

# Engr. Dr. Muhammad Tuseef Asghar

(Agricultural / Food Process Engineer)

(PhD)



Currently	Assistant Professor, Department of Food Engineering, University of Agriculture, Faisalabad
	CTA, TruE-CaP Seasonings (TruE-CaPS)

## Personal Information

First name(s) / Surname(s)	Dr. Muhammad Tuseef / Asghar
Address	Chak # 195 R-B Faisalabad
Passport No.	BC1829654
Validity	29-10-2024
Nationality	Pakistani
Mobile	03346512185, 03486412195
E-mail(s)	<a href="mailto:mtuseef@uaf.edu.pk">mtuseef@uaf.edu.pk</a> (official) <a href="mailto:mtuseef195@gmail.com">mtuseef195@gmail.com</a> (personal)
Nationality	Pakistani
Date of birth	13 December 1986
Gender	Male

## Distinctions

- University Merit Scholarship Holder, MSc (Hons) Agri. Engineering
- Al-Ghazi Merit Scholarship Holder, MSc (Hons) Agri. Engineering
- University Merit Scholarship Holder Throughout the Degree
- 1<sup>st</sup> position holder in Expo held in the department of FMP, UAF for designing and manufacturing HAND CRANKING RICE TRANSPLANTER, (2009)
- President Tutorial Group AET-11 during the session of 2005-2006

## Projects/Startups

- TruECaP Seasonings (SECP Registered Company) launched
- The company won Funding of PKR 1.0Million From the Pakistan Engineering Council (PEC)
- Secured PKR 0.8 Million from Investor

## Publications

**Asghar MT**, Yusof YA, Mokhtar MN, Yaacob ME, Ghazali HM, Chang LS, et al. (2021) A Review of Nutritional Facts, Production, Availability and Future Aspects of Coconut Palm Sugar. J Nutr Food Sci. 11:3.

**Asghar, M. T.**, Yusof, Y. A., Mokhtar, M. N., Ya'acob, M. E., Mohd. Ghazali, H., Chang, L. S., & Manaf, Y. N. (2020). Coconut (Cocos nucifera L.) sap as a potential source of sugar: Antioxidant and nutritional properties. Food Science & Nutrition, 8(4), 1777-1787.

<https://doi.org/10.1002/fsn3.1191>

**Asghar, M. T.**, Yusof, Y. A., Noriznan, M., Yaacob, M. E., Mohd Ghazali, H., Chang, L. S., & Manaf, Y. N. (2020). Effect of processing method on vitamin profile, antioxidant properties and total phenolic content of coconut (Cocos nucifera L.) sugar syrup. International Journal of Food Science & Technology. 55: 2762-2770. <https://doi.org/10.1111/ijfs.14529>

**Asghar, M. T.**, Yusof, Y. A., Mokhtar, M. N., Yaacob, M. E., Ghazali, H. M., Varith, J., ... & Manaf, Y. N. (2020). Processing of coconut sap into sugar syrup using rotary evaporation, microwave, and open-heat evaporation techniques. Journal of the Science of Food and Agriculture. 100: 4012-4019.

<https://doi.org/10.1002/jsfa.10446>

**Asghar, M. T.**, Ghafoor, A., Munir, A., Iqbal, M., & Ahmad, M. (2014). Design modification and field testing of groundnut digger. Asian Journal of Science and Technology, 5(7), 389-394. Available Online at: <http://www.journalajst.com>

Khan, M. A., Shakoor, S., Ameer, K., Farooqi, M. A., Rohi, M., Saeed, M., **Asghar, M. T.**, Irshad, M. B., Waseem, M., Tanweer, S., Ali, U., & Ahmed, I. A. M. (2023). Effects of dehydrated moringa (*Moringa oleifera*) leaf powder supplementation on physicochemical, antioxidant, mineral, and sensory properties of whole wheat flour leavened bread. Journal of Food Quality, 2023, 1-13. <https://doi.org/10.1155/2023/4473000>

Shakoor, S., Saleem, S., Raheem, I. U., Mukhtar, A., Asghar, M. T., & Azmat, M. A. (2025). Exploring various preservative methods in extending the shelf-life of sugarcane juice. Journal of Food Science and Technology, 1-11. <https://doi.org/10.1007/s13197-025-06252-9>

#### Book Chapter

**Muhammad T. Asghar**, Yus A. Yusof, Mohd N. Mokhtar, Mohammad E. Yaacob, Hasanah M. Ghazali, Yanty N. Manaf and Lee S. Chapter 9. Production and Application of Coconut Palm Sugar Nova Science Publishers, Inc. (USA). Available Online at: <https://novapublishers.com/shop/the-coconut-palm-cocos-nucifera-production-cultivation-and-uses/>

