



**Turkish Journal of  
FOOD &**

**AGRICULTURE  
Sciences**



**TURJFAS**

**YEAR: 2022**  
**VOLUME:4**  
**ISSUE:2**

**Turkish Journal of FOOD &  
AGRICULTURE  
Sciences**



**TURJFAS**



T U R J F A S

**Turkish Journal of Food and Agriculture  
Sciences**

**Turk J Food Agric Sci**

*December*

YEAR: 2022  
VOLUME:4  
ISSUE:2

e-ISSN2687-3818



**JOURNAL BOARD**

**Editor in Chief**

Assoc. Prof. Dr. Burhan OZTURK, Ordu University, Ordu, Türkiye

**Co-Editors**

Assoc. Prof. Dr. Erdal AGLAR, Van Yüzüncü Yıl University, Türkiye

Assoc. Prof. Dr. Harun OZER, Ondokuz Mayıs University, Türkiye

**Associate Editors**

**Agricultural Economics**

Assoc. Prof. Dr. Derya OZTURK, Ordu University, Ordu, Türkiye

**Animal Sciences**

Prof. Dr. Ismail TURKER, Uşak University, Uşak, Türkiye

**Biosystems Engineering**

Prof. Dr. Ebubekir ALTUNTAS, Tokat Gaziosmanpaşa University, Tokat, Türkiye

**Field Crops**

Assoc. Prof. Dr. Şahane Funda ARSLANOGLU, Ondokuz Mayıs University, Samsun, Türkiye

**Horticulture**

Assoc. Prof. Dr. Onur SARACOGLU, Tokat Gaziosmanpaşa University, Tokat, Türkiye

**Ornamental and Landscape**

Assist. Prof. Dr. Mehmet TUTUNCU, Ondokuz Mayıs University, Samsun, Türkiye

**Plant Protection**

Prof. Dr. İşık TEPE, Van Yüzüncü Yıl University, Van, Türkiye

**Soil and Plant Nutrition**

Assoc. Prof. Dr. Halil ERDEM, Tokat Gaziosmanpaşa University, Tokat, Türkiye

**Food**

Assist. Prof. Dr. Mohammad Wasim SIDDIQUI, Bihar Agricultural University, Bihar, India

Assoc. Prof. Dr. Mahmoud Koushesh SABA, University of Kurdistan, Sanandaj, Iran

Assoc. Prof. Dr. Yunus Emre TUNCIL, Necmettin Erbakan University, Konya, Türkiye



**Editorial Board**

Prof. Dr. Aysun PEKSEN, Ondokuz Mayıs University, Samsun, Türkiye

Prof. Dr. Cafer KOSE, Atatürk University, Erzurum, Türkiye

Assoc. Prof. Dr. Clive KAISER, Lincoln University, Canterbury, New Zealand

Prof. Dr. İlker KEPENEKCI, Tokat Gaziosmanpaşa University, Tokat, Türkiye

Msc. Jiban SHRESTHA, Nepal Agricultural Research Council, Dhankuta, Nepal

Prof. Dr. Kenan YILDIZ, Tokat Gaziosmanpaşa University, Tokat, Türkiye

Prof. Dr. Khalid JAVED, University of Veterinary and Animal Sciences, Lahore, Pakistan

Assoc. Prof. Dr. Mehtap OZBAKIR OZER, Black Sea Agriculture Research Institute, Samsun,  
Türkiye

Prof. Dr. Mohammad Shafiu RAHMAN, Sultan Qaboos University, Al-khod, Sultanate of  
Oman

Prof. Dr. Muttalip GUNDOGDU, Bolu Abant İzzet Baysal University, Bolu, Türkiye

Prof. Dr. Renata NURZYNSKA WIERDAK, University of Life Sciences in Lublin, Lublin,  
Poland

