Contents of CV of Dr. Md. Khairul Alam Bhuiyan CURRICULUM VITAE

Name Dr. MD. KHAIRUL ALAM BHUIYAN

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Section A

Personal notes:

Father's name Late Abdul Majid Bhuiyan

Mothers name Feroza Begum

Mailing address Principal Scientific Officer, Agronomy Division,

Bangladesh Rice Research Institute, Gazipur-1701

Home district Comilla
Nationality: Bangladeshi

Religion Islam
Marital status Married
Date of birth 01-01-1970

Height 5' 4" Weight 63.5 Kg

Permanent address Village-Alahabad, Post Office- Alahabad,

PS –Debidwar, District- Cumilla.

Section B

Education and training

Educational career

Name of the	Board/University	Year	Major subjects/courses/ Title
Examination			
Secondary school	Dhaka Board	1986	Bangla, English, Mathmatices, Physics, Chemistry,
Certificate			Biology
Higher Secondary	Dhaka Board	1989	Bangla, English, Mathmatices Physics, Chemistry,
Certificate			Biology
Bachelor of Science	Bangladesh	1993	Agronomy, Horticulture, Plant Pathology,
in Agriculture	Agricultural	((Held	Entomology, Soil Science, Biology, Genetics and Plant
	University	in	Breeding, Biochemistry, Statistics, Crop Botany,
		1997)	Agricultural Economics Rural Sociology Etc.
Master of Science in	Bangabandhu Sheikh	2001	Principles of Crop Production, Crop Physiology, Seed
Agronomy	Mujibur Rahman		science, Vegetable Seed Technology, Weed Science,
	Agricultural		Cropping System, Cereal Crop Production, Irrigation
	University		Agronomy, Soil Fertility, Soil Plant Analysis, Design
			of Experiments.
Doctor of Philosophy	Bangladesh	2015	Effect of resource conservation technologies and weed
(PhD.)	Agricultural		management on nitrogen use efficiency, growth and
	University		yield of rice

Training/ workshop/ Conference

(a)Training in Country:

Sl no	Organizati	Year			Dura	tion	Name of programme	
	on		From	То	Months Days			
1	BRRI	1999	12 July	09 Sept	02	-	Rice Production, Communication and Office Management.	
2	BSMRAU	2000	14 June	28June	-	15	Computer training course in MSTAT, IRRISTAT, & SPSS	
3	BRRI	2000	22Oct	28Oct	-	07	Research Management Information System (Data capture)	
4	BARD	2001	1st Nov	14 Nov	-	14	Computer application course on Word, MS Excel, MS power point and SPSS	
5	BARD	2001	5 Aug	15 Nov	03	15	Foundation training on administrative and office management	
6	BRRI	2003	15 Nov	16 Nov	-	02	Hybrid rice seed production training	
7	BARC	2005	06 June	09 June	-	04	Management of problem soil	
8	IRRI-BRRI	2008	30June	02 July	-	03	Participatory Variety Selection and Socio- economic Components in Experimental Sites	

9	CIMMYT-	2011	16Jan	20Jan	-	07	Safe use of Herbicides and effective weed
	Bangladesh						control
	RDRS						
10	BRRI	2011	2 March	03	-	02	GSR- Hybrid rice seed production training
				March			course
11	CIMMYT-	2012	June17	June21	-	05	Data management and report writing
	IRRI-						
	World Fish						
12	BARC	2015	25May	27May	-	03	Fertilizer Recommendation Guide-2012
13	NATA	2018	26Dec	8 Jan		12	Project management ,procurement and
							monitoring
14	BRRI	2018	11-Dec	12 Dec		02	Procedure of Soil and plant analysis
15	BARC	2019	29April	30April		02	Climate smart agriculture
16	BARC	2019	15June	20June		06	Financial and procurement management training

Training Abroad:

(b) Training Abroad:

Country	From	То	Year	Duration		Name of programme
				Mos	Days	
IRRI, Philippines	1 Sept	12 Sept	2003	-	12	Two-Week Rice Production training course
IRRI, Philippines	3 May	7 May	2004	-	05	Basic Experimental Designs and Data Analysis Using IRRISTAT

Workshop / Conference Abroad

Country	Year	Duration		Name of programme	
		Mos. Days			
IRRI, India	2013	-	05	STRASA planning and evaluation	
IRRI, Nepal	2014	- 03		Technology adoption and dissemination	
IRRI, India	2018	03		Ec-IFAD planning and evaluation meeting	
Singapore	2018	05		International Rice congress	
Chandighar, India	2019		03	EC-IFAD & CSISA workshop and planning and	
Chandighar, mura	2019			evaluation meeting	

Section C

Significant contribution to agricultural development through agronomic and Weed Management Research:

- Contributed to Weed management Research for about 21 years.
- Tested and recommended about 60 chemical group of herbicide (approx. ≈ 800 brand) which is about 90% of rice herbicides (Weed control Efficiency is above 80%) now available in Bangladesh and farmers are now using these technologies
- Farmers are now adopting these cost effective technologies throughout the country. About three million rice lands make use of herbicide.

- Use of these technologies increasing sharply due to shortage of labor in the peak period of manual weeding. Manual weeding from one ha of land needed about 25000-30000 taka where herbicide + one hand weeding technology needed 6000-7000 taka. So adopting these technologies farmers can save about 70-80% weed control costs.
- Farmers are now saving billions of taka from weeding costs. Through better weed control crop loss decreased and improved fertilizer and water use efficiency, thus helped to obtain high rice crop yield.
- Involved an extensive applied research and basic work and take up some technologies regarding weed management in rice, including herbicide resistance weeds, weed seed bank, threshold level of different rice weeds, integrated weed management technology in different rice culture and ecosystem, mechanical weed control, chemical weed control, organic weed control etc.
- Led the weed research team of BRRI, Bangladesh, and worked in collaboration with renowned weed scientist (Dr. Devid Johnson, Dr. Charlie Riches and Dr. Marteen Mortimeer, and Dr. Sudhanshu Singh from IRRI).
- Now working as weed science specialist of IRRI funded CSISA project and involved in weed management technology dissemination in Greater Jessore, Faridpur, Dinajpur and Gazipur(Kapasia and Sripur) district of Bangladesh
- As a rice agronomist contributed to develop scores of agronomic technology which will helping to bring food security in rice in the country.
- Authored or co-authored several weed related publications and has presented research paper at national and international conference.
- His major research work on PhD thesis was weed management in DWSR under AWD irrigation system.
- Recommended a complete weed management technology regarding DWSR under AWD irrigation system.
- Recommended a complete weed management technology in Pirojpur, Gopalgonj and Bagerhat district.
- Recommended a complete weed management technology in Rice-fellow-fellow cropping system area of Pirojpur, Gopalgonj and Bagerhat district.
- Nitrogen management of short duration varieties in rainfed condition
- Development of resource conservation rice production technology
- Studied the effect of herbicides on soil microbial population of rice
 Studied the effect of Different Seed Bed Media on Raising of Quality Seedling of Rice during Boro Season
- Recommended and studied Performance of balanced fertilization and weed management technologies in Pirojpur-Gopalgonj and Bagerhat district
- Optimizes number of seedlings/hill, spacing and seedling age to enhance the productivity of rice for saline areas.
- Studied Yield response and nitrogen use efficiency of modern Boro rice using USG and BRRI prilled urea applicator
- Studied the effect of nitrogen levels and weed management on weeds abundance and grain yield of BRRI hybrid dhan3 under AWD irrigation system