### Products Developed

Sr. No.	Product Name	Status
1.	Dehydrated Onion Powder	Commercialized (At TruECaPS)
2.	Dehydrated Garlic Powder	Commercialized (At TruECaPS)
3.	Dehydrated Ginger Powder	Commercialized (At TruECaPS)
4.	Dehydrated Green Chili Powder	Commercialized (At TruECaPS)
5.	Dehydrated Tomato Powder	Commercialized (At TruECaPS)
6.	Dehydrated Mix Spice (complete & Instant Solution)	Commercialized (At TruECaPS)
7.	Dehydrated Mango Powder	Commercialized (At TruECaPS)
8.	Gluten-Free Biscuits	Commercialized (At Glufera Bw)
9.	Baby Food	Commercialized (At Organi Lhr)
10.	Mulberry Sugar Syrup	Ready for Commercialization
11.	Low-Temperature Orange Concentrate	Ready for Commercialization
12.	Flaxseed & Date Fortified Cake	Ready for Commercialization
13.	Mango Kernel Starch Edible Coating	Validation in progress
14.	Aloe-vera Gel Edible Coating	Validation in progress
15.	Mango-Cinnamon Leather	Shelf-life study in progress
16.	Strawberry-Apple Leather	Shelf-life study in progress

### Student Supervision

#### MSc. (Hons.) with Thesis

Sr. No.	Name	Title	Status
1.	Mubashar Mubeen 2016-ag-6304	Combined Effect of Aleo Vera Gel and Calcium Chloride Coating on The Shelf Life of Ber ( <i>Ziziphus mauritiana</i> L.)	Graduated; 2023
2.	Aniq Mushtaq 2016-ag-8235	Preparation Of Orange Juice Concentrate by Rotary Evaporation Technique	Graduated; 2023
3.	Hina Gul 2016-ag-8273	Effect Of Mango Kernel Starch on Shelf Life of Banana by Controlling Ripening Through Novel Edible Coating	Graduated; 2023
4.	Muzammal Siddique 2020-ag-1634	Processing of Mulberry Juice into Sugar Syrup by Using Different Evaporation Techniques and Its Evaluation During Storage	Graduated; 2023
5.	Sehar Mehmood 2017-ag-8736	Fortification of Mango Leather with Cinnamon	Graduated; 2023

6.	Ghanwa Javed 2017-ag-8723	Effect of Psyllium Husk on Physical Properties and Composition of Banana Bread	Graduated; 2023
7.	Anzala Muqaddas 2017-ag-8753	Formulation And Evaluation of Gluten-Free Maize and Sweet Potato Biscuits.	Graduated; 2023
8.	Jarrar Haider 2017-ag-8826	Comparative Study for Physico-Chemical Characteristics of Plum and Peach Juice	Graduated; 2023
9.	Ayesha Saddiqa 2021-ag-2383	Fortification of Cake with Date Pulp and Roasted Flaxseed	Graduated; 2023
10.	Hafiz Muhammad Bilal 2017-ag-8892	Production of Mixed Fruit Drink Using (Grapefruits Lemons and Oranges) Citrus Fruits	Graduated; 2024
11.	Amina Shahid 2021-ag-2381	Development And Characterization of Apple and Strawberry Fruit Leather	Graduated; 2024
12.	Malaika Zahakh 2018-ag-8635	Seed-Embedded Biodegradable Plastic: A Step Toward Eco-Friendly Packaging	Graduated; 2024
13.	Rabia Javed 2018-ag-8735	Fortification of Mulberry Fruit Leather with Cardamom	Graduated; 2024

