



Dr. Merve Kaya

Future-Driven AgriTech Transformation Leader

85354 Munich  
Germany



#### Career Highlights:

- Led a €100M grant application for the Werner Siemens Foundation's "Vertical Farming" project at the Technical University of Munich, overseeing a €1M research budget and coordinating efforts with 27 Principal Investigators (PIs).
- Expanded market presence in Brazil by securing a distribution agreement with Biotrop, the country's largest distributor, for a Turkey-based "Microbial Fertilizer" company, resulting in double-digit revenue growth.
- Managed portfolio and launched nearly 10 "Microalgae-based Biostimulants" across Europe, Asia, and America through the Stage-Gate process for leading Spanish biotechnology company AlgaEnergy.
- Directed R&D for Turkey's largest fertilizer producer, Tekfen/TorosAgri, successfully securing over €1M in TÜBİTAK grants to advance "Phosphogypsum Waste Management" and "NanoFertilizer" initiatives.

## EDUCATION

### PhD in Biochemistry (Marie Curie Fellowship)

University of Nantes, Nantes, France

February 2012 to February 2015

Thesis: Structure of citrus pectin, focusing on how extraction conditions affect its structural variations and the characterization of its building blocks.

- Achievement: European PhD Certificate Evaluation: "très bon" (very good).

### PostDoc, Agri-Food Entrepreneurship (EIT-Food Innovator Fellowship)

European Institute of Innovation and Technology (EIT-Food), Belgium

June 2020 to June 2021

Program Highlights: Business Modeling (Forward Fooding, England), New Business Financial Models (Nagima Business Consulting, Italy), Network Effects & Platform Economy (Azti, Spain), Emerging Technologies (Deusto Business School, Spain), Leadership in the COVID Era (Fair Saturday Foundation, Spain), Public Engagement (Wageningen University, The Netherlands).

### MBA, Food & Agribusiness Management (Food for Thought Fellowship)

Escola Superior De Propaganda E Marketing (ESPM), São Paulo, Brazil

September 2015 to September 2016

Coursework: Bioenergy, Supermarket Traceability, Agri-Sector Taxation, Brazilian Orange Juice Strategy, Disruptive Innovation-Trends, Poverty & Hunger War, Meat Supply Chain & Sustainability of Animal Protein, Vegetables-Distribution Centers Strategies.

### MSc, Food & Agribusiness Management (Dual Degree)

Audencia Business School, Nantes, France

September 2015 to September 2016

Thesis: French wine market research in the USA, focusing on market trends, consumer behavior, and logistics.

- Achievement: Finalist in the Agreen Startup Contest, organized by the French Chambres of Agriculture.

Coursework: Marketing & Food Business, Operations & Financial Management, HR Management, Value Chain & Performance, B2B & B2C Strategies, CSR, Strategy for AgriBusiness.

### Visiting Researcher, Plant Nutrition (BMBF Grant)

Osnabrück University of Applied Science, Germany

2010 to 2011

Thesis: Iodine (I) biofortification of vegetables, examining the impact of iodine forms and concentrations on plant growth and nutrient uptake.

Responsibilities: Conducted evaluations of crop sorting, drying, and grinding of plant materials; led greenhouse trials to test the effects of iodine on plant growth; performed alkaline fusion preparation and iodine concentration analysis.

## MSc in Plant Nutrition (DAAD Fellowship)

Leibniz University Hannover, Germany

September 2009 to September 2011

Thesis: Structural changes in rice leaves with Silicon (Si) amendment, focusing on suberization and lignification to enhance understanding of plant resilience and growth.

Coursework: Research Theories & Methods, Biostatistics & Molecular Biology, Plant Physiology, Genetics & Plant Breeding, Plant Molecular & Cell Biology.

## Visiting Student, Biology (Erasmus-Exchange Scholarship)

Royal Holloway, University of London, United Kingdom

September 2006 to September 2007

• Achievement: Earned the Cambridge University Certificate in Work Experience (Organic Farming).

Coursework: Field Ecology, Biological Data Analysis, Applications of Molecular Genetics in Biology.

