


MARCH
2022




YEAR : 2022
VOLUME : 6
ISSUE : 1

INTERNATIONAL JOURNAL OF AGRICULTURE, ENVIRONMENT AND FOOD SCIENCES

www.jaefs.com 

dergipark.gov.tr/jaefs 

editor@jaefs.com 

edit
PUBLISHING

e-ISSN: 2618-5946

JAEFS



JAEFS

**International Journal of
Agriculture, Environment and Food Sciences**

Int J Agric Environ Food Sci

e-ISSN: 2618-5946



March 2022

Volume: 6 Issue: 1 Year: 2022



Editor-in-Chief

Gültekin Özdemir, Ph.D

Dicle University, Faculty of Agriculture, Department of Horticulture, Diyarbakır, Türkiye

Co-Editor-in-Chief

Zeynel Cebeci, Ph.D

Çukurova University, Faculty of Agriculture, Div. of Biometry & Genetics, Adana, Türkiye

Managing Editor

Javier Lopez, Ph.D

Agricultural Sciences, Plant Biotechnology Tecnologico del Valle de Oaxaca, Mexico

Associate Editors

Agriculture

İsmail Karaca, Ph.D

Applied Sciences University, Faculty of Agriculture, Department of Plant Protection, Isparta, Türkiye

Mark Matthews, Ph.D

California University, Department of Viticulture and Enology, Davis, U.S.A.

Vinayak S. Shedekar, Ph.D

The Ohio State University, Piketon, USA

Environment

Semih Nemlioğlu, Ph.D

Istanbul University Cerrahpasa, Faculty of Engineering, Department of Environmental Engineering, Istanbul, Türkiye

Yuriy Kravchenko, Ph.D

National University of Life and Environmental Sciences of Ukraine, Soil Science and Soil Conservation Department, Kiev, Ukraine

Food Science

Haşim Kelebek, Ph.D

Adana Science and Technology University, Adana, Türkiye

Mecit Halil Öztop, Ph.D

Middle East Technical University, Ankara, Türkiye

Mohamed Bouaziz, Ph.D

University of Sfax, Tunisia

Statistical Editor

Şenol Çelik, Ph.D

Bingöl University, Department of Zootechnics Div. of Biometry and Genetics Bingöl, Türkiye

Language Editor

Jiban Shrestha, MSc

Nepal Agricultural Research Council, National Commercial Agriculture Research Program, Pakhribas, Dhankuta, Nepal



Editorial Board

Ahmad Ali, Ph.D

University Department of Life Sciences, University of Mumbai, Vidyanagari, Santacruz (East), India

Ahmet Bayram, Ph.D

Dicle University, Faculty of Agriculture, Department of Plant Protection, Diyarbakır, Türkiye

Akbar Hossain, Ph.D

Bangladesh Wheat and Maize Research Institute, Nashipur, Dinajpur 5200, Bangladesh

Albena Stoyanova, Ph.D

University of Food Technologies Plovdiv Bulgaria

Ales Vokurka, Ph.D

University of Zagreb, Faculty of Agriculture, Dept, of Plant Breeding, Genetics & Biometrics
Svetošimunska 25, Zagreb, Croatia

Alban Ibrahimi, Ph.D

Department of Department of Agronomic Sciences Faculty of Agriculture and Environment Agricultural University of
Tirana - Albania

Ali Sabır, Ph.D

Selcuk University, Faculty of Agriculture, Konya, Türkiye

Bülent Koç, Ph.D

Clemson University, Clemson, USA

Chunpeng Wan, Ph.D

Jiangxi Agricultural University, Jiangxi, China

Edmundo Mercado Silva, Ph.D

Universidad Autónoma de Querétaro, Querétaro, Mexico

Emine Elmaslar OZBAS, Ph.D

Istanbul University-Cerrahpasa, Faculty of Engineering, Department of Environmental Engineering, Istanbul, Türkiye

Florin Stanica, Ph.D

University of Agronomic Sciences, Faculty of Horticulture, Bucuresti, Romania

George J. Stathas, Ph.D

Technological Educational Institute of Peloponnese, Kalamata, Greece

George Japoshvili, Ph.D

Agricultural University of Georgia, Tbilisi

Geza Bujdoso, Ph.D

Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungarian

Giuliano Finetto, Ph.D

University of Verona, Verona, Italy

Hakan Aktas, Ph.D

Suleyman Demirel University, Faculty of Agriculture Department of Horticulture, Isparta, Türkiye

