

## Dr. Mduhammad Abdus Sobahan -----



### Assistant professor (Agriculture)

School of Agriculture and Rural Development (SARD)  
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### Area of Specialization and Research Interest

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Bioscience, Salt tolerance mechanism, Environmental stress tolerance, Crop diversification and production, Plant physiology and adaptation.

### Education Qualification

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- 2009-2012** Research Fellow, Bioscience, Graduate School of Environmental and Life Science, Okayama University, Japan.
- 2006- 2009** Doctor of Philosophy, Bioscience, Graduate School of Environmental and Life Science, Okayama University, Japan. Grade A.
- 2000-2001** Master of Science in Agronomy. Bangladesh Agricultural University (BAU), Mymensingh. First class.
- 1991-1995** Bachelor of Science in Agriculture, Major- Agriculture. BAU, Mymensingh. First Class.
- 1991** Higher Secondary School Certificate, Science, Tejgaon College, Dhaka. Second Division.
- 1989** Secondary School Certificate, Science, Dhaka Board, First Division.

### Professional Experience

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- 2013 ~ to date: **Assistant Professor (Agricultural)**, SARD, BOU, Gazipur-1705.
- 2002 ~ 2006: **Research Officer**, North West Crop Diversification Project (NCDP), Department of Agricultural Extension, Government of Bangladesh and Asian Development Bank.

### Selected Publications (up to 10)

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- 1) **Sobahan, M. A.**, Anwer, M. P., Islam, M. M., Islam, M.A., Effect of number of seedlings and spacing on the yield of hybrid rice variety Sonar Bangla-1. Bangladesh J. Environmental Science, 9, 132-137 (2003). **Bangladesh.**
- 2) **Sobahan, M. A.**, Arais, C. R., Okuma, E., Shimoishi, Y., Nakamura, Y., Hirai, Y., Mori, I. C., and Murata, Y., Exogenous proline and glycinebetaine suppress apoplastic flow to reduce Na<sup>+</sup> uptake in rice seedlings. Bioscience, Biotechnology and Biochemistry, 73, 2037-2042 (2009). **Japan.**
- 3) Akter, N., **Sobahan, M. A.**, Hossain, MA., Uraji, M., Nakamura, Y., Mori, I. C., and Murata, Y., The involvement of intracellular glutathione in methyl jasmonate signaling in *Arabidopsis*. Bioscience, Biotechnology and Biochemistry, 74, 2504-2506 (2010). **Japan.**
- 4) **Sobahan, M. A.**, Akter, N., Ohno M., Okuma, E., Hirai, Y., Mori, I. C., Nakamura, Y., Murata Y., Effects of exogenous proline and glycinebetaine on salt tolerance of rice cultivars. Bioscience, Biotechnology and Biochemistry, 76, 1568-1570 (2012). **Japan.**
- 5) Akter, N., **Sobahan, M. A.**, Uraji, M., Ye, W., Hossain, M. A., Mori, I. C., Nakamura, Y., and Murata, Y., Effects of depletion of glutathione on abscisic Acid- and methyl jasmonate-induced stomatal closure in *Arabidopsis*. Bioscience, Biotechnology and Biochemistry, 76, 2032-2037 (2012). **Japan.**
- 6) Akter, N., Okuma, E., **Sobahan, M. A.**, Uraji, M., Shintaro, M., Nakamura, Y., Mori, I. C., and Murata, Y., Negative regulation of methyl jasmonate-induced stomatal closure by glutathione in *Arabidopsis*. J. of Plant

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Growth Regulation, 32, 208-215 (2013). **USA**.

- 7) **Sobahan, M. A.**, Akter, N., Okuma, E., Uraji, M., Mori, I. C., Yoshimasa Nakamura, Y., Murata Y., Allyl isothiocyanate induces stomatal closure in *Vicia faba*. *Bioscience, Biotechnology and Biochemistry*, 79, 1737-1742, (2015) **Japan**.
- 8) Chowdhury, S. Z., **Sobahan, M. A.**, Shamim, A. H. M., Akter N., and Hossain, M. M., Interaction effect of phosphorus and boron on yield and quality of lettuce, *Azarian Journal of Agriculture*, 2, 147-154 (2015) **Iran**.
- 9) Alam, M.M., **Sobahan, M.A.**, Akter, N., and Hossain, I., An investigation on disease incidence, grain yield and quality of BRR1 Dhan29 in Bangladesh. *International J. of Applied Sciences and Biotechnology*, 4, 311-317 (2006). **Nepal**.
- 10) **Sobahan, M. A.**, Akter, N., Murata, Y., Munemasa, S., Exogenous proline and glycinebetaine mitigate the detrimental effect of salt stress on rice seedlings, *Silpakorn University Science and Technology Journal*, 6821/3675 (2016). **Thailand**.