### Work experience

1. Dates	<ol style="list-style-type: none"> <li>23 August 2024 to date (<b>Assistant Professor, Department of Food Engineering, University of Agriculture, Faisalabad</b>)</li> <li>10 September 2013 to 23 August 2024; (<b>Lecturer Agri. Engineering; UAF Sub-Campus Burewala as Regular Faculty member</b>)</li> <li>22 May 2012 to 9 September 2013 (<b>Lecturer Agri. Engineering-FMP; UAF Main Campus Faisalabad as Faculty member- Adhoc</b>)</li> </ol>
Occupation or position held	<b>Assistant Professor (Food Engineering UAF)</b>
Main activities and responsibilities	<ul style="list-style-type: none"> <li>➤ Teaching &amp; Research (New Food Products Development and Commercialization)</li> <li>➤ Teaching the following courses <ol style="list-style-type: none"> <li>1. Post-Harvest Engineering</li> <li>2. Theory of Machines</li> <li>3. Food Processing Engineering</li> <li>4. Unit Operations in Food Engineering</li> <li>5. Food Chemistry</li> </ol> </li> </ul>
	<b>Lecturer / Workshop in-charge</b>
Main activities and responsibilities	<ul style="list-style-type: none"> <li>➤ Teaching &amp; Research</li> <li>➤ Teaching the following courses <ol style="list-style-type: none"> <li>6. Internal combustion engine and tractors</li> <li>7. Farm mechanization</li> <li>8. Food processing engineering</li> <li>9. Process engineering</li> <li>10. Energy Resources and Utilization</li> </ol> </li> </ul> <p>(Additional Duty since 25 February 2013 till 10-09-2013)</p> <p><b>Workshop in-charge</b></p> <ul style="list-style-type: none"> <li>➤ Administration</li> <li>➤ Record keeping of lab equipment/materials.</li> <li>➤ Lab staff attendance</li> <li>➤ Leave records of the lab staff</li> <li>➤ Issuance of Tractors and implements.</li> <li>➤ Repair and maintenance arrangements of tractors and implements.</li> <li>➤ Repair and maintenance of hydraulic control equipment</li> </ul> <p><b>Deputy Director Students' Affairs (Sub-Campus UAF)</b> <b>In-Charge all campus lab equipment</b></p>

Name and address of employer	Department of Farm Machinery and Power University of Agriculture, Faisalabad (Pakistan)
Type of business or sector	Education and Training
4. Dates	05 March 2012 - 22 May 2012
Occupation or position held	<b>Principal</b>
Main activities and responsibilities	<ul style="list-style-type: none"> <li>➤ Administration</li> <li>➤ Record keeping of lab equipment/materials.</li> <li>➤ Lab staff attendance</li> <li>➤ Leave records of lab staff</li> <li>➤ Budget management</li> <li>➤ Correspondence with head office LHR</li> <li>➤ Worked in following trades present in VTI. <ol style="list-style-type: none"> <li>1. Computer Applications and Office Professionals</li> <li>2. Dress designing and boutique.</li> <li>3. Beautician and skin care</li> </ol> </li> </ul>
Name and address of employer	Punjab Vocational Training Council PVTC Head Office Lahore, (Pakistan)
Type of business or sector	Training and Placement of students in their respective trades
5. Dates	15 June 2011 to 02 December 2011
Occupation or position held	<b>Engineer Agri. Machinery/ In-charge Mint Rice Research Centre</b>
Main activities and responsibilities	<ul style="list-style-type: none"> <li>➤ To decide all field operations with the help of the Director, HR</li> <li>➤ To find out and hire labor at field level.</li> <li>➤ To manage human force working permanently at site</li> <li>➤ To manage/ Repair machinery available at site and hire machinery.</li> <li>➤ To prepare performance reports of field staff &amp; crop stages</li> <li>➤ To manage all the input required for good production at the proper time.</li> <li>➤ To take care of crop health by using different chemicals and required machinery.</li> <li>➤ To manage crop outputs (safe storage and sale)</li> </ul>
Name and address of employer	Mint Consulting Group 49- Bridge Colony Lahore Cantt, Lahore (Pakistan)
Type of business or sector	Agri. Business and raising of different crops majorly rice at Ethiopia
6. Dates	27 February 2011 to 14 June 2011
Occupation or position held	<b>Farm Machinery Engineer</b>
Main activities and responsibilities	<ul style="list-style-type: none"> <li>➤ Administration</li> <li>➤ Designing of Agri. Machinery</li> <li>➤ Manufacturing of Agri. Machinery</li> <li>➤ Repair and maintenance of Agri. Machinery</li> <li>➤ Following machinery was under consideration. <ol style="list-style-type: none"> <li>1. Wheat threshers</li> <li>2. Rice threshers</li> <li>3. Gram thresher</li> <li>4. Wheat straw choppers</li> <li>5. Seed drills</li> <li>6. Cultivators</li> <li>7. Rotavators</li> <li>8. Pneumatic drills</li> <li>9. Maize Sheller</li> <li>10. Potato planters</li> </ol> </li> </ul>
Name and address of employer	Super Fine Zarai Industries Samundari Road Faisalabad (Pakistan)
Type of business or sector	Agri. Machinery manufacturing and sales
7. Dates	26 February 2010 to 25 February, 2011

