

# Gamze BÖLÜK SARI

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## **PERSONAL INFORMATION**

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Nationality : Turkish  
Gender : Female  
Marital Status : Married  
Date of Birth : 11.11.1988  
Place of Birth : Ankara

## **CAREER**

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2022 – Continuing / Agricultural Engineer  
Republic of Türkiye Ministry of Agriculture and Forestry  
Biological Control Research Institute/ADANA

## **EDUCATIONAL BACKGROUND**

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2017 – 2021 Graduate Ph. D.  
University of Hawaii at Manoa  
College of Tropical Agriculture and Human Resources  
Tropical Plant Pathology

2013 – 2017 Graduate M.Sc.  
Ataturk University  
Graduate School of Natural and Applied Sciences  
Phytopathology Department  
Erzurum / TURKEY

2008 – 2012 Undergraduate B.Sc.  
Ataturk University  
Faculty of Agriculture  
Plant Protection Department  
Erzurum / TURKEY

## **SUCCESS AND SCHOLARSHIPS**

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2018 Best poster award in the College of Tropical Agriculture and Human Resources (\$2000)  
2015 Full scholarship of Ministry of Education for graduate studies.  
2013 High honor student in graduating from graduate program.  
2012 I graduated with first degree from undergraduate program.  
2011 High honor student in graduating from undergraduate program.

## **CERTIFICATES**

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- 03.06.2016 – 16.12.2016      University of Georgia  
Intensive English Course
- 2014 – 2015      Ankara University  
Faculty of Educational Sciences  
Pedagogical Formation Education (Agricultural Technologies)
- 4.26.2015      Ministry of Food, Agriculture and Livestock  
Agriculture Consultant Certification
- 6.11.2012 – 6.15.2012      Ministry of Health  
Responsible Care Management System and Certification
- 11.4.2012      Ministry of Food, Agriculture and Livestock  
Prescribing Certification (Exam result: 84/100)
- 11.3.2012      Ministry of Food, Agriculture and Livestock  
Plant Protection Products or Wholesale Dealers Certification (Exam result: 96/100)
- 4.30.2011 – 5.1.2011      Strategic Management and Leadership (enmac)  
ISO 19011/Internal Auditor (enmac)  
ISO 14001:2004 Basic Training (enmac)  
ISO 9001:2008 Basic Training (enmac)  
ISO 22000:2005 Basic Training (enmac)  
OHSAS 18001:2007 Basic Training (enmac)
- 5.15.2010 – 5.16.2010      Chamber of Food Engineers  
ISO 22000 Food Safety Management Systems
- 7.15.2010 – 9.10.2010      Gazi University  
Faculty of Technical Education  
AutoCAD Certification
- 9.15.2006      Ministry of Education  
Computer Certification

## **THESIS**

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- 2021      University of Hawaii at Manoa  
College of Tropical Agriculture and Human Resources  
Tropical Plant Pathology (Ph. D.)  
Dissertation title: Genomic biology and interactions of pectinolytic bacteria
- 2015      Ataturk University  
Graduate School of Natural and Applied Sciences  
Phytopathology Department (M.Sc.)  
Thesis title: Detection of the *Fusarium* species which wilt disease of melon in Ankara and pathogenicity
- 2011      Ataturk University  
Faculty of Agriculture  
Plant Protection Department B.Sc.)  
Thesis title: Arthropod that make neoplasm

## **EXPERIENCES**

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- 2019/Spring      University of Hawaii at Manoa  
PEPS 606 Biology of Plant Pathogens: Bacteria  
Teaching Assistant
- 2019/Summer      University of Hawaii at Manoa  
PEPS 615L Diagnosis and Management of Tropical Plant Diseases Laboratory  
Teaching Assistant
- 2019/Fall      University of Hawaii at Manoa  
PEPS 691 Special Molecular Diagnostic Methods  
Teaching Assistant
- 2020/ Spring      University of Hawaii at Manoa  
PEPS 606 Biology of Plant Pathogens: Bacteria  
Teaching Assistant
- 2020/Summer      University of Hawaii at Manoa  
PEPS 615L Diagnosis and Management of Tropical Plant Diseases Laboratory  
Teaching Assistant
- 2015      Ministry of Education  
Mehmet Akif Ersoy Anatolian Vocational and Technical High School  
Intern Teacher of Agricultural Technologies
- 2010      Internship  
Ministry of Agriculture  
Directorate of Plant Protection Central Research Institute