- Studied response of saline tolerant rice varieties to different nitrogen management practices in the farmers field of coastal saline region of Bangladesh
- Studied nutrient management and soil amendment options for dry season (*boro*) rice in coastal salt- affected soils for raising productivity
- Studied nitrogen requirement in modern Boro and T. Aman varieties
- Studied Musk melon intercropping with lentil in tidal non saline ecosystem
- Studied Shallow DWR+Fish mixed culture: A promising technology in Boro-Fellow Fellow cropping pattern in Gopalganj area
 Studied Performance of Bensulfuron 1.1% + Metsulfuron 0.2% + Acetachlor 14% for weed control in rice.
- Studied Performance of pre plant herbicide authority (sulfentrazole) for weed control in rice
- Studied eco-friendly weed management technologied in rice production
- Studied Relay cropping with jute and Aman at Gopalganj: Agronomic management/intervention
- Details study of Suitable weed control options (pre emergence herbicide + 1HW, BRRI weeder + 1HW, Post emergence herbicide + 1HW) in intensified lowland system
- Studied yield maximization of rice in rice-rice-cropping system
- Studied optimum N requirement in T aus varieties
- Studied competitive ability of rice varieties against weed suppression in Boro and T aman season
- Studied allelopathic potentiality of rice varieties
- Studied the effect of micronutrient and organic matter for growth and yield maximization of Boro rice
- Studied line and logo method of rice transplanting

Section D

Experiences as working scientist

Achievement: 22 years research experience in agronomic field.

Working experience:

Title of positions	Organization	Duration
Scientific officer	Farm Management Division	From 28 th February, 1999 to 7 th
	BRRI, Gazipur,	February,2001
Scientific officer	Agronomy Division, BRRI,	From 8 th February, 2001 to 15 th July
	Gazipur	2006
Senior Scientific officer	Agronomy Division, BRRI,	From 16 th July, 2006 to 31 October
	Gazipur	2018
Principal Scientific	Agronomy Division, BRRI,	1 st November 2018 to 30January 2019
Officer(current charge)	Gazipur	
Principal Scientific	Agronomy Division, BRRI,	31 January 2019 to till date
Officer	Gazipur	

Summary of working experience

Duration: 28th February, 1999 to till date

- Started as scientific officer of Farm management division and done farm management related research work and after that Worked as scientific officer of Agronomy division, BRRI then Senior Scientific Officer, Agronomy Division, BRRI.Gazipur
- During this period I have undertaken agronomic research program to increase the productivity of rice with reduction of cost of production. Weed management, Crop establishment, Fertilizer management, Time of planting of varieties and yield maximization were the priority areas where research programs were undertaken. Onfarm trials of developed technologies were done for dissemination.
- To solve the weed problem in the farmer's field collaborative research program were undertaken in the farmer's field since 2001 to till date
- The developed technologies were disseminated to the farming communities through distribution of leaflets, farmer's field days and workshops.
- Worked as project scientist of two projects named "Development of weed management strategies for lowland rice in Bangladesh" and "Promotion of cost-effective Weed management practice for lowland rice in Bangladesh"
- worked as project scientist of these project at Comilla site, Bangladesh. The project was
 funded by DFID, UK and implemented in collaboration with NRI, UK and initiated in
 2003 and completed in 2006. The research work was done in 4 Thanas involving huge
 number of farmers. Aim of these two project was promotion and dissemination of weed
 management technologies in the farmers field. Have close linkage with GO
 (DAE),NGOs, and private organizations for dissemination of developed technologies.
- Worked as a project scientist of EC-IFAD funded project "Improved rice crop management for raising productivity in submergence-prone and salt affected rainfed lowlands in South-Asia" at Barisal and Patuakhali site from 2011-2014 regarding dissemination and adoption of suitable rice technologies.
- Working as principal investigators of IRRI funded EC-IFAD project (From 2017 to till date) and adoption of new technologies regarding nitrogen management in rainfed lowland rice
- Worked as project director of GOB funded project of PGB-IADP and involved in rice technologies dissemination and livelihood improvement in those areas
- Involved in integrated weed management research in rice, evaluated new chemical suitable for weed control, Herbicide resistant weed, weed shifting, determination rate of herbicide for effective weed control in the farmers field.
- Disseminating and developing suitable weed management technology for southern part of Bangldesh(Pirojpur, gopalganj and Bagerhat district) under PGB-IADP project
- Obtained PhD from BAU regarding Weed Science and Resources Conservation technologies.