Hakan Özkan, Ph.D

Cukurova University, Adana, Türkiye

Halit Yetişir, Ph.D

Erciyes University, Kayseri, Türkiye

Hanifeh Hajizadeh, Ph.D

Department of horticulture, faculty of agriculture, university of Maragheh, Iran

Huma Naz, Ph.D

Department of Agriculture and Cooperation, Ministry of Agriculture and Farmers Welfare, Krishi Bhawan, New Delhi,
India

Ilian Badjakov, Ph.D

Agro Bio Institute, Sofia, Bulgaria

Irfan Ahmad Baig, Ph.D

Muhammad Nawaz Shareef University of Agriculture, Multan, Pakistan

Ivan Salamon, Ph.D

Department of Ecology, Faculty of Humanities and Natural Sciences, University of Presov, Presov, Slovak Republic



Khuda Bakhsh, Ph.D

COMSATS Institute of Information Technology, Department of Management Sciences, Vehari, Pakistan

Metin Turan, Ph.D

Yeditepe University, Istanbul, Türkiye

Milena Moteva, Ph.D

University of Architecture, Civil Engineering and Geodesy (UACEG), Sofia 1046, Bulgaria

Mumbai, Maharashtra, India

N. Yeşim Yalçın Mendi, Ph.D

Çukurova University, Faculty of Agriculture Department of Horticulture, Adana, Türkiye

Nataliia Silonova, Ph.D

National University of Life and Environmental Sciences of Ukraine, Kyiv

Nazım Şekeroğlu, Ph.D

Kilis 7 Aralık University, Faculty of Engineering and Architecture, Department of Food Engineering, Kilis, Türkiye

Öner Çetin, Ph.D

Dicle University, Faculty of Agriculture Department of Agricultural Structures and Irrigation, Diyarbakir, Türkiye

Orhan Özçatalbaş, Ph.D

Akdeniz University, Faculty of Agriculture, Department of Agricultural Economics, Antalya, Türkiye

Ufuk Tansel Şireli, Ph.D

Ankara University, Faculty of Veterinary Medicine Department of Food Hygiene and Technology, Ankara

Pahlaj Moolio, Ph.D

Paññāsāstra University of Cambodia (PUC), Phnom Penh, Cambodia

Peter Ondrišík, Ph.D

Slovak University of Agriculture, Nitra, Slovak Republic

Rafiq Islam, Ph.D

The Ohio State University, Piketon, USA

Róbert Szilagyi, Ph.D

Debrecen University, Debrecen, Hungary

Sekan Selli, Ph.D

Cukurova University, Adana, Türkiye

Selma Tozanlı, Ph.D

Institut Agronomique Méditerranéen de Montpellier, France

Sezai Ercişli, Ph.D

Ataturk University, Faculty of Agriculture Department of Horticulture, Erzurum, Türkiye

Simone Castellarin, Ph.D

British Columbia University, Department Viticulture & Plant Genomics, Canada

Tetyana Kalnadubinyuk, Ph.D

National University of Life and Environmental Sciences, Department of Extension and Tourism of Ukraine Kyiv, Ukraine

Veaceslav Mazăre, Ph.D

Banat University of Agricultural Sciences and Veterinary Medicine, Romania

Velibor Spalevic, Ph.D

University of Montenegro, Podgorica, Montenegro

Vjekoslav Tanaskovikj, Ph.D

Ss. Cyril and Methodius University, Skopje, Macedonia

Wilson Huanca-Mamani, Ph.D

Universidad de Tarapacá, Arica, Chile

Xing-Jun Wang, Ph.D

Shandong Academy of Agricultural Sciences, Biotechnology Research Center, Jinan, China

