



# 5. INTERNATIONAL FOOD, AGRICULTURE AND VETERINARY SCIENCES CONGRESS

17 - 19 March 2023

Kafkas University, Kars, Türkiye

## PROCEEDINGS BOOK (VOLUME-2)



**EDITORS:**

**Prof. Dr. Tarkan ŞAHİN**  
**Ass. Prof. Mükremin ÖLMEZ**



ISBN: 978-625-367-003-0



## **5. INTERNATIONAL FOOD, AGRICULTURE AND VETERINARY SCIENCES CONGRESS**

**17 - 19 March 2023**

**Kafkas University, Kars, Türkiye**

## **PROCEEDINGS BOOK (VOLUME-2)**

**Edited by**

**Prof. Dr. Tarkan ŞAHİN**

**Ass. Prof. Mükremin ÖLMEZ**

**All rights of this book belong to IKSAD GLOBAL.**

**Without permission can't be duplicate or copied. Authors of  
chapters are responsible both ethically and juridically.**

**IKSAD Publications – 2023 ©**

**Issued: 22.03.2023**

ISBN: 978-625-367-003-0

**CONGRESS ID**

**5. INTERNATIONAL FOOD, AGRICULTURE AND VETERINARY SCIENCES  
CONGRESS**

**DATE-PLACE**

**17 - 19 March 2023**

**Kafkas University, Kars, Türkiye**

**EDITOR**

**Prof. Dr. Tarkan ŞAHİN**

**Ass. Prof. Mükremin ÖLMEZ**

**EVALUATION PROCESS**

**All applications have undergone a double-blind peer review process**

**TOTAL NUMBER OF PAPERS: 426**

**THE NUMBER OF PAPERS FROM TÜRKİYE: 202**

**OTHER COUNTRIES: 224**

**PARTICIPANT COUNTRIES (38):**

**Türkiye, Azerbaijan, Pakistan, Iran, Nigeria, Romania, Algeria, Malaysia,  
Hungary, Ukraine, Republic of North Macedonia, Brasil, Spain, Kirgizistan,  
Italy, Mozambique, México, Morocco, Serbia, Russia, Indonesia, Qatar,  
Portugal, India, Kosovo, France, Turkish Republic of Northern Cyprus,  
USA, Iraq, Bénin, United Arab Emirates, Germany, Poland, Bulgaria,  
Vietnam, Bosnia & Herzegovina, France, Ethiopia**

### **Honorary Chairman**

**Prof. Dr. Hüsnü KAPU – Kafkas University, Rector**

### **Honorary Board Members**

**Prof. Dr. Mete CİHAN – Kafkas University Faculty of Veterinary Medicine, Dean**

**Prof. Dr. Tarkan ŞAHİN - Kafkas University Faculty of Veterinary Medicine**

### **Organizing Committee Chairman**

**Ass. Prof. Mükremin ÖLMEZ – Düzenleme Kurulu Başkanı**

**Kafkas University Laboratory Animals Research and Application Centre, Director**

### **Organizing Committee Members**

**Prof. Dr. Barış SARI - Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Özgür ÇELEBİ - Kafkas University Health Science Institute, Director**

**Prof. Dr. Fatih BÜYÜK - Kafkas University Livestock Research and Application Center, Director**

**Assoc. Prof. Özlem KARADAĞOĞLU - Prof. Dr. Ali Rıza AKSOY Education, Research and Practice Farm**

**Assoc. Prof. Mustafa MAKAV - Kafkas University Laboratory Animals Research and Application Centre**

**Ass. Prof. Buket BOĞA KURU - Kafkas University Laboratory Animals Research and Application Centre**

**RA. Eray BÜYÜK - Kafkas University Laboratory Animals Research and Application Centre**

### **Science and Advisory Committee Members**

**Prof. Dr. İsa ÖZAYDIN-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Gürbüz Gökçe-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Mithat ŞAHİN-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Salih OTLU-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Yavuz ÖZTÜRKLER-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Engin KILIÇ-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Mete CİHAN-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Serpil DAĞ-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Cihan KAÇAR-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Ebru KARADAĞ SARI-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Emine ATAKİŞİ-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Leyla VATANSEVER-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Nebahat BİLGE-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Erol AYDIN-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Ali YİĞİT-Kafkas University Faculty of Veterinary Medicine**

