

1. **Proposed Position for this Project** : **Horticulturist**
2. **Name of Person** : **Prof. Dr. Md. Arfan Ali**
3. **Date of Birth** : 22 November 1978
4. **Nationality** : Bangladeshi
5. **Membership of Professional Societies** :
 - Life Member of “Agriculturist (*Krishibid*) Institution of Bangladesh (KIB)” Khamarbari, Dhaka, Bangladesh.
 - Life Member of “Bangladesh Society for Horticultural Science”, BAU, Bangladesh.
 - Life Member of “Bangladesh Safe Food Efforts (B-Safe) Foundation
 - Member of “Bangladesh Association of Biotechnology (BABT)” Dep. of Biotechnology, BAU.
 - Member of “Bangladesh Green Roof Movement (BGRM)”, Dhaka, Bangladesh.
 - Member of “HORTEX Foundation”, Khamarbari, Dhaka, Bangladesh.
 - Member of Professional organization namely “The Teachers' Association of SAU, Dhaka.
6. **Education** :
 - **PhD in Horticulture (Postharvest physiology)**, Spring semester, 2018/2019, CGPA 4.64 (Excellence), King Abdulaziz University, Kingdom of Saudi Arabia
 - **MS in Horticulture**, July-December 2005, First (1st) Class First, Department of Horticulture, Sher-e-Bangla Agricultural University (SAU), Dhaka, Bangladesh
 - **Bachelor of Science in Agriculture [B. Sc. Ag. (Hon's)]**, 2000 (held in 2003), First (1st) class, Sher-e-Bangla Agriculture University (SAU), Dhaka, Bangladesh
 - **Higher Secondary School Certificate (H.S.C) Examination**, 1995, First (1st) Division, Dinajpur Govt. College, Rajshahi Board, Bangladesh
 - **Secondary School Certificate (S.S.C) Examination**, 1993, First (1st) Division, Balarampur High School, Atoary, Panchagar Rajshahi Board, Bangladesh
7. **Training and conference** :
 - Training on strengthening Nutrition and food security through agriculture development project (20-24 October 2024) organized by BIRTAN, Ministry of Agriculture, Bangladesh.
 - Conference attend (4-6 October 2023) title “3rd International Conference on Research of Agricultural and Food Technologies” Adana, Turkey
 - Conference attend (2-4 February, 2020) of 10th Scientific forum of King Abdulaziz university, KSA.
 - Conference attend (5-6 March 2018) of 9th Scientific forum of KAU, KSA.
 - Conference attend (18-20 April 2017) on "Human and Environment Development in Vision 2030", Umma Ul Kura University, KSA
 - Conference attend (7-8 December 2016) of 8th Scientific forum of KAU, KSA.
 - Conference attend (28-29 October 2015) of 7th Scientific forum of KAU, KSA.
 - Statistical Analysis by Using Computer Packages (April 17 to May 01, 2013) GTI, BAU, Bangladesh.
 - Training workshop on “Arsenic in drinking water, soil and food crops in Southeast Asia” (17-20 April 2011) Organized by **Centre for Environmental Risk Assessment and Remediation (CERAR), University of South Australia.**

- Computer Training on MS word, MS Excel, Fox pro and SPSS win (17-27 November 2009), Institute of Technology, Dhaka, Bangladesh.
- A seminar on “PCR-SSCP Analysis of Asparagus decline in Japan (20 August 2008) Organized by SAURS, SAU, Dhaka-1207, Bangladesh.
- A Seminar on “Metabolic Engineering for Biosynthesis of Tocotrienol in *Perilla frutescens* (L.) Britton” (November 15, 2007). Organized by SAU Research Systems, SAU, Dhaka-1207, Bangladesh.
- Training Workshop on “Biotechnology promotion in Bangladesh: National and International Perspective”. (6-8 May 2007) Organized by Sasakawa, ICDDR, Dhaka.
- A Seminar on “The classification of Palmyra Male-Female seeds and its Method”(31 July 2007). Organized by SAURS. SAU, Dhaka-1207, Bangladesh.
- A Seminar on “Present status and Prospect of Alleopathy in Agriculture” (April 19 2007). Organized by SAURS, SAU, Dhaka-1207, Bangladesh.
- A Seminar on “How do plants recognize change in the environment?”(19 February 2007). Organized by SAURS, SAU, Dhaka-1207, Bangladesh.
- Training Workshop on “Bangladesh Country Almanac (BCA) - a GIS based database software containing lot of Bangladesh Agricultural related data that are useful for researchers, academician and development practioners”. (22 December 2004) Organized by SAURES under the auspices of CIMMYT in Collaboration with BRAC.
- Training course as Mushroom Cultivation” during 10th to 16th September 2005 accomplished by the help of Govt. of the Peoples of Bangladesh and Mushroom Culture Development Project, Savar.
- SAARC Country tour for visiting Agricultural Institution of SAARC countries during 1st September to 15th October 2003

