



BIOTECH STUDIES

VOL 30 ISSUE 1 JUNE 2021 ISSN 2687-3761 E-ISSN 2757-5233

Published by Field Crops Central Research Institute, Ankara, TURKEY

TAGEM JOURNALS

Aims and Scope

“Biotech Studies” is the successor to the “Journal of Field Crops Central Research Institute” which has been published since 1992. The journal publishes articles on agro-biotechnology, plant biotechnology, biotechnology for biodiversity, food biotechnology, animal biotechnology, microbial biotechnology, environmental biotechnology, industrial biotechnology and bioprocess engineering, applied biotechnology, omics technologies, system biology, synthetic biology, nanobiotechnology and bioinformatics.

The journal of Biotech Studies has been published twice a year (June & December). Original research papers, critical review articles, short communications and scientific research of the journal are published in English. It is an international refereed journal.

The journal is aimed for researchers and academicians who work in or are interested in the topics of research in biotechnology.

Biotech Studies is indexed in ULAKBIM TR Index, CrossRef, and Google Scholar.

Further information for “***Biotech Studies***” is accessible on the address below indicated:

<http://www.biotechstudies.org/>

You can reach table of contents, abstracts, full text and instructions for authors from this home page.

Corresponding Address

Address : Field Crops Central Research Institute, (Tarla Bitkileri Merkez Araştırma Enstitüsü)
Şehit Cem Ersever Cad. No:9/11
Yenimahalle, Ankara, Turkey

Web : www.biotechstudies.org

E-mail : info@biotechstudies.org

Phone : + 90 312 327 09 01-2222

Fax : + 90 312 327 28 93

Editor in Chief

Hümeýra YAMAN, Field Crops Central Research Institute, Ankara, Turkey

Ayten SALANTUR, Field Crops Central Research Institute, Ankara, Turkey

Advisory Board

İlhan AYDIN, General Directorate of Agricultural Research and Policies, Ankara, Turkey

Tomohiro BAN, Yokohama City University, Yokohama, Japan

Zümrüt Begüm ÖGEL, Konya Food and Agriculture University, Konya, Turkey

Fikretin ŞAHİN, Yeditepe University, İstanbul, Turkey

Managing Editors

Fatma Gül MARAŞ-VANLIOĞLU, Field Crops Central Research Institute, Ankara, Turkey

Sümeýra GÜLTEKİN, Field Crops Central Research Institute, Ankara, Turkey

Burcu GÜNDÜZ-ERGÜN, Field Crops Central Research Institute, Ankara, Turkey

Editorial Board

Magdi T. ABDELHAMID, National Research Center, Cairo, Egypt

Zelal ADIGÜZEL, Koç University, İstanbul, Turkey

Nisar AHMED, Universtiy of Agriculture, Faisalabad, Pakistan

Sanu ARORA, John Innes Centre, Norwich, United Kingdom

İlhan AYDIN, General Directorate of Agricultural Research and Policies, Ankara, Turkey

Reyhan BAHTİYARCA-BAĞDAT, Field Crops Central Research Institute, Ankara, Turkey

Faheem Shehzad BALOCH, Sivas University of Science and Technology, Sivas, Turkey

Tomohiro BAN, Yokohama City University, Yokohama, Japan

Aydın BEŞELİ, North Carolina State University, North Carolina, United States

Valeria BIANCIOTTO, Institute for Sustainable Plant Protection, Turin, Italy

Fabricio Eulalio Leite CARVALHO, Federal University of Ceara, Ceará, Brazil

Ahmet ÇABUK, Eskisehir Osmangazi University, Eskisehir, Turkey

Volkan ÇEVİK, University of Bath, Bath, United Kingdom

Abdelfattah A. DABABAT, International Maize and Wheat Improvement Center (CIMMYT), Ankara, Turkey

Şeküre Şebnem ELLİALTIOĞLU (Emeritus), Ankara University, Ankara, Turkey

Sezai ERCİŞLİ, Atatürk University, Erzurum, Turkey

Mohamed Fawzy Ramadan HASSANIEN, Zagazig University, Zagazig, Egypt

Muhammad Asyraf Md HATTA, University Putra Malaysia, Selangor, Malaysia

Şadiye HAYTA-SMEDLEY, John Innes Centre, Norwich, United Kingdom

Lionel HILL, John Innes Centre, Norwich, United Kingdom

Mehmet İNAN, Akdeniz University, Antalya, Turkey

Erica LUMINI, Institute for Sustainable Plant Protection, Turin, Italy

David MOTA-SANCHEZ, Michigan State University, Michigan, United States

Raveendran MUTHURAJAN, Tamil Nadu Agricultural University, Coimbatore, India

Nedim MUTLU, Akdeniz University, Antalya, Turkey

Milton Costa Lima NETO, São Paulo State University, São Paulo, Brazil

Zümrüt Begüm ÖGEL, Konya Food and Agriculture University, Konya, Turkey

Hilal ÖZDAĞ, Ankara University, Ankara, Turkey

Abdul Matteen RAFIQI, Bezmialem Vakıf University, İstanbul, Turkey

Mahmoud SITOHY, Zagazig University, Zagazig, Egypt

Sibel SİLİCİ, Erciyes University, Kayseri, Turkey

Mark Anthony SMEDLEY, John Innes Centre, Norwich, United Kingdom

Semra SOYDAM-AYDIN, Hacettepe University, Ankara, Turkey

Bahattin TANYOLAÇ, Ege University, İzmir, Turkey

Burcu TARIKAHYA-HACIOĞLU, Hacettepe University, Ankara, Turkey

Serdar UYSAL, Bezmialem Vakıf University, Istanbul, Turkey
Ahmet Faruk YEŞİLSU, Central Fisheries Research Institute, Trabzon, Turkey
Remziye YILMAZ, Hacettepe University, Ankara, Turkey

Technical Editors

Ülkü Selcen HAYDAROĞLU, Field Crops Central Research Institute, Ankara, Turkey
Muhsin İbrahim AVCI, Field Crops Central Research Institute, Ankara, Turkey
Ömer YILMAZ, Field Crops Central Research Institute, Ankara, Turkey
Elif YETİLMEZER, Field Crops Central Research Institute, Ankara, Turkey

CONTENTS

- 1-6** **Anti-proliferative and apoptosis inducing activity of *Calophyllum inophyllum* L. oil extracts on C6 glioma cell line**
Ayşegül Erdemir
- 7-15** **Phenotypic and iPBS-retrotransposon marker diversity in okra (*Abelmoschus esculentus* (L.) Moench) germplasm**
Faik Kantar, Sevde Nur Yemşen, Cansu Bülbül, Neslihan Yılmaz, Nedim Mutlu
- 16-21** **Isolation of cellulolytic fungi and their application for production of organic fertilizer from water hyacinth (*Eichhornia crassipes*)**
Nguyen Thi Nhan, Dang Le Hong Anh, Nguyen Minh Tri
- 22-32** **Role of grafting in tolerance to salt stress in melon (*Cucumis melo* L.) plants: ion regulation and antioxidant defense systems**
Şebnem Kuşvuran, Elif Kaya, Ş. Şebnem Ellialtıođlu
- 33-42** **Potential biomarkers for lung adenocarcinoma identified by integrative transcriptomics analysis**
Ceyda Kasavi
- 43-62** **Genetic resistance of wheat towards plant-parasitic nematodes: current status and future prospects**
Awol Seid, Mustafa İmren, Muhammad Amjad Ali, Fateh Toumi, Timothy Paulitz, Abdelfattah A. Dababat