Zeljka Zgorelec, Ph.D

University of Zagreb Faculty of Agriculture, Croatia

Zeynep Eren, Ph.D

Ataturk University, Department of Environment Technologies, Erzurum, Türkiye



Journal Information

Journal Name	International Journal of Agriculture, Environment and Food Sciences
Abbreviation	Int J Agric Environ Food Sci
Subjects	Agriculture, Environment and Food Sciences
e-ISSN	2618-5946
Publisher	Edit Publishing; Edit Teknoloji ARGE San. Tic.Ltd. Şti. Diyarbakır, Türkiye
Owner	Gultekin Ozdemir
Language	English
Frequency	Quarterly (March, June, September, December)
Type of Publication	International, Scientific, Open Access Double blinded peer review Widely distributed periodical
Manuscript Submission and Tracking System	JAEFS uses the submission system of TUBITAK ULAKBIM JournalPark Open Journal Systems - http://dergipark.gov.tr/jaefs
Licence	Journal is licensed under a Creative Commons Attribution 4.0 International License
Legal Responsibility	Authors are responsible for content of articles that were published in Journal.
Indexed and Abstracted in	TÜBİTAK ULAKBİM TR Dizin, Crossref, Directory of Open Access Journal (DOAJ), AGORA (Access to Global Online Research in Agriculture), AGRIS (Agricultural Science and Technology Information), WorldCat, Google Scholar, SOBIAD, Scilit, ROAD (Directory of Open Access Scholarly Resources), Neliti, International Citation Index, ROOT Indexing, ResearchBib, Index Copernicus International, ESJI, JournalTOCs, TEELS, ResearchGate, Microsoft Academic
Address	International Journal of Agriculture, Environment and Food Sciences Edit Publishing; Edit Teknoloji Arge Sanayi ve Ticaret Limited Şirketi Dicle Teknokent Dicle Üniversitesi Kampüsü Yiğit Çavuş Mah. Silvan Yolu Üzeri Kat:2 No:26, Diyarbakır, Türkiye
Contact	Prof. Dr. Gultekin Ozdemir Phone: +90 532 545 07 20 E-Mail: editor@jaefs.com - bilgi@editteknoloji.com Web: www.jaefs.com - dergipark.gov.tr/jaefs



Aim and Scope

“International Journal of Agriculture, Environment and Food Sciences” (JAEFS) is an international journal, which publishes original research and review articles dealing with Agriculture, Environment and Food Sciences.

JAEFS Journal is an international, scientific, open access periodical published in accordance with independent, unbiased, and doubleblinded peerreview principles.

Journal publishes Quarterly (March, June, September, December).

The publication language of the journal is English and continues publication since December 2017.

A Digital Object Identifier (DOI) number has been assigned for each article accepted to be published in JAEFS, starting from December 2017.

International Journal of Agriculture, Environment and Food Sciences areas of interest include, but are not limited to: Agricultural Engineering and Technology, Environmental Engineering and Technology, Food Engineering and Technology, Agriculture, Environment, Food, Agriculture History, Agricultural Economics, Agronomy, Animal Sciences, Aquaculture, Biochemistry, Biotechnology, Bioinformatics and Data Science, Crop Science, Dairy Science, Extension Science and Education, Entomology, Environmental Science, Fish and Fisheries, Food Processing, Food Chemistry, Food Culture, Food Health and Nutrition, Food History, Food Industry Development, Food Marketing, Food Policy and Practices, Food Safety, Forestry, Horticulture, Information Technologies and Systems, Irrigation, Molecular Biology, Organic Agriculture, Plant Physiology, Plant Breeding, Plant Protection, Plant Sciences, Precision Agriculture, Rural Development and Policy, Sustainable Agriculture, Soil Science, Plant Nutrition, Energy Crops, Veterinary, Water Resources.

Open Access Statement

International Journal of Agriculture, Environment and Food Sciences (JAEFS) publishes fully open access journal, which means that all articles are available on the internet to all users immediately upon publication.

All the original articles and review papers published in JAEFS journal are free to access immediately from the date of publication.

International Journal of Agriculture, Environment and Food Sciences (JAEFS) don't charge any fees for any reader to download articles and reviews for their own scholarly use.

Users are allowed to read, download, copy, distribute, print, search, or link to the full texts of the articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author. This is in accordance with the BOAI definition of open access.

Copyright of the layout and design of International Journal of Agriculture, Environment and Food Sciences articles remains with the journal and cannot be used in other publications.

International Journal of Agriculture, Environment and Food Sciences also operates under the Creative Commons Licence CC-BY-NC.

All authors publishing with the JAEFS accept these as the terms of publication.

Benefits of open access for Authors include:

Free access for all users worldwide

Authors retain copyright to their work

Increased visibility and readership

Rapid publication

No spatial constraints

Copyright Policy

Authors who publish with International Journal of Agriculture, Environment and Food Sciences (JAEFS) agree to the following terms:

Authors transfer the copyright to International Journal of Agriculture, Environment and Food Sciences (JAEFS). Authors, however, upon the publication of their work, can republish it in another journal or book provided that they obtain the permission of the Journal. Moreover, they are to include the note indicating that their work has first been published in International Journal of Agriculture, Environment and Food Sciences (JAEFS) and the link to their work in the journal.