8. **Languages** : Speaking Reading
- | | | | |
|----------------|----------|---------------|-----------|
| <u>Writing</u> | English: | Excellent | Excellent |
| Excellent | Bangla: | Mother Tongue | Excellent |
| Excellent | | | |
9. **Countries of Work Experience:** Bangladesh, India, Nepal, Saudi Arabia, Turkey

10. Employment Record as Teaching:

Position	Name of Organization	Duration
Professor (Grade-2)	Department of Horticulture, Faculty of Agriculture, Sher-e- Bangla Agricultural University, Dhaka-1207	31 May 2023 to till date
Professor (Grade-3)	Department of Horticulture, Faculty of Agriculture, Sher-e- Bangla Agricultural University, Dhaka-1207	31 May 2019 to 01 June 2023
Associate Professor	Department of Horticulture, Faculty of Agriculture, Sher-e- Bangla Agricultural University, Dhaka-1207	31 May 2015 to 01 June 2019
Assistant Professor	Department of Horticulture, Faculty of Agriculture, Sher-e- Bangla Agricultural University, Dhaka-1207	31 May 2008 to 01 June 2015
Lecturer	Department of Horticulture, Faculty of Agriculture, Sher-e- Bangla Agricultural University, Dhaka-1207	30 August 2005 to 30 May 2008

Employment Record as Researcher:

Employer-1	From: 1 st January'2015 to 27 th January'2019 (4 Years)
Name of Organization	King Abdulaziz University, Saudi Arabia
Position Held	Researcher
Description of Duties	Development and assessment of chitosan based edible coating to maintain the shelf life quality of banana fruit. (Funded by- King Abdulaziz University, Saudi Arabia) <ul style="list-style-type: none"> Experimental design and set up, physical and bio-chemical analysis, data collection, data analysis and paper writing.
Employer-2	From: 1 st July' 2019 to 30 th December' 2020 (1.5 Year)
Name of Organization	King Abdulaziz University, Saudi Arabia
Position Held	Postdoctoral Researcher
Description of Duties	Maintaining shelf life quality of banana fruit using functional chitosan and gum Arabic based edible coating. (Funded by- UNESCO-ISDB-TWAS Postdoctoral Scholarship) <ul style="list-style-type: none"> Experimental design and set up, physical and bio-chemical analysis, data collection, data analysis and paper writing.
Employer-3	From: 11 th January' 2021 to 08 th December'2021 (1 Year)
Name of Organization	King Abdulaziz University, Saudi Arabia
Position Held	Researcher
Description of Duties	Using essential oils as a healthy and environmentally safe method for reducing losses in table grapes (Funded by Deanship of Scientific Research, King Abdulaziz University, Saudi Arab)