Section E

Achievement:

- Published 48 (Forty eight) full papers in national and international journal
- Abstracts (Seven): Five
- Published five books and many brochures, popular articles and monographs
- Published three book chapter in Doubling rice productivity book, BRRI, Gazipur

List of Publications

(a)Scientific journal

- 01. **Bhuiyan M.K.A**, GJU Ahmed, J.A. Begum and S.A. Islam. 2007. Bio-Efficacy of Pyrazosulfuron-ethyl 10 WP for weed management in transplanted rice(*Oryza sativa* L.).Intl. J. BioRes.3(1): 58-63
- 02. **Bhuiyan Md. Khairul Alam** and Gazi Jashim Uddin ahmed.2010. Performance of Mefenacet + Bensulfuron methyl 53% WP against weed suppression in transplanted paddy. Pak. J. Weed Sci. res. 16(2): 181-187
- 03.**Bhuiyan, M.KA,** G.J.U.Ahmed, A.J. Mridha, M.G.Ali, J.A.Begum and S.T.Hossain.2010. Performance of Oxadiargyl 400sc for weed control in Transplanted Rice. Bangladesh J. Weed Sci. 1(1) 57-63
- 04. **Bhuiyan, MKA,** GJU Ahmed, AJ Mridha and Jinnat Ara Begum. 2009. Performance of weed management practices for different establishment method of rice (*Oryza sativa* L.) in dry season. Bangladesh Agronomy Journal.vol.12(1&2). 73-79
- 05. **Bhuiyan MKA**, AJ Mridha GJU Ahmed Jinnat Ara Beguma nd Rakiba Sultana. 2011.Performance of chemical weed control in direct wet seeded rice culture under two agro-ecological conditions of Bangladesh. Bangladesh J. Weed Sci. 2(1&2):1-8.
- 06.**Bhuiyan M.K. A.**, M. M. Haque, Q. A. Khaliq, J. A. Begum² and A.H.M.R. Mawlla 1999 Productivity and economics of grain legumes intercropped with maize. Bangladesh Agron. J. 9,(1&2):35-42P
- 07.**Bhuiyan M.K.A**.,M.M. Haque, Q.A. Khaliq, A. Hamid and J.A. Begum, 2004. Light availability, Phenology, nodulation and growth of legumes intercropped with maize.The Agriculturist,vol.2,No. 1-10P
- 08. **Bhuiyan MKA**, A.J.Mridha, GJU Ahmed, SA Islam and MAA Mamun. 2014. Effect of rice bran application for eco-friendly weed control, growth and yield of lowland rice in Bangladesh. International journal of Agronomy and Agricultural Research.Vol.5(3),P. 40-44
- 09. **Bhuiyan MKA**, SA Islam, R Sultana, MM Rana, MM Mahboob and L Nahar 2013-2014. Competitive ability of exotic rice cultivars against weed suppression in wet season. Bangladesh J. Weed ScienceVol.3&4,P. 69-76
- **10. Bhuiyan MKA,** L.Nahar,MM Mahbub, R. Sultana, M.J.A. Mridha, M.A.Rahman and M. Kamruzzaman. 2016. Yield response and nitrogen use efficiency of Boro Rice

- varieties as affected by different methods and of USG and prilled urea applicator. Bangladesh Agronomy Journal.vol.19(1)p:1-10
- 11. **MKA Bhuiyan**, SU Bhuiya,MA Saleque and Amina Khatun. 2016.Nitrogen application in direct wet seeded rice under alternate wetting and drying irrigation condition: Effects on grain yield, dry matter production, nitrogen uptake and Nitrogen use efficiencies. Journal of Plant Nutrition. 2017, vol. 40(17): 2477–2493
- 12. **M.K.A Bhuiyan,** Md. Mostofa Mahbub, Lutfun Nahar and Md. Zakaria Ibne Baki. 2017.Effect of Nitrogen levels and weed management on yield performance of BRRI hybrid dhan3 under AWD irrigation system. Bangladesh Agronomy Journal.Vol 20(1):13-24
- 13. **M.K.A. Bhuiyan,** A.J. Mridha, Sudhanshu Singh, A.K. Srivastava, U.S.Singh and M.A. Bari. 2018. Combination of stress tolerant rice varieties and improved nutrient management practices to mitigate the effect of salinity in coastal area of Bangladesh. Bangladesh rice journal.Vol.21 (1). Page: 77-90
- **14. M. K. A. Bhuiyan** and M. M. Mahbub. 2017. Efficacy of pretilachlor 50% + trisulfuran 2% wp for control of annual weeds. Bangladesh Journal of weed science. vol.6 (1&2). Page: 7-16
- **15. M. K. A. Bhuiyan**, M. M. Mahbub and MZI Baki.2018. Differential sensitivity of annual weeds of bangladesh against metolachlor+ bensulfuran methyl 20% wp herbicide in rice cultivation. Bangladesh agronomy Journal (Accepted)
- **16. M.K.A. Bhuiyan**, Lutfun Nahar Laila, Zakaria Ibne Bake and MM Mahbub.2018. Relative weed control efficiency and economics of BRRI multi row power weeder and BRRI weeder. Accepted. IJAR.
- **17. M. K. A. Bhuiyan,** M. M. Mahbub, Zakaria Ibne Baki and Lutfun Nahar Laila 2017. Sensitivity of annual weeds against authority 48 SC (sulfentrazone) herbicide in rice cultivation.Bangladesh Rice Journal. vol.21((1),Page: 67-76
- **18. Khairul Alam Bhuiyan**, Sultan Uddin Bhuiya, M.A. Saleque & Amina Khatun (2018) Grain yield, growth response, and water use efficiency of direct wet-seeded rice as affected by nitrogen rates under alternate wetting and drying irrigation system, Communications in Soil Science and Plant Analysis, DOI: 10.1080/00103624.2018.1526942
- 19. **Khairul Alam Bhuiyan** & Gazi Jashim Uddin Ahmed,. (2010). Performance of mefenacet+bensulfuron methyl 53% wp against weed suppression in transplanted paddy. Pak. J. Weed Sci. Res. 16 (2): 181-187
- 20. M K A Bhuiyan, A K M S Islam, M A R Sarkar, M A A Mamun, M U Salam and M S Kabir. 2021. Agronomic Management and Interventions to Increase Rice Yield in Bangladesh. Bangladesh Rice J. 24 (2): 135-155, 2020, doi.org/10.3329/brj.v24i2.53453