2008 Internship  
Gestar General Agricultural Products  
Ankara / TURKEY

## **PUBLICATIONS**

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Klair D, Arizala D, Dobhal S, **Boluk G**, Alvarez AM, Arif M (2022). *Pectobacterium colocasium* sp. nov. isolated from taro (*Colocasia esculenta*). **BioRxiv**. Doi:10.1101/2022.02.08.479620

**Boluk G**, Dobhal S, Arizala D, Alvarez AM, Arif M (2022). *Dickeya colocasiae* sp. nov. isolated from wetland taro, *Colocasia esculentum*. **BioRxiv**. Doi:10.1101/2022.01.14.476417

Domingo R, Perez C, Klair D, Vu H, Candelaria-Tochiki A, Wang X, Camson A, Uy JN, Salameh M, Arizala D, Dobhal S, **Boluk G**, Bingham JP, Ochoa-Corona F, Ali ME, Stack JP, Fletcher J, Odani J, Jenkins D, Alvarez AM, Arif M (2021). Genome-informed loop-mediated isothermal amplification assay for specific detection of *Pectobacterium parmentieri* in infected potato tissues and soil. **Scientific Reports**, 11, 21948. doi.org/10.1038/s41598-021-01196-4

**Boluk G**, Arizala D, Dobhal S, Zhang J, Hu J, Alvarez AM, Arif M (2021). Genomic and phenotypic biology of novel strains of *Dickeya zaeae* isolated from pineapple and taro in Hawaii: insights into genome plasticity, pathogenicity, and virulence determinants. **Frontiers in Plant Science**. doi: 10.3389/fpls.2021.663851

Klair D, Silva J, Arizala D, **Boluk G**, Dobhal S, Ahmad AA, Uyeda J, Alvarez AM, Arif M (2021). First Report of *Pectobacterium brasiliense* causing soft rot on mizuna (*Brassica rapa* var. *japonica*) in the United States. **Plant Dis**.doi.org/10.1094/PDIS-03-21-0644-PDN

Klair D, **Boluk G**, Silva J, Arizala D, Dobhal S, Arif M (2021). First report of bacterial soft rot disease on pak choi (*Brassica rapa* subsp. *chinensis*) caused by *Pectobacterium brasiliense* in the United States. **Plant Dis**. doi.org/10.1094/PDIS-08-20-1854-PDN

**Boluk G**, Arizala D, Ocenar J, Mokwele J, Silva J, Dobhal S, Uyeda J, Alvarez AM, Arif M (2020). First report of *Pectobacterium brasiliense* causing soft rot on *Brassica oleracea* var. *sabellica* L. in Hawaii, United States. **Plant Dis**. doi.org/10.1094/PDIS-04-20-0701-PDN

Arizala D, Dobhal S, Paudel S, **Boluk G**, Silva J, Ahmad AA, Uyeda J, Sugano J, Alvarez AM, Arif M (2020). First report of *Pectobacterium brasiliense* causing bacterial soft rot and blackleg diseases of potato in Hawaii. **Plant Dis**. doi.org/10.1094/PDIS-02-20-0395-PDN

**Boluk G**, Dobhal S, Crockford AB, Melzer MJ, Alvarez AM, Arif M (2020). Genome-informed recombinase polymerase amplification assay coupled with a lateral flow device for in-field detection of *Dickeya* species. **Plant Dis**. doi.org/10.1094/PDIS-09-19-1988-RE

Dobhal S, **Boluk G**, Babler B, Stulberg MJ, Rascoe J, Nakhla M, Chapman TA, Crockford AB, Melzer MJ, Alvarez AM, Arif M (2020). Comparative genomics reveals signature regions used to develop a robust and sensitive multiplex TaqMan real-time qPCR assay to detect the genus *Dickeya* and *Dickeya dianthicola*. **J Appl Microbiol.**, doi.org/10.1111/jam.14579

Arizala D, Dobhal S, Paudel S, Gunarathne S, **Boluk G**, Arif M (2019). First report of bacterial soft rot and blackleg on potato caused by *Pectobacterium parmentieri* in Hawaii. **Plant Dis.** doi.org/10.1094/PDIS-09-19-1894-PDN