	<ul style="list-style-type: none"> Experimental design and set up, physical and bio-chemical analysis, data collection, data analysis, report and paper writing.
Employer-4	From: 5 st May'2021 to 25 th July' 2022 (14 Months)
Name of Organization	King Abdulaziz University, Saudi Arabia
Position Held	Researcher
Description of Duties	<p>Evaluation of the response of date palm seedlings to silicon application under different levels of water irrigation (Funded by Deanship of Scientific Research, King Abdulaziz University, Saudi Arab)</p> <ul style="list-style-type: none"> Experimental design and set up, morphological and bio-chemical analysis, data collection, data analysis and paper writing.
Employer-5	From: 10 th February'2022 to 15 th February'2023 (1 Year)
Name of Organization	Osmaniye Korkut Ata University, Turkey
Position Held	Postdoctoral Researcher
Description of Duties	<p>Alleviation of chilling injuries of some fresh horticultural commodities during cold storage. (Funded by- Turkey Govt. Scholarship)</p> <ul style="list-style-type: none"> Experimental design and set up, physical and bio-chemical analysis, data collection, data analysis and paper writing.
Employer-6	From: 16 th February'2022 to 20 th March'2024 (1 Year)
Name of Organization	Cukurova University, Turkey
Position Held	Researcher
Description of Duties	<p>Pre-breeding strategies for obtaining new resilient and value-added berries. (Funded by- European Union Project 'Horizon 2020)</p> <ul style="list-style-type: none"> Experimental design and set up, physical and bio-chemical analysis, data collection, data analysis and paper writing.

11. Publications:

- Sönmez, D.A., Öz, A.T., **Ali, M.A.**, Kafkas, E., Bilgind, O.F. (2024). Improving blueberry cold storage quality: the effect of preharvest hexanal application on chilling injuries and antioxidant defense mechanisms. Journal of the Food of Science and Agriculture, PMID: 38985128.
- Öz, A.T., **Ali, M.A.**, (2023). Retaining overall quality of fresh figs by postharvest hexanal vapor treatment during cold storage. Postharvest Biology and Technology, 205, 112539.
- Öz, A., Eryol, B., **Ali, M.A.**, (2023) Postharvest hexanal application delays senescence and maintains quality in persimmon fruit during low temperature storage. J. Sci. Food Agric. doi:[10.1002/jsfa.12847](https://doi.org/10.1002/jsfa.12847)
- Ali, M.A.**, Öz, A.T. (2024). Postharvest γ -aminobutyric acid ameliorates chilling tolerance and retains overall quality of hawthorns during low temperature storage by triggering antioxidant defense system. Postharvest Biology and Technology (**Under review**).
- Al-Qurashi, A.D., Awad, M.A., **Ali, M.A.** (2023). Exogenous ascorbic acid and