- **21. M K A Bhuiyan**, M U Salam and M S Kabir. 2021. Integrated Weed Management Strategies for Sustainable Rice Production in Bangladesh. Bangladesh Rice J. 24 (2): 157-184, 2020, doi.org/10.3329/brj.v24i2.53454
- 22. Mamun.M.A.A., R.Sultana,S.A. Islam, M.A. Badshah, **M.K.A. bhuiyan** and A.J.Mridha. 2011. Bio efficacy of bensulfuron methyl+ pretilachlor 6.6% gr against weed suppression in treanplanted rice. Bangladesh. Bangladesh J. Weed Sci. 2(1&2):9-13
- 23. Ahmed, G.J.U., A. J. Mridha, M.K.A. Bhuiyan, C.R. Riches and M. Mortimer 2003.Effect of different weed management systems on weed control, plant growth and grain yield of lowland rice. In proceedings of the nineteenth Asian- Pacific weed science society conference.17-21 March, Manila, Philippines.84-92P
- 24. Ahmed, G.J.U., M.K.A. Bhuiyan, C.R. Riches, M. Mortimer and D. Johnson, 2005. Farmers participatory studies of integrated weed management systems for intensified lowland rice. In proceedings of the 20th Asian-Pacific weed science society conference.07-11Nov, Ho-Chi-Minh city, Vietnum.524-528P
- 25.G.J.U. Ahmed, **M.K.A. Bhuiyan** ,C.R. Riches and J. A. Begum.2007. Weed management practices in lowland rice for increasing productivity and farm incomes in rice cultivation. Intl. J. BioRes. 2(4):29-33
- 26. Mamun Md. Abdullah Al, Rakiba Shultana, **M.K.A. Bhuiyan**, A.J. Mridha and A. Mazid.2011. Economic weed management options in winter rice. Pak. J. Weed Sci. Res. 17(4):323-331
- 27. Chowdhury M.J.U., **M.K.A. Bhuiyan**, M.S.Islam and M.A.Wadud.2003.Effect of planting method and type of laborer on the productivity of rice and labor utilization. J.Sci.Tech.1:59-64P
- 28. Islam, M. S., **M. K. A. Bhuiyan** and M. J. U. Chowdhury 2004. Effect of younger seedling and planting density on the growth and yield of rice planted in system of rice intensification (SRI) method. Bangladesh journal of Agricultural Sciences.Vol.31, No. 1: 105-110P
- 29. Islam, M.Sh., M.A. Mazid, M.S.Alam, N. Ferdous and **M.K.A. Bhuiyan**.2003. Biophysical and Socio-Economic Scenario of the High Barind Farms: A Study of Farmers' Perceptions with Emphasis on Rice.J Agric Rur Dev 1(1), 69-76P
- 30..Rashid M.M., M. Mofazzel Hossain, M.Z. Alam, M. Ibrahim and **MKA Bhuiyan**. 2003.Seasonal aboundance and control of spiraling whitefly, *Aleurodicus disperses* russel on guava.Pakistan journal of biological science 6(24):2050-2053P
- 31. Ferdous A.K.M., Q. A. Khaliq, M. Moynul Haque, A.J.M. Sirajul Karim and **MKA Bhuiyan**,2004. Effect of nitrogen fertilizer on growth, nitrogen and phosphorus uptake and yield in edible podded pea. Bangladesh Agronomy journal.10(1&2): 133-140P

- 32. Naher S., J. A. Begum and M. K. A.Bhuiyan and M. K. A. Bhuiyan .2007.Integrated control of seedling mortality of bush bean caused by *Rhizoctonia Solani*.Intl. J.BioRes. 3(1):50-57
- 33.Naher S., J. A. Begum and M. K. A. Bhuiyan and M. K. A. Bhuiyan.2007.Integrated control of seedling mortality of bush bean (*phaseolus vulgaris*) caused by Sclerotium Rolfsii.Intl. J. BioRes.3(2):54-60
- 34. Begum J.A., Khurshed Alam Bhuiyan, Ismail Hossain Mian, Ranjit Kundu and **MKA Bhuiyan.**2005.Effect of sources of nutrients on growth and sporulation of *Trichoderma harzianum*.Bangladesh J. Agril. Res. 30(4): 651-659
- 35. Mridha. J.A., K.M. Iftekharuddaula, M.S. Zahan, **M.K.A. Bhuiyan** and A. Bagi. 2010. Submergence tolerant rice varieties and their management option for Northwestern region of Bangladesh. Bangladesh Agronomy journal.13 (1&2): 111-116.
- 36. Islam S.A., M.A. Mannan, **M.K.A. Bhuiyan.**, F. Khatun and M.A.J. Mridha. 2010. Influnce of late planting on growth and yield of Transplanted Aman rice. Bangladesh Agronomy journal.13(1&2): 111-116.
- 37. Mannan M.A., M.S.U. Bhuiyan, M.I.M. Akhand, **M.K.A. Bhuiyan**, and M.M Rana. 2012. Performance of photoperiod sensitive modern aeromatic rice varieties as influenced by planting dates in boro season. Agronomy journal 15(2): 29-36
- 38. Rana M.M., M.A.A. Mamun, M.I.M. Akhand, **M.K.A. Bhuiyan**, and M.A.J. Mridha. 2012. Weed control in transplanted rice: Efficacy of Fenoxaprop-P-Ethyl. Bangladesh J. Weed Science. 3(1& 2): 53-58.
- 39. M. A. A. Mamun, R. Shultana, S. A. Islam, **M. K. A. Bhuiyan** and A. J. Mridha. 2012. Efficacy of metsulfuron-methyl 20% WDG in controlung weeds in transptanted rice. Agron. J. 2012, 15 (1): 17-23
- 40. Amina Khatun, Md. Khairul Quais, Hasina Sultana, **MD. Khairul Alam Bhuiyan** and Md. Abu Saleque.2015. Nitrogen Fertilizer Optimization and Its Response to the Growth and Yield of Lowland Rice. Research on Crop Ecophysiology .Vol. 10/2, P: 1-16
- 41. R Shultana, MAA Mamun, L Naher, **MKA Bhuiyan** and AJ Mridha 2015. Response of Nerica rice to nitrogen fertilization.Bangladesh Agronomy Journal.vol.18(2).P:9-14.
- 42. M. M. Mahbub, M. I. M. Akhand, **M. K. A. Bhuiyan**, B. J. Shirazy. 2017. Practice of Sustainable Rice Production by Weed Management. Sch. Bull.; Vol-3, Iss-7:292-296
- 43. MA, Hossen , AKM Saiful Islam, MK Zaman, A. Khatun, MA Alam and **MKA Bhuiyan** .2017.
 - Mechanical deep-placement of urea fertilizer with a prilled urea applicator saved fertilizer and increased yield for long duration wet land rice variety. BJPST: 15(2): 025-030