**Prof. Dr. Mehmet Akif YÖRÜK-Atatürk University Faculty of Veterinary Medicine**

**Prof. Dr. Zahid KAMRAN-The İslamia University of Bahawalpur Faculty of Veterinary and Animal Sciences**

**Prof. Dr. Muhammad Faisal - Director (HRIMS) Ministry of Human Rights**

**Prof Dr. Morakeng Edward Kenneth Lebaka - University of Zululand**  
**Prof. Dr. Nizami SEYIDELIYEV - Azerbaijan State Agrar University**  
**Prof. Dr. Namık MUSTAFAYEV - Azerbaijan State Agrar University**  
**Assoc. Prof. Volkan YILMAZ-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Semra KAYA-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Oğuz MERHAN-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Gencay Taşkın TAŞÇI-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Mushap KURU-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Ekin Emre ERKILIÇ-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Gülseren KIRBAŞ DOĞAN-Kafkas University Faculty of Veterinary Medicine**  
**Assoc. Prof. Muhammad Naeem TAHİR- The İslamia University of Bahawalpur**  
**Assoc. Prof. Abdur Rahman SIAL- Universty of Veterinary and Animal Sciences Faculty of Animal Nutrition**  
**Assoc. Prof. Tauseef-ur-Rehman-The Islamia University of Bahawalpur, Faculty of Veterinary and Animal Sciences**  
**Assoc. Prof. Songül AKIN-Dicle University**  
**Ass. Prof. Serpil ADIGÜZEL IŞIK-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Volkan GELEN-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Nüvit COŞKUN-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Emin KARAKURT-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Uğur AYDIN-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Nilgün AYDIN-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Enes AKYÜZ-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Neslihan ÖLMEZ- Kafkas University Vocational High School**  
**Ass. Prof. Murat Can DEMİR-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Mustafa Reha COŞKUN-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Mert SEZER-Kafkas University Faculty of Veterinary Medicine**  
**Ass. Prof. Noorin ZAFAR-Aligarh Muslim University Faculty of Life Sciences**  
**Ass. Prof. Buket BOĞA KURU - Kafkas University Laboratory Animals Research and Application Centre**  
**Dr. Ivan Pavlovic - Scientific Institute of Veterinary Medicine of Serbia**

**Secretary**

**Lecturer Roshan RİAZ- Kafkas University Faculty of Veterinary Medicine**  
**RA. Lale BAŞER- Kafkas University Faculty of Veterinary Medicine**  
**RA. Yusuf Umut BATI- Kafkas University Faculty of Veterinary Medicine**  
**RA. Tuğçe Merve BERBEROĞLU- Kafkas University Faculty of Veterinary Medicine**

**CONGRESS COORDINATOR**

**Alina AMANZHLOVA**

**Session-2, Hall-3****17.03.2023****Moderator: Prof. Dr. Nebahat BİLGE****Meeting ID: 842 7974 2853 / Passcode: 171819****Ankara Local Time: 16:30 – 18:30**

| Title  | Author(s)  | Affiliation                                      |
|--|--|--|
| PLANT-BASED PROTEINS AND THEIR USAGE IN THE FOOD INDUSTRY  | Gamze Nur OLGUN<br>Ress. Assist. İzzet TÜRKER<br>Assoc. Prof. Hilal İŞEROĞLU   | Tokat Gaziosmanpaşa University, Türkiye          |
| ANTIMICROBIAL RESISTANCE IN FOOD PATHOGENS   | Prof. Dr. Nebahat BİLGE<br>Ress. Assist. Gönül Damla ALTUNTAŞ  | Kafkas University, Türkiye                       |
| FLEXIBLE PACKAGING IN THE CIRCULAR ECONOMY   | Assoc. Prof. Özlem ESMER<br>Betül ER   | Ege University, Türkiye                          |
| EFFECTS OF FLUCONAZOLE ON SURVIVAL, DEVELOPMENT AND SOME ADULT TRAITS OF <i>DROSOPHILA MELANOGASTER</i> (MEIGEN)         | Lect. Dr.Gökçe ÜSTÜNDAĞ<br>Prof. Dr. Kemal BÜYÜKGÜZEL<br>Prof. Dr. Ender BÜYÜKGÜZEL  | Zonguldak Bülent Ecevit University, Türkiye      |
| DESIGN AND OPTIMIZATION OF RAPID MASSAGE ON A PNEUMATIC PULSATOR IN MILKING MACHINES                                     | Halil ÜNAL<br>Zahra AMİN   | Bursa Uludağ University, Türkiye                 |
| THE INVESTIGATION OF SACRIFICED MEAT DURING EID AL-ADHA FESTIVAL IN TERMS OF FOOD SAFETY                                 | Assist. Prof. Muhsin ÖZTÜRK<br>Ress. Assist. Betül YILDIRIM<br>Assist. Prof. Dr., Elif GÜNALAN   | İstanbul Sağlık ve Teknoloji University, Türkiye |
| THE INVESTIGATION OF FOOD LABELS OF BABY BISCUITS WHICH SALE ON ONLINE SHOPPING WEBSITES IN THE TÜRKİYE, USA and GERMANY | Kader ÇELİK<br>Bengi Su TUNCER<br>Assist. Prof. Elif GÜNALAN   | İstanbul Sağlık ve Teknoloji University, Türkiye |
| PRODUCTION OF FUNCTIONAL BONE BROTH ENRICHED WITH THE ADDITION OF GRAPE SEEDS  | Ress. Assist. Ertürk BEKAR<br>Dr. Öğr. Büşra ACOĞLU ÇELİK<br>Arş. Gör.Taha Turgut ÜNAL<br>Fatma ERSOY<br>Fatih Furkan KARAKOL<br>Sedef Irmak BESİMOĞLU<br>Yonca UZUN | Bursa Uludağ University, Türkiye                 |