## BSc in Agriculture Engineering

Bursa Uludag University, Turkey

September 2004 to September 2009

Coursework: Botany & Plant Physiology, Soil Science & Irrigation, Genetics & Plant Propagation, Agricultural Economics & Farm Management, Tissue Culture & Biotechnology, Zoology, Landscape Design, General Microbiology, Food Technology, Farm Machinery, Agricultural Insurance, Meteorology, Pests of Field Crops, Industrial Plants.

## College in Science & Mathematics (In English)

Lüleburgaz Anatolian High School, Turkey

September 1996 to September 2003

• Achievement: Gained admission to Anatolian High School based on high performance in the nationwide TEOG entrance exam.

## WORK EXPERIENCE

### Global Business Development Advisor

Supersol - Since April 2024 - Consultant - Munich - Germany



- ▶ Advised Supersol, a leading agrochemical firm, on international expansion strategies for its plant protection and nutrition products, including biofertilizers and microbials. <https://supersol.com.tr/>
- ▶ Key Contributions:
  - Successfully negotiated and secured a major distribution contract in Brazil, significantly enhancing the company's market presence in South America. (<https://www.biotrop.com.br/>)
- ▶ Reporting to: CEO
- ▶ Skills: Agrochemicals, International Business Development, Contract Negotiation

### Science Manager (Werner Siemens Grant)

Technical University of Munich - January 2023 to April 2024 - Full-time - Germany



- ▶ Led the "Revolution of Food Production" project within the Chair of Digital Agriculture, focusing on transforming vertical farming systems to enhance wheat crop yields while minimizing resource use in controlled environments. <https://tinyurl.com/2pcsyrrx>
- ▶ Key Contributions:
  - Coordinated grant proposal collaboration across 27 Principal Investigators.
  - Organized and executed research events for 50 participants.
  - Spearheaded grant proposal development and managed a €1M research budget.
  - Led external communications, outsourcing journalists, editors, and translators to ensure clear project messaging.
- ▶ Reporting to: Director of HEF (Top 1% Highly Cited Researcher by Web of Science)
- ▶ Skills: Grant Writing, Grant Coordination, Vertical Farming, SAP ERP

### Corporate Spokesperson

CEON Global - January 2022 to December 2022 - Consultant - Istanbul - Turkey



- ▶ Led corporate communications for CEON Global, a multinational fertilizer manufacturing firm, positioning the company as a global leader in sustainable agriculture solutions. <https://ceon.com.tr/>

- ▶ Key Contributions: Served as the primary spokesperson, engaging with international media outlets and industry conferences to promote the company's innovative fertilizer products.
- ▶ Reporting to: CEO
- ▶ Skills: Corporate Communications, Media Relations

## Global Business Development Manager & Portfolio Chair



**AlgaEnergy - February 2020 to January 2022 - Temporary Replacement - İstanbul & Eugene - United States - Oregon**

- ▶ Led global business development initiatives for AlgaEnergy, a biotechnology firm focused on microalgae-based biostimulants, ensuring market penetration and growth across key regions. <http://www.algaenergy.es>
- ▶ Key Contributions:
  - Spearheaded the development and implementation of marketing materials.
  - Directed product registration processes for multiple markets.
  - Engaged with key stakeholders and potential clients to drive business growth.
  - Prioritized and launched 10 new product concepts through the Stage-Gate Process.
- ▶ Reporting to: President
- ▶ Skills: Portfolio Management, Product Marketing, Cross-functional Team Leadership, Biostimulants, Field Trials

## Research & Development Chief (TUBITAK Grant)



**Tekfen Holding, Toros Agri R&D Center - March 2018 to February 2020 - Full-time - Mersin - Turkey**

- ▶ Led R&D efforts for Tekfen Holding, Turkey's largest fertilizer producer, driving innovation in product development and quality assurance across AN, CAN, DAP, and NPK fertilizers. <https://www.toros.com.tr/>
- ▶ Key Contributions:
  - Directed quality control processes, including sieve analysis, viscosity testing, anti-caking tests, and micro/macro element assessments.
  - Managed a team of 10 post-graduate researchers.
  - Spearheaded the construction of a 500 m<sup>2</sup> R&D Greenhouse, significantly increasing research capacity.
  - Quality Management training included Hoshin Kanri Strategic Planning and Kaizen Lean Manufacturing.
- ▶ Reporting to: Vice President of Research
- ▶ Skills: Quality Assurance, Research and Development, Kaizen

