on seed yield and quality of Kenaf in late season
8. Effect of Molybdenum (Mo) on seed yield of tossa jute in late season
9. Effect of plant population on different spacing for yield and quality of different tossa jute
10. Study on production cost and return of jute at farmers' level in different AEZ of Bangladesh
11. Effect of variety and time of sowing on seed yield and quality of Kenaf in late season
12. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method
<b>2010-2011</b>
13. Effect of variety and sowing spacing on the performance of olitorius jute (BJRI and Indian) (3 <sup>rd</sup> year)
14. Study on the fertilizer requirement of jute and T.aman rice in Potato-Jute-T.aman rice cropping pattern
15. Study on the fertilizer requirement of jute after potato cultivation
16. Study on production cost and return of jute at farmers' level (3 <sup>rd</sup> year)
17. Effect of variety and time of sowing on seed yield and quality of Kenaf in late season (2 <sup>nd</sup> year)
18. Effect of detopping at different growth stages of tossa jute on seed yield under transplanting method (2 <sup>nd</sup> year)
<b>2011-2012</b>
19. Isolation of microbes from various natural sources and study of their retting properties
20. Studies on retting and fibre properties of different pipeline and pre-released varieties of jute (C.capsularis and C.olitorius)
21. Collection of retting effluents from different jute growing districts and study of their retting properties
22. Study on different type of jak for the production of quality fibre in a canal or small ditches
23. Cost analysis of different covering materials used on jak and their effect on fibre quality
24. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
25. Optimum field duration of jute crop for economic and viable ribbon retting technique
<b>2012-2013</b>
26. Isolation of microbes from various natural sources and study of their retting properties
27. Study on different type of jak for the production of quality fibre in a canal or small ditches
28. Study of the mechanical efficiency of Power operated Jute Ribboner
29. Role/ Impact of optimum field duration of jute crop in ribbon retting in respect of it's technical and economic viability
30. Investigation of jute retting microbes in coastal/saline area and study of their retting efficacy for obtaining better jute fibre



<b>2013-2014</b>
31. Studies on retting and fibre properties of different pipeline and pre-released varieties of jute (C.capsularis and C.olitorius)
32. Collection of retting effluents from different jute growing districts and study of their retting properties
33. Study on different type of jak for the production of quality fibre in a canal or small ditches
34. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
35. Study of the mechanical efficiency of Power operated Jute Ribboner
36. Role/ Impact of optimum field duration of jute crop in ribbon retting in respect of it's technical and economic viability

<b>2014-2015</b>
37. Isolation of microbes from various natural sources and study of their retting properties
38. Studies on retting and fibre properties of recently released jute varieties of Tossa and Deshi jute
39. Collection of retting effluents from different jute growing districts and study of their retting properties
40. Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and cost analysis
41. Study of the mechanical efficiency of Power operated Jute Ribboner
42. Development and performance study of Power Jute Ribboner

<b>2015-2016</b>
43. Isolation of microbes from various natural sources and study of their retting properties
44. Studies on retting and fibre properties of pre- released jute varieties
45. Comparative Study on fibre properties of released and cultivable jute and kenaf varieties in same source of retting water
46. Collection of retting effluents from different jute growing districts and study of their retting properties
47. Comparative study on microbes of different sources of covering materials on jak before and after the jute retting
48. Study on jak and water volume ratio and improvement of retting water for 2 <sup>nd</sup> time retting in stagnant condition
49. Study of the mechanical efficiency of Auto Power Jute Ribboner
50. Impact of optimum field duration and time of ribboning after harvest of jute by auto-ribboner in respect of its technical and economic viability
51. Investigation of jute retting microbes in coastal/ saline area and study of their retting efficacy for obtaining better jute fibre

<b>2020-2021</b>
52. Isolation and Identification of jute retting bacterial strains from different natural sources and study of their retting properties
53. Comparative studies on retting time and physical and chemical properties of kenaf and mesta

<b>2022-2023</b>
54. Retting period and fibre properties of different advanced breeding lines of jute and kenaf
55. Isolation and Identification of jute retting bacterial strains from different natural sources and study of their retting properties
56. Comparative studies on retting time and physical properties of kenaf and mesta


## 16. Outstanding achievements

### Organism identification

a) Ten (10) jute retting bacteria were identified and published in NCBI GenBank on 31.03.2021 as Principal Author. GenBank accession numbers are as follows:

Strain name	Sequences	GenBank acc. no.	Identified bacteria
S <sub>4</sub>	Sequence1	MW767007	<i>Bacillus cereus</i>
S <sub>6</sub>	Sequence2	MW767008	<i>Bacillus cereus</i>
S <sub>7</sub>	Sequence3	MW767009	<i>Enterobacter ludwigii</i>
S <sub>9</sub>	Sequence4	MW767010	<i>Bacillus tropicus</i>
S <sub>12</sub>	Sequence5	MW767011	<i>Bacillus cereus</i>
S <sub>13</sub>	Sequence6	MW767012	<i>Bacillus aerius</i>
S <sub>16</sub>	Sequence7	MW767013	<i>Aeromonas sanarellii</i>
S <sub>19</sub>	Sequence8	MW767014	<i>Citrobacter freundii</i>
S <sub>22</sub>	Sequence9	MW767015	<i>Bacillus tropicus</i>
S <sub>24</sub>	Sequence10	MW767016	<i>Bacillus cereus</i>
S <sub>28</sub>	Sequence11	MW767017	<i>Enterobacter hormaechi</i>
S <sub>29</sub>	Sequence12	MW767018	<i>Bacillus cereus</i>
S <sub>33b</sub>	Sequence13	MW767019	<i>Priestia aryabhatai</i>
S <sub>40</sub>	Sequence14	MW767020	<i>Shigella flexneri</i>
S <sub>41</sub>	Sequence15	MW767021	<i>Bacillus subtilis</i>

b) Jute retting bacteria isolation by 16S rRNA gene sequencing, BLASTn search and phylogenetic analysis, Reduction of jute retting period and improvement of fibre quality using efficient pectinolytic bacteria, Development of power jute ribboner and auto-power jute ribboner, and Development of jute harvester.

  
15.02.2023

Signature With date and Address

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