**All participants must join the conference 10 minutes before the session time.****Every presentation should last not longer than 10-12 minutes.****Kindly keep your cameras on till the end of the session.**

|  |            |
|--|------------|
| <b>Selda DURMUŞOĞLU, Ertuğ YILDIRIM, Sümeyye ÇAKMAK</b>  | <b>516</b> |
| <b>PREPARATION OF CHELATING COMPOUNDS INCLUDING METAL AS MICRONUTRIENT FERTILIZER, MEASUREMENT OF THEIR BIOLOGICAL ACTIVITIES, AND INVESTIGATION OF THEIR USAGE IN AGRICULTURE</b> |            |
| <b>Dilek ÜNLÜER BİRİNCİ</b>  | <b>518</b> |
| <b>SYNTHESIS OF POLYCARBOXYLIC ACID DERIVATIVE CHEATING AGENTS AND INVESTIGATION OF THEIR USAGE IN PLANT NUTRITION</b>   |            |
| <b>Osman Safa TERZİ, Refet Erand ERATAM, Enes Arda ARSLAN</b>  | <b>520</b> |
| <b>WHAT HAPPENED AS A RESULT OF INTRAVENOUS ADMINISTRATION OF ORAL MELOXICAM SUSPENSION IN A CAT?</b>  |            |
| <b>Gökhan NUR, Pınar Aksu KILIÇLE, Mükremin ÖLMEZ, Şafak SANDAYUK</b>  | <b>522</b> |
| <b>HISTOLOGICAL EFFECT OF THE ADDITION OF ASHOT (<i>Cymbocarpum anethoides</i>) AS A FEED ADDITIVE ON LIVER TISSUE IN LAYER QUAILS (<i>Coturnix coturnix japonica</i>)</b>         |            |
| <b>Aliye GÜLMEZ SAĞLAM, Elif ÇELİK, Eray BÜYÜK, Özgür ÇELEBİ, Fatih BÜYÜK, Mitat ŞAHİN</b>   | <b>524</b> |
| <b>INVESTIGATION OF SOME IMPORTANT BACTERIAL AGENTS FROM ABORTED BOVINE AND SHEEP FETUSES BY MOLECULAR METHODS</b>   |            |
| <b>Muhsin ÖZTÜRK, Betül YILDIRIM, Elif GÜNALAN</b>   | <b>526</b> |
| <b>THE INVESTIGATION OF SACRIFICED MEAT DURING EID AL-ADHA FESTIVAL IN TERMS OF FOOD SAFETY</b>  |            |
| <b>Kader ÇELİK, Bengi Su TUNCER, Elif GÜNALAN</b>  | <b>528</b> |
| <b>THE INVESTIGATION OF FOOD LABELS OF BABY BISCUITS WHICH SALE ON ONLINE SHOPPING WEBSITES IN THE TURKEY, USA and GERMANY</b>   |            |
| <b>Semra KAYA, Serap KORAL TAŞCI, Murat Can DEMİR, Muhammet Ali KARADAĞ, Merve Sena KUMCU, Cihan KAÇAR, Dilem Gülece ERMUTLU, Mushap KURU,</b>                                     | <b>530</b> |
| <b>COMPARISON OF BLOOD SERUM AND URINARY AMH CONCENTRATIONS IN CATS</b>  |            |
| <b>Ertürk BEKAR, Büşra ACOĞLU ÇELİK, Taha Turgut ÜNAL, Fatma ERSOY, Fatih Furkan KARAKOL, Sedef Irmak BESİMOĞLU, Yonca UZUN</b>  | <b>532</b> |
| <b>PRODUCTION OF FUNCTIONAL BONE BROTH ENRICHED WITH THE ADDITION OF GRAPE SEEDS</b>   |            |
| <b>Ezgi ÖZGÖREN,</b>   | <b>534</b> |
| <b>POTENTIAL USE OF BLACK CHICKPEA AS AN ENRICHMENT MATERIAL IN CEREAL PRODUCTS</b>  |            |
| <b>Emine Dıraman, Emine İncilay Torunoğlu, Fatma Gönül Sezgin</b>  | <b>536</b> |
| <b>EFFECTS OF A-LIPOLIC ACID ON POLYPHENOL OXIDASE ACTIVITY IN SPLEEN TISSUE OF RATS TREATED WITH ACITRETIN AND METHOTREXATE</b>   |            |
| <b>Serpil AYGÖRMEZ, Lale BAŞER, Emine ATAKIŞI</b>  | <b>538</b> |
| <b>INVESTIGATION OF SERUM AST, ALT, ALP and GGT ACTIVITIES IN PERIPARTURIENT COWS</b>  |            |
| <b>Medine ÇOTAK, Ayşe KARACALI TUNÇ, Büşra Merve SARITAŞ</b>   | <b>540</b> |
| <b>ISOLATION OF A NOVEL LYTIC BACTERIOPHAGE INFECTING SHIGELLA SONNEI CAUSING EPIDEMICS</b>  |            |
| <b>Merve IDER</b>  | <b>542</b> |
| <b>ECHOCARDIOGRAPHIC EVALUATION OF PULMONARY HYPERTENSION AND ISOLATED RIGHT-SIDED CONGESTIVE HEART FAILURE IN A MIX-BREED DOG</b>   |            |
| <b>Zeynep DUMANOĞLU, Kağan KÖKTEN, Selim ÖZDEMİR</b>   | <b>544</b> |
| <b>DETERMINING THE PHYSICAL PROPERTIES OF SOME TURFGRASS PLANTS</b>  |            |
| <b>M. Kazım Kara, Çiğdem EGE TAYMUŞ</b>  | <b>549</b> |
| <b>INVESTIGATION OF THE OPPORTUNITIES THAT HONEY BEES CAN BENEFIT FROM THEIR ANTENNAS AND VIBRATION FREQUENCY IN FINDING THE DIRECTION</b>   |            |