## Global Market Research Leader (Food for Thought MBA Scholarship)



**Weenat - March 2017 to March 2018 - Cooperative Education Work - Nantes - France**

- ▶ Supported Weenat, a French startup specializing in precision agriculture through innovative soil management sensors, by driving marketing efforts in international markets, particularly Brazil. <https://www.weenat.com/>
- ▶ Reporting to: CEO
- ▶ Skills: Precision Agriculture, Market Research

## Research Scientist (Marie Curie PhD Fellowship)



**French National Institute for Agricultural Research (INRA) - December 2012 to December 2016 - Full-time - Nantes - France**

- ▶ At INRA, Europe's top agricultural research institute, characterization of pectic samples were studied to understand their composition and macromolecular properties. <http://www.inra.fr/en/>
- ▶ Key collaborating institutions: Newcastle University and the University of Leeds (UK), University of Lisbon (Portugal), University of Potsdam and Max Planck Institute (Germany) and Bayer (Belgium).
- ▶ Reporting to: Deputy Manager
- ▶ Skills: Polysaccharides, Statistical Data Analysis

## Visiting Research Scientist



**CP Kelco R&D Center - April 2012 to September 2012 - Temporary Replacement - Copenhagen - Denmark**

- ▶ At CP Kelco, a leading producer of hydrocolloids, functional tests on pectin samples were conducted to evaluate their gelling and stabilizing properties for commercial applications. <https://www.cpkelco.com/>
- ▶ Reporting to: Innovation Manager
- ▶ Skills: Hydrocolloids

### Academic Distinctions

- ▶ 2020: Awarded the "BEST Business Ideas" by EIT-Food for developing sustainable fish feed solutions.
- ▶ 2018: Secured the Horizon 2020 (ERA-MIN) Grant for the Zeolite in Wastewater Management project, achieving a Scientific Excellence Score of 12/15. Partners: Fraunhofer (Germany), CNRS-IS2M (France), CSIC-ITQ (Spain), DBI-GUT GmbH (Germany), Manchester Metropolitan University (UK) etc.
- ▶ 2018: Received the TÜBİTAK 2244 Grant (2,290,656 TL) for the Phosphogypsum Waste Management project at Ankara University.
- ▶ 2018: Awarded another TÜBİTAK 2244 Grant (2,290,656 TL) for the Slow Release Nano-Fertilizer project at Mersin University.
- ▶ 2006-15: Awarded several prestigious fellowships, including Marie Curie, DAAD, Erasmus, Innovator, and Food for Thought etc.

### Recognitions

- ▶ 2024: Participant nominated by a National Focal Point, COP29, Azerbaijan
- ▶ 2024: Invited to Welsh Alumni Networking at the British Embassy, Berlin.
- ▶ 2024: Invited by North Carolina US Governor Roy Cooper to the Executive Mansion.
- ▶ 2023 & 24: Invited to Republic Day Reception at Nymphenburg Palace, Munich, by the Turkish Consulate.
- ▶ 2022: Served as Jury Member for the Plant-Based Food R&D Competition at Middle East Technical University.
- ▶ 2022: Invited to Queen's Platinum Jubilee Party at the British Consulate, Istanbul.
- ▶ 2022 & 24: Invited to UK-Alumni Reception at the British Ambassador's Residence, Ankara.
- ▶ 2019: Invited to the Signing Ceremony of Projects by Turkey's Industry and Technology Minister and TÜBİTAK President.
- ▶ 2014 & 15: Invited to a reception by Nantes, France Mayor Johanna Rolland in honor of Foreign Researchers.

