İstanbul **GEDİK** University
İstanbul, TURKEY

GANUD-3 May 06-08, 2022

INTERNATIONAL CONFERENCE ON GASTRONOMY, NUTRITION AND DIETETICS **ABSTRACT BOOK**

Edited by

PROF. DR OSMAN ERKMEN

NURLAN AKHMETOV

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ABSTRACT BOOK

GANUD - 3 INTERNATIONAL CONFERENCE ON GASTRONOMY, NUTRITION AND DIETETICS

May 6-8, 2022
İstanbul Gedik Univers ity, İstanbul, TURKEY

Editor
Prof. Dr. Osman ERKMEN
Nurlan AKHMETOV

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GANUD - 3 INTERNATIONAL CONFERENCE ON GASTRONOMY, NUTRITION AND DIETETICS

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Keynote & Invited

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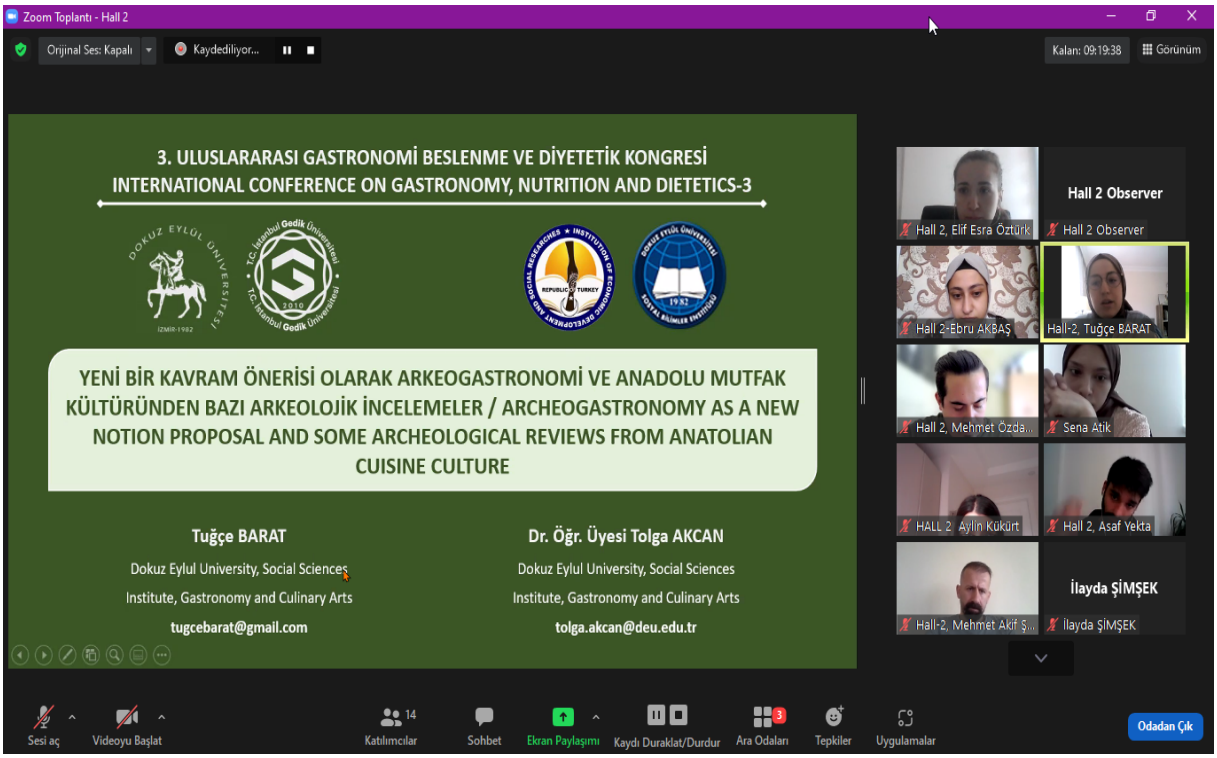
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Görünüm
3. ULUSLARARASI GASTRONOMİ BESLENME VE DİYETETİK KONGRESİ
INTERNATIONAL CONFERENCE ON GASTRONOMY, NUTRITION AND DIETETICS-3
YENİ BİR KAVRAM ÖNERİSİ OLARAK ARKEOGASTRONOMİ VE ANADOLU MUTFAK KÜLTÜRÜNDEN BAZI ARKEOLOJİK İNCELEMELER / ARCHEOGASTRONOMY AS A NEW NOTION PROPOSAL AND SOME ARCHEOLOGICAL REVIEWS FROM ANATOLIAN CUISINE CULTURE
Tuğçe BARAT
Dokuz Eylul University, Social Sciences Institute, Gastronomy and Culinary Arts
tugcebarat@gmail.com
Dr. Öğr. Üyesi Tolga AKCAN
Dokuz Eylul University, Social Sciences Institute, Gastronomy and Culinary Arts
tolga.akcan@deu.edu.tr
Hall 2 Observer
Hall 2, Elif Esra Öztürk
Hall 2-Ebru AKBAŞ
Hall-2, Tuğçe BARAT
Hall 2, Mehmet Özda...
Sena Atik
HALL 2 Aylin Kükürt
Hall 2, Asaf Yekta
İlayda ŞİMŞEK
Hall-2, Mehmet Akif Ş...
Sesi aç
Videoyu Başlat
Katılımcılar
Sohbet
Ekran Paylaşımı
Kaydı Duraklat/Durdur
Ara Odaları
Tepkiler
Uygulamalar
Odadan Çık


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Görünüm
SONUÇLAR
Mükemmel bir yemek sunumu ana yemek, sos ve garnitürlerin kombinasyonları sayesinde oluşmaktadır. Tüm bu kompozisyonlar yemeğin lezzet ve kalitesini artırdığı gibi aynı zamanda yemeği de yükseltir.
Hall 2 Observer
Hall 2, Elif Esra Öztürk
Hall 2-Ebru AKBAŞ
Sena Atik
Hall 2, Mehmet Özdamar
HALL 2 Aylin Kükürt
Hall 2, Asaf Yekta
Hüseyin PAMUKÇU
İlayda ŞİMŞEK
Hall-2, Mehmet Akif Ş...
Sesi aç
Videoyu Başlat
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Ara Odaları
Tepkiler
Uygulamalar
Odadan Çık


Zoom Meeting - Hall 3
You are viewing H3-Şeyda ESKİCİ's screen
View Options
H3-Observer
Hall 3, Emine Nakilcio...
H3-Şeyda ESKİCİ
Hall -3 EDA KILIÇ
H3, Leyla Erul
H-3 merve özbay
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Remaining: 08:27:44
Otoimmun Hastalıklar
İmmun sistem yabancı ajanlar ve kendi vücut hücreleri arasında ayrım yapamaması sonucunda, kendi hücrelerine karşı otoantikorlar üretmekte ve bu durum kronikleşirse otoimmun hastalıklara yol açabilmektedir.
18 COMMON AUTOIMMUNE DISEASES
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14:25
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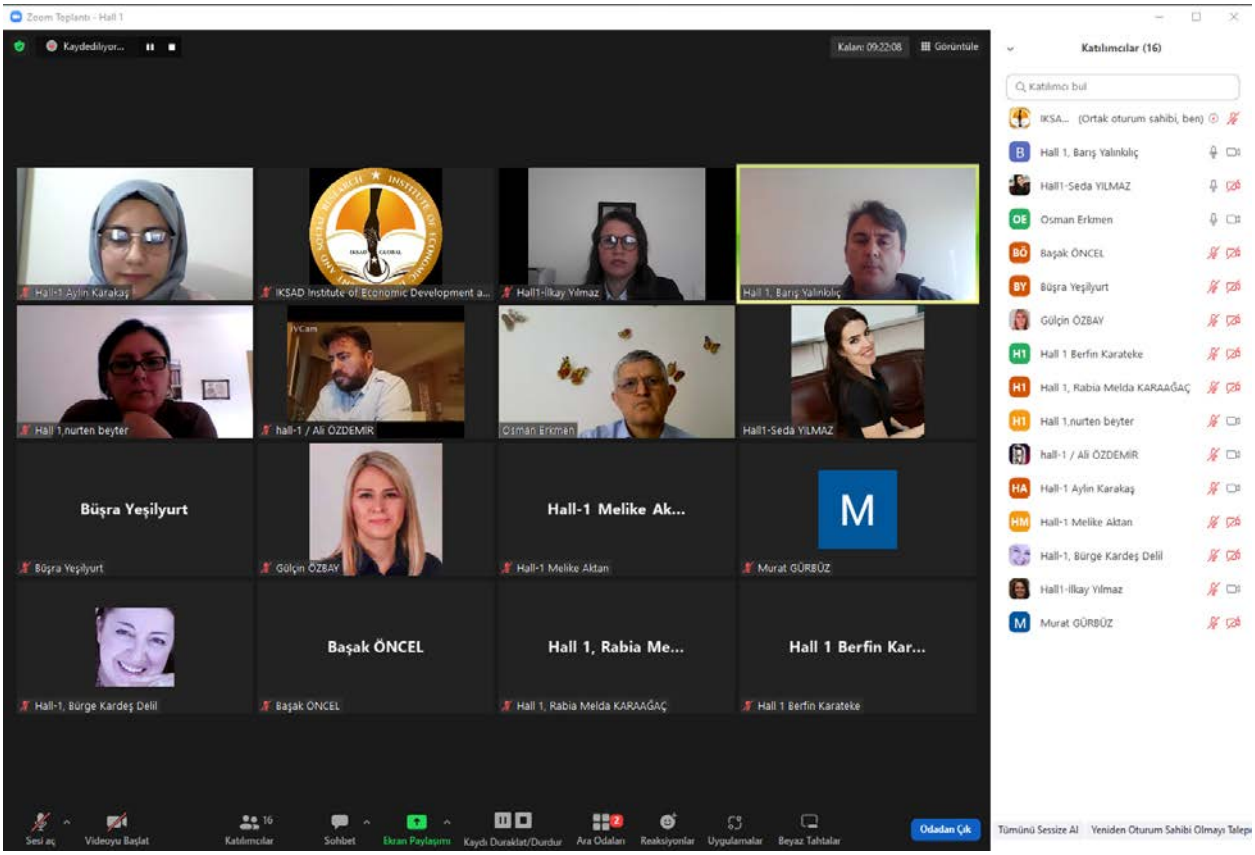
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Kaydediliyor...
Kalan: 09:22:08
Görüntüle
Katılımcılar (16)
Hall1-Aylin Karakaş
IKSAD Institute of Economic Development a...
Hall1-İlkay Yılmaz
Hall 1, Barış Yalınkılıç
Hall 1,nurten beyter
hall-1 / Ali ÖZDEMİR
Osman Erkmen
Hall1-Seda YILMAZ
Büşra Yeşilyurt
Gülçin ÖZBAY
Hall-1 Melike Ak...
Hall-1 Melike Aktan
M
Murat GÜRBÜZ
Hall-1, Bürge Kardeş Delil
Başak ÖNCEL
Hall 1, Rabia Me...
Hall 1, Rabia Melda KARAAĞAÇ
Hall 1 Berfin Kar...
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Beyaz Tahtalar
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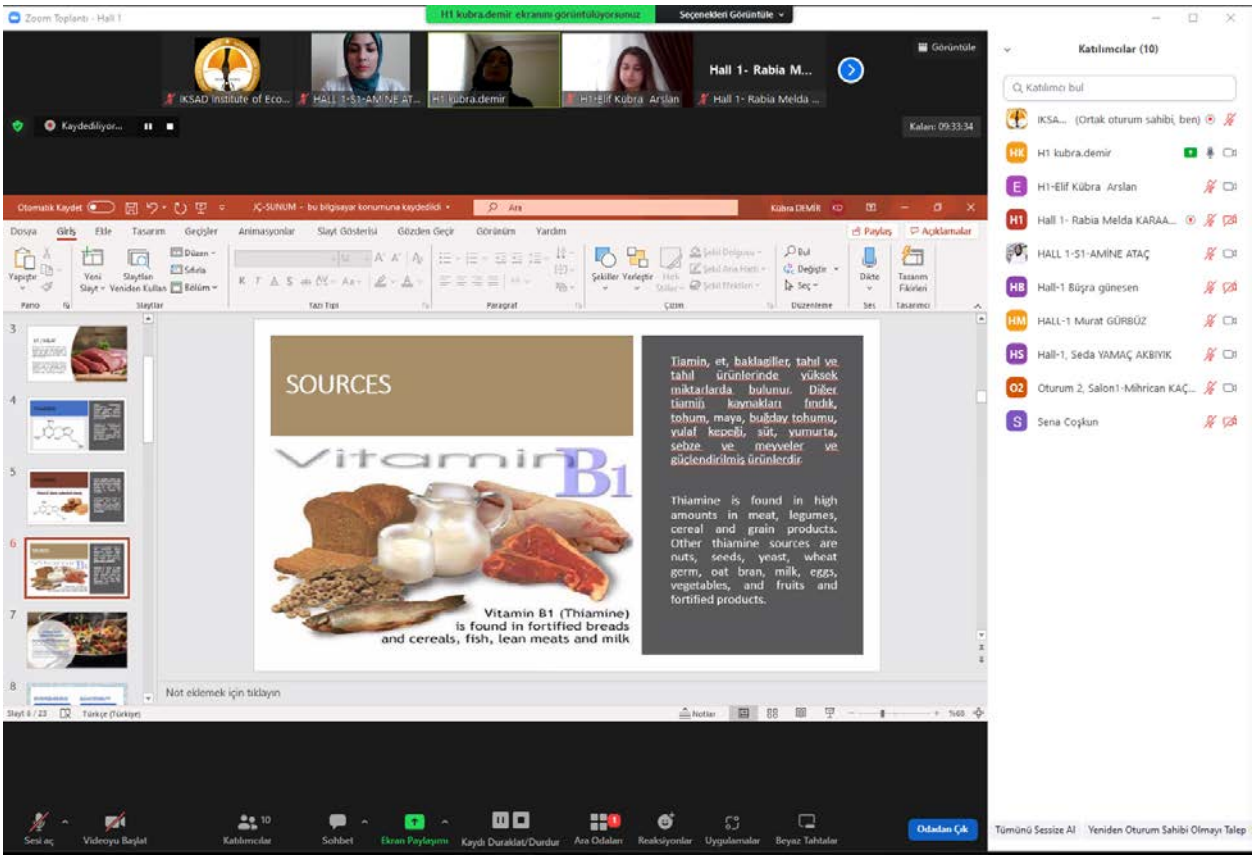
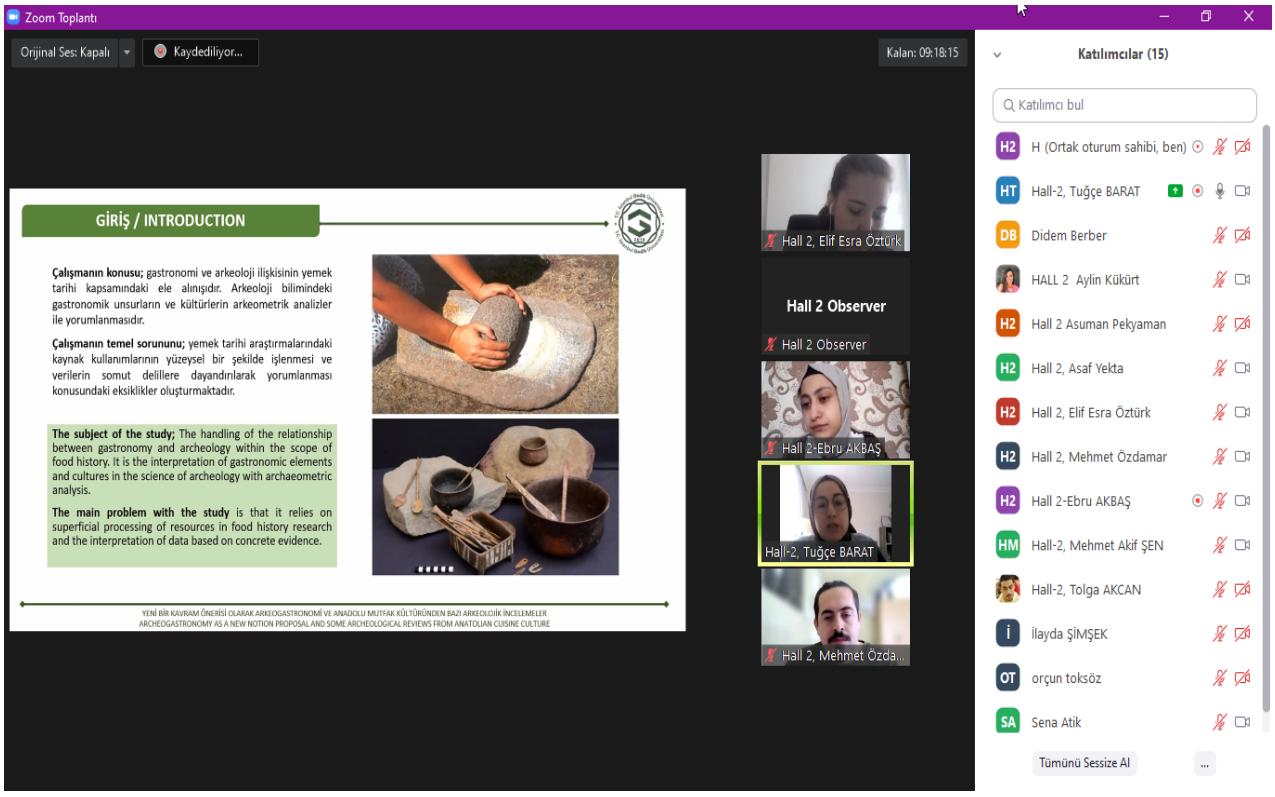
Yeniden Oturum Sahibi Olmayı Talep


SOURCES
Vitamin B1
Vitamin B1 (Thiamine) is found in fortified breads and cereals, fish, lean meats and milk
Tiamin, et, baklagiller, tahıl ve tahıl ürünlerinde yüksek miktarlarda bulunur. Diğer tiamin kaynakları fındık, tohum, maya, buğday tohumu, yulaf kepeği, süt, yumurta, sebze ve meyveler ve güçlendirilmiş ürünlerdir.
Thiamine is found in high amounts in meat, legumes, cereal and grain products. Other thiamine sources are nuts, seeds, yeast, wheat germ, oat bran, milk, eggs, vegetables, and fruits and fortified products.
Katılımcılar (10)


Zoom Toplantı
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Kalan: 09:18:15
GİRİŞ / INTRODUCTION
Çalışmanın konusu; gastronomi ve arkeoloji ilişkisinin yemek tarihi kapsamındaki ele alınışıdır. Arkeoloji bilimindeki gastronomik unsurların ve kültürlerin arkeometrik analizler ile yorumlanmasıdır.
Çalışmanın temel sorununu; yemek tarihi araştırmalarındaki kaynak kullanımlarının yüzeysel bir şekilde işlenmesi ve verilerin somut delillere dayandırılarak yorumlanması konusundaki eksiklikler oluşturmaktadır.
The subject of the study; The handling of the relationship between gastronomy and archeology within the scope of food history. It is the interpretation of gastronomic elements and cultures in the science of archeology with archaeometric analysis.
The main problem with the study is that it relies on superficial processing of resources in food history research and the interpretation of data based on concrete evidence.
YENİ BİR KAVRAM ÖNERİSİ OLARAK ARKEOGASTRONOMİ VE ANADOLU MUTFAK KÜLTÜRÜNDEN BAZI ARKEOLOJİK İNCELEMELER
ARCHEOGASTRONOMY AS A NEW NOTION PROPOSAL AND SOME ARCHEOLOGICAL REVIEWS FROM ANATOLIAN CUISINE CULTURE
Hall 2, Elif Esra Öztürk
Hall 2 Observer
Hall 2-Ebru AKBAŞ
Hall-2, Tuğçe BARAT
Hall 2, Mehmet Özda...
Katılımcılar (15)
Katılımcı bul
H (Ortak oturum sahibi, ben)
Hall-2, Tuğçe BARAT
Didem Berber
HALL 2 Aylin Kükürt
Hall 2 Asuman Pekyaman
Hall 2, Asaf Yekta
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Hall 2, Mehmet Özdamar
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Sena Atik
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May 6-8, 2022
İstanbul Gedik University, İstanbul, Turkey

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-Opening Ceremony-

06.04.2022

Time (Ankara): 10^{00}-10^{30}

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FACE TO FACE PRESENTATIONS

GANUD - 3

06.05.2022

ISTANBUL LOCAL TIME 10:30-13:00 | Hall-1 | Session-1	Istanbul Gedik University, Kartal Campus

HEAD OF SESSION: Dr. Hatice Pekmez

AUTHORS	AFFILIATION	TOPIC TITLE
Hakan KOÇ Emre HASTAOĞLU	Sivas Cumhuriyet University, Faculty Of Tourism, Department Of Tourism Management, Sivas, Turkey	DIGITALIZATION OF SİVAS LOCAL DISHES
Selin GÖKMEN	Nişantaşı Üniversitesi, Sanat ve Tasarım Fakültesi, Gastronomi ve Mutfak Sanatları Bölümü, İstanbul/Türkiye	İTALYAN MUTFAĞI'NIN GÜNÜMÜZ MUTFAĞINA ETKİLERİ
Hatice Pekmez	Gaziantep University, Faculty of Tourism, Department of Gastronomy and Culinary Arts, Gaziantep, Turkey.	GAZİANTEP, The CITY BRANDED with GEOGRAPHICAL SIGNS and GASTRONOMY TOURISM
Sılanur ASLANKILIÇ Elif Baykal Senanur Akbulut Ayşe Neslihan Dündar	Department of Food Engineering (B.Sc.), Faculty of Engineering and Natural Science, Bursa Technical University, 16310, Bursa, Turkey	A FUNCTIONAL VEGAN PROTEIN BAR MANUFACTURED WITH AGRO-FOOD INDUSTRIAL BY-PRODUCTS AND WASTES
Kübra Uzuner Ayşe Neslihan Dündar Oya Irmak Şahin Furkan Türker Sarıcaoğlu	Department of Food Engineering, Faculty of Engineering and Natural Science, Bursa Technical University, 16310, Bursa, Turkey	OPTIMIZATION OF BUTTERFLY PEA EXTRACTS FOR TOTAL PHENOLIC COMPOUNDS, ANTHOCYANINS AND ANTIOXIDANT ACTIVITY
Ülkühan BAĞIŞ Tuğça BİLENLER KOÇ İhsan KARABULUT	Inonu University, Faculty of Engineering, Food Enginering, Malatya, Turkey.	DETERMINATION OF ANTIMICROBIAL EFFECT OF SAGE OIL (Salvia Officinalis L.) IN DIFFERENT FOOD SYSTEMS

ONLINE (with Video Conference) PRESENTATIONS

GANUD - 3

08.05.2022

Meeting ID: 850 0192 875
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SESSION-1, HALL-1/OTURUM-1, SALON-1

MODERATOR: Assist. Prof. Dr. Barış Yalınkılıç

AUTHOR(S)	TITLE	AFFILIATION
Gürkan AKDAĞ **Aykut GÖKTUĞ SOYLU**	Examınatıon of Spıce Use in Geographıcal Indıcated Foods	Mersin University, Tourism Faculty, Gastronomy and Culinary Arts, Mersin Mersin University, Tourism Faculty, Gastronomy and Culinary Arts, Mersin
Ali ÖZDEMİR **Gülçin ÖZBAY**	THE EFFECT OF RELIGION ON FOOD CULTURES	Sakarya Uygulamalu Bilimler Üniversitesi, Yüksek Lisans Enstitüsü, Gastronomi ve Mutfak Sanatları Ana Bilim Dalı, Sakarya/Türkiye Sakarya Uygulamalu Bilimler Üniversitesi, Turizm Fakültesi, Gastronomi ve Mutfak Sanatları Ana Bilim Dalı, Sakarya/Türkiye
Aylin Karakaş	THE EFFECTS OF SOCIAL MEDIA AND BLOGS ON GASTRONOMY	Sakarya University of Applied Sciences, The Institute of Graduate Programs, Gastronomy and Culinary Arts, Sakarya, Turkey
Seda YILMAZ **Assist. Prof. Dr. Kamil Serkan UZYOL** **Assist. Prof. Dr. Şaban KARGİGLİOĞLU**	INVESTIGATION OF GEOGRAPHICALLY INDICATED PRODUCTS IN THE CONTEXT OF GASTRONOMY FESTIVALS: THE CASE OF BODRUM MANDARINI	Nişantaşı University, Graduate Education Institute, Gastronomy and Culinary Arts Department, Istanbul Turkey. Nişantaşı University, School of Health Sciences, Department of Nutrition and Dietetics, Istanbul Turkey Muğla Sıtkı Koçman University, Faculty of Tourism, Department of Gastronomy and Culinary Arts, Mugla, Turkey
Barış Yalınkılıç **Selim Uzun**	THE EFFECT OF DIFFERENT MARINATING TREATMENTS ON THE INSTRUMENTAL TEXTURAL PROPERTIES OF THE STEAKS COOKED WITH THE SOUS VIDE METHOD	İstanbul Gedik University, Faculty of Architecture and Design, Department of Gastronomy and Culinary Arts, İstanbul, Turkey İstanbul Gedik University, Faculty of Architecture and Design, Department of Gastronomy and Culinary Arts, İstanbul, Turkey

AUTHOR(S)	TITLE	AFFILIATION
Büşra Yeşilyurt **Ahmet Emirmustafaoğlu**	CRANBERRY AS A FUNCTIONAL FOOD AND ITS USES	Bolu Abant İzzet Baysal Üniversitesi, Turizm Fakültesi, Gastronomi ve Mutfak Sanatları Bölümü, Bolu, Türkiye
Bürge KARDEŞ DELİL **Nurten BEYTER** **İlkay YILMAZ**	CULINARY CULTURE AND SPECIAL DAY MEALS OF ELAZIĞ	Baskent University, School of Foreign Languages, Ankara, Türkiye. Başkent Üniversitesi, Faculty of Fine Arts, Design and Architecture, Gastronomy and Culinary Arts, Ankara, Türkiye.
Dr. Esra MANKAN **Selma Lubabe ERDOĞAN**	THE EFFECTS OF THE COVID 19 PANDEMIC ON THE GASTRONOMY SECTOR: CLOUD KITCHENS	Alanya Hamdullah Emin Paşa University, Faculty of Art and Design, ANTALYA/ TURKEY Alanya Hamdullah Emin Paşa University, Cookery Programme, ANTALYA/ TURKEY

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SESSION-1, HALL-2/OTURUM-1, SALON-2

MODERATOR: Assist. Prof. Dr. Elif Esra Öztürk

AUTHOR(S)	TITLE	AFFILIATION
Ebru Akbaş	FUSION CUISINE APPLICATIONS	Sakarya University of Applied Sciences, Tourism Faculty, Gastronomy and Culinary Arts, Sakarya, Turkey
Mehmet Özdamar **Asuman Pekyaman**	GASTRONOMIC CANVAS: PLATE. DETERMINING THE OPINIONS OF KITCHEN CHEFS ON PLATE PRESENTATIONS	Afyon Kocatepe University, Institute of Social Sciences, Gastronomy and .C.A. Department, Afyonkarahisar
Aylin Kükürt **Asaf Yekta** **Prof. Dr. Mehmet Durdu Öner**	MENU MANAGEMENT IN GASTRONOMY	Alanya Hamdullah Emin Paşa University, Faculty of Arts and Design, Department of Gastronomy and Culinary Arts, Alanya, Turkey
Tugce BARAT **Tolga AKCAN**	ARCHEOGASTRONOMY AS A NEW NOTION PROPOSAL AND SOME ARCHEOLOGICAL REVIEWS FROM ANATOLIAN CUISINE CULTURE	Dokuz Eylul University, Social Sciences Institute, Gastronomy and Culinary Arts, Izmir, Turkey
Elif Esra Öztürk	REFLECTION OF THE RELATIONSHIP BETWEEN EATING BEHAVIOR AND FOOD CHOICE ON DIFFERENT BODY MASSES	Gaziantep Islam Science and Technology University, Faculty of Fine Arts, Design and Architecture, Department of Gastronomy and Culinary Arts, Gaziantep, Turkey.
Özlem ÖZER ALTUNDAĞ **Sena ATİK**	A RESEARCH ON THE DETERMINATION OF FOOD CONSUMPTION IN THE FRAMEWORK OF GASTRONOMIC TRENDS OF STUDENTS OF GASTRONOMY AND CULINARY ARTS	Karabük Üniversitesi, Turizm Fakültesi, Gastronomi ve Mutfak Sanatları, Karabük, Türkiye. Yüksek lisans öğrencisi, Karabük Üniversitesi, Safranbolu Turizm Fakültesi, Gastronomi ve Mutfak Sanatları, Karabük, Türkiye
ILAYDA SIMSEK **ORCUN TOKSOZ** **DIDEM BERBER** **N. CENK SESAL**	ANTIOXIDANT POTENTIAL OF TRAGOPOGON PORRIFOLIUS AND ITS ANTIBACTERIAL EFFECTIVENESS AGAINST BACILLUS CEREUS AND STAPHYLOCOCCUS AUREUS ISOLATED FROM FOOD	Marmara University, Department of Biology, Faculty of Arts and Sciences,34722, Istanbul, Turkey. Maltepe University, Fine and Arts Faculty, Gastronomy and Culinary Department, 34857, Istanbul, Turkey.
Mehmet Akif ŞEN	RAMADAN PREPARATIONS IN TRABZON KITCHEN	Giresun Üniversitesi, Turizm Fakültesi, Gastronomi ve Mutfak Sanatları Bölümü, Giresun, Türkiye

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SESSION-1, HALL-3/OTURUM-1, SALON-3

MODERATOR: Dr. Nazanin NIKEGHBAL

AUTHOR(S)	TITLE	AFFILIATION
Dr. Nazanin NIKEGHBAL Assoc. Prof. Hilmi Rafet YÜNCÜ	REFLECTION OF TURKISH-PERSIAN LINGUISTIC INTERACTION ON TURKISH CUISINE	Anadolu University, Tourism Faculty, Department of Gastronomy and Culinary Arts, Eskişehir, Turkey.
Elif Tuğçe ASKUN TÜMERKAN	NOVEL RESEARCH FIELD:RELATION BETWEEN GASTRONOMY AND HUMAN WELL-BEING	Department of Food Processing-Food Technology, Ankara Yıldırım Beyazıt University, Vocational School of Health Services, Ankara, TURKEY AYBU Central Research Laboratory, Application and Research Center, Ankara Yıldırım Beyazıt University, Ankara 06010, TURKEY
Elif Tuğçe ASKUN TÜMERKAN	FACTS AND GAPS: USAGE OF VALUE ADDED FOOD PRODUCTS IN GASTRONMY	Department of Food Processing-Food Technology, Ankara Yıldırım Beyazıt University, Vocational School of Health Services, Ankara, TURKEY AYBU Central Research Laboratory, Application and Research Center, Ankara Yıldırım Beyazıt University, Ankara 06010, TURKEY
Elif Ayşe Anlı	A GASTRONOMIC FOOD KURUT: SHELF-STABLE FORM OF YOGURT	Ankara University, Faculty of Agriculture, Department of Dairy Technology, Ankara, Turkey.
Elif Ayşe Anlı	DAIRY APPLICATIONS OF CHIA SEED AND ITS MUCILAGE	Ankara University, Faculty of Agriculture, Department of Dairy Technology, Ankara, Turkey.
K.K. TOLUBAYEVA R. GADYSALYK	TARIMDA METAVERSE	Daulet Serikbayev'in adını taşıyan 1 Doğu Kazakistan Teknik Üniversitesi (Ust-Kamenogorsk, Kazakistan)
Deepika Kumari Dr. Barinderjit Singh	NUTRITIONAL, PHYTOCHEMICAL AND HEALTH BENEFITS OF 'CITRON'	Department of Food Science and Technology Ik Gujral Punjab Technical University (Kapurthala)
Ravi Kumar Sah Barinderjit Singh Gurwinder Kaur	EFFECT OF DEHYDRATION TECHNIQUES ON NUTRITIONAL AND POLYPHENOLIC CONTENT OF WASTE FROM KINNOW MANDARIN (CITRUS RETICULATA) AND MURCOTT MANDRIN (CITRUS RETICULATA X SINESIS)	I.K. Gujaral Punjab Technical University, Main Campus, Kapurthala

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SESSION-1, HALL-4/OTURUM-1, SALON-4

MODERATOR: Dr. Binyam Zigta

AUTHOR(S)	TITLE	AFFILIATION
Dr. K.R.Padma **Dr. K.R.Don**	Kiwifruit A Nutrient-Dense Fruit on Regular Consumption Improve Nutritional Status Among COVID-19 Disease	Assistant Professor, Department of Biotechnology, SriPadmavati Mahila Visva Vidyalayam (Women's) University, Tirupati Reader, Department of Oral Pathology and Microbiology, Sree Balaji Dental College and Hospital, Bharath Institute of Higher Education and Research (BIHER) Bharath University, Chennai, Tamil Nadu, India
Dr. Binyam Zigta	The Influence of Thermal Radiation and Chemical Reaction on MHD Micropolar Fluid in The Presence of Heat Generation/ Absorption	Wachemo University, College of Natural and Computational Science, Ethiopia
Sah IKHLAS **Hendri Hermawan ADİNUGRAHA**	HALAL MEDIA AND RECREATION INDUSTRY IN INDONESIA	Faculty of Economics and Islamic Business IAIN Pekalongan
Much Agus Chalimi **Hendri Hermawan ADİNUGRAHA** **Susminingsih**	POTENTIAL OF HALAL TOURISM CENTRAL JAVA, INDONESIA IN THE ERA OF THE INDUSTRIAL REVOLUTION 4.0	IAIN Pekalongan, Faculty of Islamic Economics and Business, Department of Islamic Economics
Azhar FAHMI **AM. Muh. Khafidz MA'SHUM** **Hendri Hermawan ADİNUGRAHA**	DEVELOPING DIGITALIZATIAN OF SHARIA FINANCE THROUGH THE ECOSYSTEM	Postgraduate of IAIN Pekalongan, Departemen of Islamic Economics IAIN Pekalongan, Faculty of Islamic Economics and Business, Departemen of Islamic Economics
Muhlisin, Syarif Hidayatullah, Dina Nur 'Amilah, Yunestria Rizkiana, Umi Fauziah	TASK FORCE TRAINING ACTIVITIES OF THE MEMBERS UKK KSR PMI IAIN PEKALONGAN IN 2022	Institut Agama Islam Negeri Pekalongan
Major Gheorghe GIURGIU **Prof. Dr. Manole COJOCARU, SciRes I, EuSpLM**	HE DOUBLE ROLE OF NUTRIENTS IN IMMUNITY	Deniplant-Aide Sante Medical Center, Biomedicine, Bucharest, Romania Titu Maiorescu University, Faculty of Medicine, Bucharest, Romania

AUTHOR(S)	TITLE	AFFILIATION
Funmilayo Hannah AROWOLO Clement Olusola OGIDI (Ph.D) Bamidele Juliet AKİNYELE (Ph.D)	ESSENTIAL OIL FROM PEELS OF PLANTAIN AND PINEAPPLE: BIOACTIVE COMPOUNDS AND ANTIMICROBIAL ACTIVITIES	*Department of Microbiology, The Federal University of Technology, PMB 704, Akure, Nigeria* *Department of Food Science and Technology, School of Agriculture, Food and Natural Resources, Olusegun Agagu University of Science and Technology, PMB 353, Okitipupa, Nigeria*

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SESSION-1, HALL-5/OTURUM-1, SALON-5

MODERATOR: Dr. BOUHARATI Khaoula

AUTHOR(S)	TITLE	AFFILIATION
Hidayatul SIBYANI Hendri Hermawan ADİNUGRAHA	ANALYSIS OF THE DEVELOPMENT OF THE HALAL PRODUCT ASSURANCE SYSTEM IN INDONESIA	IAIN Pekalongan, Faculty of Islamic Economics and Business, Department of Islamic Economics
Muflikhatul Janah Diah Fany Amalia Shinta Nurani	DIET CONCEPT IN THE QUR'ANIC PERSPECTIVE	State Islamic Institute, Faculty Of Ushuluddin Adab and Da'wah, Knowledg Of The Qur'an and Tafsir, Pekalongan, Indonesia
Gul Arzoo Afzal Ayesha Abaidullah Mr. Fareed Afzal Fatima Shahid	OBESITY IS A SERIOUS HEALTH PROBLEM	Department of Biochemistry, Faculty of life sciences, Saint Mary's College, Gujranwala Pakistan Department of Food Science, Faculty of Life Sciences, Government College University, Faisalabad, Pakistan Department of Human Nutrition and dietetics Faculty of Life Sciences, Saint Mary's College Gujranwala, Pakistan
Gazmend Meço	A COMPARISON ANALYSIS IN FOOD PRODUCTS GROUPS CONSUMPTION PREFERENCES	Agriculture University of Tirana
Syarfaini Rezki Nurfatmi Syamsul Alam Yusma Indah Jayadi	THE RELATIONSHIP OF MACRO NUTRIENT INTAKE TO WASTING INCIDENCE IN TODDLERS AGE 0-59 MONTHS IN NORTH POLOMBANGKENG DISTRICT, TAKALAR REGENCY IN 2022	Faculty of medicine and health sciene, Alauddin State Islamic University Makasar
Malihe Sotoudeh Parvaneh Maghami	THE APPLICATION OF NON-EQUILIBRIUM GLIDING ARC PLASMA ON BIODETERIORATION OF THE HISTORIC PAPER	Department of Biology, Science and Research Branch, Islamic Azad University, Tehran, Iran

AUTHOR(S)	TITLE	AFFILIATION
Dr. BOUHARATI Khaoula **Dr. BOUHARATI Imene** **Pr. GUENİFİ Wahiba** **Pr. LAOUAMRİ Slimane**	ANALYSIS OF THE EFFECT OF DIABETES AND BMI ON HEPATITIS B AND C	Depatment of Epidemiology, Faculty of Medicine, Constantine University, Algeria Laboratory of Health and Environment, UFAS Setif1 University, Setif, Algeria" Laboratory of Intelligent Systems, UFAS Setif1 University, Setif, Algeria Faculty of Medicine, Paris Sorbonne University, France Faculty of Medicine, Setif University Hospital, UFAS Setif1 University, Setif, Algeria
Abdalbasit Adam Mariod	AL- MUDHIR (A TRADITIONAL SAUDI DAIRY FOOD) FORTIFIED WITH PEANUT	Department of Biology, College of Science and Arts, University of Jeddah, Alkamil, KSA. Indigenous Knowledge Center, Ghibaish College of Science and Technology, Ghibaish, Sudan.

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SESSION-1, HALL-6/OTURUM-1, SALON-6

MODERATOR: Assoc. Prof. Dr. Seyyed Hamid Reza Ramazani

AUTHOR(S)	TITLE	AFFILIATION
Seyyed Hamid Reza Ramazani **Mehdi Kargar**	STUDY ON GERMINATION AND SEEDLING GROWTH OF TWO CANOLA CULTIVARS AS AFFECTED BY CADMIUM AND COPPER SULFATE	Associated Professor, Department of Agronomy and Plant Breeding, University of Birjand, Birjand, Iran. Department of Science, University of Birjand, Birjand, Iran.
Ms. K. SindhuPriya	Invitro ANTICANCER ACTIVITY OF CARBON NANOPARTICLES PRODUCED VIA A BIOSOOT USING FEW AQUATIC PLANTS WITH ITS CHARACTERIZARION AND ANTIBACTERIAL ACTIVITY	Assoc. Prof. Dr., Department of Biotechnology, Vels University VISTAS, Chennai, Tamilnadu, India
Akanksha Singh and Syed Ibrahim Rizvi	CURCUMIN MAY BE A PROMISING ANTI-AGING SUPPLEMENTATION: STUDIES ON AN ACCELERATED SENESCENCE MODEL OF RAT	Department of Biochemistry, University of Allahabad, Prayagraj, India
Runjhun Singhal	A REVIEW ON NUTRACEUTICALS : CATEGORIES AND POTENTIAL HEALTH BENEFITS	Banasthali Vidyapith, Tonk, Rajasthan, India
Adetifa B.O. **Aremu A.K.**	THERMAL ENERGY BALANCE OF DOMESTIC COOKING	Department of Agricultural Engineering, Faculty of Engineering, College of Engineering and Environmental Studies, Olabisi Onabanjo University, Ibogun, Ogun State, Nigeria Department of Agricultural and Environmental Engineering, Faculty of Technology, University of Ibadan, Ibadan, Oyo State, Nigeria
Rifqhi Amanda Dwi Syahputri **Yusma Indah Jayadi** **Dian Rezki Wijaya**	EDUCATION FOR HEALTHY LATRINE IN KAMPALA HAMLETS, LIMAPOCCOE VILLAGE, MAROS REGENCY	Public Health Departement, Faculty Of Medicine and Health Science, Universitas Islam Negeri Alauddin Makassar, Indonesia

AUTHOR(S)	TITLE	AFFILIATION
Mariam ELKASSBI **Bouabid EL MANSOURI**	ENVIRONMENTAL IMPACT OF MARGINES ON WADI WATERS R'DOM: PHYSICO-CHEMICAL CHARACTERIZATION - SEDIMENTOLOGICAL ANALYSIS - HEAVY METALS	PhD student, Department of Earth Sciences, Faculty of Sciences, Ibn Tofail University Water Resources Modeling Professo, Department of Earth Sciences, Faculty of Sciences, Ibn Tofail University

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SESSION-2, HALL-1/OTURUM-2, SALON-1

MODERATOR: Rabia MELDA KARAAĞAÇ

AUTHOR(S)	TITLE	AFFILIATION
Amine ATAÇ Çağla PINARLI Rabia MELDA KARAAĞAÇ Merve ÖZVAR	Evidence-Based Rehabilitation Methods and Nutritional Approaches to Food Addiction	Istanbul Gedik University Faculty of Health Sciences Physiotherapy and Rehabilitation, Istanbul, Turkey
Elif Kübra Arslan Başak Öney	IMPORTANCE OF NUTRITION IN AUTISM SPECTRUM DISORDER	Bezmialem Vakıf Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü, İstanbul, Türkiye
Kübra Demir Jale Çatak Elanur Ertekin Tezcan Ayşe Sena COŞKUN	INVESTIGATION OF THAIMINE COOKING LOSSES IN MUTTON AND ITS BIOACCESSIBILITY IN THE IN VITRO GASTROINTESTINAL SYSTEM	Istanbul Sabahattin Zaim University, Department of Nutrition and Dietetics, Istanbul/Turkey
Murat GÜRBÜZ B.İrem Omurtag KORKMAZ	INVESTIGATION OF POULTRY MEAT SAFETY BY DETERMINING THE MINIMUM EUGENOL CONCENTRATION AGAINST CAMPYLOBACTER JEJUNI	Trakya University, Faculty of Health Science, Nutrition and Dietetics, Edirne, Turkey Marmara University, Faculty of Health Science, Nutrition and Dietetics, İstanbul, Turkey
Seda YAMAÇ AKBIYIK Halime PULAT DEMİR	NUTRITIONAL LITERACY LEVEL OF ACADEMICIANS	İstanbul Gelisim University, Faculty Of Engineering And Architecture, Department Of Computer Engineering, İstanbul, Türkey
Nazife YILMAZ Mihrican KACAR	THE RELATIONSHIP BETWEEN CANCER RISK AND DIET GLYCEMIC INDEX, GLYCEMIC LOAD, INSULIN INDEX, AND INSULIN LOAD	Erzincan Binali Yildirim University Faculty of Health Sciences, Department of Nutrition and Dietetics, Erzincan / Turkey
Nazife YILMAZ Mihrican KACAR	THE ROLE OF CHAGA MUSHROOM IN CANCER TREATMENT	Erzincan Binali Yildirim University Faculty of Health Sciences, Department of Nutrition and Dietetics, Erzincan / Turkey
Rabia MELDA KARAAĞAÇ Indrni KALKAN	SUSTAINABLE DIETS AND FOOD SYSTEMS	Istanbul Gedık Unıversıty, Faculty Of Health Scıences, Department Of Nutrıtıon And Dıetetıcs, Istanbul, Turkey

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SESSION-2, HALL-2/OTURUM-2, SALON-2

MODERATOR: Dr. Öznur Cumhur

AUTHOR(S)	TITLE	AFFILIATION
Fatma GÜLTEKİN **Halime PULAT DEMİR**	THE INVESTIGATE NUTRITION LITERACY ON COOKS	İstanbul Gelisim University, Faculty Of Health Sciences, Department Of Nutrition And Dietetics, İstanbul, Türkey
Merve DEMİRBİLEK **Erhan FAKIOĞLU** **Dolunay Merve FAKIOĞLU** **Fatih Mehmet KISLAL** **Ayşe Derya BULUŞ** **Sevgi AKAYDIN**	INVESTIGATION OF THE RELATIONSHIP OF SERUM ADIPOKINE HORMONE LEVELS WITH THE DEGREE AND SOME MARKERS OF OBESITY IN OBESE CHILDREN	Health Sciences University, Keçiören TRH, Clinic of Pediatrics, Ankara, TURKEY Gazi University, Faculty of Pharmacy, Department of Biochemistry, Ankara, TURKEY
Memet ŞAHAN	A DISCIPLINE EXAMINING THE ROLE OF SENSES IN FLAVOR PERCEPTION: NEUROGASTRONOMY	Adıyaman University, Vocational School of Social Sciences, Department of Hotel, Restaurant and Catering Services
Öznur Cumhur **Aysu Altaş**	A REVIEW ON ALTERNATIVE TOURISM TYPES UNDER THE UMBRELLA OF GASTRONOMY TOURISM	Bilecik Şeyh Edebali Üniversitesi, Uygulamalı Bilimler Fakültesi, Turizm İşletmeciliği, Bilecik, Türkiye Aksaray Üniversitesi, Turizm Fakültesi, Turizm Rehberliği Bölümü, Aksaray, Türkiye
Yrd. Doç. Dr. İhsan Erol Özçil	KUZEY KIBRIS'TA HELLİM PEYNİRİNE BULANIK BİR YAKLAŞIM ANALİZİ	Kıbrıs Amerikan Üniversitesi
Karim HUSEYN-ZADA	THE IMPORTANCE OF WINE TOURISM, WHICH IS CONSIDERED AN UNFORGETTABLE EXPERIENCE	PhD candidate, Baku State University, Faculty of Geography, Department of Economic and Political Geography of Foreign countries and Tourism.