- procyanidin application affect quality of 'Sensation' mangoes during ripening. *J. Anim. Plant Sci.* 33(3), 582-591.
- Al-Qurashi, A.D., Awad, M.A., Elsayed, M.I., Ali, M.A., (2023). Postharvest melatonin and chitosan treatments retain the quality of 'Williams' bananas during ripening. *J. Food Sci. Technol.*
 - <https://doi.org/10.1007/s13197-023-05819-8>.
 - Awad, M.A., Al-Qurashi, A.D., Mohamed I. Elsayed, M.I., **Ali, M.A.** (2023). Exogenous procyanidin and chitosan treatments retain quality and delay senescence of 'William' banana fruit during ripening. *Journal of Food Science and Technology*, 98(1), 121–131.
 - Al-Qurashi, A.D., Awad, M.A., **Ali, M.A.**, (2023) Exogenous ascorbic acid and procyanidin application affect quality of 'sensation' mangoes during ripening. *J. Animal & Plant Sciences*, 33(3), 582-591
 - **Ali, M.A.**, Shah, S.H. Anwar, Y., and Magdi, M.A.A. (2021). Growth and Biochemical Responses of Potato Cultivars under In Vitro Lithium Chloride and Mannitol Simulated Salinity and Drought Stress. *Plants*. 10 (924), 1-12.
 - **Ali, M.A.**, Awad, M.A., Alqurashi, A.D. and El-Shishtawy, R.M. (2024). Response of 'Grand Nain' bananas to postharvest dipping of chitosan, chitosan loaded with γ -aminobutyric acid or ascorbic acid on quality and biochemical changes during shelf life (**Submitted to *Scientia Horticulturae*, Status: Under Review**).
 - **Ali, M.A.**, Awad, M.A., Alqurashi, A.D., El-Shishtawy, R.M. and Mohamed, S.A. (2024). Postharvest chitosan loaded with trans-resveratrol or tannic acid treatments affect quality, antioxidants, antioxidant capacity and enzymes activities of 'Grand Nain' bananas during shelf life. (**Submitted to the *Pakistan Journal of Agricultural Science*, Status: Under Review**).
 - Hasan, M.M., **Ali, M.A.**, Soliman, M.H., Alqarawi, A.A., Abd_Allah, E.F. and Fang, X.W. (2020). Insights into 28-homobrassinolide (HBR)-mediated redox homeostasis, AsA–GSH cycle, and methylglyoxal detoxification in soybean under drought-induced oxidative stress. *J. Plant Interactions*. 15(1), 371–385.
 - Hossain, M.G., Paul, D., **Ali, M.A.**, Huda, M.N., Alam, M.S., Mahmood, S. and Hamooh, B.T. (2020). The Perspectives of Medicinal Plants for COVID-19 Treatment: A Review. *J. Agric. Sci. Eng. Innov.* 1(2), 10-17.
 - Alam, M.S., Hossain,S., **Ali, M.A.**, Hossain,M.G. and Islam,M.F. (2020). Assessment of Genetic Divergence in Tomato (*Solanum lycopersicum* L.) through Clustering and Principal Component Analysis. *J. Agric. Sci. Eng. Innov.* 1(1), 10-14.
 - Alam, M.S., Rahman, M.S., Azad, A.K.M., Huda, M.N., **Ali, M.A.**, and Molla, M.M. (2020). Trait Association and Path Coefficient Analysis of Burmese Grape (*Baccaurea sapida* Muell. Arg.). *J. Agric. Sci. Eng. Innov.* 1(1), 23-31.
 - Hasan, M.M., Uddin, M.N., Hakeem, K.R., Alharby, H.F., Fang, X., Anwar, Y., **Ali, M.A.**, Aboyaser, Alzahrani, Y. (2020). Magnetized water confers drought stress tolerance in *Moringa* biotype via modulation of growth, gas exchange, lipid peroxidation and antioxidant activity. *Pol. J. Environ. Stud.* 29(2), 1-12.
 - Hossain, M.G., **Ali, M.A.**, Ripa, R.A., Ayrin, S., Mahmood, S. (2019). Influence of Rootstocks on Yield and Quality of Summer Tomato cv. 'BARI Tomato-4'. *Earth Systems and Environ.* 3(2), 289- 300.
 - Alzahrani, A.J.A., Al-Toukhy, A.A., Al-Hajar, A.S., Hasan, M.M., **Ali, M.A.** (2019). Comparative study on air pollution affects phytochemicals and antioxidant system of five plant species growing in Makkah Al-Mukarramah region, Saudi Arabia. *Egypt. J. Appl. Sci.*, 34 (1), 92-111
 - Alzahrani, A.J.A., Al-Toukhy, A.A., Al-Hajar, A.S., Hasan, M.M., **Ali, M.A.** (2019). Comparative study of heavy metals content in leaves of five selective plant species growing in Makkah Al-Mukarramah region, Saudi Arabia. *Int. J. Sustain. Agril. Tech.* 15(3), 01-08.