### Languages

- ▶ Turkish: Native
- ▶ English: Fluent (IELTS 7.0, 2021)
- ▶ German: Intermediate (Goethe Zertifikat B2, 2024)
- ▶ French: Intermediate (TCF B2, 2017)



### Lab-Related Skills

- ▶ Chromatography: IC, GC, AEC, HPSEC, HPLC
- ▶ Microscopy & Molecular Biology: DNA/RNA isolation, PCR, ligation, transformation
- ▶ Spectrometry/Spectrophotometry: ICP-OES

### IT Skills

- ▶ Data Analysis & Statistics: SPSS, R
- ▶ Enterprise Resource Planning (ERP): SAP ERP, Lotus
- ▶ Collaborative Whiteboard Tools: Miro
- ▶ Design & Visualization: AutoCAD, Canva, BioRender, Figma
- ▶ AI & Data Tools: PowerPoint Copilot, Tableau
- ▶ Communication Platforms: Slack, Teams, Zoom, Google Meet
- ▶ AI-Experience: ChatGPT, Google Bard, Grammarly, DeepL
- ▶ Cloud Storage: Google Drive, OneDrive, Dropbox
- ▶ Survey & Data Collection: Google Forms
- ▶ Content Management Systems (CMS): WordPress
- ▶ Reference Management: Mendeley, EndNote
- ▶ Office Productivity: Microsoft Excel, Google Sheets, Microsoft Word, Notion
- ▶ Cybersecurity Tools: McAfee

### Technical Trainings (1-5 Days)

- ▶ 2020: Algal Biotechnology for Sustainable Bioeconomy – University of Cambridge Algal Innovation Centre (UK), Fraunhofer (Germany), Matís (Iceland)
- ▶ 2019: Understanding Soil Functions – Wageningen University, The Netherlands
- ▶ 2019: Plant Stress Physiology (Prof. İsmail Çakmak) – Sabancı University, Istanbul
- ▶ 2016: Natural Algae-Based Solutions – Olmix, Brehan, France
- ▶ 2016: Chocolate Production & Marketing – Cacau Show, Brazil

- ▶ 2016: Food Sensorial Analysis – Nespresso Expertise Centre, Sao Paulo, Brazil
- ▶ 2016: International Logistics – Santos Harbor Local Frio, Santos, Brazil
- ▶ 2013: Recombinant Protein Cloning and Characterization – University of Newcastle, UK
- ▶ 2013: EU Project Management Training – University of Potsdam, Germany
- ▶ 2013: Systems Biology-Oriented Bioinformatics – University of Potsdam, Germany
- ▶ 2013: Plant Cell Walls Molecular Probes & Ethics – University of Leeds, UK
- ▶ 2013: Plant Cell Wall Architecture & Commercial Exploitation – Bayer Crop Sciences, Ghent, Belgium

## Peer-Reviewed Journal Articles

- ▶ Albastawisi E, Kaya M, Firat Ş, Kotan R. The efficacy of Pantoea agglomerans Strain RK-84 to control fire blight caused by Erwinia amylovora on pear orchards. Journal of Plant Pathology. 2024. Accepted. Impact Factor: 2,5
- ▶ Kaya M, Sousa AG, Crépeau MJ, Sørensen SO, Ralet MC. Characterization of citrus pectin samples extracted under different conditions: influence of acid type and pH of extraction. Annals of Botany. 2014 Oct;114(6):1319-26. (Cited by 240; Impact Factor: 4.1)

## Poster Presentations

- ▶ 2024: Kaya M... Kotan R. BioAgTech World Congress, Raleigh, North Carolina – The Efficacy of Pantoea agglomerans Strain RK-84 in Controlling Fire Blight Caused by Erwinia amylovora on Pear Orchards
- ▶ 2023: Kaya M... Bilgili U. World Biostimulants Congress, Milan, Italy – Enhancing Silage Corn (Zea mays L.) Yield with Microbial Biostimulants
- ▶ 2021: Kaya M... Öner N. World Biostimulants Congress, Miami, USA – Microalgae Increase Nutrient Uptake from the Soil
- ▶ 2013: Kaya M... Ralet MC. Plants and People Conference, Potsdam, Germany – Structure of Citrus Pectin
- ▶ 2013: Kaya M... Ralet MC. Gums & Stabilisers for the Food Industry Conference, Wrexham, Wales – Pectin Disassembly under Mild Acidic Conditions