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SESSION-2, HALL-3/OTURUM-2, SALON-3

MODERATOR: Assoc. Prof. Dr. Emine Nakilcioğlu

AUTHOR(S)	TITLE	AFFILIATION
Assoc. Prof. Dr. Emine Nakilcioğlu	THE IMPORTANCE OF THERMOGENIC INGREDIENTS IN BODY WEIGHT CONTROL	Ege University, Engineering Faculty, Food Engineering Department, Izmir, Turkey
Ceyda DADALI **Yeşim ELMACI**	SUGAR REDUCTION APPLICATIONS IN CHOCOLATE	Ege University, Engineering Faculty, Food Engineering Department, İzmir, Turkey.
Ceyda DADALI **Yeşim ELMACI**	A NEW STRATEGY MODULATES SENSORY PROPERTIES OF FOOD: INHOMOGENEOUS DISTRIBUTION	Ege University, Engineering Faculty, Food Engineering Department, İzmir, Turkey.
Ilay BENGU **Lutfiye YİLMAZ-ERSAN** **Tulay OZCAN**	DETERMINATION OF SOME PROPERTIES AFFECTING CONSUMER PREFERENCE IN PLANT-BASED BEVERAGES	Bursa Uludag University, Graduate School of Natural and Applied Sciences, Department of Food Engineering, Bursa, Turkey, Bursa Uludag University, Faculty of Agriculture, Department of Food Engineering, Bursa, Turkey
Başak ÖNCEL **Mehmet Sertaç ÖZER**	POTENTIAL USE OF THE LEGUME FLOURS IN GLUTEN-FREE FOODS	Toros University Vocational School Department of Food Technology, Mersin, Turkey Department of Food Engineering, Faculty of Agriculture, Cukurova University, Adana, Turkey
Merve OZBAY **Leyla ERUL** **Lutfiye YİLMAZ-ERSAN** **Tulay OZCAN**	THERAPEUTIC EFFECTS OF ANTIOXIDANTS IN THE PREVENTION AND MANAGEMENT OF OBESITY	Bursa Uludag University, Graduate School of Natural and Applied Sciences, Department of Food Engineering, Bursa, Turkey,
Leyla ERUL **Merve OZBAY** **Tulay OZCAN** **Lutfiye YİLMAZ-ERSAN**	THE EFFECT OF OMEGA-3 FATTY ACID METABOLISM ON INSULIN RESISTANCE AND OBESITY-ASSOCIATED DISORDERS	Bursa Uludag University, Graduate School of Natural and Applied Sciences, Department of Food Engineering, Bursa, Turkey
Eda Elgin KILIÇ **İbrahim Halil KILIÇ** **Banu KOÇ**	DETERMINATION OF YOGURT PRODUCTION POTENTIALS OF LACTIC ACID BACTERIA ISOLATED AND IDENTIFIED FROM LENTİLS AND BEANS	Gaziantep University, Naci Topçuoğlu Vocational School, Gaziantep, Türkiye
Şeyda ESKİCİ **A. Ezgi TELLİ**	ELIMINATION DIET IN AUTOIMMUNE DISEASES	Selçuk Universitesi, Veteriner Fakültesi, Besin Hijyeni ve Teknolojisi A.D., Konya, Türkiye.

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SESSION-2, HALL-4/OTURUM-2, SALON-4

MODERATOR: Assoc. Prof. Dr. Hülya DEMİR

AUTHOR(S)	TITLE	AFFILIATION
Çağla Pınarlı **Osman Erkmen**	FERMENTATION IN FOOD TECHNOLOGY AND HEALTH	Istanbul Gedik University, Faculty of Health Sciences, Department of Nutrition and Dietetics, Istanbul, Turkey.
Merve OZVAR	OBESITY AND LIVER DISEASES	Istanbul Gedik University, Faculty Of Health Sciences, Department Of Nutrition And Dietetics, Istanbul, Turkey
Hasan Uğur ÖNCEL **Büşra YELEK** **Nisanur GÜR** **Nazlı YEĞİN**	THE IMPORTANCE OF MICROBIOTA IN THE TREATMENT OF NEUROLOGICAL DISEASES	Istanbul Gedik University, Health Sciences Faculty, Istanbul, Turkey
Hülya DEMİR	CHEMICAL COMPOSITION AND ANTIMICROBIAL ACTIVITY OF ESSENTIAL OILS OF OCIMUM BASILICUM VAR. ALBUM (L.) BENTH, LAVANDULA ANGUSTIFOLIA SUBSP. ANGUSTIFOLIA, MELISSA OFFICINALIS BELONGING TO LAMIACEAE FAMILY	Yeditepe University, Health Science, Nutrition and Dietetic
Hülya DEMİR	EVALUATION OF DIETARY QUALITY OF SENIOR HIGH SCHOOL STUDENTS BY HEALTHY EATING INDEX (POSTER)	Yeditepe University,Health Science, Nutrition and Dietetic
Abdullah GÜLER **Nene MELTEM KEKLİK** **Emre HASTAOĞLU**	Comparison Of The Sensory Properties Of Bread Prepared With Different Soy Flour And Dill Formulations With The Simple Additive Weighting Method	Sivas Cumhuriyet University, Graduate School Of Natural And Applied Sciences, Department Of Food Engineering, Sivas, Turkey
Adem ADEMOĞLU	A CONCEPTUAL RESEARCH ON TRADITIONAL COFFEE TYPES IN TURKISH GASTRONOMY IDENTITY	Kilis 7 Aralik University, Vocational School of Tourism and Hospitality, Department of Hotel, Restaurant and Catering Services-Cookery Program, Kilis, Turkey.
Nihal Başyiğit **Cansev Meşe Yavuz**	DIETARY HABITS AND FOOD PREFERENCES OF YOUNG ADULTS	Van Yüzüncü Yıl University, Social Social Sciences Institüsü, Antropolology Department, Van, Turkey

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SESSION-2, HALL-5/OTURUM-2, SALON-5

MODERATOR: Dr. Muhammad Haseeb Ahmad

AUTHOR(S)	TITLE	AFFILIATION
S. Bhuvaneswari S. Deepa Hima Aishwarya N. Ashwin Karthick B. Sampath Kumar N.K. Udaya Prakash	DETERMINATION OF FUNGAL QUALITY OF MARKETED HONEY SAMPLES IN CHENNAI, INDIA	Department of Botany, Bharathi Women's College, Broadway, Chennai 600008, India R and D, Marina Labs, 14, Kavya Gardens, N.T. Patel Road, Nerkundram, Chennai 600107, India Department of Biotechnology, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai 600117, India
Konuri Ravi Kumar Swapan Kumar Kolay	FOOD HABITS CULTURE AND DENTAL HEALTH: A STUDY AMONG TRIBAL AND NON-TRIBAL GROUPS OF BASTAR DISTRICT IN CHHATTISGARH, INDIA	Research Scholar, School of Anthropology & Tribal Studies, Shaheed Mahendra Karma Vishwavidyalaya, Bastar, Jagdalpur: 494001, District Bastar Professor & Head, School of Anthropology & Tribal Studies, Shaheed Mahendra Karma Vishwavidyalaya, Bastar, Jagdalpur: 494001, District Bastar, Chhattisgarh
Dr. Muhammad Haseeb Ahmad Mr. Muhammad Faizan Afzal	POTENTIAL APPLICATIONS OF INNOVATIVE TECHNOLOGIES IN AUTHENTICATION OF FOOD AND FOOD PRODUCTS	Department of Food Science, Faculty of Life Sciences, Government College University Faisalabad
S.Z.J. Zaidi M.H.Nazir	ANTICANCER DRUG DESIGN BY NANO CARRIERS	Institute of Chemical Engineering and Technology, University of the Punjab, Pakistan. School of Engineering,University of Southwales United Kingdom.
Maria Michel Mikhailovna Beteva Ilya Nikolaevich Medvedev	INCREASING THE EFFECTIVENESS OF FITNESS TRAINING IN MEN OF THE FIRST MATURE AGE	Faculty of Physical Education, Russian State Social University, Moscow, Russia

AUTHOR(S)	TITLE	AFFILIATION
Lyudmila Vladimirovna Alekseeva **Elena Vladimirovna Krapivina** **Vladimir Vladimirovich Zaitsev**	PHYSIOLOGICAL PARAMETERS OF HEMOSTASIS IN CALVES AND PIGLETS UNDER ADVERSE ENVIRONMENTAL CONDITIONS	Department of biochemistry and biotechnology, Institute of Economics and management, Tver State University, Tver, Russia Department of veterinary medicine, Tver State Agricultural Academy, Tver, Russia Department of Epizootology, Microbiology, Parasitology and Veterinary and Sanitary Expertise, Bryansk State Agricultural University, Bryansk region, Vygonichsky district, Kokino village, Russia Department of Bioecology and Physiology of Farm Animals, Samara State Agricultural Academy, Samara, Russia
Cristina DAMIAN	MINI-REVIEW: APPLICATIONS OF MOLECULAR GASTRONOMY IN FOOD INDUSTRY	"Stefan cel Mare" University of Suceava, Faculty of Food Engineering, ROMANIA
Shivam Pandey **Ajay Singh**	APPLICATIONS OF AQUATIC WEED DERIVED ZIRCONIUM NANOPARTICLES AND ITS BIOSYNTHESIS	Uttaranchal University, School of Applied and Life Sciences, Dehradun, India

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SESSION-2, HALL-6/OTURUM-2, SALON-6

MODERATOR: Muhammad Kamran Khan

AUTHOR(S)	TITLE	AFFILIATION
Abhishek Sharma	COLOR PRESERVATION AND PIGMENT EXTRACTION FROM CITRUS SPECIES (KINNOW AND MURCOTT)	IKG, Punjab Technical University, Main Campus, Kapurthala- Jalandhar, Punjab, India
Arezoo ALLAMEH HAERI **Ehsan KHAKSAR** **Iradj ASHRAFI TAMAI**	EVALUATION OF SALMONELLA CONTAMINATION IN VARIOUS COMMERCIAL CANINE FOOD IN IRAN	Department of Microbiology, Faculty of veterinary Medicine, Garmsar Branch, Islamic Azad University, Garmsar, Iran. Department of Clinical Sciences, Faculty of Veterinary Medicine, Garmsar Branch, Islamic Azad University, Garmsar, Iran Department of Microbiology, Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran.
Dupe Temilade Otolowo **Omolola Mary Omosebi** **Kudirat Titilope Araoye** **Temiloluwa Elizabeth Ernest** **Oluwatooyin Faramade Osundahunsi**	EFFECTS OF THE SUBSTITUTION OF COW'S MILK WITH SOYMILK ON THE MICRONUTRIENTS, MICROBIAL, AND SENSORY QUALITIES OF YOGHURT	Department of Food Science and Technology, Mountain Top University, Prayer City, Nigeria Department of Food Science and Technology, Federal University of Oye-Ekiti, Nigeria Department of Food Science and Technology, Wesley University Ondo, Nigeria Department of Food Science and Technology, Federal University of Technology, Akure, Nigeria
Lyubov Pavlovna Solovyova **Tamara Vasilievna Kalysh** **Valery Ivanovich Zamuravkin**	PLATELET FUNCTIONS OF BULLS OF THE KOSTROMA BREED AND FATTENING BOARS OF THE LARGE WHITE BREED	Department of Anatomy and Physiology of Animals, Kostroma State Agricultural Academy, Kostroma, Russia
Elena Sergeevna Tkacheva **Ilya Nikolaevich Medvedev**	PHYSIOLOGICAL DYNAMICS OF THE MAIN HEMATOLOGICAL PARAMETERS OF SUCKLING SOWS	Department of Epizootology and Microbiology, Vologda State Dairy Farming Academy named after N.V. Vereshchagin, Vologda, Russia Faculty of Physical Education, Russian State Social University, Moscow, Russia

AUTHOR(S)	TITLE	AFFILIATION
Nadezhda Viktorovna Vorobyeva	PLATELETE ACTIVITY IN CALVES OF THE YAROSLAVSK BREED OF DAIRY AND VEGETABLE FOOD	1.Department of Physical Education, South-West State University, Kursk, Russia 2.Laboratory of the physiology of digestion and interstitial metabolism, All-Russian Research Institute of Physiology, Biochemistry and Animal Nutrition - Branch of the Federal Scientific Research Center for Livestock - All-Russian Institute of Livestock named after Academician L.K. Ernst, Borovsk, Russia
Svetlana Yurievna Zavalishina	PHYSIOLOGICAL DYNAMICS OF HEMATOLOGICAL PARAMETERS IN LACTATING COWS ON THE INTRODUCTION OF CATOZAL	Russian State Social University, Moscow, Russia
Eshraga Mustafa Abdalrahman	MONCHEMA CILLIATIM (BLACK MAHLAB) A PROMISING SOURCE OF NUTRIENTS	Sudanese Innovative and Developed Research Association (SIDRA)
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08.05.2022
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MODERATOR: Afshan Siddiq

AUTHOR(S)	TITLE	AFFILIATION
Afshan Siddiq **Syed Muhammad Hassaan**	CORRELATION BETWEEN METABOLIC ILLNESS SUCH AS DIABETES WITH THE LIFESTYLE OF UNDERGRADUATE STUDENTS OF PAKISTANI UNIVERSITY	Department of Pharmacology, Faculty of pharmacy and pharmaceutical sciences University of Karachi, Pakistan
Simple Sharma **Barinderjit Singh**	POMELO FRUIT AS A BIOACTIVE SOURCE AND HEALTH POTENTIAL	Department of Food Science and Technology, I. K. Gujral Punjab Technical University, Jalandhar - Kapurthala Highway, Punjab 144603, India
ORJI J.E **ORJI H.C** **S. Ibrahim-Olesin**	REVIEW ON CLIMATE CHANGE AND AGRICULTURE: CAUSES, EFFECTS AND ADAPTATION STRATEGIES	Department of Agriculture, Alex Ekwueme Federal University Ndufu Alike, Ebonyi State. National Open University, Abakaliki-Ebonyi State
Sahil Chaudhary	GRAPEFRUIT — A RESERVOIR OF BIOACTIVE COMPOUNDS WITH HEALTH PROMOTING EFFECTS	Research Scholar, I. K. Gujral Punjab Technical University
Kaavya Unni **Dr. S.Antony**	EVALUATION OF ANTIOXIDANT AND PHYTOCHEMICAL ANALYSIS OF SELECTED MEDICINAL PLANTS Moringaoleifera and Solanumnigrum	Research Scholar, Department of Microbiology, Malankara Catholic College, Affiliated to Manonmaniam Sundaranar University, Tirunelveli
Karishma W. Kuthe **Dr. Kanchan P. Upadhye** **Dinesh R.Chaple**	CURCUMIN - ITS' EFFECTS ON HUMAN HEALTH : A REVIEW	Priyadarshini J.L. College Of Pharmacy, Hingna, Nagpur 441501, India
Vigi S **Antony S**	ISOLATION AND CHARACTERIZATION OF BENEFICIAL RHIZOSPHERE MICROORGANISMS FROM MILLET GROWN FIELD	Research Scholar, Department of Microbiology, Malankara Catholic College, Mariagiri Affiliated to ManonmaniumSundaranarUniversity, Tirunelveli.

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SESSION-3, HALL-2/OTURUM-3, SALON-2

MODERATOR: Nawel REGGAD

AUTHOR(S)	TITLE	AFFILIATION
T. Reena Anjali S. S. Aswathi K. Greeshma Satheesh Reni R S. Siana Fowmen Vaishnavi M. B.	SUSCEPTIBILITY OF SALMONELLA TYPHI AGAINST MEDICINAL PLANT EXTRACTS	Department of Microbiology, Malankara Catholic College, Mariagiri, Kaliyakkavilai, Kanyakumari district 629153, Affiliated to Manonmaniam Sundaranar University, Tirunelveli. Department of Microbiology, Malankara Catholic College, Mariagiri, Kaliyakkavilai, Kanyakumari district 629153,Affiliated to Manonmaniam Sundaranar University, Tirunelveli.
Nawel REGGAD Djallal Eddine Houari ADLI Noureddine HALLA	EFFECT OF ONONIS ANGUSTISSIMA LAM EXTRACT ON THE ALUMINUM ALTERATIONS OF THE INTESTINAL HISTOLOGY	Laboratory of Biotoxicology, Pharmacognosy and Biological Valorization of Plants, Department of Biology, Faculty of Sciences, Moulay-Tahar University, Saïda, Algeria.
Juan Carlos Montenegro Hernandez	DIGITALIZATION IN THE FOOD INDUSTRY – APPLICATION OF BLOCKCHAIN TECHNOLOGY AS A SUSTAINABLE BUSINESS MODEL	MATE Hungarian University of Agriculture and Life Sciences, Doctoral School in Management and Organizational Science
Usman Haider, Muhammad Naeem Faisal*, Bilal Aslam, Haseeb Anwar, Humaira Muzaffar, Alishbah Roobi, Aiza Kamal khan, Noreen Aslam, Lubna Majeed, Jawad Aslam, Momina Mehmood, Qaisar Tanveer, Waheed Ullah, Ayesha Javed, Ayesha Ahmad, Wania Nasir	EFFECT OF THE VARIYING ARGININE TO LYSINE RATIO ON SERUM INSULIN LEVELS AND PANCREAS HISTOLOGY IN BROILERS	Institute of Physiology and Pharmacology, University of Agriculture, Faisalabad

AUTHOR(S)	TITLE	AFFILIATION
Rupal Devi	ALTERNATIVE DISPUTE RESOLUTION	Student of BALLB at BPS University of women, Haryana, India
Ayesha Javed, Usman Haider, Bilal Aslam and Muhammad Naeem Faisal	EXPRESSION LEVEL OF SRc (HIGH) AND MDM2 (DOWN) GENES IN FEMALE BREAST CANCER	Institute of Physiology and pharmacology, University of Agriculture Faisalabad, Pakistan
Sahil Chaudhary Barinderjit Singh	GRAPEFRUIT — A RESERVOIR OF BIOACTIVE COMPOUNDS WITH HEALTH PROMOTING EFFECTS	Department of Food Science and Technology, I. K. Gujral Punjab Technical University, Kapurthala, Punjab 144603, India
Ravi Sah Barinderjit Singh Gurwinder Kaur	EFFECT OF DEHYDRATION TECHNIQUES ON NUTRITIONAL AND POLYPHENOLIC CONTENT OF WASTE FROM KINNOW MANDARIN (CITRUS RETICULATA) AND MURCOTT MANDRIN (CITRUS RETICULATA X SINESIS)	-

CONTENT

ABSTRACT BOOK

KIWIFRUIT A NUTRIENT-DENSE FRUIT ON REGULAR CONSUMPTION IMPROVE NUTRITIONAL STATUS AMONG COVID-19 DISEASE

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Abstract

Irrespective of age in some people, there is so diminution function of immune system which might result to serious menace of respiratory tract infections (RTI) mainly upper respiratory tract infections (URTI) chiefly during these pandemic circumstances. To prevent the attack from corona virus consumption of the miraculous fruit i.e, kiwi fruit (*Actinidia chinesis*) indirectly boosts immune function. The kiwi fruit contains abundant vitamin C, E, Folate, Polyphenols and carotenoids which helps in diminution from symptoms of corona virus infection. Furthermore, several literature studies has revealed its antioxidant, antimicrobial, antiviral and anticancer properties. The whole fruit without any exception of peel has many important functions revealing its antiviral actions. Nonetheless, all parts of the fruit are suitably acknowledged for their medicinal and therapeutic significance. Kiwi fruit peel possess larger content of phenolics and flavonoids, which exhibited more potential anti-viral, anti-oxidant, anti-bacterial and anti-cancer activity. Moreover, Kiwifruit (*Actinidia chinensis*) peel has acknowledged worthless because of the bitter taste, but possesses vital antiviral actions in fighting against corona virus. Our article has revealed the significance of kiwifruit resources and further portrayed nutritional benefits of kiwifruit peel. Therefore, our exploration provides broad insights to researchers to consider the fruit as part of effective dietary strategy in tackling main health issues arose from current variants of Covid-19. Furthermore, we have high-lightened on the mode of actions in boosting immunity. With possession of multiple health benefits, the use of kiwi fruit has become our daily prescription for health to enhance immunity.

Keywords: Antiviral activity, Kiwi fruit, Nutritional benefits, Corona virus, kiwi fruit peel.

COĞRAFİ İŞARETLİ YEMEKLERDEKİ BAHARAT KULLANIMININ İNCELENMESİ

EXAMINATION OF SPICE USE IN GEOGRAPHICAL INDICATED FOODS

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Özet

Coğrafi işaretli ürünler bir yöreye has olan özellikleri nedeni ile işaretlenen ürünleri kapsamaktadır. Bu ürünler yörenin beslenme alışkanlıklarına bir ayna olma özelliği taşımaktadırlar. Bu bağlamda yapılan çalışmanın amacı Türkiye'nin farklı bölgelerindeki coğrafi işaretli yemeklerde kullanılan baharatların çeşitlerini ve miktarlarını tespit etmektir. Araştırmada "Coğrafi İşaretli Ürünler Portalı" içerisinde "Yemek ve Çorba" grubunda yer alan 99 yemek incelenmiştir. Bu bağlamda yapılan araştırma sonuçlarına göre Güney Doğu Anadolu Bölgesi en çeşitli ve sık baharat kullanan bölgedir. Ayrıca Güney Doğu Anadolu Bölgesi en çok coğrafi işaretli yemeğe sahip bölgedir. Marmara Bölgesi en az coğrafi işaretli yemeğe sahip bölge iken, Ege Bölgesi'nde ise çok az baharat kullanımı görülmektedir. Karadeniz Bölgesi'nde baharat kullanımının sık olmasına rağmen en az çeşit baharat kullanan bölge olduğu belirlenmiştir. Kullanılan baharatların miktarına bakıldığında çok kullanılan iki baharat kırmızı pul biber ve karabiber olduğu tespit edilmiştir.

Anahtar Kelimeler: Coğrafi işaret, baharat, gastronomi, tescil, yemek.

Abstract

Geographically indicated products include the products marked due to their unique characteristics. These products have the feature of being a mirror to the eating habits of the region. In this context, the purpose of the study is to determine the types and quantities of spices used in the dishes indicated in different geographical regions of Turkey. In the study, 99 dishes in the "Food and Soup" group within the "Geographic Indicated Products Portal" were examined. According to the results of the research carried out in this context, South East Anatolia Region is the most diverse and frequently used spice region. In addition, the South East Anatolia Region is the region with the most geographic indicate. While Marmara Region is the region with the least geographically indicated food, very few spices are used in the Aegean Region. Although the use of spices is frequent in the Black Sea Region, it is determined that it is the region that uses the least variety of spices. When looking at the amount of spices used, it was determined that the two spices used are red chili peppers and black pepper.

Keywords: Geographical indication, spice, gastronomy, patent, food

SÜRDÜRÜLEBİLİR DİYETLER VE GIDA SİSTEMLERİ

SUSTAINABLE DIETS AND FOOD SYSTEMS

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Özet

Bu derlemenin amacı, sürdürülebilir diyet çeşitlerinin ve sürdürülebilir gıda sistemlerinin günümüzdeki durumunu literatür bilgileri ışığında incelemektir. Sürdürülebilir diyetin önemi günden güne artmakta ve beslenmenin çevre üzerine etkileri yoğun bir şekilde araştırılmaktadır. Gıda Tarım Örgütü, sürdürülebilir diyetleri, mevcut ve gelecek nesiller için gıda ve beslenme güvenliğine ve sağlıklı yaşama katkıda bulunan, çevresel etkileri düşük diyetler olarak tanımlamaktadır. Sürdürülebilir gıda sistemi ise, gıda güvenliği ve gelecek nesiller için beslenmeyi sağlayabilmek amacıyla ekonomik, sosyal ve çevresel temellerden ödün verilmeyecek şekilde herkes için gıda güvenliği ve beslenme sağlayan bir gıda sistemidir. Sürdürülebilir diyetler ve sürdürülebilir gıda sistemleri birbiri ile yakından bağıntılıdır. Dünyada her 8 kişiden birinin her gece yatağa aç girdiği tahmin edilmektedir. Sürdürülebilir gıda sistemlerinde aksama meydana geldiğinde gıda güvencesizliği kavramı ortaya çıkmaktadır. Amerika Birleşik Devletleri Tarım Bakanlığı, gıda güvencesizliğini aktif ve sağlıklı bir yaşam için yeterli gıdaya sürekli erişim eksikliği olarak tanımlamaktadır. Sürdürülebilir beslenme modellerine bakıldığında, Geleneksel Akdeniz Diyeti sürdürülebilir bir diyet örneği olarak görülmektedir. Bu diyet beslenme, biyoçeşitlilik, yerel gıda üretimi, kültür ve sürdürülebilirliğe önem vermektedir. Akdeniz diyetini, bol miktarda sebze, bakliyat, meyve, kuruyemiş ve tahıl; düzenli zeytinyağı kullanımı (tekli doymamış yağlar); orta miktarda balık ve süt ürünleri (çoğunlukla yoğurt veya peynir); az miktarda kırmızı et (düşük doymuş yağ alımı); genellikle şarap şeklinde ve yemeklerde tüketilen orta düzeyde alkol tüketimi ile karakterize bir diyet modelidir. Akdeniz Diyeti düşük çevresel etkiye sahip olduğundan sürdürülebilirliğe katkı sağlamaktadır. Diğer bir sürdürülebilir beslenme modeli ise Nordik Diyeti'dir. Bu diyet tipi de Akdeniz Diyeti ile benzer olarak daha fazla bitkisel gıdalarla beslenmeyi, daha az hayvansal gıda tüketmeyi amaçlamaktadır. Akdeniz Diyeti'nden en temel farkı ise zeytinyağı yerine kanola yağının tercih edilmesidir. Sonuç olarak, artan nüfusu beslemek ve iklim değişikliğinin etkilerini en aza indirmek için gıda güvenliği ve sürdürülebilirlik zorunludur. Gıdaların nasıl yetiştirilip üretildiği, ne tür gıdaların tüketildiği ve ne kadar gıdanın israf edildiği, dünya gıda sisteminin sürdürülebilirliği üzerinde önemli etkilere sahiptir. Sürdürülebilir diyetlerin benimsenmesinin, gıda sistemleri ve uygun politikalar ile teşviklerle kolaylaştırılabileceği, etkinleştirilebileceği ve daha sağlıklı nesiller yetişmesine katkı sağlayabileceği düşünülmektedir.

Anahtar Kelimeler: Sürdürülebilirlik, Gıda, Çevre, Akdeniz Diyeti, Nordik Diyeti

Abstract

The aim of this review is to examine the current status of sustainable diet types and sustainable food systems in the light of literature. The importance of sustainable diet is increasing day by day and the effects of nutrition on the environment are being studied intensively. The Food and Agriculture Organization defines sustainable diets as diets with low environmental impact that contribute to food and nutrition security and wellness for current and future generations. A sustainable food system, on the other hand, is a food system that provides food security and nutrition for all, without compromising economic, social and environmental fundamentals, in order to ensure food security and nutrition for future generations. Sustainable diets and sustainable food systems are closely linked. It is estimated that one out of every eight people in the world goes to bed hungry every night. The concept of food insecurity emerges when disruptions occur in sustainable food systems. The United States Department of Agriculture defines food insecurity as the lack of continued access to adequate food for an active and healthy life. When looking at sustainable nutrition models, the Traditional Mediterranean Diet is seen as an example of a sustainable diet. This diet places emphasis on nutrition, biodiversity, local food production, culture and sustainability. Mediterranean diet, plenty of vegetables, legumes, fruits, nuts and grains; regular use of olive oil (monounsaturated fats); moderate amounts of fish and dairy products (mostly yogurt or cheese); small amounts of red meat (low saturated fat intake); It is a diet pattern characterized by moderate alcohol consumption, which is usually consumed in the form of wine and at meals. The Mediterranean Diet contributes to sustainability as it has a low environmental impact. Another sustainable eating model is the Nordic Diet. This type of diet, similar to the Mediterranean Diet, aims to eat more plant foods and consume less animal foods. The main difference from the Mediterranean Diet is that canola oil is preferred instead of olive oil. As a result, food security and sustainability are imperative to feed the growing population and minimize the effects of climate change. How food is grown and produced, what kind of food is consumed and how much food is wasted have important implications for the sustainability of the world food system. It is thought that the adoption of sustainable diets can be facilitated and activated with food systems and appropriate policies and incentives, and contribute to raising healthier generations.

Keywords: Sustainability, Food, Environment, Mediterranean Diet, Nordic Diet

GIDA TEKNOLOJİSİNDE VE SAĞLIKTA FERMANTASYON

FERMENTATION IN FOOD TECHNOLOGY AND HEALTH

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Özet

Bu derlemenin amacı, gıda teknolojisinde ve sağlıkta fermantasyonun rolünü değerlendirmektir. Fermantasyon geçmişte daha çok, bozulabilir ürünlerin stabilitesini ve güvenliğini sağlamak amacıyla kullanılırken, günümüzde arzu edilen duyusal, besleyici ve sağlığı geliştirici özelliklere sahip ürünlerin yaratılması için kullanılmaktadır. Son zamanlarda fermente ürünlere olan ilgi de giderek artmaktadır. Burada etkili olan faktörler temelde sağlıklı gıdalara artan ilgi, fermantasyonun doğal bir süreç olduğu algısı ve fermantasyonun gıdaya benzersiz duyusal nitelikler kazandırmasıdır. Gıda fermantasyon süreçlerine bakıldığında, biyolojik materyallerin stabilizasyonu ve transformasyonu için mikroorganizmaların çoğalması ve metabolik aktiviteleri kullanılır. Baskın mikroorganizmalar, diğer organizmaların çoğalmasını azaltırken, kendilerinin hayatta kalmalarını ve çoğalmalarını destekleyen metabolitleri arttırırlar. Fermantasyon süreçleri içerisinde batık fermantasyon ve katı hal fermantasyonu ön plana çıkmaktadır. Batık fermantasyonda, fermantasyon yapan mikroorganizmaların çoğalması, çözülmüş besinlerin sıvı ortamında gerçekleşir. Sirke ve farklı içecekler bu sayede üretilmektedir. Katı hal fermantasyonda ise çoğalma ve ürün oluşumu, suda çözünmeyen bir substratın yüzeyinde gerçekleşir. Lahana turşusu, miso, tempeh ve sosis gibi yiyecekler bu sayede üretilmektedir. Fermantasyon süreçleri, mikroorganizma türüne göre bakteriyel fermantasyon ve maya-küf aracılı fermantasyon olarak da sınıflandırılabilmektedir. Fermantasyon sürecinde ortamdaki substrat, mikrobiyal suş, pH, sıcaklık, tuz gibi katkı maddeleri, ürünlerin aroma, tat ve dokusunu etkilemektedir. Ekzopolisakkarit üreten mikroorganizmalarla fermantasyon, gıdalarda viskozite ajanı, stabilizatör, emülgatör, jelleştirici ve su bağlayıcı özellikler oluşmasını sağlayabilmekte ve böylece gıda sanayinde önemli bir yere sahiptir. Bunun yanında fermente ürünler sağlığı da etkilemektedir. Karmaşık besin makromoleküllerinin mikrobiyal hidrolizi ve tanenler, fitik asit ve proteaz ile amilaz inhibitörleri gibi besin karşıtı faktörlerin azaltılması yoluyla fermantasyon, makro ve mikro besin öğelerinin biyoyararlılığını arttırmaktadır. Fermantasyon, fenolik bileşikleri antioksidan kapasitesini de arttırabilmektedir. Fermantasyon süreci, mikrobiyal toksin parçalayıcı enzimlerin aktivitesi arttırıp, toksik maddelerin ortamdan uzaklaştırılmasında da görev almaktadır. Ayrıca alerjen besin maddelerinin immünoreaktivitesinin azalması da fermantasyon ile sağlanabilmektedir. Son olarak yeni yaklaşımlar, fermente ürünlerin kanser, alerjik reaksiyonlar, obezite ve bağışıklık sistemi üzerine olumlu etkileri olabileceğini göstermektedir. Konuyla ilgili mekanizmaların ayrıntılı bir şekilde anlaşılabilmesi için daha fazla çalışmaya ihtiyaç olduğu unutulmamalıdır.

Anahtar Kelimeler: Fermantasyon, Gıda, Fermantasyon ve Sağlık

Abstract

The purpose of this review is to evaluate the role of fermentation in food technology and health. While fermentation was used to ensure the stability and safety of perishable products in the past, it is now used to create products with desired sensory, nutritional and health-promoting properties. Recently, interest in fermented foods has been increasing. The factors that are effective here are basically the increasing interest in healthy foods, the perception that fermentation is a natural process, and the fact that fermentation gives food unique sensory qualities. When looking at food fermentation processes, the growth and metabolic activities of microorganisms are used for the stabilization and transformation of biological materials. Dominant microorganisms increase the metabolites that support their own survival and growth, while reducing the growth of other organisms. Among the fermentation processes, submerged fermentation and solid state fermentation come to the fore. In submerged fermentation, the growth of fermenting microorganisms takes place in the medium. Vinegar and different drinks are produced in this way. In solid state fermentation, growth occur on the surface of a water-insoluble substrate. Foods such as sauerkraut, miso, tempeh and sausage are produced in this way. Fermentation processes can also be classified as bacterial fermentation and yeast-mold mediated fermentation according to the dominant microorganism type. During the fermentation process, the substrate, microbial strain, pH, temperature, additives such as salt affect the aroma, taste and texture. Fermentation with microorganisms producing exopolysaccharide can provide viscosity agent, stabilizer, emulsifier, gelling and water-binding properties in foods and thus has an important place in the food industry. In addition, fermented foods also affect health. Fermentation increases the bioavailability of macro and micronutrients through microbial hydrolysis of complex food macromolecules and reduction of anti-nutrient factors such as tannins, phytic acid and protease and amylase inhibitors. Fermentation can also increase the antioxidant capacity of phenolic compounds. The fermentation process is also involved in the removal of toxic substances from the environment by increasing the activity of microbial toxin-degrading enzymes. In addition, the decrease in the immunoreactivity of allergen nutrients can be achieved by fermentation. Finally, new approaches show that fermented products can have positive effects on cancer, allergic reactions, obesity and immune system. It should not be forgotten that more studies are needed to understand the mechanisms related to the subject in detail.

Keywords: Fermentation, Food, Fermentation and Health

THE IMPORTANCE OF THERMOGENIC INGREDIENTS IN BODY WEIGHT CONTROL

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Abstract

The prevalence of obesity and overweight and their associated complications in the form of metabolic disorders are known as important public health problems. Considering that obesity and being overweight are risk factors for chronic diseases such as cardiovascular disease, type 2 diabetes, and cancer, weight loss, and sustainability of weight control are important. For this purpose, it will be of great benefit to use dietary agents and to conduct research on them. Thermogenic ingredients and the foods containing them are agents that should not be ignored in preventing obesity and providing weight control because they cause diet-induced thermogenesis. Thermogenic foods affect the sympathetic nervous system due to their thermogenic ingredients. The sympathetic nervous system plays a role in the regulation of lipolysis. Sympathetic innervation of white adipose tissue is effective in the regulation of total body fat. In other words, thermal foods and ingredients can increase energy expenditure and counteract the reduction in metabolic rate during weight loss. Thus, they are recommended as weight loss and weight control strategies. It has also been proven that thermogenic ingredients have different mechanisms that can operate synergistically. The main thermogenic ingredients are polyphenols and caffeine in green tea, capsaicin in chili pepper, gingerols in ginger, tyrosine, and calcium. These ingredients and foods have important effects on weight control by boosting fat oxidation, reducing appetite, increasing energy expenditure, and decreasing substrate absorption through thermogenesis. The objective of this review is to present the effects of tyrosine, and calcium, as well as other thermogenic ingredients found in green tea, ginger, chili pepper, on body weight control by expressing their mechanisms of action.

Keywords: body weight control, ginger, green tea, thermogenic foods, thermogenic ingredients.

OBEZİTE VE KARACİĞER HASTALIKLARI

OBESITY AND LIVER DISEASES

Merve ÖZVAR[1]

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Özet

Obezite son yıllarda, Amerikan Tıp Birliği tarafından "hastalık" olarak kabul edilmektedir aynı zamanda birçok hastalığa da neden olabilmektedir. 2017 yılı küresel beslenme raporune göre, dünya çapında 2 milyar yetişkin fazla kilolu veya obez; 41 milyon çocuk ise fazla kiloludur. Yapılan pek çok çalışma hem endokrin hem de ekzokrin bir bez olan bunun yanı sıra detoksifikasyon, glikoneogenez, pıhtılaşma faktörleri sentezi gibi hayati işlevlere sahip olan karaciğerde meydana gelen hastalıkların birçoğunun obezite ile ilişkisi olduğunu göstermektedir. Obezite, hem basit steatoza giden ilk süreçte hem de Non-Alkolik Steatohepatit'e ilerlemesinde rol oynamaktadır. Vücut ağırlığı, normalin %10′undan fazla olan insanların 2/3'ünde karaciğer yağlanması saptanmaktadır. Obezitede adipozitlerin fazla enerjiyi depolama kapasitesi azaldığında, hepatositler benzer bir görev üstlenmektedir. Hepatositler fazla lipidleri, esas olarak trigliserid formunda depolar ve basit steatoza yol açar. Artan lipolizden ve subkutan yağ dokusunda azalmış yağ asidi alımından kaynaklanan dolaşımdaki artmış serbest yağ asitleri, ektopik yağ birikimine ve ardından çok organlı insülin direncine yol açmaktadır. Obezite ayrıca karaciğeri adipokinler yoluyla da etkilemektedir. Obez bireylerde adipokin dengesi bozulmaktadır. Yağ dokusunun genişlemesi sırasında salgılanan adipokinler daha steatojenik, inflamatuar ve fibrojenik bir profile sahiptir. Yağ dokusunun genişlemesi sırasında immün hücreler yağ dokusuna sızar ve adipokinlerle etkileşime girerek proinflamatuar sitokinler üretir. Obezite ve hepatik steatoz ayrıca diğer karaciğer hastalığı formlarının gelişimini ve ilerlemesini de etkilemektedir. Örneğin fazla vücut ağırlığı ve insülin direnci, Hepatit C'li bireylerde progresif fibroz gelişimine neden olur bu da Hepatit C'li bireylerde steatozun şiddetini artırır. Artan obezite prevelansı sebebiyle en sık görülen kronik karaciğer hastalığı, "Non-Alkolik Yağlı Karaciğer Hastalığı'dır (NAYKH)". NAYKH tedavisi için özel olarak onaylanmış hiçbir ilaç tedavisi yoktur. Bu yüzden yaşam tarzı değişikliği yoluyla obezite tedavisi NAYKH yönetiminin temel taşı olmaya devam etmektedir. Yaşam tarzı değişikliği için bireylere, sağlıklı bir diyet ve düzenli fiziksel aktiviteyi birleştiren yapılandırılmış programlar önerilmektedir. Kademeli olarak %7-10 oranında ağırlık kaybı hedeflenmektedir. Bireylerin beden kütle indeksi 27'nin üzerindeyse ve obezite ile ilişkili bir komorbiditesi varsa farmakoterapi düşünülmektedir. BKİ 35'in üzerindeyse ve obezite ile ilişkili bir komorbiditesi varsa bariatrik cerrahi düşünülmektedir.

Anahtar Kelimeler: Obezite, Karaciğer Hastalıkları, Steatoz, Obezite Tedavisi

Abstract

Obesity has been accepted as a "disease" by the American Medical Association in recent years, and it can also cause many diseases. According to the 2017 global nutrition report, 2 billion adults worldwide are overweight or obese; 41 million children are overweight. Many studies show that many of the diseases that occur in the liver, which is both an endocrine and exocrine gland, as well as having vital functions such as detoxification, gluconeogenesis, coagulation factors synthesis, are associated with obesity. Obesity plays a role both in the initial process leading to simple steatosis and in its progression to Non-Alcoholic Steatohepatitis. Fatty liver

is detected in 2/3 of people whose body weight is more than 10% of normal. When the capacity of adipocytes to store excess energy is reduced in obesity, hepatocytes undertake a similar task. Hepatocytes store excess lipids mainly in the form of triglycerides, leading to simple steatosis. Increased circulating free fatty acids resulting from increased lipolysis and decreased fatty acid uptake in subcutaneous adipose tissue lead to ectopic fat deposition and subsequent multi-organ insulin resistance. Obesity also affects the liver through adipokines. Adipokine balance is impaired in obese individuals. Adipokines released during the expansion of adipose tissue have a more steatogenic, inflammatory and fibrogenic profile. During the expansion of adipose tissue, immune cells infiltrate into adipose tissue and interact with adipokines to produce proinflammatory cytokines. Obesity and hepatic steatosis also affect the development and progression of other forms of liver disease. For example, excess body weight and insulin resistance cause progressive fibrosis in individuals with hepatitis C, which increases the severity of steatosis in individuals with hepatitis C. Due to the increasing prevalence of obesity, the most common chronic liver disease is “Non-Alcoholic Fatty Liver Disease (NAFLD)”. There is no drug therapy specifically approved for the treatment of NAFLD. Therefore, obesity treatment through lifestyle change remains the cornerstone of NAFLD management. Structured programs that combine a healthy diet and regular physical activity are recommended for lifestyle change. A gradual 7-10% weight loss is targeted. Pharmacotherapy is considered if individuals have a body mass index above 27 and have an obesity-related comorbidity. Bariatric surgery is considered if the BMI is over 35 and there is an obesity-related comorbidity.

Keywords: Obesity, Liver Diseases, Steatosis, Obesity Treatment

CHEMICAL COMPOSITION AND ANTIMICROBIAL ACTIVITY OF ESSENTIAL OILS OF *OCIMUM BASILICUM VAR. ALBUM (L.) BENTH, LAVANDULA ANGUSTIFOLIA SUBSP. ANGUSTIFOLIA, MELISSA OFFICINALİS* BELONGING TO LAMIACEAE FAMILY

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Abstract

The present study was conducted to evaluate the chemical composition and antimicrobial activities of essential oils of Ocimum basilicum var. album (L.) Benth, Lavandula angustifolia subsp. angustifolia, Melissa officinalis. The chemical composition of a hydrodistilled essential oils of Ocimum basilicum var. album (L.) Benth., Lavandula angustifolia subsp. angustifolia, Melissa officinalis was analyzed by a GC/MS system. Ocimum basilicum var. album (L.) Benth essential oil contains 1,6-octadien-3-ol,3,7-dimethyl (53.79%), Lavandula angustifolia subsp. angustifolia essential oil 1,6-octadien-3-ol,3,7-dimethyl (42.07%), Melissa officinalis essential oil d-limonene (26%). Antimicrobial screening of the essential oils was made by disc diffusion. The antimicrobial test results showed that the Ocimum basilicum var. album (L.) Benth, Melissa officinalis, Lavandula angustifolia subsp. angustifolia essential oils have great potential of antimicrobial activity against all three (Staphylococcus aureus (ATCC 6338) Gram positive, Escherichia coli (ATCC 10536), Pseudomonas aeruginosa (ATCC 15442) Gram negative bacteria), one fungi (Aspergillus niger), one yeast (Candida albicans) species tested.

Key words: Essential oil, GC/MS composition, antimicrobial activity.

EVALUATION OF DIETARY QUALITY OF SENIOR HIGH SCHOOL STUDENTS BY HEALTHY EATING INDEX *(POSTER)*

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Abstract

The adolescent period is one of the most important stages of life specially to growth and health aspect. The aim of this study was to evaluate diet quality of the senior students and to examine the relationship between the healthy eating index (HEI-2010) and their energy-nutrient intakes. The HEI was developed by the United States Department of Agriculture to provide a single summary of diet quality. Materials and Methods: The study was done with 177 volunteering senior high school students. The data were analyzed using Nutrition Information System (BeBiS) program. The HEI scores were classified into 3 categories as “good” (81 and above), “needs improvement” (51-80), “poor” (50 and below). Results: While 47.8% of the students with poor diet quality were females, 79% of the females had needs improvement in diet quality. While 52.2% of males had poor diet quality, 20.9% of the males had needs improvement diet quality. The educational level, the monthly income of the families had a significant effect on their HEI categories ($p<0.001$). Senior students had a mean total HEI score below 50 points. Students with poor and needs improvement diet quality received 52.6 and 44.4% of their energy needs from carbohydrates. Those with poor and needs improvement diet quality received 13.4 and 17.1% of their energy needs from proteins, respectively. Those with poor and needs improvement diet quality received 33.6 and 38.8% of their energy needs from fats, respectively. Senior students should therefore be educated about good nutritional habits and programs and policies should be developed for awareness.

Key words: Diet quality, healthy eating index, nutrition in adolescents

YEME BAĞIMLILIĞINA KARŞI KANITA DAYALI REHABİLİTASYON YÖNTEMLERİ VE BESLENME YAKLAŞIMLARI

EVIDENCE-BASED REHABILITATION METHODS AND NUTRITIONAL APPROACHES TO FOOD ADDICTION

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Özet

Bu çalışma, yeme bağımlılığı olan bireyler için literatürdeki kanıta dayalı rehabilitasyon ve beslenme yaklaşımlarını derlemeyi amaçlamaktadır. PUBMED veri tabanında "food addiction" and "rehabilitation", "food addiction" and "nutritional", "food addiction" and "evidence-based", "food addiction" and "physiotherapy", "food addiction" and "physical therapy" şeklinde filtrelenmemiş olarak arama, son 5 yıllık randomize kontrollü çalışma, derleme ve sistematik derleme filtreleri kullanılarak aramalar yapılmıştır. PUBMED veri tabanında "food addiction" and "rehabilitation" olarak arama yaparken; 1995 ile 2022 yılları arasında filtrelenmemiş 15 sonuç, son 5 yıl filtresinde 11 sonuç, randomize kontrollü deneme filtrelemesinde 2018'de 1 sonuç, 2014 ile 2022 arasında inceleme filtresinde 5 sonuç ve sistemik incelemede 2014'te 1 sonuç vardı.

"food addiction" and "nutritional" olarak arama yapıldığında; 2008-2022 yılları arasında filtresiz 45 sonuç, son 5 yıl filtresinde 29 sonuç, randomize kontrollü çalışma filtrelemesinde 2018 yılında 1 sonuç, 2008-2022 arasında derleme filtresinde 17 sonuç ve sistemik derleme filtresinde 2021 yılında 1 sonuç olduğu görülmüştür. "food addiction" and "evidence-based" arama sonuçlarında; 2015-2022 arasında filtrelenmemiş 5 sonuç, son 5 yıl filtresinde 3 sonuç, randomize kontrollü çalışma ve sistemik derleme filtrelemesinde 0 sonuç, derleme filtresinde 2016'da 1 sonuç vardı. "food addiction" and "physiotherapy" filtresiz aramasında 2021'de 2 sonuç, 2017'de "food addiction" and "physical therapy" aramasında 1 sonuç vardı. Artan kanıtlar, belirli bireylerin, özellikle lezzetli, işlenmiş ve enerjisi yoğun gıdalarla ilişkili olan, bağımlılık yapan yeme alışkanlıklarına veya bağımlılık yapan yeme alışkanlıklarına duyarlı olduğunu göstermektedir. Literatür taramasına bakıldığında, günümüzün popüler yardımcı tedavi yöntemlerinden biri olan mobil uygulama uygulamalarının hem iyileştirici hem de

besleyici yaklaşımlarda kullanıldığı kaydedilmiştir. "food addiction" and "physiotherapy" ve "food addiction" and "physical therapy" aramalarında yetersiz sonuç bulundu.