- **Ali, M.A.** Awad, M.A. Alqurashi, A.D, El-Shishtawy, R.M., Mohamed, S.A. (2019). Quality and biochemical changes of 'Grand Nain' bananas during shelf life. *JKAU: Met., Environ. Arid and Agric. Sci.* 28 (1), 41-56.
- Hasan, M.M., Hakeem, K.R., **Ali, M.A.**, Rubel, M.M.K., Shah, M., Alzahrani, Y. (2018). Influences of Vermicompost and Organic Mulching on Growth, Yield and Profitability of Carrot (*Daucus Carota* L.). *J. Agri. Biol.* 3(1), 19-31.
- Awad, M.A., Alqurashi, A.D., Mohamed, S.A., El-Shishtawy, R.M., **Ali, M.A.** (2017). Postharvest chitosan, gallic acid and chitosan gallate treatments effects on shelf life quality, antioxidant compounds, free radical scavenging capacity and enzymes activities of 'Sukkari' bananas. *J. Food Sci. Technol.* 54, 447-457.
- Hasan, M.R., Tahsin, A.K.M.M., Islam, M.N., **Ali, M.A.**, Uddain, J., (2017). Growth and Yield of Lettuce (*Lactuca Sativa* L.) Influenced As Nitrogen Fertilizer and Plant Spacing. *J. Agric.Veterinary, Sci.*10(6), 62-71.
- Prodhan, M.A.A, **Ali, M.A.**, Zomo, S.A., Sarkar, M.D., Parvin, K., Haque, F.A. (2014). Organic manure and spacing affecting floral and yield characters of tomato. *Int. J. Business, Social Sci. Res.*2(2), 90-94.
- Hasan, M.M., Hossain, S.A., **Ali, M.A.**, Alamgir, A.N.M. (2014). Medicinal plant diversity in Chittagong, Bangladesh: A database of 100 medicinal plants. *J. Sci. Innov.Res.* 3(5), 500-514.
- Amin, N., Amin, A.K.M.R., Roy, T.S., **Ali, M.A.**, Rashid. M.M. (2014). Bulking behavior of seedling tubers derived from true potato seed as affected by its size and harvesting time. *App. Sci. Report.*, 4(1), 1-8.
- Nizam, R., **Ali, M.A.**, Alam, K., Mollah, M.D.A., Chowdhury, M.S. (2014). Yield and profitability of tomato as influenced by organic manure and plant spacing. *App. Sci. Report.*, 3(3), 121-128.
- Sobhan, M.A. **Ali, M.A.**, Choudhury, S., Mollah, M.D.A., Amin, N. (2014). Effect of different supplement with different levels to paddy straw substrate on the growth and yield of oyster mushroom (*Pleurotus ostreatus*). *Int. J. Sustain. Agril. Tech.* 10(6), 9-15.
- Amin, N. **Ali, M.A.**, Alam, M.B., Alam, K., Nizam, R. (2014). Yield and profitability of seedling tubers derived from true potato seed as affected by its size and harvesting time. *Int. J. Sustain. Agril. Tech.* 10(6), 1-8.
- **Ali, M.A.**, Alam, K., Nizam, R., M-UI-Hasan, M., Mollah, M.D.A. (2014). Effect of different sources of organic manure and sowing time on growth and yield of carrot. *Int. J. Sustain. Agril. Tech.* 10(5), 12-19.
- Choudhury, S., Islam, N., Sarkar, M.D., **Ali, M.A.** (2013). Growth and yield of summer tomato as influenced by plant growth regulators. *Inl. J. Sustain. Agril.* 5(1), 25-28.
- Kabir, A., **Ali, M.A.**, Waliullah, M.H., Rahman, M.M.M.U., Rashid, A. (2013). Yield and profitability of carrot as affected by plant spacing and sowing time. *Inl. J. Sustain. Agril. Tech.* 5(1), 37-43.
- Kabir, A., **Ali, M.A.**, Waliullah, M.H., Rahman, M.M.M.U., Rashid, A. (2013). Effect of Spacing and Sowing time on growth and yield of carrot. *Inl. J. Sustain. Agril. Tech.* 5 (1), 29-36.
- Islam, M.S., Khan, M.A.A., Haque, M.M., Akanda, A.M., **Ali. M.A.** (2013). Health status of seed potato tubers of public and private cold storages. *Int. J. Sustain. Agril. Tech.* 9(1), 145-152.
- Hossain, M.A., Hossain, M.I., **Ali, M.A.**, Islam, M.S., Sultana, N. (2013). Effect of organic manure and phosphorus on the growth and yield of lettuce. *Int. J. Sustain. Agril. Tech.* 9(1), 114-121.
- **Ali, M.A.**, Tahsin, A.K.M.M., UI-Hasan, M.M., Islam, M.S., Kabir, M.A. (2013). Effect of nitrogen and spacing on growth and yield of lettuce. *Int. J. Sustain. Agril. Tech.* 9(1), 102-109.
- **Ali, M.A.**, Parvin, T., Sultana, N., UI-hasan, M.M., Saki, A.I. (2012). Effect of

potassium and boron on growth and yield of tomato. *J. of Subtrop. Agric. Res. Dev.* 10(2), 992-998.