## Oral Presentations

- ▶ 2021: AGRX & Holden Research, Oxnard, California, USA – Microalgae based Biostimulants
- ▶ 2016: European ICT Research & Innovation Proposers' Day, Bratislava, Slovakia – Digital Agriculture in Brazil
- ▶ 2014: International Conference on Polysaccharides-Glycoscience, Prague, Czech Republic – Structure of Citrus Pectin
- ▶ 2014: Hydrocolloids Conference, Taipei, Taiwan – Structure of Citrus Pectin
- ▶ 2014: Young Researchers BIA, Chambre de l'Agriculture, Nantes, France – Structure of Citrus Pectin

## Invited Speaker

- ▶ 2024: Panelist, EU Tech Chamber: Chemical & Pharmaceutical Council Webinar – Green Infrastructure Strategies to Future-Proof Chemical Facilities
- ▶ 2024: Panelist, GIFT Food, Beverage, and Agriculture Policy Research Center – 3rd Food Innovation Summit, Bogazici University, Turkey
- ▶ 2021: Panelist, MÜSİAD Vizyoner Star Talks – Money Talks Session, Istanbul <http://tinyurl.com/59mb42tu>

## Invited Lecturer

- ▶ 2023: Ataturk University, Agriculture Faculty, Erzurum, Turkey – Sustainable Agriculture Perspectives
- ▶ 2023: Istanbul Kültür University, Istanbul, Turkey – Design Thinking
- ▶ 2021& 22: Universitas Gadjah Mada, Yogyakarta, Indonesia – Summer Course on Food Science
- ▶ 2021: Hacettepe University, Ankara, Turkey – Food Engineering Club TechTalks

## Agri-TV

- ▶ 2024, Broadcast Consultant, CNBC-e, Agriculture Route, Turkey
- ▶ 2022, TV Host & Producer, Köy TV, Agriculture in Bursa, Turkey <http://tinyurl.com/yv8d9w6w>
- ▶ 2022, TV Host & Producer,, Köy TV, Agriculture in Samsun, Turkey <https://tinyurl.com/2w7b5bw4>
- ▶ 2022, TV Host & Producer,, Köy TV, Agriculture in Isparta, Turkey <http://tinyurl.com/5xs7zp4s>
- ▶ 2022, TV Host & Producer,, Köy TV, Agriculture in Pınarhisar, Turkey <https://tinyurl.com/yhfvxzre>
- ▶ 2022, TV Host & Producer, Köy TV, Agriculture in İzmir, Turkey <https://tinyurl.com/8ffjth8s>
- ▶ 2022, TV Host & Producer, Agro TV, Agriculture in Istanbul, Turkey <http://tinyurl.com/5ybxj7nt>
- ▶ 2022, TV Host & Producer, Agro TV, Vertical Farming in Turkey <http://tinyurl.com/4m45rntx>
- ▶ 2022, Guest Expert, Üniversite TV <http://tinyurl.com/3rfbh3ww>

## Consulting

- ▶ 2021, Hunca Cosmetic Global, European Project Proposal Writing <https://hunca.com.tr/>
- ▶ 2019, UPEK, Pectin Production Operation <https://www.upek.com.tr/>

## Editorial Experience

- ▶ 2021, Reviewer, Academy of International Business (AIB), USA
- ▶ 2019, Reviewer, International Journal of Chemistry, Canada

## INTERESTS

### Startup Mentorships

- ▶ 2022-24, Mentor, Lodestar Business Solutions <https://lodestarbs.com/>
- ▶ 2021, Global Startup Mentorship Program Member, Teknopark Istanbul <http://tinyurl.com/3uan648c>
- ▶ 2022, Mentor, AKAGİM Women Entrepreneurship Center, Istanbul

### Agri-Blogs (>10K Post Impressions)

- ▶ Up-cycling Biogas By-products for Organic Fertilizer Production & Market Analysis <https://tinyurl.com/y8mxy22e>
- ▶ Agriculture's Journey Through Industrial Revolutions: Embracing Technology for Tomorrow's Farms <http://tinyurl.com/zuctfn5z>
- ▶ Innovating Agriculture through Design Thinking: Nurturing Sustainable Growth <http://tinyurl.com/34ysb36b>
- ▶ Kaizen in Agriculture: Cultivating Success Through Continuous Improvement <http://tinyurl.com/3hy45bnd>
- ▶ Refining Stage-Gate Methodology for Enhanced Agricultural Product Development <http://tinyurl.com/mvb3cmek>
- ▶ Unlocking Efficiency: Lean Manufacturing in Agriculture <http://tinyurl.com/zwzvpjb2>
- ▶ Unveiling the Six Sigma Journey: From Motorola to Agriculture <http://tinyurl.com/3bchtpx3>
- ▶ Enhancing UX Design in Agricultural Product Development with AI <http://tinyurl.com/2umhzw9>