Anahtar Kelimeler: beslenme yaklaşımları, gıda bağımlılığı, kanıta dayalı, rehabilitasyon

Absract

This study aims to compile evidence-based rehabilitation and nutrition approaches in the literature for people with food addiction. In the PUBMED database, an unfiltered, last 5 years, randomized controlled study, review and systematic review filters were used in the form of "food addiction" and "rehabilitation", "food addiction" and "nutritional", "food addiction" and "evidence-based", "food addiction" and "physiotherapy", "food addiction" and "physical therapy". When searching the PUBMED database as "food addiction" and "rehabilitation"; there were 15 unfiltered results between 1995 and 2022, 11 results in the last 5 years filter, 1 result in 2018 in the randomized controlled trial filtering, 5 results in the review filter between 2014 and 2022, and 1 result in 2014 in the systemic review filtering. When searching as "food addiction" and "nutritional"; ıt was seen that there were 45 results between 2008 and 2022 without filter, 29 results in the last 5 years filter, 1 result in 2018 in randomized controlled trial filtering, 17 results in review filter between 2008 and 2022, and 1 result in 2021 in systemic review filtering. In "food addiction" and "evidence-based" search results; there were 5 results between 2015-2022, 3 results in the last 5 years filter, 0 results in randomized controlled trial and systemic review filtering, 1 result in 2016 in the review filter. In the search for "food addiction" and "physiotherapy", there were 2 results in 2021, and 1 result in the search for "food addiction" and "physical therapy" in 2017. Increasing evidence suggests that certain individuals are susceptible to addictive eating habits or addictive eating habits, particularly those associated with palatable, processed and energy-dense foods. Looking at the literature review, it was noted that mobile application applications, one of today's popular adjunctive treatment methods, were used in both rehabilitative and nutritious approaches. In the search for "food addiction" and "physiotherapy" and "food addiction" and "physical therapy", insufficient results were found.

Keywords: evidence-based, food addiction, nutritional approaches, rehabilitation

THE DOUBLE ROLE OF NUTRIENTS IN IMMUNITY

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Abstract

Background Nutrients are the substances found in food which drive biological activity, and are essential for the human body. Several studies have emphasized that some nutrients may increase an individual risk for cancer, while others may be protective. Dietary nutrients may be converted into metabolites by intestinal microbes that serve as biologically active molecules affecting regulatory functions in the host.

Objectives To demonstrate role of nutrients as functional foods in the management of immunity.

Materials and methods This includes the role of macronutrients, micronutrients, and the gut microbiome in mediating immunological effects. Nutritional modulation of the immune system has applications within the clinical setting, but can also have a role in healthy populations, acting to reduce or delay the onset of immune-mediated chronic diseases. Ongoing research in this field will ultimately lead to a better understanding of the role of diet and nutrients in immune function

Results Probiotics may restore the composition of the gut microbiome and introduce beneficial functions to gut microbial communities, resulting in amelioration or prevention of gut inflammation and other intestinal or systemic disease phenotypes. A well-functioning immune system is critical for survival. The immune system must be constantly alert, monitoring for signs of invasion or danger. Cells of the immune system must be able to distinguish self from non-self and furthermore discriminate between non-self molecules which are harmful (e.g., those from pathogens) and innocuous non-self molecules (e.g., from food).

Conclusion This presentation describes how diet and intestinal luminal conversion by gut microbes play a role in immune-mediated chronic diseases.

Keywords: nutrients, gut microbiota, immunomodulation

LEZZET ALGISINDA DUYULARIN ROLÜNÜ İNCELEYEN BİR DİSİPLİN: NÖROGASTRONOMİ

A DISCIPLINE EXAMINING THE ROLE OF SENSES IN FLAVOR PERCEPTION: NEUROGASTRONOMY

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Özet

Günümüzden yaklaşık 200-250 yıl önce kullanılan gastronomi kavramının kullanım alanı giderek genişlemiş ve gastronomiyle ilgili yeni konular ve kavramlar gündeme gelmeye başlamıştır. Bu konulardan biri de beynimizin lezzet algılamasında duyuların oynadığı rolü inceleyen Nörogastronomi'dir. Yiyecek tercihlerimizi de etkileyen lezzet, yiyecek ve içeceklerin duyusal değerlendirilmesiyle ilgilidir. Lezzet yediğimiz gıdalarda değildir. Beyin tarafından gıda alımı sonucunda yiyeceklerden oluşturulur. Bu mültidisipliner alana nörogastronomi denir. Nörogastronomi beyinle başlar ve yemeğin nasıl algılandığını sorgular. Bu çalışmanın amacı, kullanımı henüz yeni olan Nörogastronomi'nin gelişim sürecini açıklayarak bu alanın sağlayacağı faydaları tespit etmek ve bu konuda ileride yapılabilecek çalışmalara temel oluşturup alan yazına katkıda bulunmaktır.

Tat ve lezzet kavramları çoğu zaman eş anlamlı kelimeler olarak algılansa da bu durum doğru değildir. Tat insanların sahip olduğu bir duyu olup, lezzet ise duyular aracılığıyla gıdalardan elde edilen bilgilerin sinir sistemi yoluyla insan beyninde bir araya gelmesi sonucu, beyin tarafından gıdalar hakkında yapılan bir değerlendirmedir. Bu duyuların yanı sıra lezzeti etkileyen kültür, coğrafya, mevsim, gelenek gibi başka faktörler de mevcuttur. Lezzet oluşumunu etkileyen bütün bu faktörler nörogastronominin çalışma alanına girmektedir.

Araştırmamız felsefesi açısından temel araştırma olup amacı açısından ise keşfedici bir araştırmadır. Temel araştırmaların amacı herhangi bir konuda problem çözmek değil, o konuda daha fazla bilgi toplayarak var olan bilgi birikimini arttırmak ve dolayısıyla bilimsel bilgiye katkı sağlamaktır. Keşfedici araştırmalar ise yeni konuları incelemek, az çalışılmış konuları keşfetmek veya ileriki zamanlarda yapılması planlanan çalışmalara hazırlık oluşturmak amacıyla yapılmaktadır. Eğer bir konuyla ilgili daha fazla bilgiye ihtiyaç varsa da keşfedici araştırma yapılabilir. Yapılan alan yazın taraması sonucunda Nörogastronomi konusunun Gastronomi ile ilgili yeni bir alan olduğu ve bu konuda ulusal alan yazında sınırlı sayıda çalışmaya ulaşılabildiği için bu çalışma felsefesi açısından temel bir araştırma olmakla birlikte amacı açısından keşfedici bir çalışmadır.

Anahtar Kelimeler: Duyular, lezzet, gastronomi, nörogastronomi.

Abstract

The field of use of the concept of gastronomy, which was used about 200-250 years ago, has gradually expanded and new issues and concepts related to gastronomy have begun to be raised. One of these topics is Neurogastronomy, which studies the role played by the senses in the flavor perception of our brain. Flavor, which also affects our food preferences, is related to the sensory evaluation of food and drinks. Flavor is not in the foods we eat. It is formed from food as a result of food intake by the brain. This multidisciplinary field is called neurogastronomy. Neurogastronomy begins with the brain and questions how food is perceived. The aim of this

study is to determine the benefits that this field will provide by explaining the development process of Neurogastronomy, the use of which is still new, and to create the basis for future studies on this subject and contribute to literature.

Although the concepts of taste and flavor are often perceived as synonymous words, this is not true. Taste is a sense that people intrinsically have, and the flavor, on the other hand, is an evaluation made by the brain about foods as a result of the combination of information obtained from foods through the senses in the human brain by the nervous system. Besides these senses, there are other factors such as culture, geography, season, tradition that affect the flavor. All these factors affecting the formation of flavor fall into the field of study of neurogastronomy.

Our research is a fundamental research from the point of view of philosophy and an exploratory research from the point of view of its purpose. The purpose of basic research is not to solve problems on any subject, but to increase the existing knowledge by collecting more information about it and therefore contributing to scientific knowledge. Exploratory research is carried out in order to study new topics, explore under-studied topics, or prepare for studies planned for the future. If more information is needed on a topic, exploratory research can also be done. As a result of the literature review, Neurogastronomy is a new field related to Gastronomy and a limited number of studies can be reached in the national literature on this subject, this study is a fundamental research from the point of view of philosophy, but it is an exploratory study from the point of view of its purpose.

Keywords: Senses, flavor, gastronomy, neurogastronomy.

NÖROLOJİK HASTALIKLARIN TEDAVİSİNDE MİKROBİYOTANIN ÖNEMİ

THE IMPORTANCE OF MICROBIOTA IN THE TREATMENT OF NEUROLOGICAL DISEASES

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Özet

İnsan barsak yapısı, yan yana dizilmiş, çoğunluğu intestinal epitel hücrelerinden oluşmuş hücre tabakası yüzeyi ve onun üzerinde yine bu hücre tabasının içinde yerleşik olarak bulunan goblet hücrelerinin sentezlediği, mükoza tabakasından oluşmaktadır. Mükoza tabakasının üzerinde özellikle kalın barsak lümeninde olmak üzere yüzlerce farklı bakteri türü varlığını sürdürmekte ve burada kendilerine yaşam alanı bulmaktadır. Bağırsakların iç yüzeyini kaplayan epitel hücreleri ve bu hücreleri kaplayan müsin tabakası normal koşullarda ihtiyacımız olan mikromolekülerin geçişine (emilimine) izin verirken, bileşenlerine ayrılmamış, sindirilmemiş makromoleküllerin ve zararlı maddelerin geçişine izin vermezler. Epitel hücre tabakasının hemen altında ise basement membrane katmanının devamında Lamina propria adı verilen bir bölge bulunmaktadır. Bağışıklık sistemimizin hücrelerinin büyük bölümü bu alanda yerleşik olarak bulunmakta ve sindirim yolu ile dolaşım sistemlerine giriş yapacak antijenik yapılara karşı savaş vermektedirler.

Mikrobiyotayı oluşturan mikroorganizmalar gösterdikleri aktiviteler ile hem kendi yaşam alanlarının genişlemesini sağlarlar, hem de konakçı oldukları organizmamızın ihtiyaçlarını karşılarlar. Bağırsaklarımızın içinde yaşayan canlılar, mikrobiyomumuz, bakteriler, virüsler, arkealar (archaea)ve protozoalardan oluşur. Bu canlılar bağışıklık sistemi, metabolik denge, yağ dokusu üzerine çok yönlü etkileri ile birlikte beyin bağırsak ekseninin çok önemli bir parçası olarak beyin, merkezi sinir sitemi bağışıklığı, stres yolakları ve nöroendokrin yollarını çok yönlü olarak etkilemektedir.

Merkezi Sinir Sistemi otoimmün hastalıklarında ve özellikle Multiple Skleroz (MS) hastalarında, probiyotikler ve prebiyotikler ile uygulanan tedavi yöntemlerinde, hastaların verilen diyetlerle uymaları halinde hastalık semptomlarında gerileme ve otoimmün sürecin yavaşlatılabileceği üzerine oldukça fazla sayıda bilimsel makale yayınlanmıştır. Biz bu derleme çalışmamızda, özellikle MS hastalığı çerçevesinde nörolojik bozukluklara karşı

uygulanabilecek ve hastaların yaşam kalitelerini arttıracak beslenme özellikleri üzerinde açıklamalar yapmayı hedefledik.

Anahtar Kelimeler: Barsak, Mikrobiyota, Mikroorganizma, Prebiyotik, Multiple Sclerosis.

Abstract

The human intestinal structure consists of the surface of the cell layer, which is mostly composed of intestinal epithelial cells, and the mucous layer, which is synthesized by the goblet cells located in this cell layer. Hundreds of different types of bacteria continue to exist on the mucous layer, especially in the lumen of the large intestine and find a place to live here. While the epithelial cells lining the inner surface of the intestines and the mucin layer covering these cells allow the passage (absorption) of the micromolecules we need under normal conditions, they do not allow the passage of undigested, undigested macromolecules and harmful substances. Just below the epithelial cell layer, there is a region called the lamina propria in the continuation of the basement membrane layer. Most of the cells of our immune system are located in this area and they fight against antigenic structures that will enter the digestive tract and circulatory systems.

Microorganisms that make up the microbiota not only ensure the expansion of their habitats but also meet the needs of our host organism, with the activities they show. The living things that live inside our guts, our microbiome, are made up of bacteria, viruses, archaea, and protozoa. These creatures, together with their multifaceted effects on the immune system, metabolic balance, and adipose tissue, affect the brain, central nervous system immunity, stress pathways, and neuroendocrine pathways as a very important part of the brain-intestinal axis in many ways.

A large number of scientific articles have been published on the treatment methods applied with probiotics and prebiotics in autoimmune diseases of the Central Nervous System, and especially in Multiple Sclerosis (MS) patients, that regression in the symptoms of the disease and slowing the autoimmune process can be achieved if the patients comply with the diets given. In this review, we aimed to explain the nutritional properties that can be applied against neurological disorders and increase the quality of life of patients, especially within the framework of MS disease.

Keywords: Intestine, Microbiota, Microorganism, Prebiotic, Multiple Sclerosis

DİN OLGUSUNUN YEMEK KÜLTÜRLERİ ÜZERİNE ETKİSİ

THE EFFECT OF RELIGION ON FOOD CULTURES

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Özet

İnsanoğlu varoluşunun ilk dönemlerinde zorlu hayat koşullarında hayatta kalabilmek için sağlığına zarar vermeyeceğini düşündüğü her şeyi yemek zorunda kalmıştır. Ancak elindeki yiyecek miktarı tüketebileceğinden fazla ya da alternatifi varsa beğendiklerini tercih edebilme şansına sahip olmuştur. Günümüzde açlıkla mücadele eden bazı ülkeler hariç, birçok toplum için çok fazla çeşitte ve arzu ettiği gıda ürünlerine ulaşabilme imkanı mevcuttur. Marketlerin, manavların raflarını dolduran gıdaların bir kısmı beynelmilel anlamda ortak iken bazıları için aynı şeyi söylemek mümkün olmayabilir. Satılan ürünlerin neler olacağını toplumun talep ve tercihleri belirlerken, toplumun tercihlerini etkileyen birçok unsur bulunmaktadır. Tarih öncesi çağlarda, ilk insanlar döneminden günümüze kadar birlikte yemek yemenin her zaman kuralları olmuştur. Bazen bu kurallar güçlü olanın verdiği kararlara göre, bazen de zaman içerisinde şekillenen kültürel unsurların ve törelerin etkisiyle şekillenmiştir. Yemeğin nasıl yeneceği, önce kimin yiyeceği ya da yemeğin hangi bölümünün kime ait olduğu kurallara göre belirlenmiştir. Örneğin avcılık ve toplayıcılık döneminde avdan pay alacak kişilerin avlanan hayvanın hangi kısmından ve ne miktarda alacağını, avda yerine getirdiği fonksiyonu belirlememiştir. Zor ve tehlikeli görevleri üstenenlerin payı her zaman ya fazla ya da nitelik olarak üstün olmuştur. Bunun dışında sofrada oturulan yer dahi sahip olunan güce ve prestije göre değişiklik gösterebilir. Sofra adabı toplumlara göre farklılıklar gösterir. Kimi toplumda sofrada konuşmak ayıp karşılanırken, kimi toplumlarda aile içi kararlar sofra sohbetlerinde tartışılır. Aslında insanoğlunun yediğine ve yeme biçimine göre kimliği şekillenmektedir. Ne yenileceği konusunda belirleyici olan birçok unsur vardır. Dinin insanla bağlantılı kültürel yansımaları kadar kültürün de din üzerinde etkisi olduğu gerçektir. Coğrafi, ekonomik ya da ulaşılabilirlik etmenleri yok sayılılırsa insanların neyi yiyebileceği ve yiyemeyeceği konusunda belirleyici olan en büyük etmen hiç kuşkusuz dini inanışlardır. Bu çalışmada dini inanışların toplumların yeme içme alışkanlıklarını, mutfak kültürlerini nasıl etkilediğini geniş bir alan yazın taraması eşliğinde anlatmak amaçlanmıştır. Bu şekilde geniş bir tarih aralığında yeme-içme kültüründeki değişimler ve bu değişimlerde din etkisi tahlil edilebilecektir.

Anahtar Kelimeler: Din, yeme-içme, yemek kültürü, haram, helal, inanç

Abstract

In the early stages of human existence, he had to eat everything he thought would not harm his health in order to survive in difficult life conditions. However, he had the chance to choose what he liked, if the amount of food he had was more than he could consume, or if he had an alternative. Today, with the exception of some countries struggling with hunger, many societies have the opportunity to reach a wide variety of food products they desire. While some of the

foods that fill the shelves of markets and grocers are internationally common, it may not be possible to say the same for some. While the demands and preferences of the society determine what will be the products sold, there are many factors that affect the preferences of the society. In prehistoric times, there have always been rules for eating together, from the time of the first humans to the present day. Sometimes these rules were shaped according to the decisions made by the powerful, and sometimes with the influence of cultural elements and customs shaped over time. How the food will be eaten, who will eat it first or which part of the food belongs to whom is determined according to the rules. For example, it has not determined what part of the hunted animal and in what quantity, the people who will take a share of the hunt during the hunting and gathering period, and the function it fulfills in the hunt. The share of those who undertake difficult and dangerous tasks has always been either more or more qualitatively superior. Apart from this, even the place to sit at the table may vary according to the power and prestige. Table manners differ according to societies. While talking at the table is considered shameful in some societies, in some societies family decisions are discussed at table conversations. In fact, human identity is shaped according to what he eats and the way he eats. There are many factors that determine what to eat. It is a fact that culture has an impact on religion as much as the cultural reflections of religion related to people. If geographical, economic or accessibility factors are ignored, the biggest factor determining what people can and cannot eat is undoubtedly religious beliefs. In this study, it is aimed to explain how religious beliefs affect the eating habits and culinary cultures of societies, accompanied by a wide literature review. In this way, the changes in the eating and drinking culture over a wide range of history and the influence of religion on these changes will be analyzed.

Keywords: Religion, eating and drinking, food culture, haram, halal, belief

ESSENTIAL OIL FROM PEELS OF PLANTAIN AND PINEAPPLE: BIOACTIVE COMPOUNDS AND ANTIMICROBIAL ACTIVITIES

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Abstract

This study was designed to evaluate the antimicrobial activities of essential oils extracted from peels of plantain and pineapple on microorganisms isolated from the Federal University Technology (FUTA) fish pond water, sediment and fish feeds. Isolation and identification of microorganisms were carried out using standard microbiological methods. Antibiotics residues from pond water, fish feed and pond sediment were determined using High Performance Liquid Chromatography (HPLC). Essential oil from peels of plantain and pineapple was obtained by hydro-distillation. Bioactive compounds in essential oil was determined using Gas Chromatography Mass Spectrometry (GC-MS). Antimicrobial activity of essential oil against isolated microorganisms was carried out using agar well diffusion. Amoxicillin and ciprofloxacin residual content from fish pond sediment, pond water and feeds were 3.578 ppm and 2.666 ppm; 3.474 ppm and 3.143 ppm; and 3.450 ppm and 2.662 ppm respectively. Zones of inhibition by oil from pineapple and plantain peels respectively ranged from 7.00 mm to 10.5 mm and 11.8 mm to 14.8 mm against tested microorganisms. The Minimum inhibition concentration (MIC) of essential oil ranged from 6.25 mg/ml to 25.0 mg/ml. Essential oil from the peels of plantain and pineapple exhibited inhibitory activity against microorganisms, which can be attributed to the presence of certain bioactive compounds identified by GCMS. Essential oil from plantain and pineapple peels possess wealth bioactive compounds that can be exploited in formulation of fish feeds in order to suppress the growth of unwanted microorganisms.

Keywords: fruit wastes, essential oil, fish pounds, GCMS and bioactive compounds

OTİZM SPEKTRUM BOZUKLUĞUNDA BESLENMENİN ÖNEMİ

IMPORTANCE OF NUTRITION IN AUTISM SPECTRUM DISORDER

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Özet

Otizm spektrum bozukluğu (OSB) sosyal, iletişim, bilişsel alanlarda bozukluklarla beraber tekrarlayıcı ve sınırlayıcı davranış bozukluklarının da görüldüğü genellikle kişinin hayatı boyunca süren kaynağı tam olarak bilinmemekle beraber genetik ve çevresel faktörlere bağlı olarak ortaya çıkan nörogelişimsel bir hastalıktır. Günümüzde gittikçe yaygınlığını arttıran otizmin nedenlerinden biri olan çevresel faktörlerden beslenmedir. Otizmli bireylerde diğer bireylere göre besin seçiciliği görülme olasılığı daha fazladır. Otizm spektrum bozukluğuna sahip bireylerde besinlerden tiksinme besinleri reddetme gibi davranışlar sıklıkla görülebilir. Beslenme tam anlamıyla kesin çözüm ifade etmese de otizmli bireylerde besinlerden tiksinme ve besinleri reddetmeden kaynaklı oluşan gastrointestinal sorunların bir kısmının kişiye özel beslenme programları ile azaltılması mümkündür. Beslenmede amaç besin seçiciliğinden kaynaklanan eksikliklerin yerine konması olmalıdır. Otizm spektrum bozukluğunun etkilerini azaltmak ve tüketilen besinlerin otizme neden olma ihtimalinin önüne geçmek amacıyla kişiye özel birçok diyet programı uygulanabilir. Ketojenik diyet, glütensiz-kazeinsiz diyet, özel karbonhidrat diyeti, Feingold diyeti ve Candida diyeti bu diyet programlarına örnek olarak verilebilir. Bu diyet programları arasında en sık kullanılan ve en etkili olduğu düşünülen glütensiz-kazeinsiz diyet programıdır. Glütensiz-kazeinsiz diyet programında amaç glüten ve kazein içeren gıdaların diyetten tamamen çıkartılmasıdır. Glütensiz-kazeinsiz diyet programı ile beslenen otizmli bireylerde gastrointestinal sorunlarda iyileşme olduğu görülmüştür. Bu diyet programlarıyla beraber vitamin mineral gibi diyet destek ürünleri otizmli çocuklara tavsiye edilebilir. Otizmli çocuklarda seçici yeme davranışından kaynaklı görülen vitamin ve mineral eksikliklerinin yerine konması öğrenme ve beyin fonksiyonlarının gelişmesinde oldukça önemlidir. Bu derlemede otizm spektrum bozukluğu hastalığındaki beslenme yaklaşımları ve otizmli bireylerin beslenme değişiklikleri ile yaşamlarını iyileştirme tavsiyeleri ele alınmıştır.

Anahtar Kelimeler: Otizm, Beslenme, Diyet, Glutensiz-kazeinsiz diyet

Abstract

Autism spectrum disorder (ASD) is a neurodevelopmental disease that occurs due to genetic and environmental factors. One of the causes of autism, which is increasing its prevalence, is nutrition from environmental factors. Individuals with autism are more likely to experience food selectivity than other individuals. Behaviors such as food aversion and refusal can often be seen in individuals with autism spectrum disorder. Although nutrition does not represent a definitive solution, it is possible to reduce some of the gastrointestinal problems caused by food

aversion and refusal in individuals with autism with personalized nutrition programs. The purpose of nutrition should be to replace the deficiencies caused by food selectivity. Many personalized diet programs can be applied in order to reduce the effects of autism spectrum disorder and to prevent the possibility of consumed foods to cause autism. Ketogenic diet, gluten-free-casein-free diet, special carbohydrate diet, Feingold diet and Candida diet can be given as examples of these diet programs. Among these diet programs, the most frequently used and considered the most effective is the gluten-free-casein-free diet program. The aim of the gluten-free-casein-free diet program is to completely remove gluten and casein-containing foods from the diet. It has been observed that individuals with autism fed a gluten-free-casein-free diet program have improved gastrointestinal problems. Along with these diet programs, dietary support products such as vitamins and minerals can be recommended to children with autism. Replacing vitamin and mineral deficiencies caused by picky eating behavior in children with autism is very important in the development of learning and brain functions. In this review, nutritional approaches in autism spectrum disorder and recommendations to improve the lives of individuals with autism through nutritional changes are discussed.

Keywords: Autism, Nutrition, Diet, Gluten-free-casein-free diet

FARKLI SOYA UNU VE DEREOTU FORMÜLASYONLARI İLE HAZIRLANAN EKMEĞİN DUYUSAL ÖZELLİKLERİNİN BASİT TOPLAMLI AĞIRLIKLANDIRMA YÖNTEMİ İLE KARŞILAŞTIRILMASI

COMPARISON OF THE SENSORY PROPERTIES OF BREAD PREPARED WITH DIFFERENT SOY FLOUR AND DILL FORMULATIONS WITH THE SIMPLE ADDITIVE WEIGHTING METHOD

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Özet

Ekmek, insanların en temel besin kaynaklarından biridir. Tam tahıllardan elde edilen ekmek protein, lif, B vitaminleri, antioksidanlar ile demir, çinko, bakır ve magnezyum gibi iz mineraller açısından zengindir. Ancak, beyaz (rafine) un üretimi sırasında buğdayın besin maddeleri ve lif bakımından zengin olan rüşeym ve kepek kısımları uzaklaştırılarak geriye sadece glüten ve nişastaca zengin olan endosperm kısmı kalmaktadır. Dolayısıyla, rafine undan üretilen beyaz ekmeğin besin değeri düşmektedir. Yüksek karbonhidrat içeriği ile beyaz ekmek tüketimi sağlıksız beslenme ve buna bağlı hastalıklarla ilişkilendirilmektedir. Buna rağmen, beyaz ekmek dünyada ve ülkemizde en çok tercih edilen ekmek çeşitleri arasında yer almaya devam etmektedir. Bunun en önemli sebepleri arasında beyaz ekmeğin renk, doku, tat ve koku gibi beğenilen duyusal özellikleri gösterilebilir. Bu çalışmada, beyaz ekmeğin protein ve lif miktarını arttırarak besin değerini yükseltmek ve mevcut ekmek çeşitlerine fonksiyonel yeni bir alternatif sunmak amacıyla, farklı oranlarda soya unu ve dereotu ilave edilmiş ekmeklerin duyusal özellikleri incelenmiştir. Çalışma kapsamında 15 farklı formülasyonla üretilen ekmekler, 12 panelist tarafından renk, koku, tat ve tekstür açısından 9-ölçekli hedonik skala ile değerlendirilmiştir. Farklı içerikteki ekmek örneklerinin duyusal parametreleri çok kriterli karar verme tekniklerinden basit toplamlı ağırlıklandırma yöntemi kullanılarak karşılaştırılmıştır. Elde edilen veriler incelendiğinde örnekler arasında, 500 gr hamurda 10 g soya unu, 10 g dereotu ve 320 g süt içeren örnek en çok beğenilen örnek olduğu, 500 gr hamurda 15 g soya unu, 20 g dereotu ve 320 g süt içeren örnek en az beğenilen örnek olduğu belirlenmiştir. Yapılan çalışma sonucunda, soya unu ve dereotu ile hem protein hem de lif miktarınca zenginleştirilmiş ekmek geliştirilebileceği görülmüştür.

Anahtar Kelimeler: Ekmek, Soya unu, Dereotu, Formülasyon, Duyusal analiz

Abstract

Bread is one of the main nutritional sources of human beings. Bread obtained from whole grains is rich in protein, fiber, B vitamins, antioxidants and trace minerals such as iron, zinc, copper and magnesium. However, during the production of white (refined) flour, the germ and bran parts of the wheat, which are rich in nutrients and fiber, are removed, leaving only the gluten and starch-rich endosperm. Therefore, the nutritional value of white bread produced from refined flour decreases. Consumption of white bread due to its high carbohydrate content is associated with unhealthy diet and related diseases. Despite this, white bread continues to be among the most preferred bread types in the world and in our country. This is most probably because of the popular sensory properties of white bread such as color, texture, taste and smell. In this study, the sensory properties of bread with different ratios of soy flour and dill were investigated in order to enhance the nutritional value of white bread by increasing its protein and fiber content and to offer a new functional alternative to existing bread varieties. Within the scope of the study, breads produced with 15 different formulations were evaluated by 12 panelists in terms of color, odor, taste and texture using a 9-scale hedonic scale. Sensory parameters of bread samples with different contents were compared using simple additive weighting method, which is one of the multi-criteria decision making techniques. When the data obtained are examined, it is seen that the sample containing 10 g soy flour, 10 g dill and 320 g milk in 500 g dough is the most popular, while the sample containing 15 g soy flour, 20 g dill and 320 g milk in 500 g dough is the least liked sample. As a result of the study, it was seen that bread enriched with both protein and fiber can be developed with soy flour and dill.

Keywords: Bread, Soy flour, Dill, Formulation, Sensory analysis.

SİVAS YÖRESEL YEMEKLERİNİN DİJİTALLEŞTİRİLMESİ

DIGITALIZATION OF SİVAS LOCAL DISHES

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Özet

Sivas mutfağı, yemek çeşitliği ve kültürü sayesinde Türk mutfağında önemli bir yere sahiptir. Geniş bir coğrafyada, yerleşik ve göçebe birçok kültürü barındıran Sivas'ın, yemekleri de farklı medeniyetlerden izler taşımaktadır. Yöresel yemekler, dönemin imkanları ve yaşam tarzına bağlı olarak şekillenen ve sonraki nesillerin beslenme alışkanlıklarına yön veren önemli kültür unsurlarıdır. Ancak gelişen teknoloji ve değişen yaşam koşulları nedeniyle geçmişten gelen yerel mutfak unsurları terk edilmekte ve hatta unutulmaktadır. Kırsaldan kente göç ile yöresel yiyecek ve içeceklere özlem ve aidiyet artmaktadır. Geçmişten gelen kültür mirasının gelecek nesillere aktarılabilmesi yine teknoloji ile olabilmektedir. Önemli gastronomik miras olan yöresel yemeklerin gelecek nesillere aktarılabilmesi, unutulmaya yüz tutmuş yiyeceklerin ve mutfak ekipmanlarının hem dijital görsel ve video ile hem de yazılı eser ile kayıt altına alınması bu çalışmanın temel amacıdır. Bu amaçla Sivas'ın Merkez ve ilçelerindeki çeşitli sivil toplum kuruluşlarını, yiyecek ve içecek hizmeti veren işletmelerini, yerel idari yetkilileri, kooperatiflerini ve Halk Eğitim Merkezleri'ni ziyaret ederek Sivas'a 93 adet yöresel yemek tespit edilerek kayıt altına alınmıştır. İngilizce alt yazılı olarak video haline getirilen bu yemekler Youtube kanalına yüklenmiş ve elde edilen linklerin kare kodları oluşturulmuştur. Araştırmada yöntem olarak veri, doküman incelemesi ve yarı yapılandırılmış görüşme teknikleri kullanılmıştır. Verilerin analizinde içerik analizi yapılmıştır. Hem link hem de kare koda sahip yemek videolarının Youtube kanalından yayınlanması sayesinde Sivas yemeklerinin gelecek nesillerine aktarılabilmesinin yanı sıra yerel, ulusal ve uluslararası mecralara taşınması sağlanmıştır.

Anahtar Kelimeler: yöresel yemek, karekod, Sivas yemekleri, gastronomi

Abstract

Sivas cuisine has an important place in Turkish cuisine thanks to its variety and culture. The cuisine of Sivas, which hosts many settled and nomadic cultures in a wide geography, also carries traces of different civilizations. Local dishes are important cultural elements that are shaped by the opportunities and lifestyle of the period and shape the eating habits of the next generations. However, due to developing technology and changing living conditions, local cuisine elements from the past are abandoned and even forgotten. With the migration from rural to urban, longing and belonging to local foods and beverages increase. Transferring the cultural heritage from the past to future generations can also be achieved with technology. The main purpose of this study is to transfer local dishes, which are important gastronomic heritage, to future generations, to record forgotten foods and kitchen equipment both with digital visual and video and written works. For this purpose, by visiting various non-governmental organizations,

food and beverage companies, local administrative authorities, cooperatives and Public Education Centers in the Center and its districts of Sivas, 93 local dishes were determined and recorded in Sivas. These meals, which were made into videos with English subtitles, were uploaded to the Youtube channel and the QR codes of the obtained links were created. Data, document analysis and semi-structured interview techniques were used as methods in the research. Content analysis was performed in the analysis of the data. Thanks to the publication of food videos with both links and QR codes on the Youtube channel, Sivas dishes were transferred to local, national and international channels, as well as being passed on to future generations.

Keywords: local food, QR, Sivas dishes, gastronomy

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Özet

Mutfak ideolojisi; toplumun kültürel farklılıkları, dinsel farklılıklar, coğrafi etkenler, tarım ürünleri, maddi durumun birleşmesinden oluşur. Mutfak adeta bir kaynaşma sanatıdır. İtalyan mutfağı ve Türk mutfağı da bu kaynaşma sanatlarından biridir aslında. Mutfak; iki ülke, iki toplum, iki kütür, iki din, iki coğrafya, iki dil ve iki zevkin bir araya gelip günümüz de bir bütün oluşturmasıdır. Coğrafi etkenlerden ötürü İtalyan mutfağı ve Türk mutfağı birbirine çok benzer sebze ve meyveleri mutfağında kullanmaktadır. Örneğin; İtalyan mutfağının vazgeçilmez ve temel olan 5 lezzeti domates, patlıcan, sarımsak, fesleğen ve deniz ürünleri ülkemiz de de çok sık kullanılmakta ve vazgeçilmez bir hal almıştır. Domates veya salça kullanılmadan bir Türk yemeği mümkün olamaz ya da mevsiminde her hafta mutlaka evlerde patlıcandan karnıyarık, oturtma, türlü veya şakşuka muhakkak yapılır. Dışardan bakıldığında kültürler, insanlar ne kadar farklı gelse de her mutfak bir ahenk içindedir. Uzun yıllar süren göçebe yaşamlar, savaşlar, etkileşimler sayesinde yenilebilecek ürünler, yemek yapım teknikleri, kullanılan mutfak aletleri gelişip yayılarak günümüze kadar gelmiştir. İtalyan mutfağının temel lezzetleri arasında yer alan makarna ülkemizde tüketimi oldukça fazla ve piyasa payı yüksek olan bir üründür. Hemen hemen her gün ana yemeğin yanında muhakkak bir makarna pişirilir. İtalyanlar makarnayı ana yemek yanında değil başlangıç olarak tüketmektedir. Bu farklılıkta gösteriyor ki biz ne kadar İtalyan mutfağından etkilensek bile kendi kültürümüze ve damak tadımıza uygun hale getiriyoruz. Farklılıklar tabi ki bununla sınırlı kalmıyor örneğin; spagetti makarnada bolonez sos yerine biz kıymayı ve salçayı kavurduğumuz basit bir sos tercih ediyoruz. Makarnayı İtalyanlar Al dente ve genellikle taze yapım tüketirken biz fazla haşlanmış iyice yumuşamış ve kuru paketlenmiş makarnalar tüketmekteyiz. İtalyan mutfağının gözde tatlısı Tiramisu ülkemizde de çok revaçtadır. Tabi ki bu tatlıda bizim kültürümüzde ufak değişimlere girmiştir örneğin; asıl tarifinde kahve likörü ile yapılan tiramisu dinsel farklılıklar nedeni ile ülkemizde sadece kahve ile yapılmaktadır. Bakıldığı zaman İtalyan mutfağı ülkemize pek çok lezzet, farklılık katmıştır ve ülkece benimsediğimiz lezzetleri belirli kıstaslar sonucu ufak değişimlere sokmuşuzdur. Sonuçta kültür etkileşimi ve gelişimi dediğimiz zaten budur. Mutfaklar ilk zamandan günümüze bu şekilde gelişerek gelmiştir. Her ülke farklı ülkelerden etkilense bile kendi yaşam tarzına özgü yenilikler getirmiştir.

Anahtar Kelimeler: İtalyan mutfağı, Türk Mutfağı, Benzerlikler ve Farklılıklar.

A CONCEPTUAL RESEARCH ON TRADITIONAL COFFEE TYPES IN TURKISH GASTRONOMY IDENTITY

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Abstract

The science of gastronomy is the whole of the activities applied in the production of food and beverage at each stage until the consumption stage. In the formation of gastronomy, gastronomic identity elements are shaped around elements such as geography, ethnic diversity, natural resources, traditions and customs, religious belief system, social roles. At the same time, gastronomic items have a very important place. It includes many social perceptions and practices around coffee, which is one of the gastronomic items, and includes phenomena such as socialization and sharing. In Turkish society, coffee is drunk and served in many vital events such as asking for a girl, funerals, wedding ceremonies, sira night, letterhead, barraq night, trips. With this study, it is aimed to determine the preparation stages of traditional Turkish coffee types, their presentation styles and the tools used in coffee preparation and to bring them into the literature. These coffees are consumed with different meanings at every hour of the day. Different types of coffee are created by adding various aromas and sweeteners to coffee types such as Turkish coffee, dibek coffee, menengiç coffee, süvari coffee, mirra (bitter coffee), poppy coffee, which are consumed lovingly in Anatolia. In addition to its cultural meanings, coffee creates a balance in terms of human health; wet and dry; It contains elements such as bitter and sweet and creates effects such as relaxing, relaxing, nourishing and stimulating. There are also differences in the service of coffee in the society, besides Turkish delight, double roasted Turkish delight, chocolate, candies, snack cookies, local cookies and water are served. The study is a conceptual review, and in the study, menengiç coffee, mirra (bitter coffee), double roasted (suvari), dibek coffee, Turkish coffee, poppy coffee and coquettish coffee types are discussed. The ways of preparation, presentation and rituals of these coffees are discussed.

Keywords: Gastronomic Element, Gastronomic Identity, Traditional Coffee Types

KOYUN ETİNDE TİAMİN PİŞİRME KAYIPLARININ VE *İN VİTRO* GASTROİNTESTİNAL SİSTEMDE BİYOERİŞİLEBİLİRLİĞİNİN İNCELENMESİ

INVESTIGATION OF THIAMINE COOKING LOSSES IN MUTTON AND ITS BIOACCESSIBILITY IN THE *IN VITRO* GASTROINTESTINAL SYSTEM

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Özet

Et, insan diyetinin önemli bir parçasıdır. Et, özellikle suda çözünen vitaminlerin çoğu olmak üzere çeşitli vitamin ve minerallerin önemli bir kaynağıdır. Vitaminler vücutta belirli biyokimyasal özellikler ve farklı etki mekanizmaları gösterir, bu nedenle her vitamin türü biyoyararlılık ve biyoerişilebilirlik açısından ayrı ayrı tartışılmalıdır. Et ürünlerinde tiamin biyoerişilebilirliği hakkında sınırlı sayıda çalışma bulunmaktadır. Bu çalışmanın amacı, koyun etindeki tiamin kaybını farklı pişirme yöntemleriyle belirlemek ve simüle edilmiş bir *in vitro* gastrointestinal sindirim modeli sistemi kullanarak koyun etinde tiaminin biyoerişilebilirliğini incelemektir. Çalışmada, koyun etinin kol, but ve sırt bölgeleri, haşlama ve kavurma yöntemleri ile pişirilmiştir. Etlerdeki tiamin biyoerişilebilirliği, *in vitro* sindirim modeli kullanılarak HPLC (Yüksek Performanslı Sıvı Kromatografisi) cihazı ile incelenmiştir. Başlangıçta koyun etlerindeki tiamin miktarları 87,33 – 159 µg/100 g aralığında tespit edilmiştir. Haşlama ile kavurma yöntemleri sonrasında tiamin miktarları sırasıyla 73 – 93 µg/100 g ve 33,67 – 74,67 µg/100 g aralığında bulunmuştur. En az kayıp haşlama ile koyun butunda (%8) görülürken, en çok kayıp kavurma yöntemi ile pişirilen koyun kolda (%64,4) görülmüştür. *İn vitro* sindirim sonrası, haşlama yöntemi ile pişirilen koyun etlerindeki tiamin miktarı 23 – 83 µg/100 g aralığında, kavurma ile pişirilen koyun etlerindeki tiamin miktarı ise 12 – 63 µg/100 g aralığında belirlenmiştir. En yüksek tiamin biyoerişilebilirliği %89 ile haşlama yöntemiyle pişirilen koyun sırtında görülürken, en düşük biyoerişilebilirlik %12 ile kavurma yöntemiyle pişirilen koyun kolda tespit edilmiştir. Vitaminlerin biyoerişilebilirliğinin stabilite, gastrointestinal sistemin pH ve sıcaklık gibi etmenlerden önemli ölçüde etkilendiği düşünülmektedir. Pişirme ve sindirim sonrası et ürünlerindeki suda çözünen vitaminlerin biyoerişilebilirliğinin belirlenmesi, bu vitaminlerin günlük alım değerlerinin doğru değerlendirilmesi açısından önem taşımaktadır.

Anahtar Kelimeler: koyun eti, pişirme kaybı, biyoerişilebilirlik, tiamin.

Abstract

Meat is an essential part of the human diet. Meat is an important source of various vitamins and minerals, especially most water-soluble vitamins. Vitamins show specific biochemical properties and different mechanisms of action in the body, so each type of vitamin should be discussed separately in terms of bioavailability and bioaccessibility. There are limited studies on the bioaccessibility of thiamine in meat products. The aim of this study was to determine the loss of thiamine in mutton by different cooking methods and to examine the bioaccessibility of thiamine in mutton using a simulated *in vitro* gastrointestinal digestion model system. In the study, the arm, thigh, and back parts of the mutton were cooked by boiling and roasting methods. The bioaccessibility of thiamine in meats was investigated by HPLC (High-

Performance Liquid Chromatography) device using an *in vitro* digestion model. Initially, thiamine amounts in mutton were determined in the range of 87.33 – 159 µg/100 g. After boiling and roasting methods, the amounts of thiamine were found to be between 73 – 93 µg/100 g and 33.67 – 74.67 µg/100 g, respectively. While the least loss was seen in the mutton thigh with boiled (8%), the most loss was seen in the mutton sleeve cooked with the roasting method (64.4%). After *in vitro* digestion, the amount of thiamine in mutton cooked by the boiling process was between 23 – 83 µg/100 g, and the amount of thiamine in mutton cooked by roasting was between 12 – 63 µg/100 g. While the highest thiamine bioaccessibility was observed at mutton back cooked by the boiling method with 89%, the lowest bioaccessibility was determined on the mutton sleeve cooked by the roasting method with 12%. It is thought that the bioaccessibility of vitamins is significantly affected by factors such as stability, pH of the gastrointestinal tract, and temperature. Therefore, determining the bioaccessibility of water-soluble vitamins in meat products after cooking and digestion is essential for the correct evaluation of daily intake values of these vitamins.

Key words: mutton, cooking loss, bioaccessibility, thiamine

COĞRAFİ İŞARETLER ve GASTRONOMİ TURİZMİ ile MARKALAŞAN ŞEHİR GAZİANTEP

GAZİANTEP, The CITY BRANDED with GEOGRAPHICAL SIGNS and GASTRONOMY TOURISM

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Özet

Küreselleşme süreci ile birlikte tüketicilerde hızlı yeme alışkanlığı oluşurken, öte yandan turizm sektöründe kültürel tanıtım ve koruma, ayrıca gelir getirmesi bakımından özellikle gastronomi turizmi öne çıkmaktadır. Buna bağlı olarak, kültürel değere sahip gıdaların, gelecek kuşaklara bozulmadan ve değerini kaybetmeden aktarılması için sürdürülebilir gastronomi turizmi anlayışı ortaya çıkmıştır. Birçok medeniyete ev sahipliği yapmış ülkemizin en zengin mutfağına sahip ili, 291 çeşit yiyecek, içecek ve tatlı çeşidiyle Gaziantep olarak belirlenmiştir. Gaziantep şehri, 2015 yılında UNESCO'nun Yaratıcı Şehirler ağına Gastronomi alanında seçilmiş ve Gaziantep mutfağı, ülkesinin ismi ile değil, şehrinin ismi ile anılan ilk mutfak olmuştur. Bu çalışmada, Gaziantep şehrinin markalaşma sürecinde sürdürülebilir gastronomi turizmini destekleyen tescillenmiş coğrafi işaretleri (menşe ve mahreç işaretleri) hakkında bilgi verilmektedir. Ülkemizde gıda sektörüne ait toplam 882 ürün, coğrafi işaret olarak tescillenmiştir. Bu ürünlerin 80 tanesi (12 menşe işareti + 68 mahreç işareti = 80 coğrafi işaret) Gaziantep iline ait olup, %9,1 oranla ülkemizdeki en çok coğrafi işaret tesciline sahip şehirdir. Gaziantep'te özellikle son yıllarda, coğrafi işaret tescil ettirilen ürün sayısı artmaktadır. Gaziantep ilinin hâlihazırda 3 adet menşe işareti, 29 adet ise mahreç işareti başvurusu bulunmaktadır. Bu ürünlerin tamamı, yine yiyecek-içecek sektörüne aittir. Farklı ülkelerde uluslararası koruma sağlamak amacıyla, Antep Baklavası, 2009 yılında mahreç işareti alınarak Avrupa Konseyi Tüzüğü çerçevesindeki Avrupa Komisyonu tarafından tescillenmiştir. Yine bu komisyona 2017-2021 yılları arasında Antep Fıstık Ezmesi ve Antep Lahmacunu için mahreç işareti, Antep Fıstığı, Araban Sarımsağı ve Gaziantep Melengiç Kahvesi içinse menşe işareti başvuruları yapılmıştır. Bu çalışma, Gaziantep şehri, kurum ve kuruluşlarının şehrin markalaşma sürecinde gastronomi alanında farkındalığını açıkça göstermektedir.

Anahtar Kelimeler: Gaziantep, coğrafi işaret, gastronomi, markalaşma

Abstract

Fast eating habits are formed in consumers with the globalization process, on the other hand, gastronomy tourism stands out in terms of cultural promotion and protection in the tourism sector, as well as income generation. Accordingly, the concept of sustainable gastronomy tourism has emerged in order to transfer foods with cultural value to future generations without changing and losing their value. The city with the richest cuisine in Turkey, which has hosted many civilizations has been determined as Gaziantep with 291 types of food, beverage and dessert. The city of Gaziantep was selected in the field of Gastronomy in UNESCO's Creative Cities network in 2015, and Gaziantep cuisine was the first to be mentioned with the name of its city, not the name of its country. In present study, information is given about the registered geographical indications (PDO; Protected Designation of Origin and PGI; Protected Geographical Indication) that support sustainable gastronomic tourism in the branding process

of Gaziantep city. A total of 882 products belonging to the food sector in Turkey have been registered as geographical indications. 80 of these products (12 origin + 68 geographical signs = Totally 80 geographical signs) belong to the province of Gaziantep, and it is the city with the highest number of geographical indication registrations in Turkey with a rate of 9.1%. Especially in recent years, the number of products registered with geographical indications has been increasing in Gaziantep. Gaziantep province currently has 3 applications for origin sign and 29 applications for geographical indication. All of these products belong to the food and beverage industry. In order to provide international protection in different countries, the geographical indication of Antep Baklava was registered in 2009 by the European Commission, within the framework of the Council of Europe Regulation. Between 2017-2021, Protected Geographical Indication for Antep Pistachio Butter and Antep Lahmacun, and Protected Designation of Origin for Antep Pistachio, Araban Garlic and Gaziantep Melengiç Coffee, were applied to this commission. This study clearly shows the awareness of Gaziantep city, its institutions and organizations in the field of gastronomy during the branding process of the city.