- 44. Amina Khatun1, **M. K. A. Bhuiyan**, A. B. M. Mostafizur, M. S. U. Bhuiya and M. A. Saleque. 2018. Nitrogen Uptake Dynamics and Dry Matter Production of Rice in Response to Nitrogen Fertilizer Application. Journal of Food Science and Engineering 8 (2018) 35-45
- 45. Mahbub.M. M. and **M. K. A. Bhuiyan**. 2018. Performance of Bensulfuran methyl 12% + Bispyribac sodium 18% WP against annual weeds in transplanted rice (Oryza sativa) cultivation in Bangladesh. Scientia Agriculturae.21 (3): 85-92
- 46. M. M. Mahbub1, M. K. A. Bhuiyan and M. M. Mir Kabir. 2017. Performance of Metsulfuron Methyl 10% + Chlorimuron Ethyl 2% WP Against Annual Weed Inhibition in Transplanted Rice.doi. Haya: Saudi J. Life Sci.; Vol-2, Iss-8:298-305
- 47. S Islam A K M, M A Hossen, **M K A Bhuiyan**, M M Islam and M A Rahman. 2018. Performance of Weeder in Mechanically Transplanted Rice Cultivation. Bangladesh Rice J. 22 (1): 25-34,
- 48. Kabir M S, M U Salam, A K M S Islam, M A R Sarkar, M A A Mamun, M C Rahman, B Nessa, M J Kabir, H B Shozib, M B Hossain, A Chowdhury, M Nasim, K M Iftekharuddaula, M S Hossain, **M K A Bhuiyan**, B Karmakar, M S Rahman, M M Haque, M T Khatun, M P Ali, S M H A Rabbi, P L Biswas, E S M H Rashid and N M F Rahman. 2020. Doubling rice productivity in Bangladesh: A way to achieving SDG-2 and moving forward. *Bangladesh Rice Journal*, 24(2)

b. List of Books

- 1. Ahmed GJU, **M.K.A. Bhuiyan**,C.R. Riches, M. Mortimer.2006.Weed Identification and Management in rice.Pub. No. 167.First edition. Published by BRRI, Gazipur
- 2. Mustafi BAA, MA Salam, GJU Ahmed, DNR Paul,M Hossain......and **MKA Bhuiyan** 2007.Adhunik Dhaner Chas. Pub. No. 05. 13th edition, Published by BRRI, Gazipur
- 3. Ahmed GJU, **M.K.A. Bhuiyan.**2008.Dhan Chaser Samossha (Weed part). Pub. No.08.Third edition. Published by BRRI-IRRI collaboration, Gazipur
- 4. MA Kashem, **MKA Bhuiyan**, M Nasim, M sk.shamiul Haque, MA Latif, Avjeet Saha, M IU Mollah and KP Halder.2017. Boro dhaner chas poddoti o babostapona . Publication no. 239.Bangladesh Rice research institute.Gazipur.
- 5. AKM Saiful Islam, M Anwar Hossen, **MKA Bhuiyan**, M Monirul Islam and M A Rahman. Weed management in mechanically transplanted rice.2017. Publication no. 224. Bangladesh Rice Research Institute, Gazipur, Bangladesh

c. List of Book chapter

1. Bhuiyan, M K A, A K M S Islam, M A R Sarkar, M A A Mamun, M U Salam and M S Kabir. 2020a. Agronomic management and interventions to increase rice yield in Bangladesh. *In*: Doubling rice productivity in Bangladesh, M S Kabir, M U

- Salam, A K M S Islam, M A R Sarkar and M A A Mamun (Eds.). Bangladesh Rice Research Institute, Gazipur-1701, Bangladesh, 193-218.
- 2. Bhuiyan, M K A, M U Salam and M S Kabir. 2020b. Integrated weed management: Strategies for sustainable rice production. *In*: Doubling rice productivity in Bangladesh, M S Kabir, M U Salam, A K M S Islam, M A R Sarkar and M A A Mamun (Eds.). Bangladesh Rice Research Institute, Gazipur-1701, Bangladesh, 219-258.

d.List of Monographs

- 1.Ahmed, G.J.U, **M. K. A Bhuiyan**, M.A Badsha, and ,2002. Research Achievement of weed control project "Developing Weed Management Strategies For Rice Based Cropping System in Bangladesh". Comilla and Gazipur site,NRI-BRRI-IRRI.
- 2.Ahmed G.J.U., J.C. Biswas, B.C. Roy and **M.K.A. Bhuiyan**,2005.System of Rice intensication(SRI): Its problems and prospects in rice production.Agronomy Division, BRRI.
- 3. Ahmed G.J.U., M.A.Majid,M.A.Jabber, **M. K. A Bhuiyan**...2002, Final technical report on "Developing Weed Management Strategies for Rice- Based Cropping Systems in Bangladesh" NRI, Uk.
- 4. Ahmed G.J.U., M.A.Majid, M.A.Jabber, M. K. A Bhuiyan...2005. Promotion of Cost effective Weed Management Practices for Lowland Rice In Bangladesh." NRI, Uk.
- 5. Ahmed G.J.U, **M. K. A Bhuiyan and MRA sarker.** Weed Management Research and Technology Development at BRRI(1974-2004). Agronomy Division, BRRI, Gazipur.

e. List of/leaflet/ bulletins

- 1. Mazid M.A., M.Sh., Islam, **M. K. A Bhuiyan**., Nilufa Ferdous, S.K. Chakrabarty, and Dilruba Begum.2000.Stakeholder Analysis Report High Barind Area, Rajshahi.BRRI-IRRI.
- 2. Riches, C.R., G.J.U Ahmed,, M.A. Badsha, and M.K.A. Bhuiyan, (2002) Herbicide Adoption in Comilla District, Bangladesh.Working paper, BRRI, Gazipur; NRI, Chatham, UK.
- 3. Ahmed, G.J.U, **M. K. A Bhuiyan**, M.A Badsha, A. Latif, C.R Riches., M. Mortimar.2002. "Nibir Dhan Chaese Karjakorivabha Agacha Daman" NRI-BRRI-IRRI.
- 4. Ahmed, G.J.U, **M. K. A Bhuiyan**, M.A Badsha, A. Latif, C.R Riches., M. Mortimar. 2002. "Dhan Kheta Agacha Daman" NRI-BRRI-IRRI.
- 5. Ahmed, G.J.U, M.A. Jabbar, M.G.Ali and **M. K. A Bhuiyan**, 2003. "Chara Nikhapan Paddutita Dhan Chas". BRRI, Gazipur.