Occupation or position held	National Internship Program (NIP)
Main activities and responsibilities	<ul style="list-style-type: none"> <li>➤ Administration Assistant</li> <li>➤ Data entry</li> <li>➤ DCO, Office Web Site Updating</li> <li>➤ Account handling of other internees</li> </ul>
Name and address of employer	Office of DCO, Faisalabad, Government of Pakistan
Type of business or sector	Agri. Machinery manufacturing and sales
<b>Educational Details</b>	
<b>1. Dates</b>	01 April 2016 to 19 May 2022
Title of qualification awarded	<b>PhD Food Process Engineering, CGPA 4.00/4.00</b>
Research and Thesis Title	<b>PROCESSING OF COCONUT SAP INTO SYRUP AND GRANULAR SUGAR USING DIFFERENT EVAPORATION TECHNIQUES FOR ECONOMICAL PRODUCTION</b>
<b>2. Dates</b>	15 September 2009 - 16 January 2012
Title of qualification awarded	<b>MSc. (HONS) Agricultural Engineering, CGPA 3.59/4.00 &amp; (75.84%)</b>
Research and Thesis Title	<b>Modification and Testing of AMRI Groundnut Digger/Shaker</b>
Research achievements	<ul style="list-style-type: none"> <li>➤ AMRI groundnut digger/shaker was improved reasonably after modification.</li> <li>➤ AMRI groundnut digger/ shaker became more fuel-efficient resulting in energy saving.</li> <li>➤ Digging efficiency was 89.31% at 75% maturity level.</li> <li>➤ Field efficiency was 89.31% at 1.85km/hr</li> <li>➤ Recoverable loss was 5.14 % at 1.85km/hr and</li> <li>➤ Irrecoverable loss was 5.5 5 at 1.85km/hr.</li> </ul>
Principal subjects / occupational skills covered	Farm machinery and Environment, Grain Preservation and Processing, Advanced Power and Machinery, Hydraulic Control systems, Theory of Models-II, Soil Physics, High Level Programing-I, Operations Research, Experimental Statistics
Name and type of organization providing education and training	University of Agriculture (Agriculture) Faisalabad (Pakistan)
Level in national or international classification	2 <sup>nd</sup>
<b>3. Dates</b>	15 September 2005 - 11 July 2009
Title of qualification awarded	<b>B.Sc. Agricultural Engineering, CGPA 3.49/4.00 &amp; (74.3%)</b>
Principal subjects / occupational skills covered	<p><b>Farm Machinery and Power:</b> Machine Design, Theory of Design and Structure, Energy resource and utilization, I.C Engine &amp; Tractor, Boiler Engineering &amp; Power Plants, Thermodynamics, Instrumentation &amp; Mechatronics, Farm Machinery, Design of Agricultural Machinery</p> <p><b>Irrigation and Drainage:</b> Engineering mechanics &amp; dynamics, Irrigation Engineering, Drainage Engineering, Open Channel Hydraulics, Water management, Soil and Water Conservation Engineering, Pumps and Tube-wells, GIS Application in Water Resources Engineering, Soil mechanics, Fundamental of Fluid Mechanics, Water Quality Engineering, Surface &amp; Ground Water Hydrology.</p> <p><b>Structure and Environmental Engineering:</b> Surveying &amp; Levelling, Theory of Design and Structure, Mechanics of engineering materials, Environmental Engineering, Industrial Pollution and its control, Bio Solid Management, Farm Structure</p>
Name and type of organization providing education and training	<b>University of Agriculture, Faisalabad (Pakistan)</b>
Level in national or international classification	2 <sup>nd</sup>
<b>4. Dates</b>	01 September 2003- 20 August, 2005
Title of qualification awarded	<b>Higher Secondary School Certificate, Marks 802/1100 &amp; (72.91%)</b>
Principal subjects / occupational	Pre-Engineering

skills covered	Physics, chemistry, and Mathematics
Name and type of organization providing education and training	Govt. Islamia College, Faisalabad B.I.S.E Faisalabad.
<b>5. Dates</b>	01 April 2000 – 15 June, 2002
Title of qualification awarded	<b>Secondary School Certificate, Marks 657/850 &amp; (77.29%)</b>
Principal subjects / occupational skills covered	Science Physics, chemistry, and Mathematics
Name and type of organization providing education and training	Govt. High School Chak# 195 R-B, Faisalabad B.I.S.E Faisalabad.
	➤
<b>Membership</b>	<ul style="list-style-type: none"> <li>➤ Pakistan Engineering Counsel Registration No. AGRI/2964</li> <li>➤ Member, Society of Agricultural Engineering of PAKISTAN</li> <li>➤ Member, Society of Agricultural Engineering UAF</li> </ul>