Keywords: Gaziantep, geographical indication, gastronomy, branding

SOSYAL MEDYANIN VE BLOGLARIN GASTRONOMİ ÜZERİNE ETKİLERİ

THE EFFECTS OF SOCIAL MEDIA AND BLOGS ON GASTRONOMY

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Özet

Hızla gelişen teknoloji nedeniyle sosyal medya ve blog sayfaları hayatımızın ayrılmaz bir parçası haline gelmiştir. Bu sosyal medya platformlarında ve bu dijital ağlarda yer blog sayfalarında, gastronomi alanı da konu olarak sık sık yer almaktadır. İnsanlar gezdikleri, gördükleri yerler, tarihi ve kültürel mekânlar tattıkları yemekler hakkında yaşadıkları tecrübelerini, fikirlerini, düşüncelerini fotoğraf, video veya yazı şeklinde tanıdık veya tanımadık insanlar ile sanal bir ortamda iletişim halinde oldukları sosyal medya hesaplarında veya blog sayfalarında paylaşmaktadırlar. Hatta insanlar gidecekleri destinasyona karar verme süreçlerinde, tüketecekleri yemekleri seçerken de sosyal medyayı aktif bir şekilde kullanmaktadırlar. Ayrıca destinasyonlar ve yiyecek içecek işletmeleri de sosyal medyayı pazarlama faaliyetleri için aktif olarak kullanmaktadırlar. Bu çalışmada sosyal medyada gastronominin yerini, gastronomi bloglarını, yiyecek içecek işletmelerinde sosyal medyanın yeri, geleneksel ve sosyal medya pazarlaması arasındaki farkları, destinasyon seçiminde sosyal medyanın etkisi üzerine ikincil kaynaklardan yararlanılarak bir literatür taraması yapılmıştır. Bu çalışma giriş, kavramsal çerçeve, gastronomi blogları, sosyal medya platformlarında gastronomi, yiyecek içecek işletmeleri ve sosyal medya, destinasyon seçimi ve sosyal medya, geleneksel pazarlama ile sosyal medya pazarlanmasının kıyaslanması ve son olarak da sonuç ve öneriler bölümlerinden oluşmaktadır. Kavramsal çerçeve bölümünde ilgili kavramlar açıklandıktan sonra gastronominin sosyal medya platformlarında ve bloglardaki yeri açıklanmıştır. Ardından yiyecek içecek işletmelerinin sosyal medyayı kullanımı, sosyal medyanın destinasyon seçimi ile ilişkisi açıklanmış ve pazarlama faaliyetlerinde geleneksel pazarlama ile sosyal medya pazarlamasının karşılaştırılması hakkında bilgilere yer verilmiştir. Sonuç kısmında ise sosyal medya ve blogların gastronomi üzerindeki etkisinin arttığı sonucuna ulaşılmıştır. İnsanlar, destinasyon seçiminde ve restoran seçiminde sosyal medyadan çok fazla yararlanmaktadırlar. İlgili alana ek kaynak sağlama amacıyla yapılmış olan bu çalışmada sosyal medyanın hayatımızın birçok alanında yer aldığı, gezilecek yerleri planlarken, tatmak istenilen yemekleri seçerken yaptığımız planlar üzerinde de olumlu veya olumsuz etkisi olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: Gastronomi, sosyal medya, gastronomi blogları, destinasyon seçimi.

Abstract

Due to the rapidly developing technology, social media and blog pages have become an integral part of our lives. In these social media platforms and blog pages in these digital networks, gastronomy is also frequently mentioned as a subject. People share their experiences, ideas, thoughts about the places they visit, see, historical and cultural places, the food they taste, in the form of photos, videos or texts with familiar or unfamiliar people on their social media accounts or blog pages where they are in contact in a virtual environment. In fact, people actively use social media in the process of deciding on the destination they will go, while choosing the food they will consume. In addition, destinations and food and beverage businesses actively use social media for marketing activities. In this study, a literature review

was conducted by using secondary sources on the place of gastronomy in social media, gastronomy blogs, the place of social media in food and beverage businesses, the differences between traditional and social media marketing, the effect of social media on destination selection. This study consists of introduction, conceptual framework, gastronomy blogs, gastronomy on social media platforms, food and beverage businesses and social media, destination selection and social media, comparison of traditional marketing and social media marketing, and finally conclusions and recommendations. After explaining the related concepts in the conceptual framework section, the place of gastronomy in social media platforms and blogs is explained. Then, the use of social media by food and beverage businesses, the relationship of social media with destination selection are explained and information about the comparison of traditional marketing and social media marketing in marketing activities is given. In the conclusion part, it has been concluded that the effect of social media and blogs on gastronomy has increased. People make use of social media a lot in the choice of destination and restaurant selection. In this study, which was carried out with the aim of providing additional resources to the relevant field, it was concluded that social media takes place in many areas of our lives, and that it has a positive or negative effect on the plans we make when planning places to visit and choosing the dishes we want to taste.

Keywords: Gastronomy, social media, gastronomy blogs, destination selection.

COĞRAFİ İŞARETLİ ÜRÜNLERİN GASTRONOMİ FESTİVALLERİ KAPSAMINDA İNCELENMESİ: BODRUM MANDARİNİ ÖRNEĞİ

EXAMINATION OF GEOGRAPHICAL MARKED PRODUCTS WITHIN THE SCOPE OF GASTRONOMY FESTIVALS: THE EXAMPLE OF BODRUM MANDARINI

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Özet

Bu çalışmada, Muğla ili Bodrum ilçesinde düzenlenen Bodrum Mandalina Festivali'ne katılan ziyaretçilerin Muğla'nın coğrafi işaretli ürünleri ile ilgili bilgi düzeyi, festival ile ilgili tatmin düzeyi ve şehrin coğrafi işaretli ürünü olan Bodrum Mandarininin ve Bodrum Mandalina Festivali'nin Bodrum'u tekrar ziyaret niyetine etkisi araştırılmaktadır.

Araştırmanın temelde iki amacı mevcuttur. Bunlardan ilki, Bodrum'a gelen ziyaretçilerin Muğla'ya özgü coğrafi işaretli ürüne yönelik bilgi düzeylerini tespit etmektir. İkincisi ise, özgün nitelikleri ile taklit edilemeyen coğrafi işaretli ürün olan Bodrum Mandarini'nin ve Bodrum Mandalina Festivali'nin şehrin gastronomik destinasyon imajının oluşmasında, gelişmesinde, talep yaratmada, destinasyona yönelik memnuniyet düzeyinde ve tekrar ziyaret niyeti üzerinde ne tür etkilere sahip olduğunun sorgulanmasıdır.

Araştırmada nicel araştırma türü kullanılmıştır. Örneklem seçimi, Bodrum Mandalina Festivali'ne katılan katılımcılar ve Bodrum ilçesi ile sınırlandırılmıştır. Araştırmanın evrenini 2022 yılı ve önceki yıllarda Bodrum Mandalina Festivali'ne katılan ziyaretçiler oluşturmaktadır. Çalışmada veri toplama tekniklerinden anket tekniği kullanılmıştır. Anket formu demografik bilgiler, coğrafi işaret bilgi düzeyi, festival memnuniyet düzeyi, festivali ve Bodrum'u tekrar ziyaret etme niyeti ölçeklerinden oluşmaktadır. Hazırlanan anket formu Bodrum Mandalina Festivali'ne katılan ve ankete katılmaya gönüllü olan ziyaretçilere uygulanmıştır. Bu kapsamda eksiksiz olarak cevap verilen 323 anket formunun veri analizleri yapılmıştır. Verilerin analizi istatistiksel analiz programları kullanılarak yapılmıştır. Analizler sonucunda; coğrafi işaret bilgi düzeyinin yaş, cinsiyet, meslek gruplarına göre anlamlı farklılık göstermediği fakat eğitim ve gelir düzeyine göre anlamlı farklılık gösterdiği ortaya çıkmıştır. Eğitim ve gelir düzeyi yüksek olan kişilerde coğrafi işaret kavramının bilindiği sonucuna ulaşılmıştır. 18-20 yaş grubunun festivali tekrar ziyaret etme niyetinde en yüksek ortalamalara sahip olduğu, 21-30 yaş grubunun festivalden genel tatmin düzeyinin en yüksek kitle olduğu görülmüştür. Bu bağlamda gastronomi festivallerinden memnuniyet düzeyi ve tekrar ziyaret niyeti ile yaş ortalamaları ile anlamlı bir ilişki ortaya çıkmıştır. Ayrıca Bodrum'un tek coğrafi işaret tescilli ürünü olan Bodrum Mandarini'nin Bodrum'u ziyaret etme niyetinde etkili olmadığı sonucuna ulaşılmıştır. Bodrum Mandalina Festivali'ni ziyaret eden katılımcıların büyük çoğunluğunun Bodrum Mandarini'nin coğrafi işaret tescilli olduğu ile ilgili bilgi sahibi olmadığına ulaşılmıştır. Elde edilen bulgular ışığında coğrafi işaret bilgi düzeyinin artması ve halkın coğrafi işaretleme konusunda bilinç kazanması ile şehirlerin coğrafi işaretli ürünleri için

ziyaret edilmesinde artış yaşanacağı düşünülmektedir. Gelecek yıllarda coğrafi işaretli ürünlerin ve gastronomi festivallerinin yurt içi ve yurt dışı gastronomi turlarındaki destinasyon tercihlerinini etkileyeceği düşünülmektedir.

Anahtar Kelimeler: Coğrafi İşaret, Festival, Gastronomi Festivalleri, Bodrum Mandarini.

Abstract

In this study, the knowledge level of the visitors participating in the Bodrum Tangerine Festival held in the Bodrum district of Muğla province about the geographically marked products of Muğla, their satisfaction level with the festival, and the visit of Bodrum Mandarin, the geographically marked product of the city, and the Bodrum Tangerine Festival to Bodrum again. The effect on intention is studied.

There are basically two purposes of the research. The first of these is to determine the level of knowledge of the visitors coming to Bodrum about the geographical indication product specific to Muğla. The second one is to question what kind of effects Bodrum Mandarini and Bodrum Tangerine Festival, which cannot be imitated with their unique qualities, have on the formation and development of the city's gastronomic destination image, its development, demand creation, the level of satisfaction with the destination and the intention to revisit.

Quantitative research type was used in the study. The sample selection was limited to the participants of the Bodrum Tangerine Festival and the town of Bodrum. The universe of the research consists of visitors who participated in the Bodrum Tangerine Festival in 2022 and previous years. Questionnaire technique, one of the data collection techniques, was used in the study. The questionnaire consists of demographic information, geographical indication information level, festival satisfaction level, festival and intention to visit Bodrum again. The prepared questionnaire was applied to the visitors who participated in the Bodrum Tangerine Festival and volunteered to participate in the questionnaire. In this context, data analyzes of 323 questionnaires, which were answered completely, were made. Data analysis was done using statistical analysis programs. As a result of the analysis; It has been revealed that geographical indication knowledge level does not differ significantly according to age, gender, occupational groups, but differs significantly according to education and income level. It has been concluded that people with high education and income levels know the concept of geographical indication. It has been seen that the 18-20 age group has the highest mean intention to visit the festival again, and the 21-30 age group has the highest overall satisfaction level from the festival. In this context, a significant relationship has emerged between the level of satisfaction with gastronomy festivals and the intention to revisit, and the average age. In addition, it was concluded that Bodrum Mandarini, which is Bodrum's only geographical indication registered product, is not effective in the intention to visit Bodrum. It has been reached that the majority of the participants who visited the Bodrum Tangerine Festival were not aware of the fact that Bodrum Mandarini was registered as a geographical indication. In the light of the findings, it is thought that there will be an increase in the visit of cities for geographical indication products with the increase in the level of geographical indication information and the awareness of the public about geographical marking. It is thought that geographically indicated products and gastronomy festivals will affect destination preferences in domestic and international gastronomy tours in the coming years.

Keywords: Geographical Indication, Festival, Gastronomy Festivals, Bodrum Mandarini.

THE EFFECT OF DIFFERENT MARINATING TREATMENTS ON THE INSTRUMENTAL TEXTURAL PROPERTIES OF THE STEAKS COOKED WITH THE SOUS VIDE METHOD

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Abstract

The aim of this study was to examine the effects of different marination treatments on the instrumental textural properties of the steaks cooked with the sous vide technique. For this purpose, four different marination mixtures (teriyaki sauce-based, barbecue sauce-based, coffee-based, and sweet-sour flavored) were applied separately to the steaks before cooking. Classical meat marination treatment was selected as the control group. Following the marination process at +4°C for 5 hours, the meat samples were cooked with the sous vide technique at 85°C for 60 minutes. After cooling to the room temperature, the textural properties of the samples were determined by Warner-Bratzler Shear Method and Texture Profile Analysis. In addition, the pH values of the cooked samples were also determined. According to the results, the lowest average pH values were detected in the sweet-sour flavored marination group as 5.32±.08, ($p<0.05$) and in the barbecue sauce-based marination group as 5.49±.04, ($p<0.05$), respectively. However, the mean pH values of the other groups were between 5.70 and 5.71, ($p<0.05$). The highest Warner-Bratzler shear force value was detected in samples in the sweet-sour flavored marination group ($p<0.05$), and the lowest Warner-Bratzler shear force value was observed in beef steaks marinated with the coffee meat marination group ($p<0.05$). In terms of the Warner-Bratzler cutting work parameter, the highest mean value among the groups was found in the sweet-sour marination group, while the closest average value to this group was found in the classical marination group ($p<0.05$). The lowest mean Warner-Bratzler cutting work value was detected in the barbecue sauce-based marination group ($p<0.05$), and no statistically significant difference ($p>0.05$) was found between this group and other groups (coffee-based and teriyaki sauce-based). In terms of texture profile analysis, the mean values measured for hardness, springiness, cohesiveness, chewiness, and resilience parameters revealed no statistically significant differences ($p>0.05$) among the different marination groups. However, adhesiveness ($p<0.05$) and gumminess ($p<0.05$) were the textural parameters on which marination treatment's statistically significant effect was observed. The highest mean value in terms of adhesiveness parameter and the lowest mean value in terms of gumminess were determined in the sweet-sour flavored marination group ($p<0.05$).

Keywords: Sous vide, Beef steak, Marination, Textural profile,

FONKSİYONEL BİR GIDA OLARAK KIZILCIK VE KULLANIMI

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Özet

Kızılcık (*Cornus mas L.*) Cornaceae familyasına ait bir bitki olup bitkinin kızılcık ya da kiren ismi verilen meyveleri dünyada farklı şekilde değerlendirilmektedir. İçerdiği askorbik asit, antosiyoninler, flavonoidler, iridoidler, fenolik asitler, lif ve tanenler bakımından önemli bir fonksiyonel gıdadır. Bu bileşenler kızılcık meyvesine antioksidan özellik kazandırmaktadır. Sahip olduğu iridoid ve polifenolik bileşenler bakımından antimikrobiyal özellik göstermektedir. Tanenler gastrointestinal sindirim sırasında parçalanmadıkları ve ince bağırsakta emilmedikleri için diyet lifine benzer bir davranışla ilişkilendirilmektedir. Zengin antosiyonin içeriği ve ursolik asidin glisemik kontrol sağladığı ve insülin seviyesi üzerinde olumlu bir etkiye sahip olduğu ifade edilmektedir. Kızılcık meyvelerinin düzenli bir diyetle alımı kan şekeri düzeyinde olumlu etkilere sahip olmakta ve glikoz toleransını artırmaktadır.

Kızılcık meyvesinin kendisi doğrudan tüketilebildiği gibi marmelat, reçel, komposto, pestil, şerbet, şurup, likör, kızılcık çayı, turşu ve tarhana gibi gıdaların üretiminde hammadde olarak da kullanılabilmektedir. Yoğurt, bira, sirke, tatlı ve salamura meyve olarak tüketimi söz konusudur. Olgun meyveler çekirdeklerinden ayrılarak çeşitli tatlı hamur işlerinde ve marmelat formunda bir dolgu malzemesi olarak kullanılabilmektedir.

Literatürde kızılcık meyvelerinin son ürünün bazı kalite özelliklerini geliştirdiği görülmektedir. Sucuk üretiminde kızılcık meyvesi ekstraktı kullanarak üründe oksidasyonun önlendiği ve istenilen rengin sağlandığı; kaşar peyniri üretiminde kızılcık meyvesi kullanımının peynirin kimyasal bileşimini ve duyusal niteliklerini olumlu yönde etkilediği; özellikle yoğurt gibi gıdalara ilave edildiğinde ürünün polifenol içeriği ve antiradikal potansiyelinin arttığı; renklendirici olarak kızılcık meyvesi pulpu kullanılan lokumlarda duyusal ve antimikrobiyel özelliğin geliştiği; probiyotik çikolata üretiminde kızılcık meyvelerinden elde edilen ekstraktların istenmeyen acılığı azaltmada etkili olduğu; kızılcık marmelatının antimikrobiyal özelliklerinin gıdanın raf ömrünü uzatabilecek nitelikte olduğu; bira gibi ürünlere ilave edildiğinde antioksidan aktivitelerinin arttığı bildirilmiştir.

Kızılcık meyvesi gıda ürünlerinde stabiliteyi, dokuyu ve lezzeti önemli ölçüde iyileştirebilir. Antosiyonin içeriğinin sağlık üzerine etkisinin yanı sıra doğal gıda boyası olarak kullanım potansiyeli söz konusudur. Benzer şekilde kızılcık meyvesinin sahip olduğu doğal antioksidan bileşikler hem sağlık açısından avantaj oluşturmakta hem de gıdalarda istenmeyen oksidasyonları önlemek amacıyla bir katkı maddesi olarak kullanılabilmesine imkân sağlamaktadır. Diyette düzenli kızılcık alımı ile kan şekeri düzeyinde olumlu etkiler görüldüğünden kızılcık meyvelerinin kişiye özel diyetlerde kullanılmasının olumlu etkiler sağlayabileceği düşünülmektedir. Ketçap vb. sosların üretiminde, içecek formülasyonlarında, farklı gıdaların fonksiyonel, tektürel, reolojik ve duyusal özelliklerini iyileştirmek amacıyla kızılcık kullanımı ile alakalı daha fazla çalışmaya ihtiyaç duyulmaktadır.

Anahtar Kelimeler: Kızılcık, *Cornus mas* L., fonksiyonel gıda

Abstract

Cranberry (Cornus mas L.) is a plant belonging to the Cornaceae family, and its fruits, called cranberry or kiren, are evaluated differently in the world. It is an important functional food in terms of ascorbic acid, anthocyanins, flavonoids, iridoids, phenolic acids, fiber and tannins it contains. These components give the cranberry fruit antioxidant properties. It has antimicrobial properties in terms of iridoid and polyphenolic components. Tannins are associated with a behavior similar to dietary fiber, as they are not broken down during gastrointestinal digestion and are not absorbed in the small intestine. It is stated that rich anthocyanin content and ursolic acid provide glycemic control and have a positive effect on insulin level. Intake of cranberry fruits with a regular diet has positive effects on blood sugar level and increases glucose tolerance.

Cranberry fruit itself can be consumed directly, or it can also be used as a raw material in the production of foods such as marmalade, jam, compote, fruit pulp, sherbet, syrup, liquor, cranberry tea, pickles and tarhana. It is consumed as yogurt, beer, vinegar, sweet and pickled fruit. Ripe fruits can be separated from their seeds and used as a filling material in various sweet pastries and in the form of marmalade.

In the literature, it is seen that cranberry fruits improve some quality characteristics of the final product. By using cranberry fruit extract in sausage production, oxidation is prevented in the product and the desired color is achieved; The use of cranberry fruit in the production of cheddar cheese positively affects the chemical composition and sensory qualities of the cheese; especially when added to foods such as yogurt, the polyphenol content and antiradical potential of the product increase; sensory and antimicrobial properties developed in Turkish delights using cranberry pulp as a colorant; extracts from cranberry fruits are effective in reducing unwanted bitterness in probiotic chocolate production; the antimicrobial properties of cranberry marmalade can extend the shelf life of the food; It has been reported that antioxidant activities increase when added to products such as beer.

Cranberry berry can significantly improve stability, texture and flavor in food products. In addition to the health effects of anthocyanin content, it has the potential to be used as a natural food dye. Similarly, the natural antioxidant compounds of cranberry fruit both provide advantages in terms of health and allow it to be used as an additive in order to prevent unwanted oxidation in foods. It is thought that the use of cranberry fruits in personalized diets can provide positive effects, since positive effects are seen on blood sugar level with regular cranberry intake in the diet. Ketchup etc. More studies are needed on the use of cranberry in the production of sauces, beverage formulations, in order to improve the functional, textural, rheological and sensory properties of different foods.

Keywords: Cranberry, *Cornus mas L.*, functional food

OBEZ ÇOCUKLARDA SERUM ADİPOKİN HORMON DÜZEYLERİNİN OBEZİTENİN DERECESİ VE BAZI BELİRTEÇLERİYLE İLİŞKİSİNİN İNCELENMESİ

INVESTIGATION OF THE RELATIONSHIP OF SERUM ADIPOKINE HORMONE LEVELS WITH THE DEGREE AND SOME MARKERS OF OBESITY IN OBESE CHILDREN

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Özet

Obezite vücutta sağlığı olumsuz etkileyecek düzeyde yağ dokusu artışı olarak tanımlanmaktadır. Yağ dokusu leptin, adiponektin, asprosin ve apelin gibi metabolizma ve enerji homeostazında önemli rol oynayan adipokin hormonlarının salgılanmasını da sağlar. Bu sebeple çocukluk çağı obezitesinin belirlenmesinde ve patolojik mekanizmaların açıklanmasında tek başına yağ dokusu artışı değil yağ dokusundan salgılanan bu adipokin hormonlarının düzeylerindeki değişimler de etkilidir. Bu polipeptitlerin değerlendirilmesi obezitenin tanısında ve obeziteye bağlı patolojik mekanizmaların aydınlatılmasında etkili olacaktır. Çalışmamızda obez çocukların serum leptin, adiponektin, asprosin ve apelin düzeyleri ile kan lipit profilleri, açlık kan şekeri ve insülin direnci indeksi (HOMA_IR) değerleri gibi obezite ile ilgili bazı belirteçlerle ilişkisini ortaya koymak amacıyla yapılmıştır. Çalışmamıza 105 obez çocuk ve 38 normal kilolu çocuk katılmıştır. Çocukların demografik bilgileri yüz yüze uygulanan anket yöntemi ile belirlenmiştir. Obez ve normal kilolu çocuklardan sabah alınan açlık kan örneklerinde leptin, adiponektin, asprosin ve apelin seviyeleri ticari Elisa kit yardımıyla belirlenmiştir. Leptin seviyeleri obez çocuklarda normal kilolu çocuklara göre anlamlı derecede düşük ($p<0.05$) iken, asprosin ve apelin seviyeleri anlamlı derecede yüksek bulunmuştur (sırasıyla $p<0.0001$ ve $p<0.001$). Adipokin hormonları arasında hem obez hem de normal çocuklarda pozitif korelasyonlar gözlenmiştir. Obez çocuklarda leptin/asprosin ve adiponektin/asprosin oranları normal kilolu çocuklarla karşılaştırıldığında istatistiksel olarak anlamlı derecede düşük bulunmuştur (sırasıyla, $p<0.0001$ ve $p<0.0001$). Obez çocuklarda leptin seviyeleri ile total kolesterol ve LDL-kolesterol seviyeleri arasında negatif korelasyon gözlendi (sırasıyla, $p<0.008$ ve $p<0.002$).Çalışmamızda, özellikle literatürde çelişkili sonuçlar bulunan asprosin ve apelin seviyelerinin obez çocuklarda yüksek olarak bulunması ve leptin ile adiponektinin asprosin ile oranının obez çocuklarda yüksek olması önemli bulgular olarak değerlendirilebilir.

Anahtar Kelimler: Çocukluk Çağı Obezitesi, Adipokinler, Leptin, Adiponektin, Asprosin

Abstract

Obesity is defined as the increase in fat tissue in the body at a level that will adversely affect health. Adipose tissue also provides the secretion of adipokine hormones such as leptin, adiponectin, asprosin and apelin, which play an important role in metabolism and energy homeostasis. For this reason, changes in the levels of these adipokine hormones secreted from the adipose tissue, not the increase in adipose tissue alone, are effective in determining childhood obesity and explaining the pathological mechanisms. Evaluation of these

polypeptides will be effective in the diagnosis of obesity and elucidating the pathological mechanisms associated with obesity. In our study, it was conducted to reveal the relationship of obese children with some markers of obesity such as serum leptin, adiponectin, asprosin and apelin levels, and blood lipid profiles, fasting blood glucose and insulin resistance index (HOMA-IR) values. 105 obese children and 38 normal weight children participated in our study. The demographic information of the children was determined by the face-to-face survey method. Leptin, adiponectin, asprosin and apelin levels were determined in morning fasting blood samples from obese and normal weight children with the help of commercial Elisa kit. While leptin levels were significantly lower (p<0.05) in obese children, asprosin and apelin levels were found to be significantly highern(p<0.0001 and p<0.001, respectively). Positive correlations were observed between adipokine hormones in both obese and normal children. The leptin/asprosin and adiponectin/asprosin ratios in obese children were found to be statistically significantly lower when compared with normal weight children (p<0.0001 and p<0.0001, respectively). A negative correlation was observed between leptin levels and total cholesterol and LDL-cholesterol levels in obese children (p<0.008 and p<0.002, respectively). In our study, the high levels of asprosin and apelin, which have conflicting results in the literature, and the high ratio of leptin and adiponectin to asprosin in obese children can be considered as important findings.

Keywords: Childhood Obesity, Adipokines, Leptin, Adiponectin, Asprosin

ELAZIĞ ÖZEL GÜN YEMEKLERI VE MUTFAK KÜLTÜRÜ

CULINARY CULTURE AND SPECIAL DAY MEALS OF ELAZIĞ

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Özet

Aynı bölgede uzun yıllar birlikte yaşayan insanların, gelenekselleştirdiği ve uygun pişirme yöntemleri kullanarak, servis ettiği yiyecek ve içeceklere yöresel yemek denilmektedir. Bu yemekleri diğerlerinden ayıran özellikleri ise geleneksel olarak toplu yenilen yemeklerde özel gün kutlamalarının ve ritüellerinin bir parçası olmalarıdır. Bu anlamda, ülkemizde var olan ve bilinen en eski uygarlıklarından ve yerleşik düzene geçen toplumlarından birini topraklarında barındıran Elazığ ilimiz, zengin bir kültürün mirasçısı ve keşfedilmeyi bekleyen en önemli gastronomi değerlerindendir.

Elazığ ilinin mutfak kültürünün, yöresel mirasının ve gastronomik kimliğe sahip tatlarının tanıtılması ve farkındalık yaratılmasına katkı sağlaması amacıyla yapılan bu çalışmada, verilerin toplanması aşamasında, nitel araştırmalarda kullanılan yöntemlerden biri olan, yarı yapılandırılmış görüşme tekniğinden faydalanılmıştır. Verilerin değerlendirilmesinde içerik analizi yöntemi kullanılmıştır. Böylece Elazığlı ailelerin yöresel yemek kavramına ilişkin yaklaşımları, evlerinde yöresel yemeklere yer verip vermedikleri ve yörelerine ait coğrafi işaretli ürün bilgisine sahip olup olmadıkları hususunda ayrıntılı bilgiye ulaşılmıştır.

Bu çalışma kapsamında Elazığ iline ait 77 yöresel yemek için envanter oluşturulmuştur. Bu yemeklerin dördüne ait reçeteler katılımcıların aile büyüklerinden öğrendikleri şekilde korunarak kayıt altına alınmıştır. Kayıt altına alınan içli köfte, zilfet, kofik dolması ve lobik çorbasının uygulaması Başkent Üniversitesi Uygulama Mutfağında yapılmıştır.

Veriler incelendiğinde katılımcıların tamamının (N=11) evlerinde yöresel yemeklere yer verdiği ancak evde yapma sıklığı açısından değerlendirildiğinde ise iki kuşak arasında belirgin farklılıklar olduğu görülmüştür. Ayrıca katılımcıların tamamı özel günlerde en az bir çeşit yöresel yemeği kesinlikle yaptıklarını ve kültürel miras olarak yöresel yemeklerin gelecek nesillere aktarılmasındaki en önemli faktörün bu kültürü edinebilecekleri aileleri olduğunu belirtmişlerdir.

Yapılacak ileriki çalışmalarda Anadolu Mutfak Kültürü'nün derinlemesine incelenmesi, gruplandırılması ve reçetelerine ulaşılan ürünlerin kayıt altına alınarak gelecek kuşaklara aktarılması mutfak kültürümüzün ve bölgenin kültürel mirasının tespit edilmesi bakımından oldukça değerlidir.

Anahtar kelimeler: Elazığ, mutfak kültürü, coğrafi işaretli ürünler, yöresel yemekler.

Abstract

Food and beverages, which have been traditionalized by people who have lived together in the same region for many years and served by appropriate cooking methods, are called local foods. The features that distinguish these foods from the others are that they are a part of special day celebrations and rituals in traditional meals. In this sense, our city of Elazığ, which hosts one

of the societies that existed in our country and settled down from the oldest known civilizations, is the heir of a rich culture and one of the most important gastronomic values worth exploring.

In this study, data were collected using semi-structured interview technique, which is one of the qualitative research methods, in order to promote the local heritage and tastes with gastronomic identity and culinary culture of Elazig and contribute to raising awareness. Content analysis method was used in the evaluation of the data. Thus, detailed information was obtained about the tendency of the families from Elazig to the concept of local foods and products with geographical indication and whether they include local foods in their homes.

Within the scope of this study, an inventory was created for 77 local dishes belonging to the province of Elazig. The recipes for four of these dishes were preserved and recorded as the participants learned from their ancestors. The application of ‘içli köfte’, ‘zilfet’, ‘kofik dolması’ and ‘lobik çorbası’ was made in Baskent University Gastronomy Laboratories Analyzing the data, it was observed that the local dishes were cooked by the whole of the participants (N=11) at home, however. when evaluated in terms of the frequency of doing them at home, it could be highlighted that there were significant differences between the two generations. In addition, all of the participants stated that they definitely cook at least one kind of local food on special days and that the most important factor in transferring local dishes as cultural heritage to future generations is their families, where they can acquire this culture.

As for the future studies, it is very valuable in terms of determining our culinary culture and the cultural heritage of the region to examine the Anatolian Culinary Culture in depth, to group it and to record the local foods whose recipes are reached and to transfer them to the next generations.

Keywords: Elazığ, culinary culture, products with geographical indication, local foods.

GENÇ ERİŞKİNLERİN BESLENME ALIŞKANLIKLARI VE BESİN TERCİHİ

DIETARY HABITS AND FOOD PREFERENCES OF YOUNG ADULTS

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Özet

Üniversite dönemini de içeren genç erişkinlik, sağlıklı ya da sağlıksız bir takım davranışların ve alışkanlıkların kazanıldığı hassas bir dönemdir. Bu dönemde gençlerin doğru beslenme alışkanlıklarına sahip olması ileride sağlıklı bir toplumu oluşturması açısından oldukça önemlidir. Bu araştırmada Van Yüzüncü Yıl Üniversitesi'nde öğrenim gören 19-25 yaş arası 421 öğrencinin (219 erkek, 202 kadın) beslenme alışkanlıkları ve besin tercihinin ortaya konulması, ayrıca obezite sıklığının belirlenmesi amaçlanmıştır. Bu amaçla, Van yüzüncü Yıl Üniversitesi etik kurulundan izin alınmış ve öğrencilerin de araştırmaya gönüllü katılımları sağlanmıştır. Genel beslenme alışkanlıkları ve besin tercihlerini içeren bir anket uygulaması yapılmış, bireylerin boy ve ağırlık ölçüleri alınarak beden kitle indeksi hesaplanmış ve Dünya Sağlık Örgütü kesim noktalarına göre değerlendirilmiştir. Çalışmada gençlerin %9.3'ü düşük kilolu, %70.1'i normal, %17.1'i fazla kilolu, %3.3'ü ise obezdir. Öğrencilerin %43'ü öğün atlamaktadır, en fazla atlanan öğün ise %56.9 oranıyla öğle yemeğidir. Bireyler yiyeceklerini en fazla yurtta tüketmektedir. Besin tercihleri %58.7 oranıyla temiz olmasına, %35 oranı ile doyurucu olmasına göre değişmektedir. Öğrencilerin büyük çoğunluğu sağlıklı beslendiğini düşünmemektedir. Gençlerin besin tercihleri ve alışkanlıklarını etkileyen faktörler dikkate alınarak sağlıklı beslenmeleri sağlanmalıdır.

Anahtar kelimeler: Genç erişkin, üniversite öğrencileri, besin tercihi, beslenme alışkanlıkları

Abstract

Young adulthood, including the university period, is a sensitive period in which healthy or unhealthy behaviors and habits are acquired. In this period, it is very important for young people to have the right dietary habits in terms of creating a healthy society in the future. In this study, it was aimed to reveal the dietary habits and food preferences and also to determine the prevalence of obesity of 421 students (219 males, 202 females) between the ages of 19-25 studying at Van Yüzüncü Yıl University. For this purpose, permission was obtained from the ethics committee of Van Yüzüncü Yıl University and voluntary participation of the students in the research was ensured. A questionnaire was applied including general dietary habits and food preferences, body mass index was calculated by taking the height and weight measurements of the individuals and evaluated according to the cut points of the World Health Organization. In the study, 9.3% of the youth were underweight, 70.1% were normal, 17.1% were overweight, and 3.3% were obese. 43% of students skip meals, the most skipped meal was lunch with 56.9%. Individuals consumed their food mostly in dormitories. Food preferences of students depended on being clean with a rate of 58.7% and being satisfying with a rate of 35%. The vast majority of students did not think that they have a healthy diet. Factors affecting the food preferences and habits of young people should be taken into account and healthy nutrition should be ensured.

Key words: Young adults, university students, food preference, dietary habits

SUGAR REDUCTION APPLICATIONS IN CHOCOLATE

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Abstract

In recent years, consumers have become more conscious about nutrition, and the increase in consumer awareness that many diseases are result of wrong nutrition strategies, has changed the food groups to be consumed. Consumers are increasingly interested in the sugar and calorie content of products, and reduced sugar products are gaining popularity. The increasing popularity of products with reduced sugar content pushes the food industry branches that produce high sugar products to reduce sugar. Food manufacturers have changed their production trends in this direction, due to the fact that excessive consumption of sugar causes health problems and consumers' interest in products with low calories and low sugar content has increased. Chocolate is one of the food products with high sugar content and taking part in ongoing studies to reduce sugar content. The function of sugar in chocolate is to provide clean sweetness, besides other functions. Sugar also plays a role in chocolate as a bulking, preservative, flavour enhancer, texture and mouthfeel modifier. Studies to reduce the amount of sugar in chocolate have been carried out using sugar substitutes. Sucralose, stevia, rebaudioside, neotame, thaumatin, xylitol, erythritol, isomalt, lactitol, maltitol were used as sweeteners, and inulin, polydextrose and maltodextrin were used as bulking agents for sugar substitution studies in chocolate. It was determined that when sweetener is used in chocolate, unpleasant taste and aftertaste impression such as bitterness is formed. In this study, it was aimed to review the sugar reduction studies in chocolate and to determine its effects on chocolate properties.

Keywords: chocolate, sugar, sugar reduction, sugar substitue

A NEW STRATEGY MODULATES SENSORY PROPERTIES OF FOOD: INHOMOGENEOUS DISTRIBUTION

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Abstract

The sensory properties of food are the most important factor affecting consumer preference. With the increase in the consumer's orientation towards natural products, studies on changing the perception of taste, aroma or mouthfeel by changing the food structure without using any substitutes come to the fore. One of the techniques used in the modification of food structure is inhomogeneous distribution. In inhomogeneous distribution applications, different concentrations of taste, aroma compounds or oil are used in food layers. It is ensured that the sensory properties of the product with inhomogeneous distribution are differentiated according to the sample with homogeneous distribution. The perceived intensity is enhanced by the combination of pulsatile stimulation of taste, aroma or oil. In the consumption of food with inhomogeneous distribution, the taste receptors are exposed to intermittent stimuli and the current taste is perceived more. By the use of this strategy, the perception of taste, aroma or oiliness of the food could be enhanced without using any additives**.** When designing foods using inhomogeneous distribution, they are usually prepared in three or more layers. Depending on the product design, different concentrations of flavor, fragrance compounds or oil are used in the layers. In previous studies, the application of inhomogeneous dispersion has been used in various gel foods, cakes, cookies, bread, sausage, frankfurter, snack cereal products, Kue lapis (traditional Indonesian dessert), milk dessert. Depending on the product type, the perception of sweetness, saltiness, bitterness, aroma and oiliness is increased by inhomogeneous distribution. In this study, it was aimed to review the food products with inhomogeneous distribution and to evaluate the effects of inhomogeneous distribution on the sensory properties these food products.

Keywords: food structure, inhomogeneous distribution, sensory properties

DETERMINATION OF SOME PROPERTIES AFFECTING CONSUMER PREFERENCE IN PLANT-BASED BEVERAGES

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Abstract

Nowadays, consumers have tended to try alternative diets due to health, environmental and ethical approaches as well as chancing lifestyle. In this context, there has been an increasing demand for plant-based beverage, which represent a fast growing segment in novel food development category. Plant-based beverages are manufactured by extracting with water a variety of raw materials such as cereals, nuts, legumes and seeds. They are called different names such as “drink”, “vegetal milk”, “milk substitute”, “milk alternative”, “imitation milk”, “milk analogue” and “milk-like beverage” because they resemble cow's milk in appearance. The acidity, colour, textural and sensorial properties of foods are important attributes which affect quality, freshness, flavour expectation, commercial value and consumer acceptability of product and are directly influenced by the plant materials and other ingredients used in the formulation. In this study, the properties affecting consumer acceptance of plant-based beverages (rice, almond, oat, coconut and hazelnut based beverages) sold in the markets were investigated. pH values of samples varied from 5.79±0.01 (coconut-based beverage) to 7.78±0.06 (soy-based beverage). Brix values of the samples were determined as being between 2.63±0.05-14.93±0.15, rice and coconut based beverage had higher brix values ($P \leq 0.01$) than the other samples. Color values for samples were ranged from 43.02±046 to 74.23±2.02 for lightness (L*), -2.01±0.11 to 4.97±0.21 for redness (a*), -1.61±0.01 to 11.34±0.45 for yellowness (b*). Textural parameters were found significantly different ($P<0.05$) within the plant-based beverages. Textural parameters were ranged from 11.66±0.07 to 13.21±1.44 for firmness, 144.39±1.06 to 162.75±3.07 for consistency, -10.27±3.28 to -6.21±0.28 for cohesiveness and 9.14±0.71 to 14.17±0.11 for index of viscosity in samples. All the samples were evaluated for sensory attributes such as color, appearance, texture, odor, taste and overall acceptability. According to sensorial panel, rice and almond mixed beverage gained the highest score by panelist.

Keywords: Plant-based beverage, color, texture, sensory

COVİD 19 PANDEMİSİNİN GASTRONOMİ SEKTÖRÜ ÜZERİNE ETKİLERİ: BULUT MUTFAKLAR

THE EFFECTS OF THE COVID 19 PANDEMIC ON THE GASTRONOMY SECTOR: CLOUD KITCHENS

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Özet

Günümüzde Covid-19 salgını ile birlikte yiyecek ve içecek sektöründe değişimler gözlenmiştir. Pandeminin başlamasıyla birlikte yaşanan kısıtlamaların gıda sektöründe yeni eğilimlere yol açtığı bilinmektedir. Salgın süresince kapanma ile karşı karşıya kalmış olan restoran sektörünün varlığını devam ettirebilmek ve kar elde edebilmek için paket servis uygulamasına yoğunlaştığı görülmüştür. Pandemi ile ortaya çıkan kriz dönemlerinde işletmeler paket servisi sadece tercih olarak değil, rekabeti korumak için bir strateji olarak kullanmışlardır. Bu aşamada zaten var olan ve bir trend haline gelen bulut mutfaklar önem kazanmıştır. Bulut mutfaklar; 'gölge mutfak', 'hayalet mutfak', 'sanal mutfak', 'ortak mutfak' ve 'karanlık mutfak' gibi farklı isimlerle de bilinen, restoran işletmelerinin sadece teslimat için yemek siparişi hazırladıkları ve satış yaptıkları alanlardır. Bulut mutfak konseptine sahip işletmeler fiziksel mekan içerisinde yemek yeme imkanı sunmayarak sadece paket servis hizmetiyle çalışmaktadır. Siparişlerini online şekilde veren müşterilerin istedikleri yerlere belirli bir zaman aralığında gönderildiği bir üretim birimidir. Yapılan çalışmalar incelendiğinde Covid-19 salgını sebebiyle yaşanan kapanma ve kısıtlamalar sonrası işletme sahiplerinin yeni düzene ayak uydurabilmek adına bulut mutfak konseptine yöneldikleri görülmüştür. Ayrıca bulut mutfakların geleneksel gıda işletmelerine göre daha kolay ve düşük bütçeyle kurulum imkanı sunması da bu mutfaklara olan yönelimi arttırmaktadır. Bulut mutfaklar sayesinde restoran işletmecileri hem genel maliyetleri hem de işletmenin maliyetlerini düşürme olanağı yakalamışlardır. Bu çalışmada bulut mutfakların ortaya çıkış sebepleri, kurulum süreçleri, bulut mutfak modelleri ve esasları, pandemi sürecinin bulut mutfaklar üzerine etkisinin ne yönde olduğu ele alınmıştır. Yapılan çalışma sonucunda bulut mutfakların, mevcut restoran işletmelerinin sürdürülebilirliğine katkıda bulunabileceği ve yapılacak olan yeni girişimler için önemli bir potansiyele sahip olduğu çıkarımı yapılabilmektedir.

Anahtar Kelimeler: Gastronomide Trendler, Covid 19, Bulut Mutfaklar

Abstract

Nowadays with the Covid-19 epidemic, changes have been observed in the food and beverage industry. It is known that the restrictions experienced with the beginning of the pandemic lead to new trends in the food and beverage sector .

It has been examined that the restaurant industry, which has faced closure during the epidemic, has focused on take-out service in order to maintain its existence and make profit. In times of

crisis that emerged with the pandemic, businesses have used takeaway not only as a choice, but also as a strategy to protect competition.

The main object is to maintain the sector of food and beverage sector which face to face the risky of closing during the Covid

At this stage, cloud kitchens that already exist and have become a trend have gained importance. Cloud kitchens; Also known by different names such as 'shadow kitchen', 'ghost kitchen', 'virtual kitchen', 'common kitchen' and 'dark kitchen', they are areas where restaurant businesses only prepare food orders for delivery and make sales. Businesses with the cloud kitchen concept do not offer the opportunity to eat in the physical area and work only with takeaway service. When the studies were examined, it was seen that after the closure and restrictions due to the Covid-19 epidemic, business owners turned to the cloud kitchen concept in order to keep up with the new order. In addition, the fact that cloud kitchens offer easier and lower-budget installation compared to traditional food businesses increases the tendency towards these kitchens. Thanks to cloud kitchens, restaurant operators have the opportunity to reduce both the general costs and the costs of the business. In this study, the reasons for the emergence of cloud kitchens, installation processes, cloud kitchen models and principles, the effect of the pandemic process on cloud kitchens are discussed. As a result of the study, it can be deduced that cloud kitchens can contribute to the sustainability of existing restaurant businesses and have an important potential for new initiatives .

Keywords: Trends in Gastronomy, Covid 19, Cloud Kitchens

FÜZYON MUTFAK UYGULAMALARI

FUSION CUISINE APPLICATIONS

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Özet

Teknolojinin gelişmesi ve küreselleşmenin etkisi ile her geçen gün gastronomi alanında gelişmeler yaşanmaktadır. Özellikle küreselleşmenin etkisiyle ortaya birçok gastronomi akımı çıkmıştır. Bu çalışmada da bir gastronomi akımı olan füzyon mutfak uygulamaları ele alınmıştır. Füzyon mutfak uygulamaları farklı ulusların, farklı yöntemlerini bilinçli bir şekilde kullanarak yeni ürünler meydana getirmesidir. Burada dikkat edilmesi gereken konu tabaktaki lezzetlerden birinin bir diğer lezzete baskın gelmemesidir. Bu mutfak akımı günümüzde popüler olmasına karşın bazı kesimlere göre çok eskiden beri var olan bir yöntemdir. Araştırmacı ve şeflerin füzyon mutfağı yöresel mutfağa bir tehdit olarak görmeleri, popüler olmak için bir araç olarak kullanmaları, yanlış yöntemler kullanmaları ve tanıtmaları füzyon mutfağın gelişimi önündeki engellerdir. Araştırmada füzyon mutfağı yeterince tanımamaktan kaynaklanan önyargıların olduğu ve bu durumun füzyon mutfağın gelişimi üzerine olumsuzluklar oluşturduğu sonucuna varılmıştır. Bundan dolayı çalışmada füzyon mutfağın tanıtımına, geçmişine, uygulama esaslarına yer verilerek bu akımın doğru tanıtılması ve geliştirilmesi istenmektedir. Bu amaçla ikincil kaynaklardan veri toplama yöntemine başvurulmuştur.

Anahtar Kelimeler: Yenilikçi, gastronomi akımı, füzyon mutfak.

Abstract

With the development of technology and the effect of globalization, there are developments in the field of gastronomy every day. Especially with the effect of globalization, many gastronomic movements have emerged. In this study, fusion cuisine applications, which is a gastronomic movement, are discussed. Fusion culinary practices are the creation of new products by consciously using different methods of different nations. The point to be considered here is that one of the flavors on the plate should not overpower the other. Although this culinary trend is popular today, it is a method that has existed for a long time, according to some segments. Researchers and chefs see fusion cuisine as a threat to local cuisine, use it as a tool to become popular, use wrong methods and promote it are obstacles to the development of fusion cuisine. In the research, it was concluded that there are prejudices arising from not knowing the fusion cuisine adequately and that this situation has negative effects on the development of fusion cuisine. Therefore, in this study, it is desired to introduce and develop this trend correctly by giving place to the introduction, history and application principles of fusion cuisine. In the study, the literature was examined by using the source compilation, which is one of the qualitative research methods.

Keywords: Innovator, gastronomy trend, fusion cuisine.