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#### Major Academic and/or Administrative Responsibilities/Duties

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- **Publishing, Printing & Distribution coordinator**, SARD, BOU, Gazipur- from 26/08/2015 to date
- **Member of School Committee**, SARD, BOU, Gazipur- from 26/05/2015 to date

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#### Conferences Proceedings

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- 1) **Muhammad Abdus Sobahan**, carlos Raul Arias, Shintaro Munemasa, Yoshimasa Nakamura, Yasuaki Shimoishi, Izumi C. Mori, and Yoshiyuki Murata. Effects of exogenous proline and glycinebetaine on bypass flow in rice seedlings under salt stress. *Japanese Society for Bioscience, Biotechnology and Agrichemistry*, 21th, C2, 24.5.2008 (Japan).
- 2) **Muhammad Abdus Sobahan**, carlos Raul Arias, Eiji Okuma, Shintaro Munemasa, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata. Effects of exogenous proline and glycinebetaine on antioxidant enzymes activity in rice seedlings. *Japanese Society for Bioscience, Biotechnology and Agrichemistry*, 23th, B-11, 24.1.2009 (Japan).
- 3) **Muhammad Abdus Sobahan**, carlos Raul Arias, Eiji Okuma, Yasuaki Shimoishi, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata. Exogenous proline and glycinebetaine improve salt tolerance via modulation of antioxidant enzymes activity in rice seedlings. *Japanese Society for Bioscience, Biotechnology and Agrichemistry*, 24th, C6, 23.5.2009 (Japan).
- 4) **Muhammad Abdus Sobahan**, carlos Raul Arias, Eiji Okuma, Shintaro Munemasa, Yasuaki Shimoishi, Yoshimasa Nakamura, Yoshihiko Hirai, Izumi C. Mori, and Yoshiyuki Murata. Effects of exogenous proline and glycinebetaine on apoplastic flow in rice seedlings under salt stress. *Bio-Science education to improve considering Things from a range of view points, COE of Okayama University, Okayama, Poster No.12, 2.3.2009* (Japan).
- 5) Nasima Akter, **Muhammad Abdus Sobahan**, Mohammad Anowar Hossain, Misugi Uraji, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata (2010). Glutathione functions in methyl jasmonate signaling in *Arabidopsis* guard cells. *Graduate School of Natural Science and Technology, Okayama University, P- 22, 30.07.2010* (Japan).
- 6) Nasima Akter, **Muhammad Abdus Sobahan**, Mohammad Anowar Hossain, Misugi Uraji, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata. Glutathione involves in methyl jasmonate signaling in *Arabidopsis* guard cells. *Bioactive Okayama 2010 International Conference on Biologically Active Substances. Okayama Prefectural University, 6<sup>th</sup>, P-16, 12.08.2010* (Japan).
- 7) Nasima Akter, **Muhammad Abdus Sobahan**, Mohammad Anowar Hossain, Misugi Uraji, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata. Involvement of intracellular glutathione in methyl jasmonate signaling in *Arabidopsis* guard cells. *Japanese Society for Bioscience Biotechnology and Agrichemistry, 28<sup>th</sup>, B-03, 25.09.2010* (Japan).
- 8) Nasima Akter, **Muhammad Abdus Sobahan**, Misugi Uraji, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata. Methyl jasmonate-induced stomatal closure along with intracellular glutathione in *Arabidopsis*. *Japanese Society for Bioscience Biotechnology and Agrichemistry, 30<sup>th</sup> A-07, 21.05.2011* (Japan).
- 9) Nasima Akter, **Muhammad Abdus Sobahan**, Misugi Uraji, Wenxiu Ye, Mohammad Anowar Hossain, Izumi C. Mori, Yoshimasa Nakamura, and Yoshiyuki Murata. Effects of depletion of glutathione on abscisic acid- and methyl jasmonate-induced stomatal closure in *Arabidopsis*. *Japanese Society for Bioscience Biotechnology and*

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Agrichemistry, 33<sup>rd</sup> C, 02.06.2012 (Japan).

- 10) Nasima Akter, **Muhammad Abdus Sobahan**, Eiji Okuma, Misugi Uraji, Shintaro Munemasa, Yoshimasa Nakamura, Izumi C. Mori, and Yoshiyuki Murata. Negative Regulation of Methyl Jasmonate-Induced Stomatal Closure by Glutathione in Arabidopsis. Bioactive Okayama 2012 International Conference on Biologically Active Substances (Food and Health). Okayama University, P-48, 13-14.09.2012 (Japan).

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#### **Recognition and Merit Awards**

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- Awarded JASSO Honors Scholarship from the Okayama University, Japan (2007 to 2008).
- Awarded Rotary Yoneyama Memorial Foundation Scholarship from Japan (2008 to 2009).

**(Dr. Muhammad Abdus Sobahan)**