Authors, upon the publication of their work, can publish it in online environments and/or social networks (personal webpages, course content websites, Facebook, etc.). However, they also provide the link to the work as published in the journal.

“International Journal of Agriculture, Environment and Food Sciences” journal is licensed under a Creative Commons Attribution 4.0 International License



Instructions to Authors

Please read all of the following manuscript preparation instructions carefully and in their entirety. The manuscript must be in good scientific English; this is the author's responsibility.

All authors must have read and approved the most recent version of the manuscript.

Manuscripts submitted via any other medium will not be processed.

Manuscripts submitted to the International Journal of Agriculture, Environment and Food Sciences will first go through a technical evaluation process where the editorial office staff will ensure that the manuscript has been prepared and submitted in accordance with the journal's guidelines.

Submissions that do not conform to the journal's guidelines will be returned to the submitting author with technical correction requests.

The journal management requires that all authors register to ORCID at <http://orcid.org> register and get a free ORCID ID.

All submissions are screened by a similarity detection software.

We are using iThenticate plagiarism solution and our maximum allowed score, for the document in which the Materials and Methods and References sections truncated, is 20%. Higher scores are not allowed and the author will be given the plagiarism report and the manuscript will be returned to the authors.

Manuscript Structure

Font

Manuscripts must be prepared as a Microsoft Word file.

Word document, Times New Roman, 10 point, single line space.

Page margins are 2.5 for all sides.

Length

Maximum length for articles is 20 pages.

Articles over 20 pages in length can only be considered on an exceptional basis.

Title

A concise title of the paper.

Use bold 14-point Times Roman font.

Use title lowercase.

Make title in centered.

Name(s) and surname(s) of author(s)

Use centered, bold 10-point Times Roman font.

Affiliation(s) of author(s)

Use 8-point Times Roman font.

E-mail address of the corresponding author

Use 8-point Times Roman font.

ORCID(s) of author(s)

Use 8-point Times Roman font.

The journal management requires that all authors register to ORCID at

<https://orcid.org/register>

and get a free ORCID ID.

Abstract

Each article is to be preceded by a succinct abstract, of up to 200 words, that highlights the objectives, methods, results, and conclusions of the paper. The abstract should state briefly the purpose of the research, the principal results and major conclusions.

The abstract body is typed in Times New Roman, 10 pt.



Instructions to Authors

Keywords

About four Keyword or phrases in order of importance, separated by commas and typed in Times New Roman, 10 pt.

Headings

Use bold, lowercase, 10 Times New Roman font for headings.

Introduction

This should define the problem and, if possible, the frame of existing knowledge. Please ensure that people not working in that particular field will be able to understand the intention.

The word length of the introduction should be 150 to 300 words.

Materials and Methods

Materials and methods should be clearly presented to allow the reproduction of the experiments.

Results and Discussion

Results should be clear and concise and give the significance of the results of the work. Data must not be repeated in figures and tables.

Discussion should interpret the results in reference to the problem outlined in the introduction and of related observations by the author/s or others.

Implications for further studies or application may be discussed.

Conclusion

A conclusion should be added if results and discussion are combined.

Tables and Figures

Tables should have a short descriptive title.

The unit of measurement used in a table should be stated.

Tables should be numbered consecutively.

Figures should be prepared in GIF, TIFF, JPEG or PowerPoint.

Tables and Figures should be appropriately cited in the manuscript.

Acknowledgments

Acknowledgments of financial support, advice, or other kinds of assistance should be given at the end of the text under the heading "Acknowledgements". The names of funding organizations should be written in full.

References

They should be grouped at the end of the paper in surname order of appearance.

Use lowercase, 10 Times New Roman font for References.

The references must be written in alphabetical order by authors' names, with the following elements:

Original Papers

Surname, N.N., Surname, N.N. (Year). The full title of the article. Journal Name, volume, and issue, first and last page. DOI number.

Book or Proceeding

Surname, N.N., Surname, N.N. (Year). Title of the contribution. In: Title of the book or proceeding. Volume (Publisher, City, first and last page)

Thesis

Surname, N.N. (Year). Title of the thesis, University and Faculty, City. pages.