**KURBAN BAYRAMI SÜRESİNCE KESİLEN ETİN GIDA GÜVENLİĞİ AÇISINDAN  
İNCELENMESİ**

**THE INVESTIGATION OF SACRIFICED MEAT DURING EID AL-ADHA FESTIVAL IN  
TERMS OF FOOD SAFETY**

**Muhsin ÖZTÜRK<sup>1</sup>**

<sup>1</sup> Dr. Öğr. Üyesi, İstanbul Sağlık ve Teknoloji Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü, İstanbul, Türkiye.

<sup>1</sup>ORCID ID: <https://orcid.org/0000-0002-3076-8251>

**Betül YILDIRIM<sup>2</sup>**

<sup>2</sup> Arş. Gör, İstanbul Sağlık ve Teknoloji Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü, İstanbul, Türkiye.

<sup>2</sup>ORCID ID: <https://orcid.org/0000-0002-1540-4505>

**Elif GÜNALAN<sup>3</sup>**

<sup>3</sup> Dr. Öğr. Üyesi, İstanbul Sağlık ve Teknoloji Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü, İstanbul, Türkiye.

<sup>3</sup>ORCID ID: <https://orcid.org/0000-0002-3644-5066>

**ÖZET**

Kurban Bayramı Müslüman ülkelerdeki en büyük dini bayramlardan biridir. Kurban kesebilecek gelir seviyesine sahip bireylerin kurbanlık olmaya uygun olarak satın aldıkları hayvanları hijyen kurallarına göre kesip, yine aynı kurallara uygun olarak porsiyonlama ve dağıtımını sağlamaları gerekmektedir. Bu süreçte, hayvan refahı, kesim hijyeni, etin besin kalitesi ve mikrobiyal özelliklerinin toplum beslenmesi açısından değerlendirilmesi halk sağlığının korunması ve geliştirilmesi açısından önem arz etmektedir. Bu çalışmanın amacı, ülkemizde Kurban Bayramı süresince kurbanın kesimi, etin taşınması, dağıtımı, depolanması, işlenmesi, hazırlanması, pişirilmesi, servisi ve tüketimi aşamalarında gıda güvenliğinin sağlanıp sağlanmadığının değerlendirilmesidir. Ayrıca gıda güvenliğine yönelik uygulamalar ile demografik durum arasındaki ilişkinin araştırılması da amaçlanmıştır. Literatürde kurbanda gıda güvenliğini incelemeye ilişkin herhangi bir güvenilir-geçerli anket bulunmadığında, çalışmamızın veri toplama formu kırmızı et tüketimine yönelik uluslararası otoritelerin belirlemiş olduğu kurullarla et ve gıda güvenliğine yönelik çalışmalardaki sorular temelinde hazırlanmıştır. Bu bağlamda, veri toplama formumuz demografik özellikler, kurban kesimi, kurban etinin taşınması ve dağıtımı, kurban etinin depolanması, kurban etinin tüketimi, işlenmesi ve hazırlanması, kurban etinin pişirilmesi ve servisi, kurban ve sağlık konularına yönelik soruları içeren altı bölümden oluşmaktadır. Veri toplama formunda anlaşılmayan bir hususun olmaması için ise araştırma öncesinde küçük bir popülasyonla bir pilot çalışma gerçekleştirilmiştir. Hazırlanan veri toplama formunun Kurban Bayramı'nın hemen sonrasında her haneden bir kişi tarafından doldurulması sağlanmıştır (n=218). Kurban kesmeyen haneler çalışma dışında tutulmuştur. Elde edilen veriler Jamovi (2.3.21) istatistik programına aktararak tanımlayıcı istatistiksel analizler gerçekleştirilmiştir. Çalışmaya katılanların birçoğunun kurban kesimi sonrası eti haneye uygun hijyenik koşullar altında taşımadığı, eti mikrobiyolojik kontaminasyona sebep olabilecek şekilde çözdürdüğü ve çapraz kontaminasyon riski olabilecek şekilde kestiği belirlenmiştir. Bunun gibi uygulamalar halk sağlığı açısından ciddi bir tehdit ifade etmekte olup, gelecekte gerçekleştirilecek eğitsel müdahale çalışmalarıyla tüketicilerin bilinçlendirilmesi sağlanmalıdır.