GASTRONOMİ TURİZMİ ÇATISI ALTINDA YER ALAN ALTERNATİF TURİZM TÜRLERİ ÜZERİNE BİR İNCELEME

A REVIEW ON ALTERNATIVE TOURISM TYPES UNDER THE UMBRELLA OF GASTRONOMY TOURISM

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Özet

İnsanların ikamet ettikleri yerden uzakta üretilen bir yemeği tatmak, söz konusu yemeğin üretim aşamalarına dahil olmak, yiyecek ve içecekler ile ilgili festivallere katılmak, ünlü bir şefin imza yemeğini tatmak ya da o şeften ders almak, yiyecek ve içecekler ile ilgili müzeleri ve fabrikaları ziyaret etmek gibi pek çok deneyimi bir arada sağlayan gastronomi turizmi, başlangıçta deniz-kum-güneş üçlüsüne dayanan kitle turizmine bir alternatif olarak ortaya çıkmış olmasına rağmen, artık günümüzde kendi çatısı altında pek çok alternatif turizm türünü barındırmaktadır. Literatürde "mutfak turizmi", "yemek turizmi", "gastronomik turizm", "gastro turizm" ve "gurme turizmi" gibi farklı şekillerde adlandırılan gastronomi turizmi çatısı altında sayılabilecek şarap turizmi, kahve turizmi, çay turizmi, tekila turizmi, bira turizmi, viski turizmi, cin turizmi, rom turizmi, votka turizmi, zeytin ve zeytinyağı turizmi, çikolata turizmi, baharat turizmi ve peynir turizmi gibi turizm türlerinin büyük çoğunluğu turizm literatürüne yakın zamanda eklenmiş olan güncel kavramlardır. Hatta "bir turizm faaliyeti olarak gerçekleştirilen mantar toplayıcılığı" olarak tanımlanan mikolojik turizmi de gastronomi turizmi kapsamında değerlendirmek mümkündür. Bahse konu olan her bir turizm türünün kendine has bir tanımı, bir turist kitlesi ve takip edilecek rotaları sayesinde ziyaret edilecek birbirinden farklı destinasyonları bulunmaktadır. Gastronomi turizmi çatısı altında yer alan her bir alternatif turizm türüne katılan turistlerin motivasyonlarının da birbirinden çok farklı olduğunu söylemek mümkündür. Kavramsal bir çalışma olan bu araştırmanın amacı, gastronomi turizmi çatısı altında yer alan tüm alternatif turizm türlerini farklı parametreler kullanarak sınıflandırmak, dünya genelinde ve Türkiye özelinde destinasyonlara örnekler vermek ve söz konusu turizm türlerinin birbirleri ile benzer olduğu ya da farklılaştığı noktaları ortaya koyabilmek adına karşılaştırmaktır. Örneğin bu çalışmada bahsi geçen alternatif turizm türlerinin büyük çoğunluğunun ekonomik kalkınma sağlamak ve halkın refah düzeyini arttırmak amacıyla ortaya çıktığını söylemek mümkündür. Çalışmanın sonunda ise gastronomi turizmi çatısı altında yer alan her bir alternatif turizm türünü ilgilendiren önerilere yer verilmiştir. Bu önerilerin söz konusu turizm türlerinin geliştiği destinasyonlara özellikle tanıtım ve pazarlama çalışmalarında katkı sağlayacağı öngörülmektedir. Benzer şekilde öneriler konaklama, yiyecek-içecek ve hediyelik eşya işletmelerini de kapsayacak niteliktedir. Çalışmanın literatüre, sonraki araştırmacılara ve gastronomi turizmi bağlamında sektöre katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Gastronomi, alternatif turizm, gastronomi turizmi.

Abstract

Although gastronomy tourism, which provides many experiences such as tasting a food produced far from where people live, being involved in the production stages of the food in question, participating in festivals related to food and beverages, tasting the signature dish of a famous chef or taking lessons from that chef, and visiting museums and factories related to food and beverages, initially emerged as an alternative to mass tourism based on the sea-sand-sun trio, it now includes many alternative tourism types under its own umbrella. The majority of tourism types such as wine tourism, coffee tourism, tea tourism, tequila tourism, beer tourism, whiskey tourism, gin tourism, rum tourism, vodka tourism, olive and olive oil tourism, chocolate tourism, spice tourism and cheese tourism, which can be counted under the umbrella of gastronomy tourism, which is called in different ways such as “culinary tourism”, “food tourism”, “gastronomic tourism”, “gastro tourism” and “gourmet tourism” in the literature, are current concepts that have been added to the tourism literature recently. It is even possible to evaluate mycological tourism, which is defined as "mushroom picking as a tourism activity", within the scope of gastronomy tourism. Each of the mentioned types of tourism has a unique definition, a tourist mass, and different destinations to visit thanks to the routes to be followed. It is possible to say that the motivations of the tourists participating in each alternative tourism type under the umbrella of gastronomy tourism are very different from each other. The aim of this research, which is a conceptual study, is to classify all alternative tourism types under the umbrella of gastronomy tourism by using different parameters, to give examples of destinations around the world and in Turkey, and to compare the tourism types in question in order to reveal the points where they are similar or different from each other. For example, it is possible to say that the majority of the alternative tourism types mentioned in this study emerged in order to provide economic development and increase the welfare level of the people. At the end of the study, there are suggestions for each alternative tourism type under the umbrella of gastronomy tourism. It is foreseen that these suggestions will contribute to the destinations where these types of tourism development, especially in the promotion and marketing activities. Similarly, the recommendations are of a nature to cover accommodation, food and beverage, and souvenir establishments as well. It is thought that the study will contribute to the literature, future researchers, and the sector in the context of gastronomy tourism.

Keywords: Gastronomy, alternative tourism, gastronomy tourism.

ANALYSIS OF THE DEVELOPMENT OF THE HALAL PRODUCT ASSURANCE SYSTEM IN INDONESIA

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Abstract

Halal lifestyle is sweeping the world, not only in countries with a Muslim majority population, but also in countries with a minority Muslim population. Assurance of halal products is important considering the progress of science and technology in various sectors that are growing rapidly. This is also felt by the people of Indonesia, considering that Indonesia is a country with the largest Muslim population in the world. The implementation of halal product guarantees in Indonesia is currently regulated in Law no. 33 of 2014 concerning Halal Product Guarantee (UUJPH). Halal has become part of the life of a Muslim. Halal aspects are very broad, such as food, beverages, medicines, cosmetics, and others. A Muslim's need for halal products should be supported by halal guarantees. However, not all of the products circulating in Indonesia are guaranteed to be halal. Muslim consumers include those who are disadvantaged by the large number of products without halal labels or non-halal information. This study uses a literature study, namely by collecting, reviewing, and analyzing various relevant data and information. The research shows that the government continues to strive to improve the halal product guarantee system in the process of examining the submitted data, examining the production process, laboratory, packaging, storage, transportation, distribution, marketing, presentation and determination of halal certification.

Keywords: Guarantee, Halal, Muslim, Indonesia

POTENTIAL USE OF THE LEGUME FLOURS IN GLUTEN-FREE FOODS

GLUTENSİZ GIDALARDA BAKLAGİL UNLARI KULLANIM OLANAKLARI

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Abstract

Today, the socio-economic status of the countries can be various by means of the effect of globalization. This effect greatly changes the nutritional habits of societies. However, despite this change, the cereal products have managed to preserve their place in nutrition as a result of their unique content. On the other hand, even though they are extremely important, the grains can be rarely have some detrimentl effects when consumed by individuals with certain hereditary diseases. One of these diseases is celiac disease, the prevalence of which varies between 1-2% in the world. The high incidence of celiac disease has led people to consume gluten-free food and the alternative methods have been developed by researchers in the production of gluten-free foods. In order to increase the number and variety of gluten-free foods and to improve their nutritional profile and quality, legume flours attract the attention as an alternative ingredient. Legume flours are a good source of protein, carbohydrates, dietary fiber, vitamins, minerals and phytochemicals. In addition, if these are used as a part of the individuals' daily diet, they have properties that will positively affect human health, such as a reduction on the cardiovascular disease, diabetes, colon cancer and gastrointestinal disorders. Upon the various beneficial properties of the legumes, in recent years, especially chickpeas, lentils, peas, beans, cowpea and broad bean flours have been added into the gluten-free product formulations (bread, pasta, cake, biscuit, cookies etc.) and enriched the products and offered to celiac consumers. In this study, the effects of the functional and technological properties of the leguminous flours on gluten-free foods were investigated.

Keywords: Legume flours, gluten-free foods, celiac diseases

Özet

Günümüzde küreselleşmenin etkisiyle beraber ülkelerin sosyo-ekonomik durumları değişkenlik gösterebilmektedir. Bu etki toplumların özellikle beslenme alışkanlıklarını büyük ölçüde değiştirmektedir. Ancak bu değişime rağmen tahıl ürünleri eşşiz içeriği sayesinde beslenmedeki yerine koruyabilmeyi başarmıştır. Fakat son derece önemli olmalarına rağmen tahıllar, birtakım kalıtsal hastalıklara sahip bireyler tarafından tüketildiklerinde zararlı etkiler olabilmektedirler. Bu hastalıklardan birisi de dünyada görülme sıklığı %1-2 arasında değişkenlik gösteren çölyak hastalığıdır. Çölyak hastalığının görülme sıklığının yüksek olması, kişileri glütensiz gıda tüketimine yöneltmiş ve glütensiz gıdaların üretiminde alternatif yöntemler araştırmacılar tarafından geliştirilmiştir. Glutensiz gıdaların sayı ve çeşitliliğinin arttırılması, besinsel profilinin ve kalitesinin iyileştirilmesi amacıyla baklagil unları alternatif bileşen olarak dikkatleri üzerine çekmektedir. Baklagil unları protein, karbonhidrat, diyet lifi, mineraller ve fitokimyasallar bakımından iyi bir kaynaktır. Ayrıca bireylerin günlük diyetlerinin bir parçası olması durumunda kalp-damar hastalığı, diyabet, kolon kanseri ve

gastrointestinal bozukluklarda azalma gibi insan sağlığını olumlu yönde etkileyecek özelliklere sahiptir. Baklagillerin sahip olduğu birçok faydalı özelliğinden dolayı son yıllarda özellikle nohut, mercimek, bezelye, fasulye, börülce, bakla unları glütensiz ürün formülasyonlarına (ekmek, makarna, kek, bisküvi) ilave edilip ürünleri zenginleştirirerek çölyaklı tüketicilerin beğenilerine sunulmaktadır. Bu araştırmada baklagil unlarının fonksiyonel ve teknolojik özelliklerinin glütensiz gıdalar üzerine etkileri araştırılmıştır.

Anahtar Kelimeler: Baklagil unları, glutensiz gıdalar, çölyak hastalığı

THERAPEUTIC EFFECTS OF ANTIOXIDANTS IN THE PREVENTION AND MANAGEMENT OF OBESITY

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Abstract

Obesity, a chronic disease, occurs as a result of excessive dietary calorie intake and the release of high free fatty acids concentrations into various human organs. Obesity can cause systemic, hormonal, metabolic, aesthetic, psychologic, and social problems as well as an increasing effect on morbidity and mortality. However, obesity is characterized by increased chronic oxidative stress. Oxidative stress reflects an imbalance among reactive oxygen species such as superoxide radicals, hydroxyl radicals, and hydrogen peroxide. Long-term reactive oxygen species accumulating in the tissues cause irreparable damage to the cell. Numerous studies demonstrate a strong relationship between obesity and oxidative stress. In obese patients, there is an increase in the accumulation of pro-oxidants and a decrease in antioxidant defense mechanisms. Antioxidants, the most important bioactive compounds naturally found in foods, prevent oxidative stress and its complications. Natural antioxidant compounds are divided into two enzymatic (superoxide dismutase, catalase, and glutathione peroxidase) and nonenzymatic (vitamins, minerals, polyphenols, carotenoids, proteins, and non-protein). Plants such as vegetables, and fruits include primary polyphenols (polyphenolic acids, flavonoids, curcumin, etc.), vitamins (E and C), and minerals (Se, Mn, Cu and Zn) as antioxidants. Antioxidants have a therapeutic role in ameliorating obesity and associated comorbidities due to modulating dynamic cellular targets and processes to improve the redox imbalance in obese patients. Antioxidants have positive effects in the management of obesity with different mechanisms the following i) regulation of enzymes, gut microbiota and energy expenditure, ii) suppression of appetite and controlling the diet iii) differentiation of adipocytes and iv) inhibition of lipid absorption. Thus, these compounds support weight loss and the reduction of metabolic disorders. In the present study, information about the therapeutic effects of natural antioxidants in the prevention and treatment of obesity will be given.

Keywords: Therapeutic effect, antioxidants, obesity, oxidative stress

THE EFFECT OF OMEGA-3 FATTY ACID METABOLISM ON INSULIN RESISTANCE AND OBESITY-ASSOCIATED DISORDERS

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Abstract

High-fat diets cause accumulation of body fat and obesity by being the source of changes in insulin sensitivity, glucose intolerance, hyperinsulinemia, type 2 diabetes, and changes in lipid metabolism. Insulin resistance is defined as not showing its biological effects although insulin is found in the body. Scientific findings indicate that insulin resistance is linked to inflammation. Growing and enlarging adipocytes which are found in individuals with obesity leads to an increase in inflammatory adipokines production, such as leptin, Interleukin-6 (IL-6), and tumor necrosis factor (TNF-ALFA), while the decrease of adiponectin and insülin-sensing adipokines production. Those changes in adipokines affect energy metabolism, too. Numerous studies have shown that TNF-alpha has an impact on the consumption of glucose by inhibiting phosphorylation of insulin receptor phosphorylation and also IL-6 stopped the lipoprotein lipase activity which results in the increase of insulin and increase of fatty acids in the bloodstream. Omega-3 (n-3FAs) fatty acids are bioactive lipids that have anti-inflammatory features against inflammation underlying the etiopathogenesis of insulin resistance. It has been determined that dietary omega-3 polyunsaturated fatty acids inhibit the development of insulin resistance. Omega-3 polyunsaturated fatty acids (PUFAs) include α-linoleic asit (ALA, C18:3n-3), eicosapentanoicacid (EPA, C20:5n:3), and docosahexaenoic acid (DHA, C22:6n-3), which are essential and often found in seafood. ALA is converted to EPA or DHA after ingestion into human tissues, but the conversion pathways of ALA to EPA and DHA are very slow. Therefore, EPA and DHA must be obtained through the diet. n-3 fatty acids increase the concentration of adiponectin, as well as the effects of insülin-sensitive genes such as peroxisome proliferator active receptor gamma (PPAR-gamma) and insulin receptor substrate-1 (IRS-1) in the adipose tissue glucose transporter type-4 (GLUT-4) in the liver. In addition, it has positive effects on insulin sensitivity by providing expression. Meanwhile, it should be noted that factors that

modulate the bioavailability of omega-3, such as lipid forms and/or the presence of other nutrients, may be critical.

Keywords: Insulin resistance, omega-3 fatty acids, obesity, inflammation

BAKLAGİLLERDEN (BÖRÜLCE, BAKLA) İZOLE EDİLEN VE TANIMLANAN LAKTİK ASİT BAKTERİLERİNİN YOĞURT ÜRETİM POTANSİYELLERİNİN BELİRLENMESİ

DETERMINATION OF YOGURT PRODUCTION POTENTIALS OF LACTIC ACID BACTERIA ISOLATED AND IDENTIFIED FROM LENTİLS AND BEANS

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Özet

Gıda proseslerinin temel amacı geleneksel gıdaların, özgün/geleneksel özelliklerini koruyarak sanayi sürecinden geçirilmesini sağlamaktadır. Yoğurt başlıca geleneksel fermente süt ürünlerimiz arasındadır. Ülkemizde en eski geleneksel fermente ürünlerimizden biri olan olan yoğurt, yurt dışından ithal edilen ticari kültürler kullanılarak, günümüzde ileri teknoloji uygulayan sınırlı sayıda firma tarafından üretilmektedir. Geleneksel olarak evlerde ya da küçük ölçekli işletmelerde üretilen yoğurtlarda çoğu zaman bir önceki üretimden kalan yoğurt kültür olarak kullanılmaktadır. Bu durumda geleneneksel üretimlerde kalite ve standardizasyon sürekliliği sağlanamamaktadır. Kalite ve standardizasyonda sürekliliğin sağlanmasında starter kültür kullanılması önemlidir. Aynı zamanda kontrolsüz üretimlerde gelişebilecek mikrobiota kontrol etmek mümkün değildir. Gelişen mikrobiyota, yoğurt kalitesi ve insan sağlığı için riskler değildir. Laktik asit bakterileri gıda endüstrisinde genellikle starter kültür olarak kullanılmaktadırlar. LAB'ların endüstriyel uygulamaları düşünüldüğünde, suş bazında güvenilir tiplendirme yöntemleri hem starter kültürlerin performanslarının incelenmesinde hem de fonksiyonel gıda ürünlerinde katkı maddesi olarak kullanılacak olan kültürlerin incelenmesinde önem kazanmaktadır. Bu çalışmada, baklagillerde (börülce, bakla) izole edilen laktik asit bakterilerinin yoğurt üretim potansiyellerinin belirlenmesi amaçlanmıştır. Dört farklı suşun ekzopolisakkarit (EPS), proteolitik aktivite ve asidifikasyon özellikleri belirlenmiş ve dört farklı yoğurt kombinasyonu hazırlanmıştır. Üretilen yoğurt örnekleri, kontrol örnek olarak kullanılan ticari yoğurtla karşılaştırıldığında fizikokimyasal (pH, titre edilebilir asitlik, kuru madde, serum), bakteri sayısı ve duyusal değerlendirmeleri yakın bulunmuştur. Saklama süresi boyunca toplam laktik asit bakterisi sayısı 10^7CFU/g' değerinden yüksek bulunmuştur Farklı. bakteri kombinasyonundan oluşan yoğurtların duyusal analiz sonuçları istatiksel olarak farklı olduğu belirlenmiştir ($p<0.05$). Sonuç olarak baklagillerden izole edilen starter kültürlerin yoğurt üretim potansiyeline sahip olduğu belirlenmiştir. Elde edilen sonuçlar baklagilllerden izole edilen laktik asit bakterilerinin ileride oluşturulacak mikrobiyal koleksiyona dahil edilebileceğini göstermiştir.

Anahtar Kelimeler: Starter kültür, proteolitik aktivite, EPS (ekzopolisakkarit), asidifikasyon

Abstract

The main purpose of food processes is to ensure that traditional foods are passed through the industrial process while preserving their original/traditional characteristics. Yogurt is among our main traditional fermented milk products. Yogurt, one of the oldest traditional fermented products in our country, is produced by a limited number of companies using advanced technology using commercial cultures imported from abroad. In the yoghurts traditionally produced at home or in small-scale enterprises, the yoghurt leftover from the previous production is often used as culture. In this case, the continuity of quality and standardization cannot be ensured in traditional productions. It is important to use starter culture to ensure continuity in quality and standardization. At the same time, it is not possible to control the microbiota that can develop in uncontrolled production. The developing microbiota is not a risk to yogurt quality and human health. Lactic acid bacteria are generally used as starter cultures in the food industry. Considering the industrial applications of LABs, reliable strain-based typing methods gain importance both in examining the performance of starter cultures and in examining cultures to be used as additives in functional food products. In this study, it was aimed to determine the yoghurt production potential of lactic acid bacteria isolated from legumes (cowpea, bean). Exopolysaccharide (EPS), proteolytic activity and acidification properties of four different strains were determined and four different yogurt combinations were prepared. The physicochemical (pH, titratable acidity, dry matter, serum), bacterial count and sensory evaluations of the produced yoghurt samples were found to be close when compared to the commercial yoghurt used as a control sample. Total lactic acid bacteria count during the storage period was found to be higher than 107CFU/g' Different. It was determined that the sensory analysis results of yoghurts consisting of bacteria combination were statistically different ($p<0.05$). As a result, it was determined that starter cultures isolated from legumes have yogurt production potential. The results showed that lactic acid bacteria isolated from legumes can be included in the microbial collection to be established in the future.

Keywords: Starter culture, proteolytic activity, EPS (exopolysaccharide), acidification property 3-6 words.

GASTRONOMİK TUVAL: TABAK. TABAK SUNUMLARINA İLİŞKİN MUTFAK ŞEFLERİNİN GÖRÜŞLERİNİN BELİRLENMESİ

GASTRONOMIC CANVAS: PLATE. DETERMINING THE OPINIONS OF KITCHEN CHEFS ON PLATE PRESENTATIONS

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Özet

Tabak sunuları; mutfak şeflerinin kendilerini ifade edebilecekleri, yaratıcı kompozisyon oluşturabilecekleri, fikirlerini ve felsefelerini destekleyebilecekleri bir tuvale eş gibidir. Bu nedenle tabak sunumlarının sanatsal oluşumunda mutfak şefleri önemli bir yere sahiptir.

Bu araştırma mutfak şeflerinin tabak sunumu yaparken dikkat ettiği noktaları ve görüşleri belirlemek amacı ile yapılmıştır. Araştırmada nitel ve nicel yöntemlerin birlikte kullanıldığı karma araştırma modeli uygulanmıştır. Hem nicel hem de nitel yöntemlerin birlikte kullanılmasındaki amaç araştırmada elde edilen sonuçlara nitelikli hale getirmektir. Araştırmanın evrenini Türkiye'deki mutfak şefleri oluşturmaktadır. Araştırma için birincil veri toplanmasına ilişkin olarak fine dining hizmet veren birinci sınıf restoranların mutfak şefleri ile mülakat yapılmıştır. Araştırmada en az 10 ile 20 arasında mülakat yapılması hedeflenmiş ve 12 katılımcıya ait veriler değerlendirilmeye alınmıştır. Mülakat verileri veriler tekrar etmeye başlayınca veri toplama işlemi sonlandırılmıştır. Katılımcılar ŞEF1, ŞEF2, ŞEF3… şeklinde kodlanmıştır. Araştırmanın örneklemi, amaca yönelik örnekleme yöntemlerinden kriter (ölçüt) örnekleme yöntemiyle belirlenmiştir.

Araştırmada ilk olarak araştırılan konunun iyi bir şekilde ortaya konması için literatür taraması yapılmış olup keşfedici bir yaklaşım benimsenmiştir. Araştırma da veri toplama tekniği olarak nitel yaklaşımlardan yarı yapılandırılmış derinlemesine mülakat tekniği, nicel yaklaşımlardan ise anket toplama tekniği kullanılmıştır. Araştırma, 2022 yılı nisan ayında gerçekleştirilmiştir. Araştırma da kullanılan anket formu 16 ifadeden oluşurken yarı yapılandırılmış mülakat soruları ise 9 sorudan oluşmaktadır. Görüşmede kullanılacak olan anket formu ve yarı yapılandırılmış mülakat soruları literatür taraması sonucunda geliştirilerek kullanılmıştır.

Araştırmada mutfak şeflerinden toplanan anket verilerinin analizinde tanımlayıcı istatistiklerden frekans analizi kullanılmıştır. Mülakat ile ede edilen veriler ise betimsel içerik analizi ile değerlendirilmiştir.

Yapılan literatür taramasında tabak sunumlarına yönelik yapılmış çalışmalar bulunmaktadır, lakin tabak sunumunda mutfak şeflerinin görüşlerine yer verilen karma bir çalışmaya rastlanılmamış olup literatüre bu alanda katkı sağlanmak istemiştir.

Anahtar Kelimeler: Tabak, Tabak sunumu, Mutfak şefleri, Gastronomi

Abstract

Plate offerings; It is like a canvas where kitchen chefs can express themselves, create creative compositions, support their ideas and philosophies. For this reason, kitchen chefs have an important place in the artistic formation of plate presentations.

This research was carried out with the aim of determining the points and views that kitchen chefs pay attention to while serving dishes. A mixed research model, in which qualitative and quantitative methods were used together, was used in the research. The purpose of using both quantitative and qualitative methods together is to qualify the results obtained in the research. The universe of the research consists of kitchen chefs in Turkey. Regarding the primary data collection for the research, the kitchen chefs of the first class restaurants serving fine dining were interviewed. In the research, it was aimed to make at least 10 to 20 interviews and the data of 12 participants were evaluated. When the interview data started to repeat the data, the data collection process was terminated. Participants were coded as CHEF1, CHEF2, CHEF3…. The sample of the study was determined by criterion (criterion) sampling method, which is one of the purpose-oriented sampling methods.

In order to present the researched subject well, a literature review was made and an exploratory approach was adopted in the research. In the research, semi-structured in-depth interview technique from qualitative approaches and questionnaire collection technique from quantitative approaches were used as data collection technique. The research was carried out in April 2022. While the questionnaire used in the research consists of 16 statements, semi-structured interview questions consist of 9 questions. The questionnaire form and semi-structured interview questions to be used in the interview were developed and used as a result of the literature review.

In the study, frequency analysis, one of the descriptive statistics, was used in the analysis of the survey data collected from the kitchen chefs. The data obtained through the interview were evaluated with descriptive content analysis.

In the literature review, there are studies on plate presentations, but there was no mixed study that included the opinions of kitchen chefs in plate presentation, and it wanted to contribute to the literature in this area.

Keywords: Plate, Plate presentation, Culinary chefs, Gastronomy

MENU MANAGEMENT IN GASTRONOMY

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Abstract

This work is aimed to be a brief guide on how successful menu management should be. Therefore, principles of a successful menu managements are summarized and some of the related businesses in Alanya are visited to identify present situation of menu management. In restaurants, the first impression of the restaurant to the customer is affected by menu cards. Before the customer decide what to eat, they examine the menu card available on the table and then order the meal. The profit margin of the businesses may decrease due to poorly prepared menu cards. In order to prevent this problem, it is necessary for the restaurant managers to understand well what the menu card is, what purposes it serves and what the customer expects. In the first part of this study a brief information about the definition, history, scope, importance and principles of gastronomy is given. In the second part the history, structure, content, function, process, materials, planning, classification, production, safety, compatibility, pricing, cost control, evaluation, design and marketing of the menu are explained briefly. Finally, the menu management in Alanya is investigated with the visits to some of the Tourism and Municipality Certified Businesses.

This study is revealed the fact that although significant improvements on menu management are needed, sector in Alanya is reluctant and not complete in following good menu management principles and practices. As a result of this poor menu management economic losses and shut downs become inevitable.

Keywords: Menu Management, Menu Cards, Alanya

YENİ BİR KAVRAM ÖNERİSİ OLARAK ARKEOGASTRONOMİ VE ANADOLU MUTFAK KÜLTÜRÜNDEN BAZI ARKEOLOJİK İNCELEMELER

ARCHEOGASTRONOMY AS A NEW NOTION PROPOSAL AND SOME ARCHEOLOGICAL REVIEWS FROM ANATOLIAN CUISINE CULTURE

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Özet

Tarih boyunca insanlar farklı alanlarda birçok değişim ve dönüşüm yaşamış, bu dönüşümler çerçevesinde beslenme alışkanlıkları her zaman ilk sıralarda yer almıştır. Beslenme ihtiyacı toplumların kültürünü, inancını, coğrafi konumunu, ekonomisini, sosyolojik ve fizyolojik yapısını etkilemiştir. Gastronominin insanların yeme-içme eylemlerini ve beslenme şekillerini, kültürel bağlamda incelemesi, yemeğin fizyolojik ve kültürel bir ihtiyaç olarak ortaya çıkışını açıklamaktadır. Beslenme ihtiyacı geçmişten bugüne sürekli değişip gelişerek günümüz yeme-içme anlayışını etkilemiştir. Dolayısıyla tarihsel süreçte gıda üretiminin ve yeme-içme faaliyetlerinin geldiği nokta yemek tarihi araştırmacıları için merak konusu olmuş ve bu alanda birçok farklı çalışma yapılmıştır. Bunun yanında yemek tarihinin sağladığı bilgiler doğrultusunda paleodiyet gibi beslenme şekilleri ortaya çıkmıştır. Bu durum gastronomi ve tarih ilişkisinin insanların günlük yaşantısındaki pratik yönlerini yansıtmaktadır. Arkeoloji, tarih öncesi ve tarihi çağlarda yaşayan toplulukların yemek anlayışlarının ve beslenme şekillerinin ortaya çıkarılmasında büyük öneme sahiptir. Özellikle yazının kullanılmadığı dönemlerde insan iskeletleri, bitki kalıntıları, hayvan fosilleri, pişirme ve depolamada kullanılan araç gereçler gıda tüketimlerine dair önemli kanıtlar sağlar. Ulaşılan verilerin arkeometrik analizler doğrultusunda incelenmesiyle yemek tarihi daha sağlam bir zemine oturmaktadır. Anadolu'nun Neolitik çağın başlangıcı ve dünyada tarımın yapıldığı ilk topraklar olması hem tarihsel hem de gastronomik açıdan zenginliğini ortaya koymaktadır. Tarımsal üretime bağlı yerleşik hayata geçişle birlikte bu dönemde insanların beslenme alışkanlıklarının ve mutfak kültürünün daha net şekillendiği görülmektedir. Çalışmanın amacı, yemek tarihi araştırmalarına arkeometrik analizler üzerinden bir yaklaşım sağlamaktır. Gastronominin tarihle ilişkisini, pozitif bilimlerle ve arkeometrik analizlerin yorumlanması ile ele almaktır. Bu doğrultuda arkeolojideki gastronomik etkileri daha somut, ölçülebilir ve güvenilir bilgilerle inceleyerek yemek tarihçiliğine farklı bir bakış açısı sunmaktır. Çalışma aynı zamanda Anadolu'nun özellikle tarih öncesi çağlarının çeşitli arkeoloiik alanlarından örnekler sunarak, kavramsal çerçeveyi anlaşılır kılmaya çalışmaktadır. Sonuç olarak Anadolu'nun tarih öncesi çağların beslenme şekline ve gıda üretimine dair önemli ipuçları barındırdığı ortaya çıkmıştır. Özellikle neolitik döneme ait birçok ürünün ve üretim yönteminin çıkış yeri olduğu görülmektedir. Yemek tarihi araştırmalarında ise, arkeolojik bulguların ve analiz sonuçlarının birincil kaynak olarak kullanımının yetersiz kaldığı, Türkiye'deki alanyazında, araştırmaların yüzeysel ve tekrarlayıcı çalışmalar olduğu anlaşılmıştır. Tarih öncesi çağların mutfak kökeniyle

ilgili çalışmalarda ise arkeometrik analizler çerçevesinde yapılan değerlendirmelerin daha doğru ve güvenilir çalışmalar ortaya çıkaracağı düşünülmektedir.

Anahtar Kelimeler: Gastronomi, Yemek Tarihi, Beslenme, Arkeoloji, Arkeometri

Abstract

Throughout history, people have experienced many changes and transformations in different areas, and within the framework of these transformations, their eating habits have always been in the first place. Nutritional needs have affected the culture, belief, geographical location, economy, sociological and physiological structure of societies. The fact that gastronomy examines people's eating-drinking actions and eating habits in a cultural context explains the emergence of food as a physiological and cultural need. The fact that the nutritional need has been in constant development and change from the past to the present has affected today's understanding of eating and drinking. Therefore, the point of food production and eating and drinking activities in the historical process has been a matter of curiosity for food history researchers and many different studies have been carried out in this field. In addition, in line with the information provided by the history of food, diets such as paleodiet have emerged. This situation reflects the practical aspects of the relationship between gastronomy and history in people's daily lives. Archeology is of great importance in revealing the food understanding and diet of communities living in prehistoric and historical ages. In this context, human skeletons, plant remains, animal fossils, tools used in cooking and storage provide important evidence of food consumption, especially during periods when writing is not used. By examining the obtained data in line with archaeometric analysis, the history of food is on a more solid ground. The beginning of the Neolithic Age and the fact that Anatolia is the first land where agriculture was made in the world reveals its richness both in terms of history and gastronomic. With the transition to settled life depending on agricultural production, it is seen that people's eating habits and culinary culture have been shaped more clearly in this period. The aim of the study is to provide an approach to food history research through archaeometric analysis. To deal with the relationship between gastronomy and history with positive sciences and interpretation of archaeometric analysis. In this direction, it is to present a different perspective to food historiography by examining the relationship between archeology and gastronomy with more concrete, measurable and reliable information. The study also tries to make the conceptual framework understandable by presenting examples from various archeological areas of Anatolia, especially from the prehistoric ages. As a result, it has been revealed that Anatolia contains important clues about the diet and food production of prehistoric times. It is seen that it is the origin of many products and production methods, especially from the Neolithic period. In food history research, it has been observed that the use of archaeological findings and analysis results as primary sources is insufficient, and that the researches are superficial and repetitive, especially in the literature in Turkey. In studies on the culinary origins of prehistoric times, it is thought that the evaluations made within the framework of archaeometric analyzes will reveal more accurate and reliable studies.

Keywords: Gastronomy, Food History, Nutrition, Archeology, Archeometry

Campylobacter jejuni İNHİBİSYONUNDA MİNİMUM ÖGENOL KONSANTRASYONUNUN TESPİT EDİLEREK GIDA GÜVENLİĞİ AÇISINDAN İNCELENMESİ

INVESTIGATION OF POULTRY MEAT SAFETY BY DETERMINING THE MINIMUM EUGENOL CONCENTRATION AGAINST Campylobacter Jejuni

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Özet

Kanatlı endüstrisi, arazi kullanımındaki avantajlar, hızlı üretim ve yem teknolojisindeki gelişmeler nedeniyle en hızlı büyüyen endüstrilerden birisidir. Doymuş yağ asitleri bileşiminin ve üretim maliyetlerinin daha düşük olması nedeniyle, 1960 yılından bu yana kişi başı yıllık kanatlı et tüketimi tercihi dünya genelinde giderek artmış ve 2030 yılına kadar da artmaya devam edeceği öngörülmüştür. Kanatlı eti tüketimindeki bu hızlı artış, sağlık profesyonellerinin gıda güvenliği konusundaki endişelerini de giderek arttırmaktadır. Günümüzde, gıda kaynaklı hastalıkların dünya genelinde en sık bakteriyel nedeninin *Campylobacter jejuni* olduğu ve insanlar için ana kontaminasyon kaynağının tavuk eti olduğu bilinmektedir. Gıda güvenliği metodolojisindeki önemli ilerlemelere rağmen, *C. jejuni* özellikle gelişmiş ülkelerde yaygın bir gıda kaynaklı patojen olmaya devam etmektedir. Üstelik son 10 yılda Avrupa popülasyonunda antibiyotik dirençli *Campylobacter* türlerinin giderek arttığı bilinmektedir. Yüksek genomik plastisitesi sayesinde, *C. jejuni* antimikrobiyal ajanlara karşı hızlı bir şekilde direnç geliştirebilmektedir. Bu yüzden Dünya Sağlık Örgütü, yeni antimikrobiyallerin geliştirilmesinde *Campylobacter* türlerini öncelikli patojenlerden biri olarak listelemektedir. Bu sebeple bu çalışma, karanfil esansiyel yağının temel fenolik bileşeni olan ögenolün, hem mikrobiyolojik besiyerinde hem de tavuk eti besin modelinde izole ve standart *C. jejuni* suşlarına karşı duyarlılığını değerlendirmeyi amaçlamıştır. Tavuk etinden izole edilen ve ulusal mikrobiyoloji laboratuvarından temin edilen *C.jejuni* suşları için, broth mikrodilüsyon yöntemi ile ögenole ait minimum inhibitör konsantrasyon (MIK) değerleri sırasıyla 640 μg/mL ve 1280 μg/mL olarak tespit edilmiştir. Ardından gamma iyonize radyasyon tekniği ile sterilize edilen tavuk eti örneklerine izole ve standart *C. jejuni* inokülasyonu yapılarak besin model sistemi oluşturulmuştur. Bakteriyel inokülasyon sonrası tavuk etleri buzdolabı sıcaklığında MIK, 4xMIK ve 8xMIK düzeyinde ögenol ile 1 gün, 3 gün ve 7 gün boyunca marine edilmiştir. Kontrol grubuna kıyasla, ögenol içeren çözelti ile 7 gün boyunca marine edilen tavuk etlerindeki izole *C. jejuni* yükünün doza bağımlı olarak yaklaşık 1 log CFU/örnek düzeyinde, standart *C. jejuni* yükünün ise yaklaşık 4.5 log CFU/örnek düzeyinde azaldığı tespit edilmiştir. Ögenolün hem mikrobiyolojik besiyerinde hem de tavuk eti besin modelinde anti-campylobacter aktivitesi istatistiksel olarak anlamlı bulunmuştur. Ögenolün antimikrobiyal aktivitesine dair önemli literatür bulguları mevcuttur. Ancak bugüne kadar *Campylobacter* türlerine karşı aktivitesini rapor eden çok az sayıda çalışma yürütülmüştür. Bu yüzden, ögenolün anti-campylobacter aktivitesi kapsamlı araştırmalar ile doğrulanmalı, efektif konsantrasyonu azaltacak yeni formülasyonlar/stratejiler geliştirilmeli ve kanatlı endüstrisindeki olası doğal koruyucu ajan rolü aydınlatılmalıdır.

Anahtar Kelimeler: C. jejuni, Ögenol, Karanfil yağı, Gıda güvenliği

Abstract

The poultry industry is one of the fastest growing industries due to advantages in land use, rapid production and advances in feed technology. Since lower saturated fatty acid composition and lower production costs, poultry meat consumption per capita has increased worldwide since 1960 and is projected to increase until 2030. The rapid increase in poultry meat consumption has also increased the concerns of health professionals about food safety. Today, it is known that *Campylobacter jejuni* is the most common bacterial cause of foodborne diseases worldwide, and chicken meat is the main source of contamination for humans. Despite significant advances in food safety methodology, *C. jejuni* remains a common foodborne pathogen, particularly in developed countries. Moreover, it is known that antibiotic resistant *Campylobacter* species have been increasing in the European population for the last 10 years. The World Health Organization has therefore listed *Campylobacter* species as one of the priority pathogens for the development of new antimicrobials. This study aimed to evaluate the susceptibility of eugenol, the main phenolic component of clove essential oil, to chicken meat isolates and standard *C. jejuni* strains in both microbiological medium and chicken meat model. The minimum inhibitory concentration (MIC) of eugenol was determined as 640 µg/mL and 1280 µg/mL, respectively, by broth microdilution method against *C.jejuni* strains isolated from chicken meat and obtained from the national microbiology laboratory. Afterwards, a food model system was created by inoculating isolated and standard *C. jejuni* on chicken meat samples sterilized by gamma irradiation technique. After bacterial inoculation, chicken meats were marinated at refrigerator temperature with eugenol at MIC, 4xMIC and 8xMIC levels for 1, 3 and 7 days. Compared to the control group, it was determined that the chicken isolate *C. jejuni* load in chicken meat marinated for 7 days with eugenol-containing solution was dose-dependently decreased by about 1 log CFU/sample, while the standard *C. jejuni* load was reduced by about 4.5 log CFU/sample. Anti-campylobacter activity of eugenol was found statistically significant in both microbiological medium and chicken meat model. There are substantial literature findings on the antimicrobial activity of eugenol. However, limited studies have been conducted to date reporting its activity against *Campylobacter* species. Therefore, the anti-campylobacter activity of eugenol should be confirmed by further research, new formulations/strategies to reduce the effective concentration should be developed, and possible role of eugenol as a natural protective agent in the poultry industry should be clarified.

Keywords: C. jejuni, Eugenol, Clove oil, Food safety

REFLECTION OF THE RELATIONSHIP BETWEEN EATING BEHAVIOR AND FOOD CHOICE ON DIFFERENT BODY MASSES

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Abstract

Introduction: Eating behavior is affected by many biological, psychological, sociocultural and environmental factors, and it also has an impact on the health of individuals by influencing their food choices.

Objective: In this study, the aim was to evaluate the eating behavior and food choice of adults with different body mass indexes (BMI).

Methods: A total of 124 adults, aged 19 to 54 years, 45 men (36.3%) and 79 women (63.7%) participated in the study. With the questionnaire form, demographic characteristics, body weight and height of the individuals were questioned. Three-factor eating questionnaire (TFEQ-Tr21) was used to evaluate eating behavior and food choice questionnaire scales were used to assess motivations for food choice. Individuals were evaluated according to the BMI classification.

Results: Out of total, 31.5% of the participants had normal weight, 29.8% of them were in overweight and 38.7% were in obese classification. Emotional eating score from the three-factor eating questionnaire subgroup was found to be higher in overweight and obese individuals than those with normal body weight ($p<0.05$). Uncontrolled eating score from the three-factor eating questionnaire subgroup was found to be higher in overweight individuals than in obese and normal body weight individuals ($p<0.05$). The three most important factors affecting food choice were found to be natural content, sensory appeal and convenience in normal weight individuals, sensory appeal, natural content and weight control in overweight individuals, and sensory appeal, convenience and mood in obese individuals. A significant positive correlation was found between uncontrolled eating and sensory appeal and between cognitive restriction and health, natural content and weight control subgroups. In addition, It was found that BMI had a positive relationship with emotional eating and negative relationship with weight control ($p<0.05$).

Conclusion: According to the results obtained from the study, it was seen that there is a relationship between eating behavior and food choice, and food choice motivations and eating behaviors change according to BMI classifications of individuals.

Keywords: eating behavior, food choice, body mass index

AKADEMİSYENLERİN BESLNEME OKURYAZARLIĞI DÜZEYİ

NUTRITIONAL LITERACY LEVEL OF ACADEMICIANS

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Özet

Bu araştırmayla, akademisyen olarak görev yapan yetişkin bireylerin beslenme okuryazarlığı düzeyinin ölçülmesi amaçlanmıştır.

Araştırma nicel bir araştırma olup, genel tarama modelinde ve Türkiye'nin çeşitli şehirlerinde bulunan üniversitelerde görev yapan 119 gönüllü akademisyen ile gerçekleştirilmiştir. Araştırmanın veri toplama aracı olarak genel bilgi formu (ünvan, hizmet süresi vb) ve B. Cesur tarafından geliştirilen "Yetişkinlerde Beslenme Okuryazarlığı" ölçeği kullanılmıştır. Araştırma için İstanbul Gelişim Üniversitesi Etik Kurul Başkanlığı'ndan 2021-33 sayılı etik kurul onayı alınmıştır. Veriler pandemi dolayısıyla elektronik ortamda toplanmıştır. Verilerin analizinde SPSS 24.0 Programı kullanılmıştır. Çalışmada cinsiyete göre BKİ (beden kitle indeksi) sınıflandırılması ile birlikte cinsiyete, akademik unvana ve BKİ sınıflandırılmasına göre beslenme okuryazarlığı düzeyi araştırılmıştır.

Araştırmaya katılan 119 gönüllüden %65,5'i (78) kadın %34,5'i (41) erkektir ve yaş ortalamaları 39,31±12,76'dır. Katılımcılardan %53,8'inin hizmet süresi 0-5 yıl, %20,2'sinin 6-10 yıl, %16,8'inin 11-15 yıl, %9,1'inin 21 yıl ve üzeridir. Katılımcıların boy ve kilo bulguları ile hesaplanan BKİ sonuçlarına göre %17,6'sı zayıf, %42,9'u normal, %2,.6'sı kilolu ve %10,9'u obezdir. Katılımcıların %22,7'si araştırma görevlisi, %25,2'si öğretim görevlisi, %41,2'si doktor öğretim üyesi, %2,5'i doçent ve %8,4'ü profesördür. Katılımcıların beslenme okuryazarlığı düzeyleri incelendiğinde %6,7'sinin sınırda, %93,3'ünün yeterli düzeyde olduğu görülmüştür. Beslenme okuryazarlığı yetersiz düzeyde ölçülen hiçbir katılımcı bulunmamaktadır. Veriler incelendiğinde, cinsiyete göre BKİ sınıflaması arasında istatistiksel olarak anlamlı ilişki bulunmuştur ($p<0,05$). Erkek akademisyenlerde kadın akademisyenlere göre kilolu ve şişman bireylerin daha fazla sayıda olduğu gözlemlenmiştir. Cinsiyete göre okuryazarlık düzeyleri arasında istatistiksel olarak anlamlı ilişki bulunmuştur ($p<0,05$). Kadın akademisyenlerin erkek akademisyenlere oranla beslenme okuryazarlık düzeyinin yüksek olduğu saptanmıştır. Akademik unvan ile beslenme okuryazarlığı arasında ve BKİ sınıflaması ile beslenme okuryazarlığı arasında istatistiksel olarak anlamlı fark yoktur ($p>0,05$).

Araştırmanın sonucunda; katılımcıların beslenme okuryazarlığı düzeyleri genel anlamda yüksek olduğu görülmüştür. Bu durumun araştırma grubunun eğitim düzeyi yüksek bireylerden oluşmasına bağlı olduğu düşünülmektedir. Bu yüksek düzeye rağmen BKİ sınıflandırmasına göre katılımcıların azımsanamayacak bir kısmının (%39,5) kilolu ve obez (şişman) olduğu gözlemlenmiştir. Bu durumun akademisyenlerin sağlıklı beslenme bilgisinin yeterli olduğunu ancak sağlıklı beslenme uygulamalarında yetersiz olduklarını düşündürmektedir. Bunun nedeni çalışma şartlarına bağlı aktivite düzeyinin düşük olması, sağlıklı besinlere istedikleri zamanda ve istedikleri kalitede ulaşamamaları olabilir. Bu bağlamda akademisyenlerin hareketli yaşam

ve sağlıklı beslenme ile ilgili uygulamalı eğitim alarak yaşam tarzının değiştirmesi ve üniversitelerin akademisyenlere sağlıklı besin seçenkeleri sunmasına yönelik düzenlemeler yapılmasının faydalı olacağı düşünülmektedir.

Anahtar Kelimeler: Beslenme okuryazarlığı, akademisyenler, beden kitle indeksi

Abstract

With this research, it is aimed to measure the nutritional literacy level of adult individuals working as academicians.

The research is a quantitative study and was carried out with 119 volunteer academicians working in universities in various cities of Turkey and in the general survey model. General information form (title, length of service, etc.) and "Nutrition Literacy of Adults" scale developed by B. Cesur were used as data collection tools of the research. Ethics committee approval numbered 2021-33 was obtained from Istanbul Gelisim University Ethics Committee Presidency for the research. Data were collected electronically due to the pandemic. SPSS 24.0 Program was used in the analysis of the data. In the study, the level of nutritional literacy was investigated according to gender, academic title and BMI classification, together with the classification of BMI (body mass index) according to gender.

Of the 119 volunteers participating in the study, 65.5% (78) were female, 34.5% (41) were male, and the mean age was 39.31±12.76 years. Service period of 53.8% of the participants is 0-5 years, 20.2% of them 6-10 years, 16.8% of them 11-15 years, 9.1% of them 21 years or more. According to the BMI results calculated by the height and weight findings of the participants, 17.6% were underweight, 42.9% were normal, 2.6% were overweight and 10.9% were obese. 22.7% of the participants are research assistants, 25.2% are lecturers, 41.2% are doctors, 2.5% are associate professors and 8.4% are professors. When the nutritional literacy levels of the participants were examined, it was seen that 6.7% were at the border and 93.3% were at a sufficient level. There were no participants whose nutritional literacy was inadequately measured. When the data were analyzed, a statistically significant relationship was found between BMI classification according to gender ($p<0.05$). It has been observed that the number of overweight and obese individuals is higher in male academicians than female academicians. A statistically significant relationship was found between literacy levels by gender ($p<0.05$). It has been determined that the nutritional literacy level of female academicians is higher than male academicians. There was no statistically significant difference between academic title and nutritional literacy, and between BMI classification and nutritional literacy ($p>0.05$).

As a result of the research; The nutritional literacy levels of the participants were found to be high in general. It is thought that this situation is due to the fact that the research group consists of individuals with a high level of education. Despite this high level, it was observed that a substantial part of the participants (39.5%) were overweight and obese (obese) according to BMI classification. This situation makes us think that the healthy nutrition knowledge of academicians is sufficient, but they are insufficient in healthy nutrition practices. The reason for this may be the low level of activity due to working conditions, and the inability to reach healthy foods at the time they want and in the quality they want. In this context, it is thought that it will be beneficial for academicians to change their lifestyle by receiving practical training on active life and healthy nutrition, and to make arrangements for universities to offer healthy food options to academics.