- **Ali, M.A.** Sharmin, S., Saki, A.I. Ul-hasan, M.M., Moniruzzaman, M. (2012). Effect of plant growth regulators on growth and yield of tomato varieties. *Int. J Sustain. Agril. Tech.* 8(1), 1-6.
- Akand, M.H., Awal, M.A., **Ali, M.A.**, Uddain, J. (2011). Effect of potassium on the growth, flower and bulb Yield of tuberose. *Int. J. Sustain. Agril. Tech.* 7(5), 47-52.
- Sultana, S., Ahemd, N., **Ali, M.A** Zubaer, H.M., Asaduzzaman, M. (2011). Influence of mulching and organic manure on lettuce. *Int. J. Agric., Environ Biotechnol.* 4(1), 15-19.
- Asaduzzaman, M., Chowdhury, S., **Ali, M.A.** (2010). Phosphorus and weeding on growth and yield of mungbean (*Vigna radiate* L). *Int. J. Bio-resource stress manage.* 1(1), 53-58.
- Asaduzzaman, M., Roy, T.S., **Ali, M.A.** (2010). Response of amaranth to different levels of arsenic in soil. *Int. J. Sustain. Agril. Tech.* 6(4), 22-26.
- Das, S.K., Rahim, M.A., **Ali, M.A.**, Mannan, A.T.M.M. and Solaiman, A.H.M. (2007). Effect of planting systems and plant spacing on the performance of French bean in the early stage of Banana plantation. *Bangladesh J. Prog. Sci. Tech.* 5(1), 117-120.
- Das, S.K., Rahim, M.A., **Ali, M.A.**, Mannan, A.T.M.M., Solaiman, A.H.M. (2007). Effect of planting systems and plant spacing on the performance of garden pea in the early stage of Banana plantation. *Bang. J. Prog. Sci. Tech.* 5(1), 121-124.
- **Ali, M.A.**, Farooque, A.M., Akand, M.H., Solaiman, A.H.M. (2007). Effect of Fertilizer management and mulching on the growth and yield of Lettuce. *J. Sher-e-Bangla Agric. Univ. Dhaka.* 1(1), 63-71.
- Rashid, M.M., Solaiman, A.H.M., **Ali, M.A.**, Mannan, A.T.M.M. (2007). Effect of different levels of Phosphorus and Irrigation Intervals on the growth and yield of Onion. *J. Bang. Soc. Agril. Sci. Tech.* 4(1 & 2), 185-188.

12. Work Undertaken that Best Illustrates Your Capability to Handle this Assignment


During my 20 years teaching and research experiences, I have conducted several research works in many countries as postdoctoral researcher in the field of postharvest physiology of horticultural crops, especially on banana, mango, grapes, mandarin, lemon, fig, persimmon, berries (strawberry and blueberry), loquat, tomato, capsicum, carrot and lettuce. I have also conducted some research project on reduce postharvest losses of horticulture commodities by using some natural edible coating and antioxidant compounds. I have expertise on laboratory techniques both physical and chemical means to measure regular quality parameters, antioxidant and volatile compounds, and enzyme activity both antioxidant and hydrolytic. Besides, I have performed as expert member of different Examination and Evaluation committee in different research organization and universities.

CERTIFICATION :

I, the undersigned, certify that (i) I was not a former employee of the Client immediately before the submission of this proposal, and (ii) I have not offered my CV to be proposed by a Firm other than this Consultant for this assignment and (iii) to the best of my knowledge and belief, this biodata correctly describes myself, my qualifications, and my experience. I also understand that any willful mis-statement described herein may lead

to my disqualification or dismissal, if engaged.

I have been employed by **Development Technical Consultants Pvt. Ltd** for the last twelve (12) months as regular full-time staff.

Yes		No	
Signature			
Date of Signing	29 10 2024 Day / Month / Year		