- 6. **Bhuiyan MKA**,Iftekhar M Akand, Masud Rana, Jakaria Ibne Baki and M. Mahbub. 2017. Somonnito agacha babostaponar madhome dhaner agacha domon. Pub no. 225. Bangladesh Rice Research Institute.. Gazipur 1701
- 7. Iftekhar M Akand, **MKA Bhuiyan**,S.Asadul Islam, Masud rana,Zakaria Ibne Baki and M. Mahbub. 2017.Bangladesher daxin purbanchole (pirojpur, Gopalgonj and Bagertah) dhaner utpadon briddhir jonno guti urear babohar.pub. no. 226. Bangladesh Rice Research Institute.. Gazipur 1701
- 8. Iftekhar M Akand, MKA Bhuiyan,S.Asadul Islam, Masud rana,Zakaria Ibne Baki and M. Mahbub. 2017.Pat-Bona aman sathe fosoler krishitattik babostapona.Pub no. 227. Bangladesh Rice Research Institute.. Gazipur 1701
- 9. Iftekhar M Akand , MKA Bhuiyan,S.Asadul Islam, Masud rana,Zakaria Ibne Baki , M. Mahbub and MM Ali. 2017.Ogovir jolamogno sohonshil dahner sathe somonnito mas chas gopalgonj onchole potit-potit soshsso bissashe somvobonamoy projucti.Pub. no. 228. . Bangladesh Rice Research Institute.. Gazipur 1701
- 10. M. Ibrahim. MKA Bhuiyan and M.Nasim. 2017.poribortito sorjan poddite lavjonok sobji chas. Pub. No. 229. . Bangladesh Rice Research Institute.. Gazipur 1701
- 11. M. Ibrahim. MKA Bhuiyan and M.Nasim. 2017.Bangi- mushor antofashol ekti lavjonok podditi. Pub. No. 230. Bangladesh Rice Research Institute.. Gazipur 1701
- 12. Sahana Parveen, T. Islam and MKA Bhuiyan. 2017. Secher pani sassorye poddite dhan utpadon. Pub.no. 231. Bangladesh Rice Research Institute.. Gazipur 1701
- 13. Sahana Parveen, T. Islam and MKA Bhuiyan. 2017. Chekvalbe sonjojoner maddome ogovir nulkop priming sommasha durikoron. Pub. No. 232. Bangladesh Rice Research Institute.. Gazipur 1701
- 14. Jamil Hasan, Ashish Kumar Paul, Priyalal Biswas, Kamal Hossain, Umme Kulsum, Afsana Ansary, Anwara Aktar Hafizar Rahman and MKA Bhuiyan. 2017. BRRI hybrid dhaner chasabad poddoti. Pub. No. 233. Bangladesh Rice Research Institute.. Gazipur 1701
- 15. Kazi Shirin Akter Jahan, MA Latif, Ahsanul Haque, MKA Bhuiyan and MA Ali. 2016. Dhaner khulpora rogdomone krishoker koronio. Bangladesh Rice Research Institute.. Gazipur 1701
- Kazi Shirin Akter Jahan, MA Latif, M Haque.MM Ali A. Mansur and MKA Bhuiyan. 2017.Pub. no. 234. Tricocompost proyog kore dhaner khulpora rog domon.
- 17. Shah Asadul Islam, Adil Badshah, Md. Khairul Alam Bhuiyan. Md. Abu Bakkar Siddiki Sarker and Md. Shahidul Islam.2020. Boro Dhaner Chas poddoti o

krishitattik babostapona. Pub no. 312. Bangladesh Rice Research Institute.. Gazipur 1701

f. List of workshop proceedings

- 1.Ahmed GJU, **M.K.A. Bhuiyan**,C.R. Riches, M. Mortimer and D. Johnson, 2005.Farmer's participatory studies of integrated weed management systems for intensified lowland rice. In proceeding of the 8th biennial agronomy convention. Shere-e- Bangla Agricultural University, Dhaka. 26th May 2005.
- 2. Ahmed GJU, M.K.A. Bhuiyan, A. J. Mridha, M.S. Hasan, M.A. Badshsh and M.A.Latif 2005. Weed Management strategies for rice based cropping system in Bangladesh. In proceeding of the workshop on Planning for dissemination of effective and economic weed management system for lowland rice in Bangladesh .Comilla ,14th March

g. Popular Article:

- 1. Ahmed GJU and **M.K.A. Bhuiyan**, 2005. Ropa Dhane Karja kor Agacha Domon. Dhan Gubeshana Samachar.1st edition. Ashar-Kartik. 1412.
- 2. **MKA Bhuiyan.2009.** Aman Dhaner Agacha domon. The daily Gugantar. 1st October, Thusday, 2009

h. Abstract of scientific papers

- 1. **Bhuiyan MKA**, MAJ Mridha, SA Islam and GJU Ahmed.2010.Competitive ability of Rice cultivers against weed suppression in wet seeded boro rice. Abstract In Int. conference on Crop production under changing climate in Bangladesh: Agronomic Options. 6-7 october, BARC, Farmgate, Dhaka. p- 24
- 3. S A Islam, M A A Mamun, **M K A Bhuiyan**, R Shultana and M A J Mridha. 2010. Evaluation of Bispyribac-sodium for Weed Control in Transplanted Rice. Abstract submitted for WSSB annual conference held at SAU, Dhaka. 01 January, 2011
- 4. MAA Mamun, R. Shultana, MKA Bhuiyan, L. Nahar and MAJ Mridha 2015. Impact of herbicide application on weed growth and community composition in a double rice cropping pattern. Abstract in 5th conference of weed science society of Bangladesh, 16th May, BARC, Farmgate, Dhaka.P- 68
- 5. R. Shultana, MAA Mamun, MKA Bhuiyan, L. Nahar and MAJ Mridha Study on weed seed bank dynamics in rice fellow-fellow and rice fellow-rice cropping pattern. Abstract in 5th conference of weed science society of Bangladesh, 16th May, BARC, Farmgate, Dhaka.P- 68.
- 6. M M Rana, S A Islam M Z I Baki, M K A Bhuiyan, L Nahar, M A Rahman and M A J . Mridha. 2014. Use of mixed rice husk and bran as tray media for raising rice seedling in boro season. Bangladesh rice research abstract 2014. P 49
- 7. **M K A Bhuiyan**, M A J Mridha, M M Rana, S A Islam, S Singh, U S Singh and M A Bari. 2014. Nitrogen management for salt tolerant rice varieties in coastal saline region of Bangladesh. Bangladesh rice research abstract 2014. P 50