### Agri-Events

- ▶ 2024, World Food Forum, FAO HQ, Rome
- ▶ 2024, Sponsor, NewAG World Biostimulants Congress, Miami, USA
- ▶ 2023, Sponsor, NewAG World Biostimulants Congress, Milan, Italy
- ▶ 2023, Sponsor, New Ag International, Barcelona, Spain
- ▶ 2021, Sponsor, NewAG World Biostimulants Congress, Miami, USA
- ▶ 2024, Sponsor, BioAg World Congress, Raleigh, North Carolina, USA
- ▶ 2023, Sponsor, BioAg World Congress, Rio de Janeiro, Brazil
- ▶ 2023-24, Host, Weihestephan Forum on the Future of Agricultural Policy, Technical University of Munich, Germany
- ▶ 2023, Host, The World Needs New Proteins AgriScience Symposium, Technical University of Munich, Germany
- ▶ 2021, Sponsor, Fruit Attraction Madrid, Spain
- ▶ 2021-24, Sponsor, GrowTech Fair Antalya
- ▶ 2019, Sponsor, National Plant Nutrition and Fertilizer Conference, Antalya
- ▶ 2018, Food and Agriculture Summit, Bloomberg TV, Istanbul
- ▶ 2018, Medical and Aromatic Plant Workshop, Silivri, Turkey
- ▶ 2016, Agrishow Fair, Brazil
- ▶ 2016, The Rungis International Market, Paris
- ▶ 2011, Agritechnica Fair Hannover, Germany

### Certificates

- ▶ Artificial Intelligence for Business Leaders <https://tinyurl.com/2tvn9smu>
- ▶ Leading with a Digital Mindset in the Age of AI <https://tinyurl.com/cf29xxz5>

- ▶ Using AI in Research Projects  
<https://tinyurl.com/36j877mx>
- ▶ Scrum Advanced  
<https://tinyurl.com/m9b72drp>

## Social Responsibility

- ▶ 2023, Agnes-Mackensen-Program Mentor, Technical University of Munich, Germany  
-Empowering women without academic backgrounds to become future leaders, scientists, and startup founders.
- ▶ 2018, Child & Family Development Committee Director, Fenerbahçe Sports Club, Turkey.  
-'Books for Kids' Project promoted children's literacy through book donations.
- ▶ 2017, Philanthropic Writer, Women's Shelter Foundation, Turkey.  
-Authored "Absolute Happiness" (<http://tinyurl.com/33djbnkw>) sold in ten countries, with proceeds donated to the foundation.  
-Achievement: Received Certificate of Appreciation from the Women's Shelter Foundation.

## Interviews

- ▶ 2022, Milliyet  
<http://tinyurl.com/yc8d969w>
- ▶ 2021, BelleMag  
<http://tinyurl.com/3abh3s6c>
- ▶ 2021, Kırmızıbisikletim  
<http://tinyurl.com/3vx7v4d8>
- ▶ 2020, İş'te İlham  
<http://tinyurl.com/yc7muu3x>
- ▶ 2017, HürHaber  
<http://tinyurl.com/3ffykdb>

## Emotional Quotient (EQ)

- ▶ Red Bull Wingfinder: Highlights strengths in openness, innovation, adaptability, learning balance, discipline, confidence, and achievement.
- ▶ Personality Type: ENFJ (Protagonist) – Skilled in leadership and team collaboration.
- ▶ Predictor of Potential™ (POP7™): Strengths in sociability, systematic thinking, stress management, team leadership, collaboration, commitment, and training abilities.
- ▶ Core Values: Primary: Innovation – Emphasizing wisdom in problem-solving.  
Secondary: Merchant – Focused on nurturing core values in self and others.