**Anahtar Kelimeler:** gıda güvenliği, et, hijyen.

## ABSTRACT

Eid al-Adha is one of the biggest religious festivals in Muslim countries. Individuals with an income level that can sacrifice should slaughter the animals they buy by the hygiene rules, and provide portioning and distribution by the same rules. In this process, the evaluation of animal welfare, slaughter hygiene, nutritional quality, and microbial characteristics of meat in terms of community nutrition is important in terms of protecting and improving public health. This study aims to evaluate whether food safety is provided during the slaughter of the sacrifice, transportation, distribution, storage, processing, preparation, cooking, service, and consumption of the meat during the Eid al-Adha in our country. It is also aimed to investigate the relationship between food safety practices and demographic situations. In the absence of any reliable-valid questionnaires in the literature on examining food safety in the sacrificial meat, the data collection form of our study was prepared based on the rules set by the international authorities for red meat consumption and the questions in the studies on meat and food safety. In this context, our data collection form consists of six sections that include questions about demographic characteristics, the slaughter of sacrifice, transportation and distribution of sacrificial meat, storage of sacrificial meat, consumption, processing, and preparation of sacrificial meat, cooking and serving of sacrificial meat, sacrifice, and health. A pilot study was carried out with a small population before the study to avoid any unclear issues in the data collection form. It was ensured that the prepared data collection form was filled by one person from each household immediately after the Eid al-Adha (n=218). Non-sacrificed households were excluded from the study. The obtained data were transferred to the Jamovi (2.3.21) statistical program and descriptive statistical analyzes were carried out. It was determined that most of the participants in the study did not carry the meat under hygienic conditions suitable for the household after the sacrifice, thawed the meat in a way that could cause microbiological contamination, and cut it in a way that could pose a risk of cross-contamination. Practices like these represent a serious threat to public health, and consumers should be made aware of future educational interventions.

**Keywords:** food safety, meat, hygiene