Keywords: Nutrition literacy, academics, body mass index

GASTRONOMİ ve MUTFAK SANATLARI BÖLÜMÜ ÖĞRENCİLERİNİN GASTRONOMİK AKIMLAR ÇERÇEVESİNDE GIDA TÜKETİMİNİN BELİRLENMESİ ÜZERİNE BİR ARAŞTIRMA

A RESEARCH ON THE DETERMINATION OF FOOD CONSUMPTION IN THE FRAMEWORK OF GASTRONOMIC TRENDS OF STUDENTS OF GASTRONOMY AND CULINARY ARTS

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Özet

Gastronomi sürekli değişen ve gelişen bir alan olmakla beraber toplum içerisinde ve bireyler arasında trend adı verilen bazı popüler mutfak akımları ile anılmaktadır. Bunlar ülkelerarası mutfak kültürlerinin birleşimi ile ortaya çıkan ‘‘füzyon mutfak’’, fizik bilimi ve modern mutfağın birleşimi ile ortaya çıkan ‘‘moleküler mutfak’’ veya yöresel olarak tercih edilebilecek olan ‘‘yerel mutfak’ gibi akımlardır. Bu akımlar yiyecek içecek işletmelerinde, menülerde seçenek olarak sunulduğunda tüketicinin dikkatini çekmekte ve işletmelerin kalkınması için de oldukça önem arz etmektedir. Sektörde istihdam edilecek olan gastronomi ve mutfak sanatları bölümü öğrencilerinin eğitim alırken kazandıkları bilgi, beceri ve deneyimi profesyonel mutfakta doğru ve etkili bir şekilde kullanabilmeleri ayrıca kişisel olarak bu akımlara ilgilerinin olup olmadığı ve tüketim sıklıkları da önem arz etmektedir. Bu nedenle araştırmanın amacı, gastronomi ve mutfak sanatları eğitimi almakta olan öğrencilerin *gastronomik akımlar çerçevesinde gıda tüketimi*nin belirlenmesidir. Bu amaç doğrultusunda nicel araştırma yöntemlerinden anket tekniği kullanılmış ve Karabük Üniversitesi Gastronomi ve Mutfak Sanatları bölümünde eğitim almakta olan lisans ve yüksek lisans olmak üzere 153 öğrenciye ulaşılmış fakat 147 öğrenci tüm sorulara cevap vermiştir. Anket soruları moleküler mutfak, füzyon mutfak ve yerel mutfak olmak üzere 3 ana akım üzerine yoğunlaşmış olup yeme eğilimliliği üzerine gerçekleştirilmiştir.

Araştırmaya katılan katılımcıların %58.5’i kadın, %41.5’i erkektir. Sınıf dağılımları incelendiğinde %25.9’u 1. Sınıf, %32.0’ı 2. Sınıf, %12.2’si 3. Sınıf, %24.5’i 4. Sınıf ve %5.4’ü lisans üstü öğrencisidir. Yiyecek içecek sektöründeki iş tecrübeleri incelendiğinde %34’ünün hiç iş tecrübesi olmadığı, %32’sinin 1-2 yıl, %15.6’sının 3-5 yıl, %8.8’nin 6-8 yıl, %5.4’nün 9-11 yıl ve %4.1’nin 12 yıl ve üzeri tecrübesi olduğunu bildirilmiştir. Moleküler mutfak yeme eğilimi sorularından *‘Yiyecek ve içeceklerin farklı pişirme yöntemleriyle hazırlanması ilgimi çeker’* sorusuna %51’i, *‘Sunumu farklı olan yiyecek ve içecekler beni etkiler*’ sorusuna %52.4’ü, *‘Yiyecek ve içeceği hazırlayan personelin hazırlamış olduğu yiyecek ve içecekler hakkında bilgi vermesi hoşuma gider’* sorusuna % 44.2’si *‘Kesinlikle Katılıyorum’* cevabını vermiştir. Füzyon mutfak yeme eğilimliliği sorularından *‘Bir tabakta farklı ulusların malzemelerini birleştiren lezzetleri tatmayı tercih ederim’* sorusuna %42.9’u, *‘Farklı kültürlere ait yiyecek ve içecek malzemelerinin bir araya getirilerek sıra dışı bir şekilde sunulan yiyecek ve içecekler ilgilimi çeker’* sorusuna %46.9’u ‘Katılıyorum’ cevabını vermiştir. Yerel mutfak yeme eğilimliliği sorularına ‘Yerel mutfak ile ilgili eğitimlere katılmak isterim’ sorusuna %47.6’sı, *‘Ziyaret ettiğim yerlerde denemiş olduğum yiyecek ve içecekleri daha sonra kendim de hazırlamak*

*isterim'*sorusuna %46.9'u, 'Yerel geleneklere göre yiyecek ve içecek hizmeti sunulan yerlerde deneyim elde etmek isterim' sorusuna %42.2'si, 'Yiyecek ve içecek ile ilgili festivallerde yerel yiyecek ve içecekleri denemeyi tercih ederim' sorusuna %46.9'u '*Kesinlikle Katılıyorum'* cevabını vermiştir.

Cevaplar incelendiğinde katılımcıların bu üç akım kapsamındaki uygulamalara katılım gösterme, deneme ve uygulama durumları yüksek oranlarda görülmektedir. Gastronomi öğrencilerinin moleküler mutfak, füzyon mutfak ve yerel mutfak yeme eğilimlerinin iş tecrübeleri ile arasında pozitif ilişki olduğu görülmektedir ($p<0.005$).

Anahtar Kelimeler: Gastronomi ve Mutfak Sanatları Eğitimi, Füzyon Mutfak, Moleküler Mutfak, Yerel Mutfak

Abstract

Although gastronomy is a constantly changing and developing field, it is referred to by some popular culinary trends, which are called trends, within the society and among individuals. These are trends such as "fusion cuisine" that emerged with the combination of international cuisine cultures, "molecular cuisine" that emerged with the combination of physical science and modern cuisine, or "local cuisine" that can be preferred locally. When these trends are presented as an option on the menus in food and beverage businesses, they attract the attention of consumers and are very important for the development of businesses. It is also important that the students of the gastronomy and culinary arts department, who will be employed in the sector, can use the knowledge, skills and experience they have gained while studying in the professional kitchen correctly and effectively, as well as whether they have a personal interest in these trends and their consumption frequency. For this reason, the aim of the research is to determine the food consumption of the students who are studying gastronomy and culinary arts within the framework of gastronomic trends. For this purpose, the survey technique, one of the quantitative research methods, was used and 153 undergraduate and graduate students studying at Karabük University Gastronomy and Culinary Arts department were reached, but 147 students answered all questions. The survey questions focused on 3 main trends, namely molecular cuisine, fusion cuisine and local cuisine, and were carried out on eating tendencies.

58.5% of the participants participating in the research were female and 41.5% were male. When the class distributions are examined, 25.9% are 1st year, 32.0% are 2nd year, 12.2% are 3rd year, 24.5% are 4th year and 5.4% are graduate students. When their work experience in the food and beverage industry is examined, 34% have no work experience, 32% have 1-2 years, 15.6% have 3-5 years, 8.8% have 6-8 years, 5.4% have 9-11 years. and 4.1% were reported to have 12 years or more of experience. From the molecular cuisine eating tendency questions, 51% to the question "Preparation of food and drinks with different cooking methods interests me", 52.4% to the question "Food and drinks with different presentations affect me", To the question "I would like the staff preparing the food and beverage to provide information about the food and beverages they have prepared", 44.2% of them answered "Strongly Agree". 42.9% of the fusion cuisine eating tendency questions were answered by the question "I prefer to taste flavors that combine the ingredients of different nations on a plate", 46.9% of the respondents answered "I agree" to the question "I am interested in the food and beverages that are presented in an extraordinary way by combining food and beverage materials from different cultures". To the questions of local cuisine eating tendency, 47.6% to the question "I would like to attend trainings on local cuisine", 46.9% to the question "I would like to prepare the food and beverages that I have tried in the places I visit later on", 42.2% of the respondents answered the question "I would like to gain experience in places where food and beverage services are served

according to local traditions”. To the question "I would prefer to try local food and beverages at festivals related to food and beverage", 46.9% of them answered "Strongly Agree".

When the answers are examined, it is seen that the participation of the participants in the applications within the scope of these three trends, their trial and application situations are high. It is seen that there is a positive correlation between the molecular cuisine, fusion cuisine and local cuisine eating tendencies of the gastronomy students and their work experience ($p<0.005$).

Keywords: Gastronomy and Culinary Arts Education, Fusion Kitchen, Molecular Kitchen, LocalCuisine

ANTIOXIDANT POTENTIAL OF TRAGOPOGON PORRIFOLIUS AND ITS ANTIBACTERIAL EFFECTIVENESS AGAINST BACILLUS CEREUS AND STAPHYLOCOCCUS AUREUS ISOLATED FROM FOOD

TRAGOPOGON PORRIFOLIUS'UN ANTİOKSİDAN POTANSİYELİ İLE GIDADAN İZOLE EDİLEN BACİLLUS CEREUS VE STAPHYLOCOCCUS AUREUS ÜZERİNE ANTİBAKTERİYEL ETKİNLİĞİNİN ARAŞTIRILMASI

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Abstract

According to the data of the World Health Organization in 2015, approximately 600 million people, that is, 1 out of every 10 people, experience food poisoning, and an average of 420.000 people die each year due to foodborne diseases. It has been reported that 240 thousand people in the U.S.A experience food-borne *S. aureus* poisoning each year. *B. cereus*-related poisoning cases were reported to be 4-5.5% between 2011 and 2015. The phytochemicals obtained from plants that have been consumed as food for centuries have various biological activities such as antimicrobial, and antioxidant. In our study, the antibacterial activity of the *Tragopogon porrifolius* (yemlik, tekesakalı), which is consumed raw or cooked among local people, against *S.aureus* and *B.cereus* isolated directly from food, was determined after 24 hours by five dilutions in 96 microplate wells. The experiments included treatment (test material, test bacteria and medium), positive control (antibiotic, and test bacteria), negative control (medium and test bacteria) groups, and blank wells (medium only). Chloramphenicol for *S.aureus* and gentamicin for *B.cereus* were used as positive control groups. In addition, the total antioxidant activity was tested with the DPPH method. It was observed that all treatment groups of *T. porrifolius* tested against *B. cereus* had low antimicrobial activity (31.92-2.87%). While the first dose of the infusion sample on *S. aureus* showed the highest inhibition with 67.67%, 50% inhibition was detected in the first dose of the room temperature sample. The decoction sample showed inhibition between 29.21-32.06% at all doses applied. In terms of percent DPPH activity, room temperature and infusion samples were found to be successful compared to decoction samples.

In our study, infusion and room temperature samples of *T. porrifolius* were found to have more successful antimicrobial activity against *S. aureus* than *B. cereus*, and were also found to be successful in DPPH activities.

Keywords: Foodborne diseases, antibacterial, antioxidant, *Tragopogon porrifolius, Bacillus cereus, Staphylococcus aureus.*

Özet

Gıda kaynaklı hastalıklar (GKH) özellikle çocuklar, yaşlılar, kronik hastalığa sahip bireyler ve sosyoekonomik durumu düşük ülkelerde yüksek risk oluşturmaktadır. World Health Organization (WHO)'nun 2015 yılındaki verilerine göre, yaklaşık 600 milyon insan yani her 10 kişiden 1'i gıda zehirlenmesi yaşamakta ve her yıl ortalama 420 bin kişi bu sebeple ölmektedir. GKH'da B. cereus ve S. aureus büyük bir öneme sahiptir. A.B.D.'de her yıl 240 bin kişinin gıda kaynaklı S. aureus zehirlenmesi yaşadığı bildirilmiştir. Yine, 2011-2015 arasında B. cereus kaynaklı zehirlenmelerin ise %4-5.5 oranında olduğu belirtilmiştir. Yüzyıllardır besin olarak tüketilen bitkilerin içerdiği fitokimyasalların antimikrobiyal, antioksidan gibi çeşitli biyolojik aktivitelere sahip olduğu bildirilmiştir. Çalışmamızda, halk arasında çiğ veya pişmiş olarak tüketilen Tragopogon porrifolius (yemlik, tekesakalı) bitkisinin demleme, kaynama ve oda sıcaklığı yöntemi ile elde edilen örneklerinin direct olarak gıdadan izole edilen S.aureus ve B.cereus izolatlarına karşı antibakteriyel etkinliği beş dilüsyon yapılarak, 96 kuyucuklu plakalarda, 24 saat sonunda test edilmiştir. Deney, uygulama (test materyali, test bakterisi ve besiyeri), pozitif kontrol (antibiyotik ve test bakterisi), negatif kontrol (besiyeri ve test bakterisi) gruplarını ve blank kuyucuklarını (sadece besiyeri) içerecek şekilde planlanmıştır. Pozitif kontrol grubu olarak, S.aureus için kloramfenikol ve B.cereus için gentamisin antibiyotikleri kullanılmıştır. Deneyler dört tekrarlı olacak şekilde gerçekleştirilmiştir. Ayrıca örneklerde toplam antioksidan aktivitesi DPPH yöntemi ile test edilmiş, kontrol grubu olarak L-askorbik asit kullanılmıştır. B. cereus üzerine yemlik bitkisine ait uygulanan örneklerin düşük antimikrobiyal aktiviteye (%31.92-2.87) sahip olduğu gözlenmiştir. Öte yandan, S. aureus üzerine demleme örneğinin ilk dozu %67.67 ile en yüksek inhibisyonu gösterirken, oda sıcaklığı örneğinin ilk dozunda %50 inhibisyon tespit edilmiştir. Kaynama örneği uygulandığı tüm dozlarda %29.21-32.06 arasında inhibisyon göstermiştir. Yüzde DPPH aktivitesi bakımından oda sıcaklığı ve demleme örnekleri kaynama örneklerine göre başarılı bulunmuştur. Çalışmamızda, T. porrifolius demleme ve oda sıcaklığı örneklerinin S. aureus üzerine B. cereus'a göre daha başarılı antimikrobiyal etkinliği tespit edilmiş olup, DPPH aktiviteleri bakımından da başarılı bulunmuştur.

Anahtar Kelimeler: Gıda kaynaklı hastalık, antibakteriyel, antioksidan, Tragopogon porrifolius, Bacillus cereus, Staphylococcus aureus.

KANSER RİSKİNİN DİYET GLİSEMİK İNDEKSİ VE GLİSEMİK YÜKÜ İLE İNSÜLİN İNDEKSİ VE İNSÜLİN YÜKÜ İLE İLİŞKİSİ

THE RELATIONSHIP BETWEEN CANCER RISK AND DIET GLYCEMIC INDEX, GLYCEMIC LOAD, INSULIN INDEX, AND INSULIN LOAD

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Özet

Sağlıklı beslenme alışkanlığının kazanılması ve sürdürülmesi kanser hastalığından korunmada büyük önem taşımaktadır. Diyabet, obezite ve kanser gibi bazı kronik hastalıklarda yalnızca tüketilen besinin hacmi değil, aynı zamanda diyetin bileşimi ve kalitesi de ön plana çıkmaktadır. Mikro ve makro besin ögeleri ile kanser gelişimi arasındaki olası ilişkilerin belirlenmesi amacıyla araştırmalar yapılmıştır. Diyet karbonhidratları, bu konuda en dikkat çekici besin ögelerinden biridir. Literatür incelendiğinde özellikle kolorektal, mesane, meme, endometrium, karaciğer, pankreas ve prostat kanseri türleri gelişimi ile diyet glisemik indeksi, glisemik yükü, insülin indeksi ve insülin yükü arasındaki farklı bağlantılar dikkat çekmektedir.

Yüksek diyet glisemik indeksi, glisemik yükü, insülin indeksi ve insülin yükü serum insülininin ve insülin benzeri büyüme faktörü 1'in artmasına neden olmaktadır. İnsülin, hücre proliferasyonunu uyarabilmektedir ve hücre apoptozunu inhibe edebilmektedir. İnsülin benzeri büyüme faktörü 1 ise mitojenik etkiler gösterebilmekte, apoptozu inhibe edebilmekte ve gen ekspresyonunu düzenleyebilmektedir. Bu faktörler ayrıca adipoz dokudan leptin salgılanmasını uyarabilmektedir ve leptin hücre büyümesi ve proliferasyonunda yer aldığından, insülin dolaylı olarak kanser hücresi büyümesini ve proliferasyonunu teşvik edebilmektedir. Yüksek glisemik indeks ve glisemik yük içeriğine sahip diyet modelleri, glikoz metabolizmasını etkileyerek oksidatif stresin artmasına ve hücre proliferasyonunun uyarılmasına sebep olabilmektedir. Buna ek olarak yüksek glisemik indeks ve glisemik yük içeriğine sahip diyet modellerinin obezite ve diyabet gelişme riskini artırması nedeniyle dolaylı bir şekilde kanser gelişme riskini de arttırabileceği bilinmektedir.

Bu araştırmanın amacı diyet glisemik indeks ve glisemik yükü ile insülin indeksi ve insülin yükünün kanser gelişimi üzerine etkisinin ve potansiyel mekanizmalar ile yolakları dikkate alarak kanserle ilgili faktörlerin değerlendirilmesidir.

Anahtar Kelimeler: Glisemik indeks, Glisemik yük, İnsülin indeksi, İnsülin yükü, Kanser

Abstract

Acquiring and maintaining a healthy eating habit is of great importance in the prevention of cancer. In some chronic diseases such as diabetes, obesity, and cancer not only the volume of food consumed but also the composition and quality of the diet come to the fore. Studies have been carried out to determine the relationship between micro and macro nutrients and cancer development. Dietary carbohydrates are one of the most remarkable nutrients in this regard.

When the literature is examined, different connections between the development of colorectal, bladder, breast, endometrium, liver, pancreatic, prostate cancer types and dietary glycemic index, glycemic load, insulin index, insulin load draw attention.

High dietary glycemic index, glycemic load, insulin index, insulin load causes an increase in serum insulin and insulin-like growth factor 1. Insulin can stimulate cell proliferation and inhibit cell apoptosis. Insulin-like growth factor 1 can exert mitogenic effects, inhibit apoptosis and regulate gene expression. These factors can also stimulate leptin secretion from adipose tissue, and insulin can indirectly promote cancer cell growth and proliferation, as leptin is involved in cell growth and proliferation. Dietary models with a high glycemic index and glycemic load content can affect glucose metabolism, causing an increase in oxidative stress and stimulation of cell proliferation. In addition, it is known that diet models with a high glycemic index and glycemic load content may indirectly increase the risk of developing cancer, as they increase the risk of developing obesity and diabetes.

The aim of this study is to evaluate the effects of dietary glycemic index, glycemic load, insulin index, insulin load on cancer development, and factors related to cancer by considering potential mechanisms and pathways.

Keywords: Glycemic index, Glycemic load, Insulin index, Insulin load, Cancer

CHAGA MANTARININ KANSER TEDAVİSİNDEKİ ROLÜ

THE ROLE OF CHAGA MUSHROOM IN CANCER TREATMENT

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Özet

Kanser; prognoz, tanı ve tedavisindeki gelişmelere rağmen dünya genelinde hastalıkla ilişkili ölüm nedenleri arasında ikinci sırada yer almaktadır. Yaşam tarzı ve beslenme alışkanlıklarındaki olumlu değişikliklerle ve uygun besin takviyeleri yardımıyla kansere bağlı ölümlerin %30'undan fazlası önlenebilmektedir. Adaptojenlerin çeşitli hastalıklarda potansiyel kullanımları ve tedavideki etkinliği üzerine uzun yıllardır araştırmalar yapılmaktadır. Chaga mantarları (Inonotus obliquus), Hymenochaetaceae familyasına ait bir tür adaptojenlerdir. Chaga mantarı; çapı 10 ile 20 cm arasında değişen, içi kahverengi renkte olan, dıştan kömüre benzeyen, düzensiz çatlaklı, siyah-kahverengimsi, sert, kırılgan bir mantardır. Özellikle Kanada, Amerika Birleşik Devletleri'nin kuzeyi, Kazakistan, Sibirya, Ukrayna, Japonya, Güney Kore, Çin ve Avrupa'da (çoğunlukla kuzey ve doğu kesimlerinde) yetişmektedir. Chaga mantarı polisakkaritler, triterpenoidler, polifenoller ve melanin gibi biyolojik olarak aktif bileşenler içermektedir. Farklı çalışmalarda Chaga mantarının; immünomodülatör, hipolipidemik, hipoglisemik, antioksidan ve antiviral aktivitelerinin olduğu saptanmıştır. In vitro çalışmalarda, Chaga mantarının antiplatelet ve antidiyabetik özellikler gösterdiği belirlenmiştir. Hayvan deneylerinde ise anti-inflamatuar ve antidiyabetik etkiler göstermiştir. Kolit modelinde tümör nekroz faktör-α, indüklenebilir nitrik oksit sentaz ve interlökin-1β'nın baskılanmasıyla ilişkili bulunmuştur.

Son yıllarda, adaptojenlerden biri olan Chaga mantarının kolon, serviks, akciğer adenokarsinomu, karaciğer, melanom, yumuşak doku, prostat ve meme gibi çeşitli kanser türleri üzerine etkisine dair kapsamlı inceleme sonuçları dikkat çekmektedir. Bu araştırmada chaga mantarı konusunda yapılan çalışmalar, kanser hastalığı ile ilişkilendirilerek derlenip geleceğe yönelik kanser tedavisi ve adaptojenlerin tesiri konusunda yol gösterici olması amaçlanmıştır.

Anahtar Kelimeler: Adaptojen, Antitümör, Chaga mantarı, Kanser tedavisi

Abstract

Despite advances in cancer prognosis, diagnosis, and treatment, it is the second leading cause of disease-related death worldwide. More than 30% of cancer-related deaths can be prevented with positive changes in lifestyle and dietary habits and with the help of appropriate nutritional supplements. There have been many years of research on the potential use of adaptogens in various diseases and their efficacy in treatment. Chaga mushrooms (Inonotus obliquus) are a type of adaptogens belonging to the family Hymenochaetaceae. Chaga mushroom is a hard, brittle, black-brownish mushroom with irregular cracks, 10 to 20 cm in diameter, brown inside,

charcoal-like on the outside. It grows mainly in Canada, the northern United States, Kazakhstan, Siberia, Ukraine, Japan, South Korea, China, and Europe (mainly in the northern and eastern parts). Chaga mushroom contains biologically active components such as polysaccharides, triterpenoids, polyphenols, and melanin. In different studies, it has been determined that Chaga mushroom has immunomodulatory, hypolipidemic, hypoglycemic, antioxidant, and antiviral activities. In vitro studies, it was determined that Chaga mushroom showed antiplatelet and antidiabetic properties. It has shown anti-inflammatory and antidiabetic effects in animal experiments. It was associated with suppression of tumor necrosis factor-α, inducible nitric oxide synthase, and interleukin-1β in a chaga mushroom colitis model.

In recent years, the results of extensive studies on the effect of Chaga mushroom, one of the adaptogens, on various cancer types such as colon, cervix, lung adenocarcinoma, liver, melanoma, soft tissue, prostate, and breast have attracted attention. In this research, it is aimed to compile studies on chaga mushroom associating it with cancer disease and to guide the future on cancer treatment and the effect of adaptogens.

Keywords: Adaptogen, Antitumor, Chaga mushroom, Cancer treatment

AŞÇILARDA BESLENME OKURYAZARLIĞININ İNCELENMESİ

THE INVESTIGATE NUTRITION LITERACY ON COOKS

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Özet

Beslenme okuryazarlığı, "bireyin uygun beslenme kararları vermek için gerekli olan beslenme bilgi ve becerilerini edindiği, işlediği ve anladığı boyut" olarak tanımlanmaktadır. Çoğu insanın gıda etiketleri hakkındaki bilgileri kullanmakta zorluk çektiğine dair kanıtlar artarken, beslenme okuryazarlığı seviyesi daha düşük olanların daha fazla mücadele ettiği ve daha kötü sağlık sonuçlarına sahip oldukları bilinmektedir. Günümüzde giderek artan ev dışı yemek faaliyetlerinde çok önemli bir görevi olan aşçıların beslenme noktasındaki bilgi eksikliğinin de kişilerin sağlık sorunlarına yol açabileceği düşünülmektedir. Bu araştırmanın amacı, Türkiye'de yaşayan aşçıların beslenme okuryazarlığının incelenmesidir.

Bu araştırma Kasım 2021- Şubat 2022 tarihleri arasında, Türkiye'deki işletmelerde aşçı olarak çalışan, 18 yaş üstü, 85 erkek ve 47 kadın olmak üzere toplam 132 gönüllü aşçı ile yürütülmüştür. Araştırma için İstanbul Gelişim Üniversitesi Etik Kurulu'ndan Kasım 2021 tarihli, 2021-23-27 numaralı etik kurul kararı alınmıştır. Anket formu katılımcılara mail veya sosyal medya (Instagram, Whatsapp ve Linkedin) aracılığı ile ulaştırılmıştır. Katılımcılara genel bilgi formu ve Beslenme Okuryazarlık Ölçeği uygulanmıştır. Genel bilgi formu araştırmacı tarafından literatür incelemesi ile oluşturulmuş sorulardan (demografik bilgiler, beslenme alışkanlıkları, mesleki bilgileri gibi) oluşmaktadır. Yetişkinlerde Beslenme Okuryazarlığı Ölçeği Cesur ve ark. (2015) tarafından, yetişkinlerin beslenme okuryazarlığı durumunu belirlemek için geliştirilmiştir. Verilerin istatiksel değerlendirilmesinde SPSS 24.0 kullanılmıştır.

Araştırmaya katılan aşçıların %64,4'ü erkek, %35,6'sı kadındır. Aşçıların %58,3'ü üniversite, %25,0'i lise mezunudur. Katılımcıların boy ortalamaları 172±9,2 cm, kilo ortalamaları 77±15,7 kg'dır. BKI ortalamaları 26±4,8 kg/m²'dir ve %36,4'ü fazla kilolu, %22.0'si obezdir. Katılımcıların aşçılık deneyimleri ise ortalama 11±9,8 yıldır. Katılımcıların 115'inin (%87,1) sınırda beslenme okuryazarlığı, 17'sinin (%12,9) yeterli beslenme okuryazarlığı olduğu belirlenmiştir. Katılımcıların eğitim düzeyi ile beslenme okuryazarlığı arasında anlamlı ilişki yoktur ($p>0,05$). Eğitim düzeyi ile BKİ sınıflandırması arasında ve cinsiyet ile beslenme okuryazarlığı arasında istatiksel olarak anlamlı bir ilişki bulunmamıştır ($p>0,05$). Cinsiyet ile BKİ sınıflaması arasında anlamlı ilişki vardır($p<0,05$).

Aşçıların çoğu sınırda beslenme okuryazarlığına sahiptir. Eğitim düzeyine göre beslenme okuryazarlığı düzeyleri arasında, anlamlı fark bulunmaması aşçıların eğitimlerinde sağlıklı beslenme ile ilgili yeterli eğitimi almadıklarını düşündürmektedir. Aşçıların yarısından fazlası normalden fazla kiloya sahiptir. Bu sonuçlar da beslenme bilgilerinin ve sağlıklı beslenme uygulamalarının yeterli olmadığı şeklinde yorumlanabilir. Sonuç olarak toplu beslenme sistemlerinde, besinlerin doğru hazırlanması ve saklanmasında aşçıların rolü büyüktür. Bu

nedenle aşçılara verilen beslenme eğitimlerinin yeterli, etkili ve sürekli olmasının faydalı olacağı düşünülmektedir.

Anahtar Kelimeler: Beslenme okuryazarlığı, beslenme, aşçılar

A FUNCTIONAL VEGAN PROTEIN BAR MANUFACTURED WITH AGRO-FOOD INDUSTRIAL BY-PRODUCTS AND WASTES

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Abstract

Functional foods and diet are among the favorite issues of recent years. Nowadays, the search for sustainable and environmentally feasible alternative protein sources is highly encouraged. The current demand for food proteins with alternative sources is facing an increasing trend. Functional protein bars or high-protein bars were initially designed with the main purpose of supplying nutritional deficiencies with a developing innovation in the snack market.

On the other hand, utilization of agro-industrial by-products and valorization of food industry wastes are also profound issues with the concept of health-nutrition-environment. This work intended to evaluate the manufacturing of protein bars made with the by-products “safflower pulp, orange peels, banana peel, apple pulp, palm juice concentrate, and aquafaba from chickpeas.

The functional vegan protein bar developed is the result of the valorization of agro-food industrial wastes. Protein, one of the main components of food bar, is from Safflower pulp. Safflower pulp is a very good source of minerals and contains vitamins such as niacin, biotin and riboflavin. Crude protein level of safflower pulp is ranging from 25% to 40%. Another protein source for vegans is “aquafaba” which has the quality of the egg with foaming, emulsification, and gelling properties. Pectin which is used as a thickener is obtained from banana peels and apple pulp. Orange peels were used for enhancing the polyphenolic properties and palm juice concentrate was used to sweeten the bars.

As a result of centesimal composition, 41.16 % protein was determined in functional vegan bars. These high-protein vegan bars have a 6.06 % fat, 27.17 % moisture, and 2.03 % ash content. Textural properties, hardness, springiness, cohesiveness, gumminess, chewiness and resilience of protein bars were also assessed.

Keywords: Waste valorization, protein bar, functional bar, vegan, protein bar

OPTIMIZATION OF BUTTERFLY PEA EXTRACTS FOR TOTAL PHENOLIC COMPOUNDS, ANTHOCYANINS AND ANTIOXIDANT ACTIVITY

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Abstract

Clitoria ternatea or commonly known as 'Butterfly pea' has been used traditionally in Ayurvedic medicine for its numerous benefits on health such as indigestion, constipation, arthritis, skin diseases, liver and intestinal problems. Butterfly pea is also an edible flower traditionally used as a food colorant. Nutritional analysis of butterfly pea flowers identified the percentage of protein, fibre, carbohydrate and fat to be 0.32, 2.1, 2.2 and 2.5% respectively while the moisture content was found to be 92.4%. Several studies investigated, identified and isolated the bioactive compounds from *C. ternatea* flower. Ternatins A1, A2, B1, B2, D1 and D2 (Fig. 3) are the six major anthocyanins present in the flowers. In addition to the identification of various anthocyanins and flavonol glycosides, other components such as 6″-malonylastragalin, phenylalanine, coumaroyl sucrose, tryptophan and coumaroyl glucose were determined. It is known for its potential health benefits in which several studies have shown the crude extract to have antidiabetic, antioxidant, antimicrobial and antiproliferative/anticancer activities. Thus, *butterfly pea* flowers can be used as a natural source of antioxidants and/or a possible supplement in food or pharmaceutical industries.

Extraction studies have been a very important step in identifying variables that influences the extraction of phytochemicals. Conventional extraction such as the use of solvent for maceration of samples has been the most common approach and shown to be efficient. This paper aimed to evaluate the optimal extraction procedure for Butterfly peas flowers due to the different ethanol: water (v/v) ratios of 100:0, 70:30, 50:50, 30:70, and 0:100. All samples were assessed for total phenolic content (TPC), anthocyanin monomers content (TAC), antioxidant activity; DPPH scavenging activity and CUPRAC. The highest TPC value was determined for 0:100 ethanol: water extracts as 90.02±3.97 mg TE $.g^{-1}$ samples. However, anthocyanin content was decreased to the increase in water content from 1607.69±0.59 $mg.kg^{-1}$ to 297.03±2.07 $mg.kg^{-1}$. As the water ratio was increased CUPRAC results were increased from 484.29±0.14 mmol TE. g^{-1} to 670.65±0.14 mmol TE. g^{-1}.

Notwithstanding the disadvantages of conventional extraction methods, conventional extracts did not display acute toxicity effects and are safe for consumption. Butterfly pea flower is a promising candidate for functional food applications owing to its wide range of pharmacotherapeutic properties as well as its safety and effectiveness. The consumption of Butterfly pea flower extract/beverage was shown to have potential antioxidant and antihyperglycemic effects in human subjects.

Keywords: Butterfly pea, extraciton, total phenolic content, anthocyanin, DPPH, CUPRAC.

THE IMPORTANCE OF WINE TOURISM, WHICH IS CONSIDERED AN UNFORGETTABLE EXPERIENCE

UNUTULMAZ BİR DENEYİM OLARAK KABUL EDİLEN ŞARAP TURİZMİNİN ÖNEMİ

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Abstract

Wine, which has taken place in the field of gastronomy in the historical process, has an important place in the socio-economic and socio-cultural field as an alcoholic beverage obtained from the grape fruit. In this context, wine tourism, which is also considered important in the economic sphere, is emerging.

Wine production has a very ancient history. The fact that wine is a field that has survived and continues to develop is not only in the industrial field. Recently, it has started to be considered as a remarkable subject in the academic field. It is noteworthy that wine does not only take place in life as a type of beverage, but also creates an area of activity.

Wine tourism has emerged as a type of tourism as a result of the movement of people for wine. One of these fields of activity is expressed as wine tourism. Because this area is an area of activity for both producers and consumers in the process of transforming from grapes that have not yet turned into wine. In this context, wine tourism, which did not attract much attention in many countries in the past, has become increasingly common. The reason for this is the increase in people's interest in travel and wine around the world. At this point, being intertwined with nature, examining natural products, etc. factors are also prominent. Winemaking, which also includes cultural features, attracts people's attention with this aspect. In addition, regions with wine tourism and many wineries are located close to the raw material. It can also be said that wine tourism has an impact on regional development, agricultural and rural areas for areas such as vineyards and orchards, where the wine beverage is obtained. If the factors such as the vineyards having an aesthetically pleasing appearance, the warm climate in which they are grown, being suitable for transportation in tourism and the presence of vineyards in an area close to sea, sand and sun tourism are considered together, it makes an important contribution to the general tourism movements in making wine tourism attractive possible to provide. Thus, wine tourism includes wine tourists and wine venues. In this context, it is important to reveal the experiences of tourists with scientific research methods.

The importance of wine tourism regions in the tourism industry, which has an important share in the globalizing world economy, is increasing day by day. The reason for this is that it provides many contributions with the multiplier effect. Because for the development of wine tourism, there is a situation where the products produced in the region are sold and spread over a wide area. In addition, not only wine is traded, but also brands and the region are traded in terms of the development of the regional economy.

It is stated that the winemaking industry uses geographical, socioeconomic values and resources because they operate in the region they are in, as in the tourism industry in general. From this point of view, it can be stated that wine and tourism are fed from the same sources. Wine tourism has emerged with the combination of elements such as viticulture, winemaking, tourism and accommodation.

In this direction, the subject of the research is the unforgettable holiday experiences of domestic tourists within the scope of wine tourism and their intention to recommend these experiences.

Keywords: Tourism activities, Outdoor tourism, Alternative tourism, Wine tourism, Sustainable tourism.

Özet

Tarihsel süreç içerisinde gastronomi alanında yer alan şarap, üzüm meyvesinden elde edilen alkollü bir içecek olarak sosyo-ekonomik ve sosyo-kültürel alanda önemli bir yere sahiptir. Bu bağlamda ekonomik alanda da önemli kabul edilen şarap turizmi ortaya çıkmaktadır.

Şarap üretimi çok eski bir tarihe sahiptir. Şarabın varlığını sürdüren ve gelişmeye devam eden bir alan olması sadece endüstriyel alanda değildir. Son zamanlarda akademik alanda dikkat çekici bir konu olarak ele alınmaya başlanmıştır. Şarabın sadece bir içecek türü olarak yaşamda yer almaması, aynı zamanda bir aktivite alanı oluşturması da dikkat çekicidir.

Şarap turizmi, insanların şaraba yönelmesi sonucu bir turizm türü olarak ortaya çıkmıştır. Bu faaliyet alanlarından biri de şarap turizmi olarak ifade edilmektedir. Çünkü bu alan henüz şaraba dönüşmemiş üzümden dönüşme sürecinde hem üreticiler hem de tüketiciler için bir faaliyet alanıdır. Bu bağlamda geçmişte pek çok ülkede fazla ilgi görmeyen şarap turizmi giderek yaygınlaşmıştır. Bunun nedeni, tüm dünyada insanların seyahat ve şaraba olan ilgisinin artmasıdır. Bu noktada doğa ile iç içe olma, doğal ürünleri inceleme vb. etkenler de öne çıkmaktadır. Kültürel özellikleri de içinde barındıran şarap yapımı bu yönüyle insanların ilgisini çekmektedir. Ayrıca şarap turizminin olduğu bölgeler ve birçok şarap imalathanesi hammaddeye yakın konumdadır. Şarap turizminin, şarap içeceğinin elde edildiği bağ, meyve bahçesi gibi alanlar için bölgesel kalkınma, tarım ve kırsal alanlarda da etkisi olduğu söylenebilir. Bağların estetik bir görünüme sahip olması, yetiştiği iklimin ılıman olması, turizmde ulaşıma elverişli olması, bağların deniz, kum ve güneş turizmine yakın bir bölgede bulunması gibi faktörler bir arada değerlendirildiğinde, şarap turizminin çekici hale getirilmesinde genel turizm hareketlerine önemli bir katkı sağlamak mümkündür. Böylece şarap turizmi, şarap turistlerini ve şarap mekanlarını kapsamaktadır. Bu bağlamda turistlerin deneyimlerinin bilimsel araştırma yöntemleriyle ortaya çıkarılması önemlidir.

Küreselleşen dünya ekonomisinde önemli bir paya sahip olan turizm endüstrisinde şarap turizmi bölgelerinin önemi her geçen gün artmaktadır. Bunun nedeni çarpan etkisi ile birçok katkı sağlamasıdır. Çünkü şarap turizminin gelişmesi için bölgede üretilen ürünlerin satıldığı ve geniş bir alana yayıldığı bir durum söz konusudur. Ayrıca bölge ekonomisinin gelişmesi açısından sadece şarap ticareti yapılmamakta, markalar ve bölge ticareti de yapılmaktadır.

Şarapçılık sektörünün genel olarak turizm sektöründe olduğu gibi bulunduğu bölgede faaliyet göstermesi nedeniyle coğrafi, sosyoekonomik değerleri ve kaynakları kullandığı belirtilmektedir. Bu açıdan bakıldığında şarap ve turizmin aynı kaynaklardan beslendiği ifade edilebilir. Şarap turizmi, bağcılık, şarapçılık, turizm ve konaklama gibi unsurların birleşmesiyle ortaya çıkmıştır.

Bu doğrultuda araştırmanın konusu, yerli turistlerin şarap turizmi kapsamında unutamayacakları tatil deneyimleri ve bu deneyimleri tavsiye etme niyetleridir.

Anahtar kelimeler: Turizm faaliyetleri, Açık hava turizmi, Alternatif turizm, Şarap turizmi, Sürdürülebilir turizm.

DIET IN THE QUR'ANIC PERSPECTIVE

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Abstract

Our life cycle is certainly contained in the Qur'an where various rules regarding the order of life in this world and in the hereafter. Therefore, of course the Qur'an is no stranger to talking about food. Humans need food intake to meet their essential needs and the food categories must be halal, thayyib, and nutritious. However, sometimes humans are negligent of their behavior. Humans tend to satisfy their appetite to eat and drink in excess. This can lead to serious side effects on health, one of which is obesity or other chronic diseases. Obesity arises due not only to genetic factors but also from lifestyle factors. Therefore, one way to overcome it is by going on a diet, reducing eating food and drinks in excess. In the Qur'an, the concept of diet has similarities with the rules for eating and drinking not excessively stated in Qs. Al-A'raf verse 31 and al-Baqarah verse 168 calls for eating halal food and staying away from haram. This study uses qualitative research with scientific interpretation by the Ministry of Religion of the Republic of Indonesia on dietary verses in the Qur'an. This study resulted in a diet concept, namely paying attention to the nutritional value of food, consuming halal food and staying away from haram food, choosing good food ingredients and fasting is recommended. As for the application of diet in the interpretation of the Ministry of Religion of the Republic of Indonesia, namely dividing meal times, balancing the nutritional value of food and remaining dynamic after eating.

Keywords: Diet, Qur'anic Perspective, Scientific Interpretation

TRABZON MUTFAĞINDA RAMAZAN HAZIRLIKLARI

RAMADAN PREPARATIONS IN TRABZON KITCHEN

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Özet

Toplumlar kendilerine göre önem atfettikleri günlerde bazı hazırlıklar yapmaktadırlar. Bu hazırlıkların bir kısmı da mutfak için yapılan hazırlıklardır. İslam üzere yaşayan toplumlar için kutsal bir ay olan ve 30 gün boyunca oruç tutulan Ramazan ayı, Müslümanlar açısından önemli aylardandır. Ramazan ayında Müslümanlar günde iki öğün yemek yemektedirler. Akşam hava kararmak üzere iken akşam ezanının okunması ile birlikte yenen yemeğin adı iftar iken sabah gün ağarana kadar yenmesine müsaade edilen ve sabah ezanı okunmadan önce son verilmesi gereken yemeğin ismi ise sahur yemeğidir. Ellerinde pratik olarak hammadde bulunması amacıyla hem de Ramazan ayına özel menüler üretebilmek amacıyla halk Ramazan ayı öncesinde bazı mutfak hazırlıkları yapmaktadır. Çalışmamızda Trabzon'da Ramazan ayı amacıyla yapılan mutfak hazırlıklarının neler olduğu, ürünlerin hangi yöntemlerle üretildiği, yöre halkı için öneminin ne olduğu araştırılmaya çalışılmıştır. Bu amaçla 2022 yılı Ramazan ayı öncesinde Trabzon'un Arsin, Araklı, Tonya, Vakfıkebir, Akçaabat ve Sürmene ilçelerinde Ramazan öncesi mutfak hazırlığı yapan 17 kadın ile görüşmeler yapılmış ve süreç gözlemlenmiştir. Nitel araştırma yöntemlerinden derinlemesine mülakat ve gözlem tekniğinin tercih edildiği bu araştırmada kadınların Ramazandan yaklaşık 15-20 gün önce hazırlıklara başladıkları tespit edilmiştir. Mevsim koşullarına göre kapalı veya açık bir alanda yapılan bu hazırlıkların en temel etkilerinden bir tanesinin halk arasında kaynaşmayı sağlaması olduğu ortaya çıkmıştır. Her gün farklı bir hane için yapılan bu hazırlıklarda elde edilen ve Ramazan boyunca iftar ve sahurda tüketilecek olan, yemeklerde hammadde olarak kullanılacak bu ürünlerin çeşitli ebat ve özellikte yufka, kesme makarna, siron olduğu tespit edilmiştir. Katılımcılar yufkadan; tava, tepsi ve fırın börekleri, fındıklı kuru yufka tatlısı, kesme makarnadan; tatlı ve makarna, sirondan ise domatesli, kıymalı, yoğurtlu sosları kullanarak yemekler yaptıklarını belirtmişlerdir.

Anahtar Kelimeler: Ramazan, Trabzon mutfağı, yufka, siron, makarna

Abstract

Societies make some preparations on important days. Preparations for the kitchen are some of them. Ramadan, which is holy for Muslim societies and fasting for 30 days, is an important month for Muslims. During Ramadan, Muslims eat two meals a day. In the evening, when the weather is about to get dark and the evening Azan recited Muslims starts to eat and the name of this event is call Iftar. Sahur meal is the name given to the meal eaten just before sunrise and morning Azan. In order to possess practically have raw materials and at the same time to produce special menus for Ramadan, the people make some kitchen preparations before the month of Ramadan. In our study, it has been tried to investigate what the kitchen preparations made for the month of Ramadan in Trabzon are, the methods by which the products are produced, and what their importance is for the local people. For this purpose, Before the month of Ramadan in 2022 the process was observed in Arsin, Araklı, Tonya, Vakfikebir, Akçaabat and Sürmene districts of Trabzon interviews were held with 17 women who made kitchen preparations before Ramadan. In this study, in which the in-depth interview and observation

technique was preferred among the qualitative research methods, it was determined that women started their preparations about 15-20 days before Ramadan. It has been revealed that one of the most basic effects of these preparations, which are made in an indoor or outdoor area according to seasonal conditions, is to provide cohesion among the people. It has been determined that these products, which are obtained in these preparations made for a different household every day, which will be consumed during iftar and sahur during Ramadan, and which will be used as raw materials in meals, are phyllo, noodles and siron in various sizes and features. Participants are made dishes from Phyllo; pan, tray and oven fritters, dried phyllo dessert with hazelnuts, from Noodles; desserts and pasta and They also stated that they made dishes from Siron using tomato, minced meat and yoğurt sauces.

Keywords: Ramadan, Trabzon cuisine, yufka, siron, pasta

FARKLI GIDA SİSTEMLERİNDE ADAÇAYI YAĞININ (*Salvia Officinalis* L.) ANTİMİKROBİYAL ETKİSİNİN BELİRLENMESİ

DETERMINATION OF ANTIMICROBIAL EFFECT OF SAGE OIL (*Salvia Officinalis* L.) IN DIFFERENT FOOD SYSTEMS

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Özet

Son yıllarda gıdaları korumak için doğal antimikrobiyallerin kullanılmasına olan ilgi giderek artmaktadır. Bitkilerin farklı kısımlarından (çiçek, sap, dal, çekirdek, yaprak, kök ve meyve) farklı yöntemlerle elde edilen esansiyel yağların da antimikrobiyal özelliğe sahip oldukları bildirilmektedir. Adaçayı tohumu bileşimindeki fitokimyasallar antimikrobiyal ve antioksidan özellikleri sağlarlar. Adaçayının endemik türleri esansiyel yağ kaynağı olarak yetiştirilen aromatik bitkilerdir. Bu çalışmanın amacı adaçayı yağının farklı model gıda sistemlerinde antimikrobiyal aktivitesinin belirlenmesidir. Bu bağlamda çalışma iki aşamada gerçekleştirilmiştir. İlk aşamada, kontrol (besiyeri) ortamında, Gram pozitif (*Staphylococcus aureus, Bacillus cereus*) ve Gram negatif (*Escherichia coli, Salmonella spp.*) bakterilere karşı adaçayı esansiyel yağının minimum inhibisyon konsantrasyonu (MIK) belirlenmiştir. İkinci aşamada ise indikatör mikroorgnanizma olan *E.coli*'ye karşı gıda koşullarında adaçayı yağının antimikrobiyal etkinliği test edilmiştir. Antimikrobiyal aktivite üzerinde gıda koşullarının etkisini incelemek amacı ile ikinci aşamada model sistem olarak farklı pH değerlerindeki meyveler [kızılcık (pH=3.00) ve kuru kayısı (pH=5.32)] ve et kıyması (pH=6.12) kullanılmıştır. Böylece hem pH'nın hem de başta protein ve yağ olmak üzere çeşitli gıda bileşenlerinin antimikrobiyal aktivitedeki rolü incelenmiştir. MIK testi sonucunda adaçayı yağının bakteriler üzerindeki MIK dozu 3.5 µL/mL olarak belirlenmiştir. Testin ikinci aşamasında da aynı doz kullanılmış, *E.coli*'nin inhibisyonu zamana bağlı (0, 0.08, 0.25, 0.5, 1, 3, 6 ve 24 saat) olarak takip edilmiştir. Belirlenen zaman aralıklarında örneklerin yayma tekniği ile PCA (Plate Count Agar) agara ekimleri yapılmış ve 24 saat 37°C'de inkübasyona bırakılmıştır. Elde edilen sonuçlara göre kızılcık meyvesinde zamanla *E.coli* inhibisyonu gerçekleşmiş ancak kuru kayısı ve et ortamında canlı hücre gelişimi zamanla azalmasına karşın 24. saat sonuna kadar devam etmiştir. Kayısı ve et pH'sının kızılcığa göre nispeten yüksek oluşu ve ayrıca etteki protein ve yağ sebebiyle canlı hücre sayısında azalma gerçekleşmesine rağmen tam bir inhibisyon sağlanamamıştır. Et ile karşılaştırıldığında, kayısının düşük pH'ı da inhibisyona katkıda bulunmuştur. Benzer şekilde düşük pH, kızılcıkta *E.coli* gelişimini 6. saat sonunda tamamen engelleyerek adaçayı yağının daha etkin antimikrobiyal aktivite göstermesini sağlamıştır.