i. Paper presentation in a seminar/ Workshop

- 1. **MKA Bhuiyan**, 2021. Eco friendly weed management techniques in rice production. 14 March, 2021; BRRI, Sunday seminar
- 2. **MKA Bhuiyan,** A. Saha, MM Alam, V Kumar and S Singh. 2019. Weed management in rice in Bangladesh:Screening of rice varieties for weed competitiveness. Paper present in the workshop on "Enhancing resilience and productivity of rice-based system through precision agronomy, machine learning, and ICT based tools". 24-26 August, Hotel Taj, Chandigarh, Punjab, India
- 3. MKA Bhuiyan, A Saha, SK Srivastava and S Singh. 2018. Best management practices of drought tolerant varieties. Paper presented in review and planning workshop at, NASC, Pusa Campus, New Delhi, India. 04 May, 2018.
- 4. **MKA Bhuiyan,** MAJ Mridha, GJU Ahmed ,SA Islam, R Sultana and MM Rana . 2015. Weed management research at BRRI- retrospect and prospect. Paper presented in the 5th conference of weed science society of Bangladesh. 24 May 2015, BARC.Farmgate Dhaka.
- 5. **MKA Bhuiyan,** S.S. Kakon, A.A.Begum, S.K.Paul R.R. Saha,MAK Mian⁷ M.M Islam and MS Hossain⁷ 2018. Weed Management in Bangladesh: Present Status and Future Needs. Key note Paper presented in the 6th conference of weed science society of Bangladesh. 12 May 2018, BRRI, Gazipur
- 6. MKA Bhuiyan, AJ Mridha, GJU Ahmed, Rakiba Sultana and Jinnat Ara Begum. 2011. Performance of chemical weed control in direct wet seeded rice culture under two agroecological conditions of Bangladesh. Paper presented in the conference of weed science society of Bangladesh. 1st January 2011, Sher-e-Bangla Agricultural University. Dhaka
- 7. **MKA Bhuiyan.** 2020. Climate Smart Rice Production Technologies in Bangladesh.Paper presented in International Web-Conference On "Climate Smart Agriculture for Sustainable Food and Nutritional Security (CSASFNS-2020). 10-11th July 2020 Venue: online mode (Google meet)
- 8. **M. K. A. Bhuiyan** Romana Akter and U. A. Naher 2018. Effect of herbicides on soil microorganisms in transplanted rice in rice rice cropping system. Paper presented in 5th international rice congress. Maria Bay Sands Expo and Convention Center, Singapore .15-17 October 2018.
- 9. **MKA Bhuiyan**, MAJ Mridha, SA Islam and GJU Ahmed. 2010. Competitive ability of rice cultivars against weed suppression in wet seeded boro rice. Paper presented in the 9th biennial conference of Bangladesh Society of Agronomy. October 6~7, 2010. Venue: BARC Auditorium, BARC, Farmgate, Dhaka 1215
- 10. M.K.A. Bhuiyan, L. Nahar, M.M. Mahbub, R.Shultana, M.A.J. Mridha, M.A. Rahman and Md. Kamruzzaman. 2015. Yield response and nitrogen use efficiencies of modern Boro varieties using BRRI USG and prilled urea applicator. Paper presented in the 14th

conference of Bangladesh Society of Agronomy. September25-26, 2015. Venue: BARC Auditorium, BARC, Farmgate,, Dhaka 1215

j. Conducted In house training

No.	Name of the Topic	Date	venue	Participants/
				remarks
1.	Agronomic constraints of rice	27.06.21	Agronomy	All agronomist
	production in farmers level and its		div., BRRI	
	remedy			
2.	Rice growth stage wise agronomic	27.05.21	Agronomy	All agronomist
	management		div., BRRI	
3.	Fate of herbicides on soil	23.11.20	Agronomy	All agronomist
	microorganisms in transplanted rice in		div., BRRI	
	rice – rice cropping system			
4.	Agronomic data collection and	29.10.19	Agronomy	All agronomist
	procedure		div., BRRI	
5.	Lodging management of BRRI	24.09.18	Agronomy	All agronomist
	varieties		div., BRRI	
6.	Rice weed control with new	14.11.18	Agronomy	All agronomist
	Molecule herbicide		div., BRRI	

Section F

On-farm research experience

1) Development of weed management strategies for lowland rice in Bangladesh(2000-2003):

This project activity was undertaken in the year of 2000 and completed in 2003.I was engaged in this project from 2001. Natural Resource Institute (NRI), IRRI and BRRI were partners in implementing research in the farmer's field. Dr. Charlie Riches from NRI, Dr. Mortimer from IRRI, and me involved in the Research Project in Comilla site of Bangladesh. The project was funded by DFID.

The following Research program was undertaken:

- •Study of yield loss due to weeds and its socio-economic impact in intensive rice growing system (Boro-fallow-T.Aman and Boro-T.Aus -T.Aman pattern) at Comilla region.
- •Study of competitive rice cultivar to select weed competitive rice cultivar. Local and exotic cultivars were tested on-station and on-farm.
- •Study of improved weed management option in Comilla for effective and economic weed control.
- •Identification and preservation of important noxious weed of rice Comilla region.
- •On-farm demonstration of weed control options in the farmer's field for adoption weed control technology.

Other activities:

- •Arrangement of farmer's training in 4 Thanas of Comilla district.
- •Arrangement of field days to demonstrate the technology for the greater farming communities in the Comilla district.
- •Arrangement of workshop with the participation of department of Agril.Extension (DAE), NGO, private sector, herbicide companies, representative from farmer organizations and project area farmers.

Achievements:

- (i) Yield loss due to weeds under existing weed control practice were determined. Yield grain due to weed control were also ascertained. Farmers dependent of higher migrant labor were observed. Farmer shortage of cash money were found. Moreover weeding cost showed increasing trend.
- (ii) The herbicides Pretilachlor oxadiazon, butachlor were found promising in testing of weed control option. BRRI weeder was also found effective and economical in weed control.
- (iii)The promising weed control options were tested in the farmer's field and found effective and economic weed control.
- (iv)Exotic cultivars WITA4 and WITA12 (West African origin) and local cultivar were found effectives in suppression weed.
- (v)Two leaflets about proper weed control and use of herbicides were published and circulated in the greater farming Communities at Comilla region.
- (vi)The project was successfully completed with the participation of Breeder, Agronomist and socio-economic of BRRI. Good partnership among NRI (Dr. C.R. Riches, Dr. A. Orr) and IRRI (Dr. M. Mortimer, IRRI, Weed Ecologist) and BRRI (Bangladesh Rice Research Institute) helped to achieve the goal of the project.

