

# Black Sea Journal of Agriculture





**BLACK SEA JOURNAL OF AGRICULTURE**  
**(BSJ AGRI)**



Black Sea Journal of Agriculture (BSJ Agri) is a double-blind peer-reviewed, open-access international journal published electronically 4 times (January, April, July and October) in a year since January 2018. It publishes, in English, full-length original research articles, innovative papers, conference papers, reviews, mini-reviews, rapid communications or technical note on various aspects of agricultural science like agricultural economics, agricultural engineering, animal science, agronomy, including plant science, theoretical production ecology, horticulture, plant breeding, plant fertilization, plant protect and soil science, aquaculture, biological engineering, including genetic engineering and microbiology, environmental impacts of agriculture and forestry, food science, husbandry, irrigation and water management, land use, waste management etc.

ISSN: 2618 - 6578

Phone: +90 362 408 25 15

Fax: +90 362 408 25 15

Email: [bsjagri@blackseapublishers.com](mailto:bsjagri@blackseapublishers.com)

Web site: <http://dergipark.gov.tr/bsagriculture>

Sort of publication: Periodically 4 times (January, April, July and October) in a year

Publication date and place: January 01, 2021 - Samsun, TURKEY

Publishing kind: Electronically

**OWNER**

Prof. Dr. Hasan ÖNDER

**DIRECTOR IN CHARGE**

Assoc. Prof. Uğur ŞEN

## **EDITOR BOARDS**

### **EDITOR IN CHIEF**

Prof. Dr. Hasan ÖNDER, Ondokuz Mayıs University, TURKEY

Assoc. Prof. Uğur ŞEN, Ondokuz Mayıs University, TURKEY

### **SECTION EDITORS\***

Prof. Dr. Kürşat KORKMAZ, Ordu University, TURKEY

Prof. Dr. Mehmet KURAN, Ondokuz Mayıs University, TURKEY

Prof. Dr. Muharrem ÖZCAN, Ondokuz Mayıs University, TURKEY

Prof. Dr. Mustafa ŞAHİN, Kahramanmaraş Sütçü İmam University, TURKEY

Assoc. Prof. Dr. Esmeray Küley BOĞA, Cukurova University, TURKEY

Assoc. Prof. Dr. Hasan Gökhan DOĞAN, Kirsehir Ahi Evran University, TURKEY

Assoc. Prof. Dr. Kadir Ersin TEMİZEL, Ondokuz Mayıs University, TURKEY

Assoc. Prof. Dr. Kadyrbay CHEKİROV, Kyrgyz Turkish Manas University, KYRGYZSTAN

Assoc. Prof. Dr. Ömer SÖZEN, Kirsehir Ahi Evran University, TURKEY

Assoc. Prof. Dr. Şerife Evrim ARICI, Süleyman Demirel University, TURKEY

Assoc. Prof. Dr. Ümran ÇİÇEK, Tokat Gaziosmanpasa University, TURKEY

Asst. Prof. Dr. Kemal Çağatay SELVİ, Ondokuz Mayıs University, TURKEY

---

\* The ranking is arranged alphabetically within the academic title

### **EDITORIAL - ADVISORY BOARD\***

Prof. Dr. Ahmet BALKAYA, Ondokuz Mayıs University, TURKEY

Prof. Dr. Alireza TERINEJAD, Azarbaijan Shahid Madani University, IRAN

Prof. Dr. Ercan EFE, Kahramanmaraş Sütçü İmam University, TURKEY

Prof. Dr. Gheorghe VOICU, Politehnica University of Bucharest, ROMANIA

Prof. Dr. Savaş ATASEVER, Ondokuz Mayıs University, TURKEY

Prof. Dr. Sherein Saeid ABDELGAYED, Cairo University, EGYPT

Prof. Dr. Sorin-Ştefan BIRIŞ, Politehnica University of Bucharest, ROMANIA

Assoc. Prof. Dr. Farhood GOLMOHAMMADI, Islamic Azad University, IRAN

Assoc. Prof. Dr. Mustafa BOĞA, Nigde Ömer Halisdemir University, TURKEY

Dr. Jiban SHRESTHA, Nepal Agricultural Research Council, NEPAL

Dr. Mikó JÓZSEFNÉ JÓNÁS, University of Szeged, HUNGARY

Dr. Valentin VLADUT, National Research and Development Institute, ROMANIA

---

\* The ranking is arranged alphabetically within the academic title

### **STATISTIC EDITOR**

Assoc. Prof. Dr. Taner TUNÇ, Ondokuz Mayıs University, TURKEY

### **ENGLISH EDITOR**

Prof. Dr. Muhammad KHALID, University of London, UNITED KINGDOM

## **REVIEWERS OF THE ISSUE\***

Prof. Dr. Ejike Christian ONYENWEAKU, College of Agric Economics, Rural Sociology and Extention, NIGERIA

Prof. Dr. Nazan KOLUMAN DARCAN, Cukurova University, TURKEY

Assoc. Prof. Dr. Çaęrı Özgür ÖZKAN, Kahramanmaraş Sütçü İmam University, TURKEY

Assoc. Prof. Dr. Emre ŞİRİN, Kirsehir Ahi Evran University, TURKEY

Assoc. Prof. Dr. Farhood GOLMOHAMMADI, Islamic Azad University, IRAN

Assoc. Prof. Dr. Hamdi ZENGİNBAL, Bolu Abant İzzet Baysal University, TURKEY

Assoc. Prof. Dr. Judith SİMONYAN, College of Agric Economics, Rural Sociology and Extention, NIGERIA

Asst. Prof. Dr. Serdar GENÇ, Kirsehir Ahi Evran University, TURKEY

Dr. Bantalem ZELEKE, Adet Agricultural Research Institute, ETHIOPIA

Dr. Cem TIRINK, Iğdir University, TURKEY

Dr. Elif CİLAVDAROĞLU, Bozok University, TURKEY

Dr. Nur İlkay ABACI, Ondokuz Mayıs University, TURKEY

---

\* The ranking is arranged alphabetically within the academic title

Volume 4, Issue 1 (2021)

Table of Contents

Research Article

**1. SEASONALITY OF EGG DEMAND, PRODUCTION, AND SUPPLY IN GREATER PORT HARCOURT CITY, NIGERIA**

*Julius Naligwu INGWEYE, Johan MEINDERTS.....1-7*

**2. ORGANIC LARGE CARDAMOM FARMING IN LONGLENG DISTRICT: PROMOTING GROWTH WITH POVERTY REDUCTION**

*Chubakumzuk JAMIR.....8-17*

**3. CORRELATION AND PATH ANALYSIS FOR YIELD AND RELATED TRAITS IN UPLAND RICE (*Oryza sativa* L.) VARIETIES**

*Bantalem ZELEKE, Fisseha WOREDE.....18-24*

**4. GOAT BREEDING IN IRAN: SITUATIONS, PROBLEMS AND APPROACHES**

*Farhood GOLMOHAMMADI.....25-32*

**5. ANALYSIS OF YAM MARKETING IN NGWA ROAD MARKET, ABIA STATE, NIGERIA**

*Ifeanyi Moses KANU, Felix Okezie ONWUKWE, Joy Chika MADUFORO.....33-40*

Review Article

**6. THE CURRENT STATE OF AGRICULTURAL COOPERATIVES IN TURKEY: CHALLENGES, AND COMPARISON WITH THE COOPERATIVES IN AGRICULTURALLY DEVELOPED COUNTRIES**

*Senem ÖZGİRGİN, Okan ATAY, Özdal GÖKDAL.....41-46*