Anahtar Kelimeler: adaçayı yağı, antimikrobiyal, MIK, kızılcık, kuru kayısı, et.

Abstract

Recently, there has been an increasing interest in using natural antimicrobials to preserve food. It is reported that essential oils obtained from different parts of plants (flower, stem, branch, seed, leaf, root and fruit) by different methods have antimicrobial properties. Phytochemicals in the composition of sage seeds provide antimicrobial and antioxidant properties. Endemic species of sage are aromatic plants grown as a source of essential oil. The main purpose of this study is to determine the antimicrobial activity of sage oil in different food systems. In this regard, the study was performed in two stages. Firstly, the minimum inhibition concentration (MIC) of sage oil against Gram positive (*Staphylococcus aureus, Bacillus cereus*) and Gram negative (*Escherichia coli, Salmonella spp.*) bacteria was determined in the control medium. In the second stage, the antimicrobial effectiveness of sage oil was tested against *E.coli*, an indicator microorganism, under food conditions. In this experiment, which was implimented to examine the effect of food conditions on antimicrobial activity, fruits [cornelian cherry (pH=3.00) and dried apricot (pH=5.32)] and minced meat (pH=6.12) at different pH values used as a model system. Thus, the role of both pH and various food components, especially protein and fat, in antimicrobial activity was investigated. As a result of the MIC test, the MIC dose of sage oil on bacteria was determined as 3.5 µL/mL. The same dose was used in the second stage of the experiment and *E.coli* inhibition was followed time-dependent manner (0, 0.08, 0.25, 0.5, 1, 3, 6 and 24 hours). At the specified time intervals, the samples were sown on PCA (Plate Count Agar) agar with the smear technique and incubated at 37°C for 24 hours. According to the results obtained, *E.coli* inhibition occurred in cornelian cherry fruit over time, but viable cell development in dried apricot and meat medium continued until the end of the 24^{th} hour, although it decreased over time. Although the pH of apricot and meat was relatively higher than that of cornelian cherry, and there was a decrease in the number of viable cells due to protein and fat in the meat, complete inhibition could not be achieved. Compared to meat, the low pH of apricot also contributed to the inhibition. Similarly, low pH prevented *E.coli* growth in the cornelian cherry at the end of the 6^{th} h, allowing sage oil to show more effective antimicrobial activity.

Keywords: sage oil, antimicrobial, MIC, cornelian cherry, dried apricot, meat.

OBESITY IS A SERIOUS HEALTH PROBLEM

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Abstract

Obesity is a complex medical disorder all over the world. Obesity is defined as excessive fat accumulation that presents health risks. Obesity or overweight is judged by a body mass index (BMI) of 30 kg/m2 or more than 30kg. Obesity varies by age but if a person or child becomes overweight it means that person has a greater chance to face the complex disease of obesity. Every age of people like children, adults, women and men and adolescents face this problem. The main factor of this problem is to intake an excess amount of calories in food and the physical activity is zero so that person faces the complex disease which is obesity. Some common factors which Cause this disorder such as high energy food, hormone imbalance like leptin hormone deficiency, genetic and environmental factors, low physical activity, and poor lifestyle. Obesity is an infestation disease that endangers medical care by developing a high-risk rate of diabetes mellitus Type 2, Heart disease, Hypertension, increased morbidity and mortality, sleep breathing, and in women, obesity causes infertility and cancer. So nowadays obesity is a big challenge for the whole world because obesity is more dangerous than malnutrition. So to overcome this disorder, people need to be aware of this disorder. Need some modification in their lifestyle, healthy diets like intake less energy food, and increased physical activities and exercise. But if obesity goes too severe then a person needs to consult a specialist doctor who treats the patient properly. Prevention of obesity is difficult but if people follow these precautions then they protect themselves and their children. The main aim of this study is to make people aware of this disorder and overcome obesity and lead a healthy life.

Keywords: Obesity , Overweight

REFLECTION OF TURKISH-PERSIAN LINGUISTIC INTERACTION ON TURKISH CUISINE

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Abstract

All societies in the world have their own culinary culture and diet. These diets are shaped according to the cultural, geographical, ecological structure and historical process (Arlı, 1982). During this shaping period, different cultures influence each other. For instance, the cultural proximity of Turks and Iranians reflected in today's Turkish cuisine. Although over the centuries the official language of these countries has been totally different, countless cultural commonalities have inevitably led them to linguistic exchanges. The relations of these two neighboring countries started with their conversion to Islam. During this period, the Turks flocked to the west from Central Asia and encountered the Iranians. This confrontation deeply affected both cultures. On the other hand, the Turkish language adopted and localized many Persian words, causing the words used today to form. Accordingly, the study reported in this paper tends to investigate the present status of Turkish–Persian Linguistic Interaction in modern Turkish cuisine by considering the historical contact of two nations. Following this, Persian words in the cookery books and recipes have been collected and categorized with mentioning their origins. The cultural and historical factors that influenced the transfer of these words into the Turkish language has been thoroughly assessed.

Keywords: Turkish cuisine, Turkish language, Persian language, Linguistic interaction

OTOİMMUN HASTALIKLARDA ELİMİNASYON DİYETİ

ELIMINATION DIET IN AUTOIMMUNE DISEASES

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Özet

Besinlerde bulunan bazı bileşenler pro- ya da anti-inflamatuvar özellikleri ile bireylerde inflamatuvar reaksiyonlar üzerinde etkili olabilmektedir. Bu noktada potansiyel antijenler olarak da görülebilen besinlerin, bireyde immun reaksiyon gelişmesine yol açması ve bu durumun sık tekrarlanması halinde bu immun reaksiyon kronik inflamatuvar hastalıklara yol açabilmektedir. Bu grup içerisinde değerlendirilen otoimmun hastalıklar, vücudun normal dokularını düşman olarak görerek anormal tepki vermesi sonucunda oluşan bir dizi hastalık grubunun genel adıdır. Otoimmun hastalıklarda farmasötik tedaviler hastalık kontrolünü önemli ölçüde iyileştirse de, ilaçların yan etkileri ve yüksek maliyeti kullanımlarını sınırlandırmaktadır. Bu nedenle, değiştirilebilir bir faktör olarak beslenme, gözlemsel ve deneysel çalışmalardan elde edilen bulgulara dayanarak dikkat çekmektedir.

Otoimmün hastalığı bulunan bireylerde kişiden kişiye göre değişebilen besin hassasiyetleri görülebilmektedir. Hassasiyet oluşturan besinlerin tespiti ve semptomların ortadan kaldırılması için uygulanan eliminasyon diyeti, olumsuz bir gıda reaksiyonuna neden olduğuna inanılan bir gıdayı veya gıda grubunu çıkaran bir beslenme planı olarak açıklanabilmektedir. Eliminasyon diyetinin amacı, olumsuz reaksiyona neden olan bir gıdayı geçici olarak uzaklaştırarak gastrointestinal ekosistemin onarılması ve sonrasında immünoglobulin E (IgE) dışı gıda intoleransları için elimine edilen gıdanın ilerleyen zamanlarda yavaş yavaş diyete dahil edilmesi olarak bildirilmektedir. Eliminasyon diyeti, planlama, kaçınma, yeniden dahil etme ve uzun vadeli diyet planlama aşaması olmak üzere dört aşamadan oluşmaktadır. Planlama aşamasında kapsamlı bir hasta öyküsü almak çok önemliyken, kaçınma aşamasında ise bireye özgü olarak farklı yoğunluklarda eliminasyon diyeti uygulanmaktadır. Düşük yoğunluklu eliminasyon diyetinde tek bir besin veya besin grubu elimine edilirken, orta yoğunluklu eliminasyon diyetinde birden fazla besin veya besin grubu elimine edilmekte, yüksek yoğunluklu eliminasyon diyetinde ise yalnızca belirli bir listedeki yiyecekler tüketilebilmektedir. Bununla birlikte temel gıdaların elimine edildiği durumlarda, o gıdaya alternatifler bulunması gerekmektedir. Gereken durumlarda ise vitamin ve/veya mineral takviyeleri yapılması uygun görülmektedir. Eliminasyon diyetinin ilk üç aşaması tamamlandıktan sonra uzun vadeli bir diyet planlanması uygun görülmektedir. Yeniden dahil etme aşamasındaki sonuçlara dayanarak, diyetin nasıl değiştirileceği planlanabilmektedir. Böylece semptomlar büyük ölçüde önlenebilmektedir. Eliminasyon diyetleri, bir sağlık uzmanının gözetimi altında yapıldığında genellikle güvenli olsa da, potansiyel risklerinin de olduğu kabul edilmektedir.

Anahtar Kelimeler: İnflamasyon, Otoimmun Hastalıklar, Eliminasyon Diyeti

Abstract

Due to their pro or anti-inflammatory properties, certain components in foods can have an effect on inflammatory reactions in individuals. At this juncture, foods, which also can be considered as potential antigens, cause an immune reaction in the individual, and in case of the frequent repetition of this situation, the mentioned immune reaction may lead to chronic inflammatory diseases. Autoimmune diseases, classified under this group, are the general name given to a

series of diseases that occur as a result of the abnormal response of the body by perceiving normal tissues as enemies. Even though pharmaceutical treatments significantly improve disease control in autoimmune diseases, the side effects and high cost of drugs limit their use. Therefore, as a modifiable factor, nutrition draws attention based on findings obtained from observational and experimental studies.

People with autoimmune diseases may have food sensitivities that vary from person to person. Applied to detect sensitizing foods and eliminate symptoms, an elimination diet can be described as a nutrition plan that removes a food or food group that is believed to cause an adverse food reaction. The aim of the elimination diet is restoring the gastrointestinal ecosystem by temporarily removing a type of food that causes an adverse reaction, and then gradually incorporating the eliminated food into the diet for non-immunoglobulin E (IgE) food intolerances. The elimination diet consists of four phases, namely planning, avoidance, reintroduction, and long-term diet planning. Obtaining a comprehensive patient history is critical during the planning phase and a customized elimination diet is applied at various intensities during the avoidance phase. A low-intensity diet consists of the elimination of a single food or food group, and a medium-intensity elimination diet involves the elimination of multiple foods or food groups, while a high-intensity elimination diet offers only a certain list of foods for consumption. In addition, in cases where basic foods are eliminated, alternatives to that relevant food should be found. Taking vitamin and/or mineral supplements is considered appropriate if required. Following the completion of the first three phases of the elimination diet, a long-term diet should be planned. Based on the results in the reintroduction phase, modifications to the diet can be planned. This way, symptoms can be avoided to a great extent. Elimination diets are generally safe when done under the supervision of a healthcare professional, however, it is also acknowledged that there are potential risks.

Keywords: Inflammation, Autoimmune Diseases, Elimination Diet

NOVEL RESEARCH FIELD: RELATION BETWEEN GASTRONOMY AND HUMAN WELL-BEING

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Abstract

Gastronomy is a multidisciplinary field that comprises food, tourism; service industry and culinary. It is also related to social science such as attitudes and preferences and demographic changes. Within the rising interest of humans in healthy life; the consumption of food has also tended to more healthy food. Gastronomy is one of the food industry-dependent sectors due to food items and beverages being the main components of it. The gastronomy perspective has also changed to a healthier menu which contains fresh, nutritionally rich and more beneficiary food items as a result of consumers' tendency. Similar to health tourism; several trends have to be used in gastronomy over the world. In this review, the potential of the relation between gastronomy and human well-being will be investigated globally. Due to the consumer's perspective differs from one person to another depending on demographical factors such as geographical conditions and socio-economic situations; the potential improvements in gastro-health related activities will be investigated separately in developing and developed countries. The alternative healthy menu, gastronomy tourism and other informing activities will be useful for consumers regardless the age and gender. As a result of globalization; consumers tend to be ready to eat food items with maximum benefits. All these potential benefits of health-focused gastronomy application will require a financial source. From crop to able, transportation, storage or all processing steps cost a huge amount of budget in food processing plants and gastronomy field. While health-focused gastronomy will be more expensive than traditional processing methods, the total benefits to humans and the potential to contribute to the sustainability of gastronomy could cover this expense. This potential relationship between gastronomy and human health will lead to the production of alternative novel food products that can be consumed anywhere and anytime. In addition to human-wellbeing impacts, the socio-economic effect and other expected impacts such as technology and logistic. The highlighted main findings of this review could beneficiary to the stakeholders and decision-makers who work in gastronomy and public health fields.

Keywords: gastronomy, future perspective, food technology, human well-being

FACTS AND GAPS: USAGE OF VALUE ADDED FOOD PRODUCTS IN GASTRONMY

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Abstract

Withing the increasing world population, the need for protein sources has also risen over the last year globally. Climate change and environmental pollution have a threat to the sustainability of production and processing of both plant-based and animal-based food products. As a result of globalization; processed food products have taken attention in contrast to traditional fresh consumption. A wide range of waste and by-products are generated during the processing of food items depending on the type of food and processing methods. For example, the filleting and shaping of raw materials cause a huge amount of by-products and waste generation. It's known that approximately 1 in 3 food products are wasted annually over the world. Therefore, utilization of these by-products and waste in the new food products production accepted as an economic and environmentally friendly approach recently. Value-added products mainly contain any waste or by-products of food and other ingredients, then formed as a new food product. Value-added products are one of the main elements for the sustainability of food and food-related industries. With a better understanding of natural sources' importance and protein-based food items in human life; some of the popular brands have started to produce recycled products in different sectors such as electronics and textile. The same trends are named as value-added products in the food and food-related industry. Gastronomy is one of the food industry-dependent sectors. Therefore value-added products have begun to use in gastronomy. However, the lack of knowledge about the potential risks for waste and by-product in new food products cause some hygiene and therefore health problems in the public. To prevent these risks, the potential risks will be evaluated during all the processes from the collection of the waste to the storage of new food products.In addition to quality control, the consumption preference of consumers is also a key element for the usage of value-added products in gastronomy. While some conscious consumers tend to consume these eco-friendly products, some parts of the public reject consuming value-added products.In this review, the consumer's attitudes about reason result in the consumption of value-added products. The risks and benefits of this approach will also be evaluated in some specific food industries such as seafood and poultry. The findings could be beneficiary to a wide range of researchers and producers who work in food, gastronomy, environmental engineering and social sciences.

Keywords: value-added products, gastronomy, sustainability, consumer preference

A GASTRONOMIC FOOD KURUT: SHELF-STABLE FORM OF YOGURT

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Abstract

Kurut that is also known as Keş is a fermented dried dairy product widely known in different regions of Anatolia and also in Central Asia. In Turkey Kurut is mostly known as the food of nomadic people or people who grew up with this culture. It is produced for its high-protein nature in seasons when milk is abundant. In fact, because it is a traditional dairy product, its production varies regionally. Regional differences observed in both raw material selection and also in processing stages as salting, shaping and drying. Generally, raw material of Kurut is yogurt that is concentrated to strained yogurt prior to drying or buttermilk obtained from Yayık butter production. Buttermilk use requires an additional heat treatment for precipitation before drying. Traditionally Kurut is sun-dried in generally known drying seasons of August to September. Drying of yogurt supplies many opportunities in use such as shelf-life extension, ease in handling and storage, no need for refrigeration, reconstitution with water and use as yogurt or as soup, or use together with dishes in powder form with grating etc. Today Kurut is still produced with traditional methods but requires industrialization due to defined benefits also.

Keywords: Kurut, keş, yogurt, dried dairy product, traditional dairy product, sun-drying.

DAIRY APPLICATIONS OF CHIA SEED AND ITS MUCILAGE

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Abstract

Chia (*Salvia hispanica* L.) is a popular seed with various health benefits. Being a rich source of dietary fiber and omega-3 fatty acids resulted in recognizing chia as a superfood. Chia and chia based foods exist in functional food category. Its physically functional property depends on its fat-binding and gel-forming capacity. Chia seeds has high water absorption and when contact with water exist in the environment the seeds swell and polysaccharides exudate as mucilage in attached state to the seed. In food or pharmaceutical applications, chia can be used as a whole seed, chia flour, or mucilage layer obtained from the seed. Mucilage formed requires additional extraction and drying procedures for separating from the seed. Chia mucilage act as a stabilizer and possesses functions of water absorption, fat replacement and improvement in viscosity and texture of foods. The limited use of chia seed covers drinks, bread or baked foods, yogurt-based breakfast alternatives and smoothies. Chia mucilage suits well with high-fat dairy products as yogurt and ice-cream by acting as an emulsifier. In 1% and 2% concentrations of chia mucilage use resulted in increase of overrun, decrease in melting rate in ice cream. Similarly, use of chia mucilage in yogurt formulations especially in low-fat systems favor textural characteristics of yogurt as increased firmness and reduced syneresis together with improvement in sensory characteristics and probiotic viability.

Keywords: Chia, *Salvia hispanica* L., seed, mucilage, dairy, yogurt, ice-cream.

A COMPARISON ANALYSIS IN FOOD PRODUCTS GROUPS CONSUMPTION PREFERENCES

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Abstract

Food preferences of the consumers are an important indicator for agricultural production, especially when it comes to finding new markets. Obviously, these preferences are modified in the long run. However, due to geographical, climatic, cultural and other conditions these changes will not proceed diametrically. But, undoubtedly, the consumption of various food products is changing in each country because of the opening up of borders, as in case of countries that joined the European Union, or due to more nutritional awareness of the consumers [Małysa-Kaleta, A. 2003]. For example, in Poland after 1990, there was an increase in the diversity of food consumption [Grzelak, A., & Gałązka, M., 2013] whereas research in the Mediterranean countries indicates a gradual resignation from traditional food in this region [Balanza, R. et al, 2007]. This presentation attempts to analyze the total changes in consumer food preferences in European countries between 2005 and 2020. To avoid listing individual product groups, one approach applied to this issue may be to compare structural profiles in two extreme time periods for each country and to build a synthetic rate that will definitely determine the value of these changes. Thus, the aim of the study is to rank the European countries according to the value of changes in consumption of different group of food products in European countries between 2005 and 2020 and to divide countries into groups according to similar level of changes in food consumption over the years. The study used data in kg per capita on the consumed products in each country. The data came from the United Nations Food and Agriculture Organization (FAO) [www.fao.org].

Keywords: dissimilarity of structures, synthetic rate, ranking, multidimensional data analysis, grade data analysis.

THE RELATIONSHIP OF MACRO NUTRIENT INTAKE TO WASTING INCIDENCE IN TODDLERS AGE 0-59 MONTHS IN NORTH POLOMBANGKENG DISTRICT, TAKALAR REGENCY IN 2022

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Abstract

Background: *Wasting* is a condition of acute malnutrition in children under five, this is indicated by the under-five weight is not proportional to the height or the z-score <-2 SD (*standard deviation*). The prevalence of *wasting* and *severely wasting* in indonesia based on the results of the 2018 Riskesdas reached 10,2% and 7.1% in 2021, This is still a nutrtional problem in indonesia because it has not reached the 2020-2024 RPJMN target of 4%. This study aims to see the relationship between macronutrient intake and the incidence of *wasting* in toddlers aged 0-59 months in North Polombangkeng sub-district, Takalar district in 2022.

Methods: The type of research used is quantitative with a *cross sectional study design.* The population in this study were toddlers aged 0-59 months in the north polombangkeng sub-district with a total sample of 146 toddlers. The sampling technique used is *probability sampling.* The analysis used is the *chi-square test* .

Results: Based on the results of the chi-square test, it shows that there is a relationship between energy intake and the incidence of *wasting* with a p value of 0.000 (<0.05), there is a relationship between carbohydrate intake and the incidence of *wasting* with a p value of 0.000 (<0.05).), there is a relationship between protein intake and the incidence of *wasting* with a p value of 0.000 (<0.05) and there is a relationship between fat intake and the incidence of *wasting* with a p value of 0.010 (<0.05).

Conclusion: The problem of *wasting* in children under five can be prevented and overcome through the fulfillment of nutritional intake of food for children under five, besides that it can also be done by intervening with the provision of additional food.

Keywords: Wasting, Intake of Macro Nutrients, Wasting.

ANALYSIS OF THE EFFECT OF DIABETES AND BMI ON HEPATITIS B AND C

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Abstract

Background. The risk factors that promote hepatitis B and C are multiple. This study analyzes the effect of diabetes and body mass index on subjects diagnosed at the Setif hospital in Algeria. Since other factors are ignored in this study, the data analyzed are considered uncertain. The principles of fuzzy logic are applied in this analysis.

Method. The study concerns 60 patients diagnosed at our service. The risk factors are considered imprecise and therefore fuzzy. A fuzzy inference system is applied in this study. The data is fuzzyfied and a rule base is established.

Results. As the principles of fuzzy logic deal with the uncertain, this allowed us to take care of this imprecision and complexity. The established rule base maps the inputs, which are the diabets and BMI, to hepatitis as the output variable.

Conclusion. Several factors promote hepatitis B and C. The physiological system differs from one individual to another. Also, the weight of each factor is ignored. Given this complexity, the principles of fuzzy logic proposed are adequate. Once the system has been completed, it allows the random introduction of values expressed by diabetes and BMI at the input to automatically read the result at the output. This tool can be considered as a prevention system in the appearance and even the aggravation of this disease.

Keywords: Hepatitis B and C, Risk factors, Diabetes, BMI, Fuzzy logic;

AL- MUDHIR (A TRADITIONAL SAUDI DAIRY FOOD) FORTIFIED WITH PEANUT

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Abstract

Mudhir is a form of dried and acidified dairy product that is frozen to curd and stewed. Its use is widespread in Jordan, Palestine, and northern Saudi Arabia, especially by the Bedouins. This study talks about the manufacture of Al- Mudhir (a traditional Saudi dairy food) from goat's milk and the Al- Mudhir fortified with peanuts at a rate of 5 and 10%, respectively, and then studying the composition of the product using an electron microscope and a FTIR device to know the effect of adding peanut protein to Al- Mudhir protein (casein). The practical side of the study dealt with the preparation of three samples of Al-Mudhir enriched with roasted peanuts pasted by 5 and 10%, respectively, and not fortified with peanuts pasted, and through a questionnaire conducted by panelists. After tasting the samples, it was found that the mixture enriched with peanuts pasted at 5% and 10% achieved a high degree of acceptance. The study dealt with the composition of the fortified mudhir by means of the FTIR to know the effect of adding peanut protein to the fortified mudhir, where it was found that there is a clear effect of adding peanuts by 5 and 10% compared to the samples before the addition. Electron microscope images showed a clear contrast between the fortified mudhir and the non-fortified one.

Keywords: Mudhir, peanut, fortification, FTIR, SIM

Invitro ANTICANCER ACTIVITY OF CARBON NANOPARTICLES PRODUCED VIA A BIOSOOT USING FEW AQUATIC PLANTS WITH ITS CHARACTERIZARION AND ANTIBACTERIAL ACTIVITY

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Abstract

Recently, development of reliable experimental protocols for synthesis of metal nanoparticles with desired morphologies and sizes has become a major focus of researchers. Green synthesis of metal nanoparticles using plants has emerged as a nontoxic and ecofriendly method for synthesis of metal nanoparticles. In this study characterization of stable carbon nanoparticles were done by using biosoot sample of*Nelumbonucifera*, *Pistiastratiotes* and *eichhorniacreassipes* leaves . In this study, the biosoot of leaveswas studied for its particle characterization. The soot formed by burning of the leaves of leaves were studied using Dynamic Light Scattering (DLS) measurement of the particles to learn the size, Fourier Transform Infra-Red (FTIR) spectrum to learn the presence of associated organic compounds and X-ray Diffraction (XRD) of particles were studied. GC-MS analysis revealed that the leaf extract ofLeaves,contains active chemical constituents . These bioactive principles are found to be responsible for bioreduction during the formation of carbon nanoparticles. The preparation of nano-structured carbon particles using leaves, thus it provides an environmental friendly option, as compared to currently available chemical and physical methods. The results of the study will be discussed in detail.

Keywords: Biosoot , Carbon nanoparticles XRD, EDX,FT-IR, GC-MS analysis,

CURCUMIN MAY BE A PROMISING ANTI-AGING SUPPLEMENTATION: STUDIES ON AN ACCELERATED SENESCENCE MODEL OF RAT

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Abstract

Among several putative anti-aging therapies, calorie restriction (CR) is a powerful intervention for delaying the aging process and may prolong life span. Curcumin (1,6-heptadiene-3,5-dione-1,7-bis (4-hydroxy-3-methoxyphenyl) derived from *Curcuma longa*, is a potent natural compound with a wide range of health benefits. Recent research has shown that it also acts as a calorie restriction mimetic (CRM). This study aimed to determine the CRM effect of curcumin in an accelerated senescence rat model. Curcumin (200 mg/kg b.w., orally) was given for four weeks with D-gal (300 mg/kg b.w., subcutaneously) to evaluate if it may protect against D-gal-induced accelerated aging and oxidative stress. When comparing D-gal-induced rats to curcumin-treated rats, we found a significant increase in plasma protein carbonyl (PCO), malonaldehyde (MDA), and Advanced Oxidation Protein Products (AOPP), as well as concurrent decreases in antioxidant indices like the ferric reducing ability of plasma (FRAP), GSH, superoxide dismutase (SOD), and Catalase. Curcumin supplementation improved the levels of ROS, PCO, MDA, and AOPP in erythrocytes and plasma, protecting them from D-gal-induced alterations. Curcumin thus protects against oxidative stress caused by D-gal-induced aging via a mechanism similar to CR. The CRM action of curcumin could explain some of its health benefits.

Keywords: Aging, curcumin, Caloric Restriction Mimetics, oxidative stress.

THE INFLUENCE OF THERMAL RADIATION AND CHEMICAL REACTION ON MHD MICROPOLAR FLUID IN THE PRESENCE OF HEAT GENERATION/ ABSORPTION

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Abstract

Numerical and theoretical analysis of mixed convection flow of MHD micropolar fluid with stretching capillary in the presence of thermal radiation, chemical reaction, viscous dissipation and heat generation/ absorption have been studied. The governing non linear partial differential equations of momentum, angular velocity, energy and concentration are converted into ordinary differential equations using similarity transformations which can be solved numerically. The dimensionless governing equations are solved by using Runge Kutta fourth fifth order along with shooting method. The effect of physical parameters viz., micropolar parameter, unsteadiness parameter, thermal buoyancy parameter, concentration buoyancy parameter, Hartmann number, spin gradient viscosity parameter, microinertial density parameter, thermal radiation parameter, Prandtl number, Eckert number, heat generation or absorption parameter, Schmidt number and chemical reaction parameter on flow variables viz., velocity of micropolar fluid, microrotation, temperature and concentration has been analyzed and discussed graphically. MATLAB code is used to analyze numerical and theoretical facts. From the simulation study it can be concluded that an increment of micropolar parameter, Hartmann number, unsteadiness parameter, thermal and concentration buoyancy parameter results in decrement of velocity flow of micropolar fluid; microrotation of micropolar fluid decreases with an increment of micropolar parameter, unsteadiness parameter, microinertial density parameter and spin gradient viscosity parameter; temperature profile of micropolar fluid decreases with an increment of thermal radiation parameter, Prandtl number, micropolar parameter, unsteadiness parameter, heat absorption and viscous dissipation parameter; concentration of micropolar fluid decreases as unsteadiness parameter, Schmidt number and chemical reaction parameter increases. Furthermore, computational values of local skin friction coefficient, local wall coupled coefficient, local Nusselt number and local Sherwood number for different values of parameters have been investigated.

Keywords: Thermal radiation, chemical reaction, viscous dissipation, heat absorption/ generation, similarity transformation**.**

HALAL MEDIA AND RECREATION INDUSTRY IN INDONESIA

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Abstract

Indonesia is a country with a muslim majority population, even though it is still the largest in the world today. Indonesia has the opportunity to become a producer and center for halal products in the international market. To achieve this goal, the Government of Indonesia through the National Committee for Sharia Economics and Finance (KNEKS) has prepared the best programs to create the best formula, namely the Indonesian Sharia Economic Masterplan (MEKSI. The program has several focuses on the development of the Islamic economy in Indonesia, one of which is the Development of the Halal Product Industry.The method in this research is a descriptive analysis in the form of library research using a qualitative research approach.In this study, used secondary data obtained from regulations , previous research studies, and other literature with similar research topics. This research will explain the development of the halal industry in Indonesia, especially the Halal Media and Recreation Industry. The results of this research can determine the characteristics of media and recreation that are halal and in accordance with sharia rules. With the background of the Indonesian population, which is predominantly Muslim, this study also concludes that the Indonesian people really need halal media and recreation as part of their activities.

Keywords: Media, Recreation, Halal Industry

POTENTIAL OF HALAL TOURISM CENTRAL JAVA, INDONESIAIN THE ERA OF THE INDUSTRIAL REVOLUTION 4.0

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Abstract

Central Java Indonesia urges that to realize Central Java as a center of culture and a world- class tourist destination. Thus, the Central Java government through the tourism and culture department supports the potential for West Java's jargon in terms of tourism. From this background regarding the formulation of the opportunities and challenges of halal tourism in the West Java Province of Indonesia in the Industrial Revolution Era 4.0, it can be concluded that the potential for halal tourism in Central Java in the Industrial Revolution 4.0 Era includes Business Tourism Villages, Religious Tourism, and Tourism Creative Industry. While the challenges faced include the location of certain areas that are not yet possible to become a halal tourist destination, then the problem of transportation is also still minimal, but the consumer problem has entered the halal tourism sector, while the hotel is still limited in existence. The Central Java government in this case continues to strive to encourage this existence from transportation, hospitals, hotels, and the creative industry to a better direction.

Keywords; Halal Tourism, Central Java, Industrial Revolution Era 4.0

DEVELOPING DIGITALIZATIAN OF SHARIA FINANCE THROUGH THE ECOSYSTEM

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Abstract

This study tries to examine Developing Digitalization of Islamic Finance Through the Ecosystem. The method in this research is descriptive analysis in the form of library research using a qualitative research approach. In this study, secondary data obtained from previous research studies, and other literature with similar research topics were used. The results of this study show that the growth of the sharia industry is much faster in a digitized ecosystem. The ecosystem involves many stakeholders including mosques, Islamic boarding schools, Islamic education, Islamic financial institutions, halal industry, micro, small and medium enterprises, halal certification, fintech, capital markets and e-commerce. The urgency factors for digitalization include the post-pandemic era, increasingly vulnerable economic conditions, the urgent need for efficiency and adjusting the sharia lifestyle. The challenges faced to achieve a successful digital transformation are unequal technology, information and communication infrastructure, very limited capabilities and digital use of business actors and slow internet connection speeds.

Keywords: sharia industry, challenges, digitalization of finance.

TASK FORCE TRAINING ACTIVITIES OF THE MEMBERS UKK KSR PMI IAIN PEKALONGAN IN 2022

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Abstract

Task force training is a form of training carried out by the Abdimas Division in order to improve the skills of UKK KSR PMI Unit IAIN Pekalongan members. This training is devoted to young members who incidentally have never done a task force. Therefore, task force training is the first step or introduction for young members to be able to understand common cases that occur when carrying out a medical duty task force. In addition, the task force training also has another goal, namely to increase preparedness, confidence, and knowledge for members of UKK KSR PMI unit IAIN Pekalongan. This training was held on February 13, 2022, which took place in the building of the Faculty of Economics and Islamic Business, Pekalongan State Islamic Institute. The reason for holding this activity is that even during a pandemic, such as now, natural disasters or cases of medical emergencies still occur, for example the case of disaster emergency response flooding in Pekalongan City where refugees need medical emergency treatment. Therefore, it is very important to carry out this task force training even during a pandemic like now. The output or result of this activity is that members can understand the handling of medical cases that commonly occur during the task force, increase the confidence of members during the task force, introduce cases that commonly occur during the task force, and train the preparedness of the task force members, especially young members.

Keywords: training, task force, Indonesian red cross

A REVIEW ON NUTRACEUTICALS : CATEGORIES AND POTENTIAL HEALTH BENEFITS

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Abstract

Nutraceuticals term is the combination of nutrients and pharmaceutical coined by Stephen DeFelice in 1989. Consumers are more aware towards their health and like to include food supplements in their diet to improve health instead of drugs that are having various deteriorating effects on health. Nutraceuticals are food or food part with potential health benefits, maintaining the normal physiological functions that maintain the health of human being. Nutraceuticals having nutritional and medicinal benefits are classified into dietary fibre, prebiotics, probiotics, polyunsaturated fatty acids, antioxidants and other different types of herbal natural foods. Nutraceuticals linked with the prevention or reduced progression of many chronic diseases, such as cardiovascular disease, delay ageing, cancer, osteoporosis, arthritis, diabetes, cholesterol and degenerative diseases like Alzheimer. The benefits of these products due to presence of various bioactive constituents leads to the new era of medicine and health. This review article highlights the introduction about nutraceuticals with its classification and use in various disease ailments.

Keywords: Nutraceuticals, prebiotics, probiotics, antioxidants, dietary fibre.

THERMAL ENERGY BALANCE OF DOMESTIC COOKING

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Abstract

The food industry is one of the energy-intensive industries, while heat is one of the forms of energy widely used in food processing for drying, cooking, frying, sterilization, pasteurisation, etc. In domestic cooking, 20% of heat is spent in bringing food to boiling temperature, a large amount of heat is wasted from the fire to the environment, in the form of steam and as convection losses from cooking vessels. Covering the sides of the vessel with heat storage material will initially insulate it and then store the heat which could have been wasted. This can considerably reduce the heat losses, but can only be achieved by properly estimating the amount of energy available to be stored. This study determined the amount of energy available during the use of conventional cooking pots. Water heating and cooling tests were carried using stainless-steel and aluminium pots. With a stainless-steel pot, the temperature of water was around 100 ^{o}C after 210 secs, while the walls of the pot attained a maximum temperature of 289 ^{o}C after 210 secs. In the aluminium pot, the water temperature was above 100 ^{o}C after 500 secs, while the temperature of the pot walls rose to a maximum value of 220.8 ^{o}C after 840 secs. It was observed that 200-300 kJ of heat was gained by walls of the pots in less than 200 secs, which is suitable for storage.

EDUCATION FOR HEALTHY LATRINE IN KAMPALA HAMLETS, LIMAPOCCOE VILLAGE, MAROS REGENCY

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Backgrounds: Permanent healthy latrines are latrines that already use a goose-neck construction and are located inside the house. In 2020, 72.3% of Indonesian families have used permanent healthy latrines. The remaining 18.5% use semi-permanent healthy latrines and 9.2% use sharing/communal latrines.

Method: This research uses quantitative research with purposive sampling technique. This study uses quasi-experimental designs with a one-group pretest-posttest. The research population is the population living in Kampala Hamlets, Limapoccoe Village. Respondents in this study amounted to 30 respondents. The variables seen in this study are Knowledge and Attitudes Regarding the Healthy Latrine. This research was conducted in December 2021. Data processing was carried out in a descriptive analytic manner with the Wilcoxon test.

Results: The results of the research conducted on the level of community knowledge in the Kampala hamlet regarding healthy latrine there was a significant difference (p value 0.00) in the knowledge, attitudes and actions of the community before and after the counseling was carried out.

Conclusion: It is necessary to have an integrated counseling program carried out by the puskesmas, posyandu cadres, and Kampala village government so that there is an increase in knowledge, attitudes and actions of healthy latrine.

Keywords: Healthy latrine, Education, Kampala Hamlet

ENVIRONMENTAL IMPACT OF MARGINES ON WADI WATERS R'DOM: PHYSICO-CHEMICAL CHARACTERIZATION - SEDIMENTOLOGICAL ANALYSIS - HEAVY METALS

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Abstract

The olive industry occupies an important place in Morocco, However, many difficulties are associated with this activity, come mainly from solid waste called pomace, and liquid called vegetation water or margine (Boukir et al.2018).

These liquid wastes, are complex mixtures of blackish brown color. Consisting of 83 to 96% water, sugar, nitrogenous substances, organic acids, polyphenols, polyalcohols, pectins, mucilages, tannins and inorganic substances (Zghari et al.2018), having a significant negative impact on the environment, due to their high phytotoxicity against soil microorganisms and aquatic life (Elmekawy et al., 2014). Thus, they are hardly biodegradable and inhibit biological activity (Balaid et al., 2002).

The margines do not usually undergo any pre-treatment and are often dumped in nature, (Filidei et al, 2003). The result is a negative impact on the environment, which translates (Camurati et al., 1984) into soil clogging, pollution of surface and groundwater and the release of bad odors.

In order to evaluate the impact of margines discharges on the environment in the province of Sidi Kacem (Morocco), a comparative analysis will be carried out for 4 stations along Oeud R'Dom. Based on physico-chemical analyses namely; conductivity, salinity, biological oxygen demand (BOD5), chemical oxygen demand (COD), dissolved sediment rate (TDS) and suspended solids (SS). Sedimentological analyses in terms of organic matter and suspended matter. And analysis of heavy metals (polyphenols, Zn, Cu, Mn, Pb, Cd, Hg).

Samples will be taken periodically in 2022-2023, during 3 periods: before, during and after the crushing period in order to identify the degree of impact of the margines on the environment.

Key words: Pollution, Margins, Oued R'Dom, Impact

DETERMINATION OF FUNGAL QUALITY OF MARKETED HONEY SAMPLES IN CHENNAI, INDIA

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Abstract

Honey is widely used as medicine and as a nutritional source. The anti-oxidant nature of honey favours its utility in nutraceuticals. Honey is also widely used as a medicine in Indian System of Medical System such as Siddha and Ayurveda. However, the quality of honey is a concern as microorganisms are found to affect the health of the consumers as well as the quality and shelf life. Thus, the knowledge on the presence of fungi and its species diversity is necessary. Though, there are reports related to the presence of bacteria and yeasts, the same related to the presence of fungi is scarce. Hence the present study is conducted. Altogether, 33 honey samples were procured from the markets of Chennai, India. The samples were serially diluted to 10^{-2} and 1 ml of the diluted sample was plated with Potato Dextrose Agar and the plates were maintained in triplicates. A total of 813 colonies belonging to 20 species were isolated. *Aspergillus flavus* was the most dominant species isolated, followed by *Aspergillus niger* and *Penicillium oxalicum.* The results showed that few of the samples were highly contaminated and failed to comply with the industrial standards.

Keywords: Fungi, Honey, Microbial Quality, Nutraceutical, Pharmaceutical, Quality Standards

FOOD HABITS CULTURE AND DENTAL HEALTH: A STUDY AMONG TRIBAL AND NON- TRIBAL GROUPS OF BASTAR DISTRICT IN CHHATTISGARH, INDIA

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Abstract

The Tribal and Non-tribal groups inhabiting in Bastar region of Chhattisgarh, India show distinct cultural features. But community groups based on biological characteristics is not distinctly visible. One of the important cultural variableties is the type of food they consume; thus ecology shapes the food grown in the area and the food habits. Food has a very important role to play in the wear and tear of the teeth. It has been observed that the incidence of a disease like a dental caries is found differently in this area, part of it, on account of food contents consumed by the people. Such a disease affects people's health and in tern it affects the other functions of the body like that elementary system, sugar contents in the blood as well as the heart. Even in pregnancy changes are found too, in the teeth which may affect the fetus. The various investigations in eight different villages under Bakavand block of Bastar district in Chhattisgarh reveal that caries accounts for a large number of tooth extractions, which have a lot of bearing and consequences on the individual. Due to these extractions depending upon the age group, vital man-hours are lost in the economic sphere. It has also been reported that there exists a relationship between dental morbidity and a few genetical traits. Thus in view of this, it is of vital importance to understand the food habits and their implications on tooth morbidity due to dental pathology and its role in Tribal and Non-tribal way of life, both biologically and culturally.

Key words: Tribal, Non-tribal, Cultural variableties, Ecology, Food habits, Dental morbidity.

POTENTIAL APPLICATIONS OF INNOVATIVE TECHNOLOGIES IN AUTHENTICATION OF FOOD AND FOOD PRODUCTS

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Abstract

Food authentication is a process of verifying the food quality, origin, processing methods, and production techniques that match its label description. Consumers are more conscious about food quality and safety due to which food authentication is becoming an emerging public trend all over the world. In ancient times, food adulteration was generally known as sophistication. Food adulteration in various types of food products like beverages and bakery items was an illegal process as well as hazardous to consumers' health. However, this illegal process is still present with novel techniques. Food adulteration has many drawbacks having serious health issues as well as lose the retailer and consumer's trust. Thus, it is mandatory for regulatory authorities to ensure food authentication for the satisfaction of retailers, food processors, and consumers. In the modern age, due to complex nature of food and variety of adulterants, food authentication is a challenging task. There are variety of food authentication techniques categorized into analytical techniques and automated methods. In automated methods barcodes and radio frequency identification are the basic techniques employed in food authentication. On the other hand, analytical technologies include sensory analysis, fluorescence spectroscopy, isotonic techniques, non-chromatographic mass spectroscopy, elemental techniques, immunological techniques, and chromatographic techniques. The use of novel approaches for food authentication has a variety of advantages for the food processors and consumers. The use of metabolic applications enables the detection of a variety of frauds occur in food authentication. These scientific techniques are specific in sensitivity, selectivity and accuracy in professional food control sectors. The novel scientific technologies in food authentication are very useful for the characterization and identification of food product. These are also nondestructive, rapid and noninvasive techniques more comply with the industrial parameters of food authentication. Thus, the continuous use of these sophisticated techniques should be more reliable to overcome the emerging food safety and quality issues as well as consumers' confidence related to food authentication.

Keywords: Food products, innovative technologies, rapid and noninvasive techniques, spectroscopy

ANTICANCER DRUG DESIGN BY NANO CARRIERS

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Abstract

Research is being carried out worldwide for possible treatment of cancer. Graphene has been studied as a drug carrier for various cancer-related drugs. In this paper, we have used theoretical models to understand the electrons interactions, thermodynamic properties, and solvent interaction of the drug-carrier configuration. The stability of graphene means that it can be a nanocarrier in the biological system. The simulations result shows that graphene provides a stable base, where gemcitabine is a highly dissolvable and reactive drug. The adsorption of gemcitabine on the graphene was physical. The drug carrier configuration formed a highly impactful drug-carrier design.

Keywords: Gemcitabine, graphene, DFT, energies

COLOR PRESERVATION AND PIGMENT EXTRACTION FROM CITRUS SPECIES (KINNOW AND MURCOTT)

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Abstract

Natural food colors are in demand, because of quality and food safety concern. These are extracted from the plant pigments. Carotenoids and anthocyanins are major color pigments present in citrus species, which contributes to the orange, yellow and red colors in citrus species. These pigments are used in food, nutraceutical and pharmaceutical industry as a colorants and because of other beneficial properties including, pro vitamin A activity, antioxidant, antimicrobial and anti-carcinogenic activity. Color preservation and pigment extraction process involves various traditional as well as novel technologies for better yield and stability of food colour, which includes extraction methods such as solvent extraction, solid phase extraction, super critical fluid extraction (SCF) and use of enzymes are common. The extraction and preservation of color pigments from citrus species is affected by number of factors such as, light, moisture, particle size, time, temperature, enzyme, solid-solvent ratio, solubility etc. For quantification and analysis of colour compounds various analytical techniques such as, UV visible spectrophotometer, HPLC, LC-DAD, LC-PDA, LC-UV etc. have been used in different studies. After the extraction, the stability and solubility of the compounds are major concern because of oxidative nature of pigments. Storage stability of these pigments was reported to be improved when stored at low temperature, in dark conditions. Freeze drying method, for extracted pigments also improve the stability and help in maintaining the quality.

Keywords: Citrus species, Color preservation, Pigments, Food colors, Carotenoids

PHYSIOLOGICAL PARAMETERS OF HEMOSTASIS IN CALVES AND PIGLETS UNDER ADVERSE ENVIRONMENTAL CONDITIONS

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Abstract

The negative influence of the environment negatively affects all mechanisms of hemostasis. However, their dynamics in calves and piglets has not been fully elucidated. Purpose of the work: to evaluate the dynamics of the activity of hemostasis indicators in calves and piglets that have undergone short-term hypothermia. 42 calves aged 3 months and 45 piglets aged 2.5 months were observed, which, due to a technical malfunction of the heating system in winter, suffered an episode of hypothermia for 2 hours. The control groups consisted of 30 calves and 33 completely healthy piglets of the same age, kept under standard conditions. In calves and piglets that underwent an episode of hypothermia, an increase in spontaneous and stimulated platelet aggregation was noted. In such animals, an increase in the activity of hemocoagulation and a decrease in the severity of fibrinolysis were found. This negatively affected the course of microcirculation in their tissues due to a violation of the hemorheological properties of blood. It can be assumed that in calves and piglets, after an episode of hypothermia, an increase in the activity of hemostasis occurs, which slows down the course of microcirculation processes and is an important factor that reduces growth. The emerging situation requires the need to further search for approaches to accelerate in calves and piglets that have previously undergone hypothermia excessive activity of plasma hemostasis and the ability to aggregate platelets in order to improve the process of microcirculation in organs.

Key words: calves, piglets, hypothermia, environmental factors, hemostasis, hemocoagulation, platelets.

EVALUATION OF SALMONELLA CONTAMINATION IN VARIOUS COMMERCIAL CANINE FOOD IN IRAN

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Abstract

Salmonella is one of the most important disease common between humans and animals. In recent years, the lack of accurate monitoring in the production of commercial dog food has led to foodborne disease throughout the world. There have been numerous reports of salmonella infection in humans associated with pet treats of animal origin. The main objective of this study is to determine the degree of salmonella contamination in commercial dog treats on sale for the first time in Iran. 120 specimens of pet treat for dog were tested over a nine months period, (December 2019 to August 2020), using conventional culture detection methods and PCR method.

Salmonella Infantis was isolated from 2 (1.6%) out of the 120 pet treats. This study underlines that all of the animals, pet owners and veterinarians are at the high risk of salmonellosis associated with dog treats.