2. Promotion of cost-effective Weed management practice for lowland rice in Bangladesh (2003-2006):

worked as project scientist of this project at Comilla site, Bangladesh. The project was funded by DFID, UK and implemented in collaboration with NRI, UK and initiated in 2003 and completed in 2006. The research work was done in 4 Thanas involving huge number of farmers.

The following research work was completed:

- Farmer validation of weed control options in relation to water management
- Up-scaling of farmer assessment/demonstration of improved weed control options.
- Developing the role of private sector/NGO likes in provision of information to farmer.
- Modeling impact of promotion of improved rice weed management

Achievement

- (i) Successfully completed the studies in the farmer's field.
- (ii) Arranged training of farmer and pesticide dealers and discussion meeting with farmer.
- (iii) Developed communication material like poster, leaflets booklets for improved weed management practice for the farmer.

3. Work as project director of Pirojpur- Gopalgonj- Bagerhat integrated Agricultural Development Project .

Achievements:

- Validate improve weed management technologies and reduced weed management cost 8000-9000 tk./ha
- In single crop area of southern district (Rice –fellow-fellow) reduced weed management cost 15000- 17000tk./ha
- Developed fertilizer management of rice in peat soil of Gopalgonj area
- Develop and validate Jute-aman intercropping in pirojpur- Gopalgonj and Bagerhat area
- Dissemination and adaptation BRRI latest varieties including hybrids in the commanded area
- Develop profitable cropping systems in Pirojpur Gopalgomj and Bagerhat area.

Section G

Experience in working in multidisciplinary and multicultural environment:

(Worked with many International reputed scientists)

- I worked with Dr. Charlie Riches, Scientist NRI, UK. and Dr. M. Mortimer, weed Ecologist IRRI Philippines from 2000-2003 with project entitled "Development of weed management strategies for lowland rice in Bangladesh" BRRI, IRRI and NRI successfully cooperated for the completion of the project. We planned experiments, analyzed data, worked in the farmer's field, organized workshop and made final report.
- Worked with Dr. Charlie Riches, Dr. Marteen Martimer Dr. D. Johnson, scientists of NRI and IRRI as a project scientist with a project entitled. "Promotion of cost-effective weed management practice for lowland rice in Bangladesh". The project was completed in 2006. One NGO, namely SAFE and private company, Syngenta worked as partner in the project.
- Worked with Dr. Sudhanshu Singh, rainfed agronomist. IRRI in a DFID funded project "Improved rice crop management for raising productivity in submergence-prone and salt affected rainfed lowlands in South-Asia" at Barisal and Patuakhali site from 2011-2014 regarding dessimination and adoption of suitable rice technologies.
- Working with Dr. Virend Kumar, weed scientist, IRRI in CSISA project about weed management technologies adaptation and dissemination in south-east region of Bangladesh

Section H

1. Research Project(s) Building, working and Execution:

Name of Research project	Project funded	Year	Implementation	Remarks
(developed)	Туре			
1. Developing weed	IRRI-BRRI-	2000-2003	Completed	Worked as a
management strategies for rice	DFID			project scientist
based cropping system in				
Bangladesh.				
2.Promotion of cost effective	IRRI-BRRI-	2003-2006	Completed	Worked as a
Weed management Practices	DFID			project scientist
for Lowland Rice in				
Bangladesh(BRRI-IRRI-NRI)				
	IRRI-	2011-2013	Completed	Worked as
for raising productivity in	STRASA			co-PI of the
submergence-prone and salt				component project
affected rainfed lowlands in				
South-Asia"(IRRI-STRASA				
project)				
4.Pirojpor-Gopalgonj- Bagerhat	GOB	2013-	Completed	Worked as
Agriculturai, integrated		2017		project director
development project(GoB)				
5.Improved crop management and	IRRI-EC-		Completed	Worked as
strengthened seed supply system	IFAD			co-PI of the
for drought prone rainfed lowlands		2014-		project
in South Asia(EC-IFAD and		2019		
IRRI)				
6. The Cereal Systems Initiative	IRRI-BRRI-	2018	Till date	Working as "
for South Asia (CSISA)- phase	CIMMYT			Rice weed
111				science
				specialist"
7. Agrometerology information	GOB-World	2019-2020	Completed	Worked as
system development project	bank			agronomist
AMISDP (BRRI Part)				

Section I

Participation in technology transfer systems, monitoring and evaluation

1. List of participation in technology transfer system

- Participation in seed production and multiplication program of BRRI popular varieties through SPDP program
- Participation in radio talk about weed management in rice production

- Arrange field day among the farmers, Extension workers to disseminate the sustainable technology in rice production
- Work as a resource speaker in the farmers' and extension workers training at field level regarding Weed Management and modern technique of Rice production
- Conduct on- farm research in the farmers field about agronomic management and economic weed management in rice production
- Farmers training about modern rice production technology in upozilla level
- Resource speaker of Weed Management and modern technique of Rice production for scientist, extension personnel's and farmers

2. Monitoring/Evaluation:

- Participate as a member of field monitoring and evaluation team of PRA for evaluating need based research programme at different thanas of Rajshahi district
- Monitoring and evaluation and give suggestions, advice to the farmers in relation to rice production technologies in Gazipur district
- Monitoring and evaluation of Weed Management status in the farmers field in different districts of Bangladesh.
- Evaluated herbicide adoption in Comilla ,Faridpur and Barisal district
- Monitoring the pattern of weed population distributed in Comilla and Faridpur district.
- Monitoring weed management technologies adaptation in different district of Bangladesh
- Monitoring and evaluation of rice production activities in the farmers field and give suggestions and solutions of problems

Section J

Member of the following society

- i) Life Member of Agronomy Society
- ii) Life Member of Weed Science Society of Bangladesh(WSSB)
- iii) Life member of Krishibid Institution of Bangladesh(KIB)

Section K

Achieved weed science award 2017 from weed science society of Bangladesh for outstanding contribution on weed science research and management

I certify that all information stated in this resume is true and complete to the best of my knowledge.

Dr. Md. Khairul Alam Bhuiyan Principal Scientific Officer Agronomy division BRRI, Gazipur-1701