Ocenar J, Arizala D, **Boluk G**, Dhakal U, Gunarathne S, Paudel S, Dobhal S, Arif M (2019). Development of a robust, field-deployable loop-mediated isothermal amplification (LAMP) assay for specific detection of potato pathogen *Dickeya dianthicola* targeting a unique genomic region. **PLoS ONE**, 14(6):e0218868. doi.org/10.1371/journal.pone.0218868

**Boluk G**, Arif M (2019). First report of *Dickeya dianthicola* as a causal agent of bacterial soft rot of potato in Hawaii. **Plant Dis.** doi.org/10.1094/PDIS-11-18-2094-PDN

Wang D, **Boluk G**, Quinto EA, Hamim I, Borth WB, Melzer MJ, Green J, Suzuki JY, Wall MM, Matsumoto T, Sun GF, Hu JS (2019) First Report of Zucchini Tigre Mosaic Virus Infecting Bitter Melon (*Momordica charantia*) in Hawaii. **Plant Dis.** doi.org/10.1094/PDIS-08-18-1391-PDN

Larrea-Sarmiento A, Dhakal U, **Boluk G**, Fatdal L, Alvarez AM, Strayer-Scherer A, Paret M, Jones J, Jenkins D, Arif M (2018) Development of a genome-informed loop-mediated isothermal amplification assay for rapid and specific detection of *Xanthomonas euvesicatoria*. **Scientific Reports**, 8:14298. doi.10.1038/s41598-018-32295-4

Bozhüyük AU, Kordali Ş, **Bölük G** (2015) *Satureja hortensis* L. uçucu yağının antifungal etkisi. Atatürk Üniv Ziraat Fak Derg, 46 (2): 107-112

## **CONFERENCES, SEMINARS AND SYMPOSIUMS**

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### **2020 APS Annual Meeting / Online**

1. **Boluk G**, Arizala D, Dobhal S, Alvarez AM, Arif M (2020). Comparative Genomics analyses revealed distinct pathogenicity determinants and distinct features between *Dickeya zea* strains from taro and pineapple (Abstract; APS Annual Meeting, Poster).
2. **Boluk G**, Dobhal S, Alvarez AM, Arif M (2020). Complete genomic analysis of plant-pathogenic *Pectobacterium* species found associated with soft rot disease of kale (Abstract; APS Annual Meeting, Poster).
3. **Boluk G**, Dobhal S, Alvarez AM, Arif M (2020). Evolutionary relationships and phylogeny of *Dickeya zea* strains based on phenotypic, biochemical and genomic characteristics (Abstract; APS Annual Meeting, Poster).

### **2019 APS Annual Meeting / Cleveland, OH**

1. Dobhal S, **Boluk G**, Babler B, Stulberg MJ, Rascoe J, Nakhla M, Chapman T, Crockford AB, Melzer M, Alvarez AM, Arif M (2019). Comparative genomics approach to develop a highly reliable duplex TaqMan qPCR assay for sensitive detection of genus *Dickeya* and *Dickeya dianthicola* (Abstract accepted for APS meeting at Cleveland, OH, Poster).
2. **Boluk G**, Dobhal S, Alvarez A, Arif M (2019). Phylogeny of *Dickeya zea* isolated from different

hosts and irrigation water using multi-locus sequence analysis (Abstract accepted for APS meeting at Cleveland, OH, Poster).

3. **Boluk G**, Dobhal S, Crockford AB, Melzer M, Alvarez AM, Arif M (2019) Genome-informed recombinase polymerase amplification assay for specific and sensitive detection of *Dickeya* species at point-of-care (Abstract accepted for APS meeting at Cleveland, OH, Sözlü Sunum).

**2018 APS Annual Meeting / Boston, MA**

1. Fatdal L, **Boluk G**, Larrea A, Dhakal U, Alvarez A, Strayer AL, Paret M, Jones J, Jenkins D, Arif M (2018). Genome-informed LAMP assays for specific detection of bacterial spot-causing bacteria, *Xanthomonas euvesicatoria* and *X. vesicatoria*. (Abstract; ICPP Meeting at Boston, MA, Poster).

**2018 Biosecurity in Theory and Practice / Kansas State University**

**2009 Agriculture, Tourism and Environmental at Kalecik/Ankara**

3 posters were prepared and presented by Boluk G.

Apricot production in Kalecik in 2009.

Grape production in Kalecik in 2009.

Wine factories and their capacity in Kalecik in 2009.