Prof. Dr. Rustem CANGI, Tokat Gaziosmanpaşa University, Tokat, Türkiye

Prof. Dr. Sedat KARAMAN, Tokat Gaziosmanpaşa University, Tokat, Türkiye

Prof. Dr. Sezai ALKAN, Ordu University, Ordu, Türkiye

Prof. Dr. Yakup OZKAN, Eskişehir Osmangazi University, Eskişehir, Türkiye

Prof. Dr. Zora SINGH, Murdoch University, Perth, Australia

**Statistics Editor**

Assist. Prof. Dr. Yeliz KAŞKO ARICI, Ordu University, Ordu, Türkiye

Dr. Davut CANLI, Ordu University, Ordu, Türkiye

**Language Editor**

Lecturer Sinan ALYURT, Kafkas University, Kars, Türkiye

**Graphic Design**

Lecturer Elif CILAVDAROGLU, Ondokuz Mayıs University, Samsun, Türkiye

**Social Media**

PhD Student Sefa GUN, Ordu University, Ordu, Türkiye

PhD Student Umut ATES, Ordu University, Ordu, Türkiye

MSc Student Mestan HISARKAYA, Ordu University, Ordu, Türkiye



## Journal Information

<i>Journal Name</i>	: <i>Turkish Journal of Food and Agriculture Sciences</i>
<i>Abbreviation</i>	: <i>Turk J Food Agric Sci</i>
<i>e-ISSN</i>	: 2687-3818
<i>Doi</i>	: <a href="https://doi.org/10.53663/turjfas.articleID">https://doi.org/10.53663/turjfas.articleID</a>
<i>Language</i>	: English
<i>Frequency</i>	: Biannually (June and December)
<i>Type of Publication</i>	: Independent international double-blinded peer-review scientific journal
<i>Indexed and abstracted in</i>	: CABI, CAB ABSTRACT, EBSCO, Google Academic, Crossref, ASOS
<i>Manuscript Submission and Tracking System</i>	: TURJFAS uses the submission system of TUBITAK ULAKBIM (a journal management and publication system), <a href="https://dergipark.org.tr/en/pub/turjfas">https://dergipark.org.tr/en/pub/turjfas</a>
<i>Publisher</i>	: Burhan ÖZTÜRK
<i>Owner</i>	: Burhan ÖZTÜRK
<i>License</i>	: Journal is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License
<i>Legal Responsibility</i>	: Authors are responsible for content of articles that were published in TUJFAS
<i>Address</i>	: Ordu University, Faculty of Agriculture, Department of Horticulture, Ordu, Türkiye
<i>Contact</i>	: Burhan Ozturk E-mail: <a href="mailto:burhanozturk55@gmail.com">burhanozturk55@gmail.com</a> or <a href="mailto:turjfas@gmail.com">turjfas@gmail.com</a> Phone: +905062036255



### Reviewer list of the issue

Ali GÜNCAN  
Ali TEKGÜLER  
Aqsa AMEER  
Azize ATİK  
Ebubekir ALTUNTAŞ  
Engin ÖZGÖZ  
Erol AYDIN  
Halide AYDEMİR  
Halil ERDEM  
Haydar KURT  
Hüseyin İrfan BALIK  
Kahraman İPEKDAL  
Kibar AK  
Mehmet AKGÜN  
Melike DEMİRKOL  
Mustafa BAYRAM  
Nurhan MUTLU  
Onur SARAÇOĞLU  
Ömer Faruk ÇELİK  
Saadet KOÇ GÜLER  
Serkan İÇ  
Serkan UZUN  
Sezer ŞAHİN

## CONTENTS

Authors	Title	Pages
<b>Research articles</b>		
Umut Ateş Orhan Karakaya Süleyman Muhammed Çelik Ahmad Haseeb Faizy	Bioactive compounds of strawberry tree ( <i>Arbutus unedo</i> L.) genotypes grown in the East Black Sea and Marmara regions	29-33
Zaki Ahmad Faizi	Changes in microbial quality of fruit juices, syrups, and ready-to-serve carbonated drinks produced with different processing parameters and stored in different conditions within six months	34-40
Sahadeb Sarkar Soumya Majumder Arindam Ghosh Sumedha Saha Sukanya Acharya Sourav Chakraborty Malay Bhattacharya	Metabolomic exploration of CTC tea manufacturing waste validates its potentiality as organic fertilizer	41-48
Agbai Williams Perekembe Joseph Oyinbrakemi Tate	The short term effect of tillage on soil physicochemical properties in Bayelsa State, Nigeria	49-56
Burak Akyüz Islam Saruhan Ümit Serdar	Damage ratio of the Asian chestnut gall wasp, <i>Dryocosmus kuriphilus</i> Yasumatsu, 1951 (Hemiptera: Cynipidae) in Samsun Province of Türkiye: First Report	57-59
Ayşenur Pekcan Fatma Coşkun Ömer Öksüz	Comparison of hardaliye produced by different starters: Back-slopping and kombucha	60-68
Kader Sali Burhan Ozturk Mithat Akgun Umut Ates	Effect of drying methods on the sensory attributes of hazelnut cultivars in different sizes throughout the storage	69-75