Contents

Research Articles

Authors	Title	Pages
Ahmad Yar AHMADI Mohammad ARIEN	Poultry manure effects on yield and some agronomic components of Soybean (<i>Glycine max L.</i>) under Khost agro-ecological conditions, Afghanistan	1-6
Ünal İSPİR Mikail ÖZCAN Engin ŞEKER	Immunomodulation function of Tunceli garlic (<i>Allium tuncelianum</i>) oil in Rainbow Trout (<i>Oncorhynchus mykiss</i>)	7-12
Dilek KESKİN Nur GÜVENSEN	Investigation of antimicrobial properties and chemical composition of different extracts of Sweet gum leaves (<i>Liquidambar orientalis</i>)	13-18
Orhan KURT Merve GÖRE Kübra KIR	Determination of sowing date of Crambe (<i>Crambe abyssinica L.</i>) in Northern Türkiye	19-24
Öner ÇETİN Cuma AKINCI Önder ALBAYRAK Muhittin Murat TURGUT Remzi ÖZKAN H. Kıvanç DOĞANAY	Impact of climate on durum wheat yield (<i>Triticum durum Desf.</i>) under different cultivation and irrigation methods	25-36
Sibel DAY	Impact of seed priming on germination performance of fresh and aged seeds of Canola	37-40
Yakup Kenan KOCA Yavuz Şahin TURGUT	Overview of the lands of Dalaman agricultural enterprises using geographic information systems	41-49
Mustafa AKGÜN Erkan SÖYLEMEZ	Determining the future trends of safflower plant in Türkiye	50-57
Solmaz KAMAŞAK Ömer Faruk COŞKUN Akife DALDA ŞEKERCİ Osman GÜLŞEN	Microsatellite analysis in some watermelon (<i>Citrullus lanatus</i>) genotypes	58-64
Fatma Gül GÖZE ÖZDEMİR Asiye UZUN Ozan DEMİRÖZER	Assessment of nematicidal activity of <i>Beauveria bassiana</i> (Bals.-Criv.) vuill on <i>Pratylenchus thornei</i> (Sher et Allen) (Tylenchida: Pratylenchidae)	65-71
Mehmet Hüseyin DEMİREL Muhittin Murat TURGUT	Determination of the knowledge levels of the farmers of the Diyarbakir region on conservation tillage practices	72-79
İhsan ALACABEY	Adsorptive removal of cationic dye from aqueous solutions using Bardakçı clay	80-90
Firdes ULAŞ	Leaf and root-growth characteristics contributing to salt tolerance of backcrossed pepper (<i>Capsicum annuum L.</i>) progenies under hydroponic conditions	91-99



Contents

Research Articles

Authors	Title	Pages
Abdullah ULAŞ Yusuf Cem YÜCEL Firdes ULAŞ	The application of fish wastewater to improve the plant growth, development and yield of lettuce (<i>Lactuca sativa</i> L.)	100-107
Rouhollah NASİRZADEHDİZAJİ Dilek Eren AKYÜZ	Application of swat hydrological model to assess the impacts of land use change on sediment loads	108-120
Selda TÜRKÖĞLU COŞKUN Emine OLHAN	Genetically modified organisms and biosafety as perceived by professionals according to their sociodemographic characteristics	121-129
Mehmet Zeki KOÇAK Büyüamin YILDIRIM	Essential oil content and chemical profile of <i>Cotinus coggygia</i> Scop. from Eastern Anatolia Türkiye	130-134
Harun KARCI Salih KAFKAS	Evaluation of genetic structure of pistachio through whole genome resequencing	135-140
Murat TURAN Ali Murat TATAR	An evaluation on the current state of water buffalo breeding in Diyarbakır, identification of problems and solutions	141-151
Mirac SAHİN Halit YETİŞİR Hasan PİNAR	Morphological characterization of some Besni pepper (<i>Capsicum annum</i> L.) genotypes in Kayseri conditions	152-164
Zeynep BAKKALOĞLU	Edible insect consumption and Turkish consumers' attitudes towards entomophagy	165-171
Rohat GÜLTEKİN Ceren GÖRGİŞEN Gonca KARACA BİLGEN Pınar BAHÇECİ ALSAN Tuğba YETER	Evaluation of performance indicators for some drip irrigation systems used in cherry orchards in Ankara province	172-181
Tuğba İDUĞ Hilal HIZLI GÜLDEMİR Ali ŞEN Osman GÜLDEMİR	Investigation on the effects of cooking methods on anti-inflammatory and antioxidant activities of five mostly consumed vegetables in winter	182-188
Lawrence MANGO Andrew Tapiwa KUGEDERA	Pitfalls and prospects of contract farming to smallholder tobacco farmers in Shamva district, Zimbabwe	189-196
Gülay ZULKADİR	Erratum: Possible effects of priming on germination performance of white clover (<i>Trifolium repens</i> L.) seeds in hypothermia condition	197-203