Keywords: BARF, PCR, Salmonella Infantis

INCREASING THE EFFECTIVENESS OF FITNESS TRAINING IN MEN OF THE FIRST MATURE AGE

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Abstract

A scientifically substantiated systematic increase in muscle activity is the basis for the intensification of the physical development of trainees. The paper traces the dynamics of strength indicators and anthropometric characteristics of men of the first mature age, who go in for fitness using two different methods. In men who started training within the framework of fitness according to the traditional method of training during the week, the result was not pronounced. The results obtained in the study showed the high efficiency of the author's method of fitness training for men with initially low physical activity. The use of the author's methodology of fitness training after 3 months provided a very pronounced increase in strength capabilities. At the same time, general morphological parameters turned out to be more developed in this group. This was manifested against the backdrop of the author's fitness training methodology by a more pronounced increase in muscle mass with a more significant decrease in the content of adipose tissue in the body.

Key words: fitness, muscles, physical activity, training methods, first adulthood, men.

EFFECTS OF THE SUBSTITUTION OF COW'S MILK WITH SOYMILK ON THE MICRONUTRIENTS, MICROBIAL, AND SENSORY QUALITIES OF YOGHURT

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Abstract

The consumption of imported dairy products is high especially in developing countries including Nigeria where little or no milk is produced locally which make the products expensive, out of reach to common masses and also inconvenient for lactose intolerance and vegans. Soymilk, as plant-based milk was substituted for cow's milk in parts and in whole for the production of yoghurt and the effect of substitution was evaluated on the minerals, vitamins, microbial, and sensory properties of the products using the established methods. Significant differences ($p<0.05$) exits among the yoghurt samples in the micronutrient contents. The soymilk substitution produced yoghurts with trace/macro mineral contents' range of 0.14-28.50 mg/100 g and vitamin contents (ranged 0.02-0.43 mg/100 g) that were of comparable range of values with the yoghurt made with 100% cow's milk (0.21-29.60 mg/100 g minerals and 0.05-0.58 mg/100 g vitamins). Generally, no significant difference ($p<0.05$) was observed in most of the sensory attributes evaluated (range 8.00-8.01) in the entire samples (except in the 100% soymilk yoghurt). The microbial analysis proved the safety of the entire products for consumption. These showed the positive effect of substituting soymilk for cow's milk at all the levels used, thus, the lactose intolerance and vegans can find alternative to dairy yoghurt in the 100% soymilk substitution and enjoy the functional health benefits of yoghurt. Also, the total dependence on importation of dairy milk and cost of production of composited milk yoghurt will be reduced to improve the nation's economy and make the product economically accessible to common man.

Keywords: Cow's milk, soymilk, yoghurt, mineral and vitamin contents, microbial quality, sensory acceptability

PLATELET FUNCTIONS OF BULLS OF THE KOSTROMA BREED AND FATTENING BOARS OF THE LARGE WHITE BREED

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Abstract

During ontogenesis in the main productive animals in maintaining homeostasis, the age-related dynamics of hemostasis parameters and especially platelets is of great importance. It is recognized that the optimum dynamics of the functional parameters of the body of calves and piglets is closely related to the normal level of platelet activity. This is realized through hemostasis maintaining the liquid properties of blood in small vessels, ensuring the normal functioning of all organs, high resistance to disease-predisposing factors, and a sufficient level of metabolism. In the course of the study, the features of platelet functions were elucidated in healthy bulls of the Kostroma breed of boars of a large white breed. In bulls and boars, the stability of the functional capabilities of platelets was noted. They had stable platelet aggregation, which is apparently due to the invariance of adhesive molecules on their surface. Also, bulls and boars had a stable comparable severity of platelet aggregation, which is largely due to the constancy of the number of receptors on platelets to different inducers of the aggregation process. The found features of platelet activity are of great adaptive importance for maintaining the optimum homeostasis in the microcirculatory vessels of growing animals.

Key words: platelets, hemostasis, bulls, Kostroma breed, boars, Large White breed.

PHYSIOLOGICAL DYNAMICS OF THE MAIN HEMATOLOGICAL PARAMETERS OF SUCKLING SOWS

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Abstract

The process of lactation in sows is a serious test for the body. Many hematological parameters play an important role in this process. However, their levels in healthy sows during suction are still not fully understood and require serious clarification. In sows that were born and live in the conditions of the Central zone of Russia, the level of total protein in the blood and the amount of albumin in it during suction remains normal, increasing to the upper limit of normal. In the course of suction, the amount of urea in the blood of sows decreases as a result of a physiologically justified weakening of protein metabolism. During suction, lactating sows have a slight increase in the amount of triglycerides and cholesterol in the blood, with a stable normal glucose content. During the suckling period, the sows had a constant alkaline phosphatase activity and a slight decrease in the enzymatic capabilities of gamma-glutamyl transferase, as well as the biological capabilities of transaminase and creatine kinase enzymes. The levels of registered substances and the activity of a number of vital enzymes revealed during the sucking period can be considered as normative for suckling sows located in the climatic conditions of the Central region of Russia.

Key words: sows, suction, enzymes, blood, metabolites, physiology.

PLATELETE ACTIVITY IN CALVES OF THE YAROSLAVSK BREED OF DAIRY AND VEGETABLE FOOD

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Abstract

The purpose of the study is to find out the features of platelet activity in young animals of the Yaroslavl breed during the phase of milk and vegetable nutrition. The work was carried out on 42 calves of the Yaroslavl breed obtained after normal pregnancy from healthy cows. In young animals, an acceleration in the development of platelet aggregation in response to all the inductors used in the work was noted by the age of 45 days of life, which was eliminated by the end of the third phase of observation. In calves at the age of 45 days, there was a short-term increase in the number of activated platelets in the blood by 27.9%. A short increase in the functionality of platelets at the age of 45 days occurred as a result of a 30.3% increase in the intensity of thromboxane formation. For this, a short-term increase in the content of adenosine phosphates in platelets and the activation of their secretion are very significant. A short increase in platelet function in calves by day 45 was also provided by a short increase in the amount of actin and myosin in platelets by 35.7% and 43.0%. Their level returned to the end at the end of the observation. In calves, in platelets that started aggregating, by the 45th day of life, an increase in the additional generation of actin and myosin by 35.7% and 43.0%, respectively, developed, which was eliminated by the end of the third phase of early ontogenesis.

Key words: calves, Yaroslavl breed, phase of milk and vegetable nutrition, platelets, hemostasis.

PHYSIOLOGICAL DYNAMICS OF HEMATOLOGICAL PARAMETERS IN LACTATING COWS ON THE INTRODUCTION OF CATOZAL

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Abstract

Modern science is in great need of additional collection of physiological information about cows in order to intensify animal husbandry and increase their productivity. The use of modern biological stimulants in cows can be considered an opportunity to increase the productivity of the entire dairy herd. Against their background, the dynamics of the main hematological characteristics always develops. When evaluating the results of six weekly courses of administration of catozal at a dose of 20.0 ml per animal per day, very biologically beneficial changes in the biochemical and morphological characteristics of blood in Black-and-White cows during lactation were revealed. The changes achieved should be considered as a consequence of the use in terms of the level of different types of metabolism in these animals. The formation of the revealed changes in a number of hematological characteristics in response to catozal is very favorable for the rehabilitation of the lactation process in cows and the excess of their milk yield. The results obtained give grounds to consider the drug catozal as very promising for the activation of the organism of lactating cows.

Key words: cows, lactation, blood, catozal, physiological indicators, biochemical characteristics.

MINI-REVIEW: APPLICATIONS OF MOLECULAR GASTRONOMY IN FOOD INDUSTRY

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Abstract

Molecular gastronomy has had a huge impact on food attractiveness and customer satisfaction over the years. Although molecular gastronomy is often confused with molecular cooking, molecular gastronomy is the use of advanced chemistry and biochemistry to create new foods. Unlike the past, cooking in households and restaurants has proven to be more scientific with the development of the concept of molecular gastronomy. In the 1980s, molecular gastronomy emerged as a result of the need to study the phenomena that take place during the culinary processes of rationalization of culinary techniques. The science of the day focused mainly on chemistry, the composition of food ingredients, and industrial processes. Molecular gastronomy is quite popular and advanced in many countries. With the introduction of the notion of dispersed systems (heterogeneous mixtures of two or more substances, at least one of which is divided into very small particles) new recipes for product formulation are introduced in molecular gastronomy. Chemical and physical techniques that are applied in some restaurants to produce new textures and flavor combinations have led to the appreciation of food. It can be said that molecular gastronomy denies some traditional cooking myths; thus the aims of molecular gastronomy are to collect and investigate traditional cooking methods, analyzing existing formulation recipes, the introduction of new cooking tools, products and methods, to invent new foods and use the attractiveness of food to promote science. The types of colloidal system found in molecular gastronomy are emulsion, solid emulsion, foam, solid foam, solid gel. Gastronomic molecular techniques include spherification, meat glue, quick freezing, flavor component, foam, use of emulsifiers, whimsical or avant-garde presentation style, new food textures (foams, gels, food-like glass), oven cooking microwave, different flavor combinations, improved temperature control machines, high pressure cooking, high power mixing and cutting, for example ultrasonic stirring to create emulsions. This paper reviews both the concepts of molecular gastronomy and the latest applications of molecular gastronomy in different countries.

Keywords: molecular gastronomy, spherification, ultrasound

APPLICATIONS OF AQUATIC WEED DERIVED ZIRCONIUM NANOPARTICLES AND ITS BIOSYNTHESIS

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Abstract

Aquatic invasive organisms represent a threat to socioeconomic and ecological systems by entering into the freshwater ecosystems and destroying them. The Water Hyacinth, scientifically known as Eichhornia crassipes (Mart.) Solms, is one of the most well-known floating, toxic aquatic plant all around the world. It has spread across the world's aquatic systems, invading almost all of them and is a problem throughout the world. Optimal conditions for the growth of water hyacinth result in vast amounts of the plant, which has negative consequences for both the environment and human health. Water hyacinth (Eichhornia Crassipes) is a weed that has emerged as a significant threat to aquatic life and ecosystems in recent years. Using aquatic weed as a starting point, environmentally friendly procedures were employed to produce zirconium metal nanoparticles. The plant worked as a reducing agent, and its natural fibres helped to keep the particles in place during the process of production. Several techniques were used to characterise the formed nanoparticles, including ultraviolet visible spectral analysis (UV-Vis), X-Ray Diffraction crystallography (XRD), Energy Dispersive X-rays (EDAX), Scanning Electron Microscopy (SEM) and Fourier Transform Infrared Spectroscopy (FTIR). The results obtained from the experiments confirmed that the formed nanoparticles are in the nanometer range and have a distorted sphere-shaped structure. Metal nanoparticles (metal NPs) that have been created have been also explored in the context of anti-microbial and anti-diabetic research. It has been revealed that the produced nanoparticles from the aquatic weed have an in vitro anti-diabetic impact because of its ability to inhibit α-amylases in the presence of glucose and also possess anti-microbial activity against many strains. Because a problem-causing plant has been used to demonstrate anti-diabetic and anti-microbial action, the research may be considered a successful application of the "Best out of trash concept" and will pave way for further research.

Keywords: #AquaticWeed, #Nanoparticles #Green Synthesis #Water Hyacinth #Anti-diabeticActivity

MONCHEMA CILLIATIM (BLACK MAHLAB) A PROMISING SOURCE OF NUTRIENTS

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Abstract

Developing countries are under the clutch of malnutrition due to a lack of protein rich food. Protein supply can be broadened by exploration and exploitation of alternative sources. Even though many wild legume landraces have been identified, their utilization is limited due to insufficient attention.

Monechma ciliatum (MC) is a species of Monchema genus plant that belongs to Acan-thaceae mainly grows in tropical regions. In Sudan where it is well known and traditionally used in treatment and cosmetic, it has a small brownish black seeds, this why the Sudanese people call it the black mahlab or El-Mahlab El-Aswad *Monechma ciliatum* MC seeds are rich source of protein (21-25%), fat (11-15%) minerals and other essential nutrients. The current study aims to investigate the impact of using MC seeds as plant-based food supplement on kisra (Sudanese bread made of sorghum flour). the composite flour was made with ratio 1:10 (MC to sorghum) The common kisra made of pure sorghum flour (K) as control sample. Chemical composition, minerals, amino acids, fatty acids, tocopherols content were determined, also sensory evaluation for samples was done. Results showed that using *Monechma ciliatum* seeds flour as food supplement on sorghum's Kisra significantly improved its Protein, Fat, Fibre, mineral, amino acids, and unsaturated fatty acids. The study Recommends that people in poor rural areas in most of the African countries can use MC as an alternative Nutrient source especially kids in those areas who suffer from illnesses caused by poor nutrition, using traditional techniques that don’t need technology .

Keywords: Monchema Cilliatim, Black mahlab, Kisra.

FEASIBILITY OF USING GARDEN-BASED NUTRITION CLUB AS NUTRITION EDUCATION TOOL AMONG SCHOOL AGE CHILDREN IN SELECTED PRIVATE PRIMARY SCHOOLS IN IBADAN

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Abstract

Long-lasting and impactful activities that engage school children such as garden-based nutrition interventions are short-lived and have not been widely successful in Nigeria. Hence, the need for a different approach, such as a garden-based nutrition education club in schools. The general objective of this study was to determine the feasibility and acceptability of using garden-based nutrition club as a nutrition education tool in selected private primary schools in Ibadan in order to cultivate the habit of a healthy eating culture. This study design was a descriptive mix method with a sample size of 255 respondents from 15 consenting private primary schools in Ibadan North Local Government Area.

Moreover, the participants were pupils from primary 2 or 3, 4, 5 or 6 between the ages of 7 and 10 years. Semi-structured and pre-tested self-administered questionnaires were used to obtain information on the socio-demographic characteristics, nutrition education, nutrition knowledge, preference and frequency of fruits and vegetable consumption, and perceived challenges and resources needed for the implementation and sustainability of garden-based nutrition club in these schools. All data obtained were coded and analyzed using the International Business Machine Statistical Package for the Social Sciences (IBM SPSS) version 20. About 47.2% of the pupil respondents were males while 52.8% were females aged 8.46±1.08 years. For the teachers and admin respondents, 3.4% were between the ages of 18-24, 27.6% were between the ages of 25-31 while 69% were 31 years and above. Also, 30.2% were males and 69.8% were females. About 80% of respondents reported the nonavailability of school garden in their school, and 99.4% reported the absence of school nutrition or garden club. Only 4% of the respondents (teachers and administrators) had educational background in Nutrition, 46% had educational background in Agriculture, while only 12% had in both Nutrition and Agriculture.

About 87% of the student respondents had a positive preference to participate in garden-based nutrition club activities, and about 70% of the respondents (teachers and administrators) were in support for its establishment. However, 65% of schools lacked required resources such as adequate farming space and funding, whereas only 35% of schools had some of these needed resources.

Results showed that all the schools lacked garden-based nutrition clubs, but had a high level of willingness and acceptance. However, potential challenges such as land space and funding were high, but could be addressed if all the major stakeholders were willing to support its establishment.

Keywords: Garden-based nutrition club, school age children, private primary schools, feasibility, nutrition education tool, Ibadan.

Word Count: 414

EFFECT OF VARIETY AND CRACKED KERNELS ON DAMAGE CAUSED BY *TROGODERMA GRANARIUM* EVERTS TO WHEAT AND ITS CONTROL BY PHOSPHINE FUMIGATION

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Abstract

Wheat (*Triticum aestivum*) is the major cereal crop that is consumed in largest amount than other cereal crops in the world. *Trogoderma granarium* Everts (Coleoptera: Dermestidae) is the important stored grains pest of wheat. Seven parameters including weight of damaged grains, numbers of damaged grains, weight of undamaged grains, numbers of undamaged grains, percent weight loss, survival and mortality of *T. granarium* were studied to conclude the effect of cracked kernels and wheat varieties. Present study was conducted in the laboratory of Entomology in FA & E, The Islamia university of Bahawalpur. Culture was obtained in laboratory under the optimum condition 30 ± 2 °C and 65 ± 5 % R.H. The experiment was done in CRD with five treatments and three replications. In all, there were six varieties of wheat. Each variety had parameters of cracked kernels (0 %, 25 %, 50 %, 75 %, and 100 % cracked kernels). All varieties were tested separately for damage parameters described above. In all varieties, weight of damaged grains increased with increase in percentage of cracked kernels. Maximum weight was recorded in T_5 (100 %) cracked kernels except in Faisalabad in which maximum weight of damaged grains was recorded in T_2 (50 %) cracked kernels. Similarly, number of damaged grains due to *T. granarium* attack increased with increase in degree of cracked kernels. Conversely undamaged grains weight decreased with increase in percentage of cracked kernels. In our results overall percent survival of *T. granarium* larvae infesting different varieties ranged as Aas > Zincol > Fakher e bakhar > Ghazi > Faisalaabad 2008 > Anaj > Jouhar. There was no significant effect recorded in mortality of *T. granarium* due to phosphine under the effect of percentage of cracked kernels.

Key words: stored grain insect pest, khapra beetle, primary pest, integrated pest management, wheat varieties.

NUTRITIONAL, PHYTOCHEMICAL AND HEALTH BENEFITS OF 'CITRON'

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Abstract

The Novel Coronavirus (covid-19) is a new coronavirus strand discovered in animals and humans. It can infect anyone but the more severe symptoms have been observed most frequently in people with pre-existing weakened immune system, the elderly, and those with long-term conditions such as diabetes, cancer, and chronic lung disease. due to increase of industrialization and hectic practices, More traditional food is being replaced by processed food and we unable to pay attention to our health which results in a deficiency of bioactive constituents. 'CITRON' An underutilized fruit which comes under as antique species of the genus Citrus, Some vernacular names -Arabic: Limu, Utaraj, Chinese: Gou Yuan, Turanj (Gujarati) etc. It is known to contain many nutritional components such as phenolics, flavanones, ascorbic acid (vitamin C), and pectin. The fruit has abundant nutraceutical importance, it is an anti-catarrhal, capillary protector, anti–hypertensive, diuretic, antibacterial, antifungal, anti-helminthic, antimicrobial, strong antioxidant, anti-cancerous, anti-diabetic, estrogenic, antiulcer and cardio protective.

Keywords: Citron, Covid-19, Functional food, Phytochemicals, bioactive compounds, health benefits.

EFFECT OF DEHYDRATION TECHNIQUES ON NUTRITIONAL AND POLYPHENOLIC CONTENT OF WASTE FROM KINNOW MANDARIN (*CITRUS RETICULATA*) AND MURCOTT MANDRIN (*CITRUS RETICULATA X SINESIS*)

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Abstract

Citrus fruits are commercially developed fruits containing a high concentration of phytochemicals and functionally active substances. Processing fruit generates vast volumes of waste, either given to animals or disposed of, adding to the environmental burden. Citrus waste, namely peel and pomace, are regarded as potent agro materials for numerous purposes in the food sector. The present study aimed to evaluate the effect of different dehydration techniques (hot air oven drying and freeze-drying) on the nutritional and polyphenolic content of waste (peel and pomace) from kinnow mandarin and murcott mandrin. The nutritional content was evaluated by AOAC methods, whereas polyphenolic compounds and their antioxidant activity were assessed by total phenolic content, total flavonoid content, DPPH free radical scavenging activity and ferric reducing antioxidant power. The results showed the significant effect of dehydration techniques on the Nutritional and polyphenolic content among the different selected citrus waste. A significant correlation was also found between polyphenols and antioxidant activity. It is concluded that freeze-dried citrus waste powder had much higher retention of the nutritional and polyphenolic compounds than the hot air-dried citrus waste powder.

Keywords: Kinnow, Mandrin, Polyphenols, Antioxidants, Dehydration

EFFECT OF DEHYDRATION TECHNIQUES ON NUTRITIONAL AND POLYPHENOLIC CONTENT OF WASTE FROM KINNOW MANDARIN (*Citrus reticulata*) and MURCOTT MANDRIN (*Citrus reticulata x sinesis*)

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Abstract

Citrus fruits are commercially developed fruits containing a high concentration of phytochemicals and functionally active substances. Processing fruit generates vast volumes of waste, either given to animals or disposed of, adding to the environmental burden. Citrus waste, namely peel and pomace, are regarded as potent agro materials for numerous purposes in the food sector. The present study aimed to evaluate the effect of different dehydration techniques (hot air oven drying and freeze-drying) on the nutritional and polyphenolic content of waste (peel and pomace) from kinnow mandarin and murcott mandrin. The nutritional content was evaluated by AOAC methods, whereas polyphenolic compounds and their antioxidant activity were assessed by total phenolic content, total flavonoid content, DPPH free radical scavenging activity and ferric reducing antioxidant power. The results showed the significant effect of dehydration techniques on the Nutritional and polyphenolic content among the different selected citrus waste. A significant correlation was also found between polyphenols and antioxidant activity. It is concluded that freeze-dried citrus waste powder had much higher retention of the nutritional and polyphenolic compounds than the hot air-dried citrus waste powder.

Keywords: Kinnow, Mandrin, Polyphenols, Antioxidants, Dehydration

CORRELATION BETWEEN METABOLIC ILLNESS SUCH AS DIABETES WITH THE LIFESTYLE OF UNDERGRADUATE STUDENTS OF PAKISTANI UNIVERSITY

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Abstract

Despite an increase in the incidence of diabetes in youths, there is little data available on the prevalence of diabetes in teenagers or university students. The study aimed to investigate the prevalence of diabetes and its influence on the type of lifestyle among university students in Pakistan.

A user-friendly questionnaire-based survey using google form was conducted on university students from Karachi, Pakistan, after obtaining ethical clearance for the study. Here, we report the estimation of the prevalence of the risk of diabetes and self-reported diabetes in 221 young individuals below the age of 25 years old. Risk for diabetes was assessed using a standardized instrument, the diabetes risk score (DRS), which has 4 factors (age, family history of diabetes, waist circumference, and body mass index).

The Diabetes Risk Score revealed the prevalence of diabetes among female students was at increased risk (30.3%) while male students showed (17.2%) increased risk. Students with a Family history of diabetes showed a high risk (3.6%) of developing future diabetes.

It is concluded from the current study that an increase in the prevalence of metabolic illnesses like diabetes among young university students is due to unhealthy lifestyles. Thus, the study provides correlations between diabetes with lifestyle modification. However, further epidemiological studies are required to investigate the etiological and other risk factors.

Keywords: Diabetes Type 2, lifestyle Modification, University Students of Pakistan.

POMELO FRUIT AS A BIOACTIVE SOURCE AND HEALTH POTENTIAL

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Abstract

Pomelo scientifically known as *Citrus grandis* belongs to the family Rutaceae and is one of the largest fruit among citrus varieties. Pomelo fruit generates a large number of wastes including peel, pomace, and seeds which are comprised of bioactive compounds. The bioactive compounds carried in waste improve the health functionalities. Mainly pomelo comes in different flesh colors such as red, pink, light pink, and white flesh color. Red fleshed pomelos are mostly consumer-preferred cultivars with attractive colors and have high antioxidant activity. Also, pomelo fruit has high lycopene and β-carotene content, and the juice part has fruitiness, sweetness, and sourness flavor which is an important consumer preference. On processing and consumption pomelo fruit is composed of 50 % remains of peels, seeds, pulp, and peel segments that contain beneficial bioactive compounds such as polyphenols, vitamins, and carotenoids that defined antimicrobial and antioxidant activities. Different extraction techniques involving conventional, ultra-sonication, and microwave-assisted have been used for the production and processing of polyphenols. These methods utilized different solvents to account for polyphenolic components from pomelo fruit. The main components of pomelo fruit are the flavanones, narirutin, and naringin and their aglycone (naringenin), which have always been recognized to be a distinctive component of pomelo. Other flavanones have been identified in pomelo including hesperidin, didymin, eriocitrin, neohesperidin, neoeriocitrin, and poncirin, as well as flavonols (rutin), and flavones (rhoifolin and diosmin). Also, pomelo fruit juice has high vitamin C, A and peel offers high protein, carbohydrates, and mineral content. The pectin content present in the peel of pomelo accounts for components such as arabinose, rhamnose, glucose, mannose, and xylose. Pomelo production and processing of different byproducts have become major agriculture and food industry. In addition, this pomelo fruit is an ideal and sustainable resource for collecting bioactive compounds and different co-products for food consumption and pharmaceutical industries. The advances in food preservation open new vistas for the extraction of bioactive compounds from these wastes using traditional and novel technologies. These wastes loaded with immense essential components have great importance in terms of human health and can be returned as valuable products and preservation approaches.

Keywords: Pomelo, Bioactive constituents, Waste, Peel, Products, Polyphenols, Health benefits

REVIEW ON CLIMATE CHANGE AND AGRICULTURE: CAUSES, EFFECTS AND ADAPTATION STRATEGIES.

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Abstract

Agriculture which is the major source of food for man and animal globally is recently under great threat as a result of climate change. Climate change and agriculture are interrelated processes, both of which take place on a global scale, with the adverse effects of climate change affecting agriculture both directly and indirectly. Reseachers have reported that the climatic changes are usually resulting in erratic weather patterns and the effects are currently being experienced in many parts of the globe especially in tropical regions. This can take place through changes in average temperatures, rainfall, and climate extremes (e.g., heat waves); changes in pests and diseases; changes in atmospheric carbon dioxide and ground-level ozone concentrations; changes in the nutritional quality of some foods and changes in sea level. There has been an increase in average global carbon (iv) oxide (CO_2) concentration from 270ppm before the industrial revolution to about 360ppm presently. Apart from CO_2, other green house gases (GHGs) that make substantial contributions to global warming include methane (CH_4) and nitrous oxide (N_2O). Climate change leads to reduction of land for agriculture as some areas experience desertification and permanent flooding from rising sea levels. Other effects of climate change are variation in temperature regimes, rainfall pattern, melting of glaciers, hurricanes, forest fire, etc. This paper is aimed at reviewing climate change and agriculture: causes, effects and adaptation strategies.The impacts of climate change on agricultural production globally especially in Africa and Nigeria in particular will have serious implications for food security and livelihood. Therefore, there is need to adopt mitigation and adaptation strategies that will encourage agricultural production and ensure food security. The following agricultural innovations have been suggested to be essential to addressing the potential issues of climate change, viz; better soil management, water saving technology, matching crops to environments, use of different crop varieties, crop rotation, appropriate fertilizer application, organic farming, sustainable forest management and supporting local/community-based adaptation strategies. It is believed that with the above strategies, the impacts of climate change on agricultural production will be drastically reduced and food production sustained.

Keywords: climate change, agriculture, causes, effect, adaptation

GRAPEFRUIT - A RESERVOIR OF BIOACTIVE COMPOUNDS WITH HEALTH PROMOTING EFFECTS

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Abstract

Grapefruit (*Citrus paradisi*) finds its origin roots in Barbados. Industrial processing of grapefruit generates a large number of wastes (peels, pomace and seeds). These wastes are a source of bioactive compounds which have been attributed biological activities. Main bioactive compounds identified in these wastes are polyphenols which tracks down numerous functionalities. Grapefruit peels in particular are packed with bioactive constituents with the likes of total phenolics, total flavonoids, ascorbic acid, antioxidant activity, dietary fiber as 2116.71 (mg GAE/100 g), 80.8 (mg CE/g), 113.3 (mg/100g), 76.4 (% DPPH Reduction), 61.79 (g/ 100g DM), respectively. The main components of grapefruit are the flavanones, narirutin and naringin and their aglycone (naringenin), which have always been recognized to be a distinctive component of grapefruit. Other flavanones have been identified in grapefruit including hesperidin, didymin, eriocitrin, neohesperidin, neoeriocitrin, and poncirin, as well as flavonols (rutin), and flavones (rhoifolin and diosmin). Besides, grapefruit exhibited a moderate and balanced medley of vitamins C, A, folate to reach 31–61 mg, 58 mg, 13 mg/100 g FW, respectively, while overall fruit peel offers higher mineral content than pulp in red and white colored varieties. Pectin from grapefruit peel accounts for 27.34% with neutral sugars characterized as arabinose, galactose, rhamnose, glucose, mannose, and xylose. The advances of food preservation open new vistas for extraction of bioactive compounds from these wastes using traditional and novel technologies. Non-thermal technologies in-particular are pioneering for processing owing to their property of better retention of texture, flavor and the overall sensory qualities. These wastes loaded with immense of essential components has great importance in terms of human health and can be returned as valuable products and preservational approaches.

EFFECT OF DEHYDRATION TECHNIQUES ON NUTRITIONAL AND POLYPHENOLIC CONTENT OF WASTE FROM KINNOW MANDARIN (*CITRUS RETICULATA*) AND MURCOTT MANDRIN (*CITRUS RETICULATA X SINESIS*)

Ravi Sah, Barinderjit Singh, Gurwinder Kaur

Abstract

Citrus fruits are commercially developed fruits containing a high concentration of phytochemicals and functionally active substances. Processing fruit generates vast volumes of waste, either given to animals or disposed of, adding to the environmental burden. Citrus waste, namely peel and pomace, are regarded as potent agro materials for numerous purposes in the food sector. The present study aimed to evaluate the effect of different dehydration techniques (hot air oven drying and freeze-drying) on the nutritional and polyphenolic content of waste (peel and pomace) from kinnow mandarin and murcott mandrin. The nutritional content was evaluated by AOAC methods, whereas polyphenolic compounds and their antioxidant activity were assessed by total phenolic content, total flavonoid content, DPPH free radical scavenging activity and ferric reducing antioxidant power. The results showed the significant effect of dehydration techniques on the Nutritional and polyphenolic content among the different selected citrus waste. A significant correlation was also found between polyphenols and antioxidant activity. It is concluded that freeze-dried citrus waste powder had much higher retention of the nutritional and polyphenolic compounds than the hot air-dried citrus waste powder.

Keywords: Kinnow, Mandrin, Polyphenols, Antioxidants, Dehydration

EVALUATION OF ANTIOXIDANT AND PHYTOCHEMICAL ANALYSIS OF SELECTED MEDICINAL PLANTS *Moringaoleifera* and *Solanumnigrum*

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Abstract

Solanum nigrum is an important ingredient in traditional indian medicines infusion are used in dysentery, stomach complaints, and fever. The juice of the plant is used on ulcers and other skin diseases. The fruits are used as a tonic, laxative, appetite stimulant, and for treating asthma and "excessive thirst". *Moringa oleifera* is a storehouse of important nutrients and antinutrients. The leaves of *moringa oleifera* are rich in minerals iron and copper. *Moringa oleifera* also have a low calorific value and can be used in the diet of the obese. The antibacterial activity of two plants *Moringa oleifera* and *Solanum nigrum* are the two plants which are considered from the studies of biopotential activity against human pathogens. Antioxidant assay (FRAP test) and phytochemical analysis were primarily done in both plants such as *Moringa oleifera* and *Solanum nigrum* .In case of *Moringa oleifera* in FRAP test shows a slight variation in between the plant extract and ascorbic acids. In case of phytochemical analysis showed presence of positive results in fixed oils and fats, glycosides, phenolics, tannins and saponins. In case of *Solanum nigrum* also showed slight variation between plant extract and ascorbic acids in FRAP test. In case of phytochemical analysis showed presence of positive results in fixed oils and fats, glycosides, phenolics, tannins and saponins. both plants *Moringa oleifera* and *Solanum nigrum* showed same properties in FRAP and phytochemical analysis by perform in further tests helps us to know the importants of both medicinal plants *Moringa oleifera* and *Solanum nigrum* and its properties.

Keywords: Antioxidant and phytochemical analysis.

CURCUMIN - ITS' EFFECTS ON HUMAN HEALTH : A REVIEW

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Abstract

Turmeric is a spice that has received much interest from both the medical/scientific worlds as well as from the culinary world. Turmeric is a rhizomatous herbaceous perennial plant (Curcuma longa) of the ginger family.

It aids in the management of oxidative and inflammatory conditions, metabolic syndrome, arthritis, anxiety, and hyperlipidemia. It may also help in the management of exercise-induced inflammation and muscle soreness, thus enhancing recovery and performance in active people.

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The ability to determine the exact mechanism(s) of action and to determine the bioactive components have only recently been investigated, Curcumin (1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione), also called diferuloylmethane, is the main natural polyphenol found in the rhizome of Curcuma longa (turmeric) and in others Curcuma spp. Curcuma longa has been traditionally used in Asian countries as a medical herb due to its antioxidant, anti-inflammatory, antimutagenic, antimicrobia and anticancer properties.

Curcumin has received worldwide attention for its multiple health benefits, which appear to act primarily through its anti-oxidant and anti-inflammatory mechanisms. Research suggests that curcumin can help in the management of oxidative and inflammatory conditions, metabolic syndrome, arthritis, anxiety, and hyperlipidemia. It may also help in the management of exercise-induced inflammation and muscle soreness, thus enhancing recovery and subsequent performance in active people. In addition, a relatively low dose can provide health benefits for people that do not have diagnosed health conditions.

Keywords: curcumin, turmeric, antioxidant, anti-inflammatory, polyphenol.

ISOLATION AND CHARACTERIZATION OF BENEFICIAL RHIZOSPHERE MICROORGANISMS FROM MILLET GROWN FIELD

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Abstract

Phosphorous is abundant in soils in both organic and inorganic forms it is frequently a major or even the prime limiting factor for plant growth. Phosphate solubilizing microbes (PSMs) are a group of beneficial microorganisms capable of hydrolyzing organic and inorganic insoluble phosphorus compounds to soluble P form that can easily be assimilated by plants To circumvent phosphorous deficiency, phosphate solubilising microorganism (PSM) could play an important role in supplying phosphate to plants in a more environmently friendly and sustainable manner. During the process of phosphate solubilization, organic acids are produced. These organic acid act an chelators, agents that can displace metals. Through soil possesses total phosphorous in the form of organic compounds, most of them remain inactive and thus unavailable to plants. The use of phosphorous solubilizing bacteria an inoculants simultaneously increase phosphororus uptake by the plant and crop yield. The isolated PSB released high amount of phosphorous from tricalcium phosphate. The efficient bacterial strains isolated from rhizosphere soils released high amount of phosphorous. Fifteen isolates of bacteria capable of solubilizing insoluble form of phosphate (tricalcium phosphate) was isolated from the rhizosphere soils collected from different millet cultivated fields by serial dilution and plate count method using Pikovskaya's medium . These isolates were allotted code numbers from PSB 1 to PSB 15. All the fifteen isolates when subjected to plate and broth assay effectively solubilized the insoluble phosphate compound used, tricalcium phosphate. The isolated PSB cultures carried to further in vitro study included the estimation of IAA production , Gibberellin production , HCN Production,NH_3 production, Broth assay method and quantification of phosphorous was determined ,Determined the biochemical characters etc.

Keywords Phosphate solubilization, Pikovskaya's medium, IAA, Gibberellin, plant growth promoting rhizobacteria, Organic acids.

"SUSCEPTIBILITY OF *SALMONELLA TYPHI* AGAINST MEDICINAL PLANT EXTRACTS"

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Abstract

In India ,food poisoning and typhoid fever is caused by *Salmonella typhi* is one of the most important health problem faced today. Food poisoning is a common problem caused by a gram negative facultative anaerobic bacteria belong to Enterobacteriacea family.These bacteria become a common cause of food borne infections which are transmitted through food and contaminated water. Mainly meat, meat products and beef are the main source of food poisoning. The intake of meat and meat products were increased nowadays and the cause of food poisoning also increased. Contaminated meat and meat products may contain *Salmonella* which causes salmonellosis. Thus, there is a great need to develop a natural drug or antibiotic with less side effects and safe and effective as compared to antibiotics to treat such enteric fever caused by *Salmonella.* Nowadays Indians uses meat and meat products everyday and the chance of causing infection is at high risk due to the contamination of such edible foods. Several medicinal plant extracts shows an inhibition against *Salmonella* on typhoid fever and food poisoning. Different types of traditional medicinal plants were used to treat diseases caused by *Salmonella.* Four plant extracts of *Hibiscus rosa -sinesis, Ocimum sanctum, Mentha piperita and Psidium guajava* on methanol, ethanol, acetone and aqueous were analyzed for the antibacterial activity against multi drug resistant *Salmonella.* Antibacterial activity of such plant extracts were carried out by agar well diffusion method and the quantitative analysis of phytochemicals present on plant extracts are conducted by using chemical analysis such as Gas chromatography-Mass spectrometry (GC-MS).The methanolic extracts of *Hibiscus Rosa-sinesis* shows strong antibacterial activity and acetone extracts shows low inhibitory activity against *Salmonella typhi* on food borne infections. However this proves that the methanolic and acetone extracts shows an inhibitory activity on *Salmonella typhi* which is antagonistic and is suggested to be natural, effective herbal medicine for *Salmonella* food borne infections.

Keywords: Salmonella,food poisoning, medicinal plants,antimicrobial activity

EFFECT OF ONONIS ANGUSTISSIMA LAM EXTRACT ON THE ALUMINUM ALTERATIONS OF THE INTESTINAL HISTOLOGY

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Description of the subject: *Ononis angustissima lam* (Oa) is an endemic plant of Saharan region with a therapeutic property. However, the aluminum (Al) is a toxic element widely distributed in nature.

Objectives: this study aims to evaluate the effect of the decocted aqueous extract of Oa (yield=14.40%) on intoxicated adult rats by $AlCl_3$ (100 mg/kg).

Results: These findings indicate that Al induced a significant decrease of the organ weight ($p < 0.001$) and a histological impairment in the small intestine including hyperplasia of lymphoid tissue, erosions of the villi, increasing the numbers of goblet cells, however, the treatment with aqueous extract of Oa revealed an anti-inflammatory effect, epithelial regeneration and a regulation of the goblet cells.

Conclusion: It is concluded that Al produces an intestine structural change and the plant Oa limit this damage which can lead to valuable drug discovery.

Keywords: *Ononis angustissima lam*; Aluminum; Intestine.

DIGITALIZATION IN THE FOOD INDUSTRY – APPLICATION OF BLOCKCHAIN TECHNOLOGY AS A SUSTAINABLE BUSINESS MODEL

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Abstract

Background: Blockchain technology is rapidly becoming a common word and promises to solve many problems related to the lack of trust. Despite its popularity and the great interest it has received from public and private parties, the technology is still far from being well understood and is surrounded by a great deal of exaggeration and hype. This paper intends to present the application areas of the blockchain technology in the food industry and to analyse the potential benefits and barriers of the implementation in the food industry through the latest existing literature review. Methods: a literature review was conducted using academic documents written in English language and published in peer-reviewed scientific journals. The relevant papers were analysed and were searched systematically in ScienceDirect, SpringerLink and Emerald databases. A complementary search in Google Scholar was also executed. Results: 11 papers fit the criteria, allowing for qualitative analysis only. he papers were categorized into three groups: food safety (1), food traceability (2) and food supply chain management (3). Conclusions: Food safety is a relatively new approach in the food industry. New technologies need to be used together with the blockchain technology in order to increase acceptance with consumers and to provide an efficient and robust mechanism for enhancing food traceability and a transparent and reliable way to evaluate quality, safety and sustainability. Blockchain technology offers a promising approach to foster a future food-system, which is safer, traceable, more sustainable and reliable.

Keywords: blockchain, agriculture, food

ALTERNATIVE DISPUTE RESOLUTION

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Abstract

Alternative dispute resolution is meant by when any dispute is resolved outside the court and without any litigation. It involves a third party to resolve their disputes. Alternative dispute resolution is developing nowadays for various reasons such as, when both the parties do not want to reveal their case in public, when the parties want instant resolution, as there are lots of cases pending from many years in the courts. Alternative dispute resolution is less expensive, less time consuming, no feeling of enmity between the parties.

There are various methods of alternative dispute resolution like,

Arbitration- It is governed by Arbitration and Conciliation Act, 1996. It is the method for dispute settlement, between two parties which agrees to appoint an arbitrator to give a binding solution on the dispute.

Mediation- In this type of method, a third neutral party is assist by two or more disputants for reacting a settlement. It does not give any binding decision. It aims to maintain the relationship between the disputants.

Negotiation- In this method, no third party is included. In this method, parties work together to find a mutually acceptable solution or a compromise.

Conciliation- In this method, the third party, talks to the parties but separately.

Lok Adalats- It is governed under the The Legal Services Authorities Act, 1987 Section 19,20,21,22. It aims to provide justice to all whether rich or poor. It is binding and shall be treated akin to the order of a civil court.

References- blog.ipleaders

Keywords: ADR, Reliable method for justice, Various methods

EFFECT OF THE VARIYING ARGININE TO LYSINE RATIO ON SERUM INSULIN LEVELS AND PANCREAS HISTOLOGY IN BROILERS

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Abstract

In addition to high levels of glucose as primary stimulus, specific amino acid has also tendency to secrets insulin in broilers. leucine, glutamine, alanine, and arginine are specific amino acids which stimulates insulin secretion when used in proper amount in poultry diet. arginine is an indispensable amino acid for broilers, and it stimulates insulin secretion strongly. Therefore, the study was performed to determine the levels of insulin in the blood and histological study of the pancreas add graded dose of arginine to lysine ratio in broilers diet. For this purpose, a total of 612-day old broiler chicks were reared at Paroka Research Center, University of Agriculture, Faisalabad Pakistan. Birds were randomly divided into six groups receiving varied arginine to lysine ratio in feed, where the ratio of arginine was increasing while keeping lysine constant. the groups were G1=95:100%, G2=100:100%, G3=105:100%, G4=110:100%, G5=120:100% and each treatment had 6 replicates with 17 Chicks in each replicate. Routine diet at different stages of their life as a starter, Grower and finisher was offered in maintained optimized conditions. after 35 days, one bird Was slaughtered from each treatment group for the collection of blood and organ (pancreas) samples to study serum biochemistry and histology, respectively. the freedom was separated, and organ was preserved in the Bouins solution. the data was analyzed statistically by using analysis of variance and Duncans multiple post hoc tests. The result indicated that in insulin level was high In Group C broiler receiving 105 percent arginine and low at maximum 120% arginine which your dad arginine ratio increased insulin level up to some limit and further increasing in arginine ratio negatively effects insulin levels. histological examination showed no observable and prominent change in pancreatic cells add any arginine to lysine ratio.

EXPRESSION LEVEL OF SRc (HIGH) AND MDM2 (DOWN) GENES IN FEMALE BREAST CANCER

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Abstract

Background: Carcinogenesis is a phenomenon in which mutation in genome enable the machinery of cells to make cell capable of growing unchecked without any stimulation of growth signals. Thus, cells become insensitive to anti-growth signals, and it trounces the immune system of host. Breast cancer is the most diagnosed cancer and leading cause of death among women worldwide.

Methodology: Current study was designed to analyze the expression level of genome integrity genes which leads to development of cancer. *DIS3L2* level was also observed which plays role in let-7 family of microRNAs. These genes are selected on the basis of mutations in protein coding regions. Clinical samples were collected from Punjab Medical College with the permission of Ethical Review committee of PMC. Gene expression analysis was performed through qRT-PCR analysis. One way (ANOVA) analysis of variance and DMR test was used to observe significance of data.

Results: Relative gene expression level was analyzed and results revealed that the expression level of *MDM2* gene was significantly (P= 0.05) down expressed from the tissue samples from breast cancer patient as compared to control group. Results showed that the *Src* gene expression level is significantly higher expression level in patient's samples. Histopathological examination showed ductal carcinoma with stromal hyperplasia, neoplastic cellular proliferation in dermal areas, along with vessels having large lumen and very thin vascular wall.

Conclusion: qRT-PCR and histopathological results concluded that *MDM2* (protoonco gene) is highly expressed while *PALB2*, *DIS3L2* and *TLR4* (oncosuppressor genes*)* were down expressed which showed disease progression.

Keywords: Cancer, MicroRNA's, Malignancy, MDM2 Gene

GRAPEFRUIT - A RESERVOIR OF BIOACTIVE COMPOUNDS WITH HEALTH PROMOTING EFFECTS

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Abstract

Grapefruit (*Citrus paradisi*) finds its origin roots in Barbados. Industrial processing of grapefruit generates a large number of wastes (peels, pomace and seeds). These wastes are a source of bioactive compounds which have been attributed biological activities. Main bioactive compounds identified in these wastes are polyphenols which tracks down numerous functionalities. Grapefruit peels in particular are packed with bioactive constituents with the likes of total phenolics, total flavonoids, ascorbic acid, antioxidant activity, dietary fiber as 2116.71 (mg GAE/100 g), 80.8 (mg CE/g), 113.3 (mg/100g), 76.4 (% DPPH Reduction), 61.79 (g/ 100g DM), respectively. The main components of grapefruit are the flavanones, narirutin and naringin and their aglycone (naringenin), which have always been recognized to be a distinctive component of grapefruit. Other flavanones have been identified in grapefruit including hesperidin, didymin, eriocitrin, neohesperidin, neoeriocitrin, and poncirin, as well as flavonols (rutin), and flavones (rhoifolin and diosmin). Besides, grapefruit exhibited a moderate and balanced medley of vitamins C, A, folate to reach 31–61 mg, 58 mg, 13 mg/100 g FW, respectively, while overall fruit peel offers higher mineral content than pulp in red and white colored varieties. Pectin from grapefruit peel accounts for 27.34% with neutral sugars characterized as arabinose, galactose, rhamnose, glucose, mannose, and xylose. The advances of food preservation open new vistas for extraction of bioactive compounds from these wastes using traditional and novel technologies. Non-thermal technologies in-particular are pioneering for processing owing to their property of better retention of texture, flavor and the overall sensory qualities. These wastes loaded with immense of essential components has great importance in terms of human health and can be returned as valuable products and preservational approaches.

Keywords: Grapefruit**,** phenolics**,** waste**,** non-thermal**,** health

KUZEY KIBRIS'TA HELLİM PEYNİRİNE BULANIK BİR YAKLAŞIM ANALİZİ

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Özet

Hellim peyniri, Kıbrıs kültürünün en önemli sembolüdür. Kıbrıs halkı için peynirden çok daha fazlasını ifade etmektedir. Günümüzde kurulan birçok süt fabrikası, geleneksel üretim tekniklerini teknoloji ile bütünleştirerek Hellimi üretmektedir. Bu açıdan gıdanın duyusal değerlendirmesi hem tüketici davranışı hem de kalite kontrolüne ayrıntılı bir bakış getirdiğinden, yeni ürün geliştirme ve pazarlamada önemli bir faktör haline geldi. Çok Kriterli Karar Verme (ÇKKV) tekniklerinin Uygulamaları, birçok alternatif arasında çoklu niteliklerin karşılaştırılmasına ve seçilecek en iyi alternatiflere izin verir. Bu çalışmanın amacı, geleneksel ve endüstriyel hellim peynirleri arasındaki duyusal farklılıkları belirlemek ve özgün ve karakteristik özellikler içerenleri özgünlük açısından seçmektir. Bulanık TOPSIS yöntemi ile duyusal değerlendirme için yüksek kaliteli gıda ürünleri üretmek için doğru yöntemi belirlemeye ve çeşitli kriterlerin çeşitli alternatiflerini değerlendirmeye katkı sağlanmıştır. Duyusal değerlendirme yöntemlerinin seçiminde en iyi alternatifi belirlemek için bulanık TOPSIS karar verme tekniğini uygulayarak çalışmanın güvenilirliğini belirlenmiş ve analiz sonuçlarının, ev yapımı ve endüstriyel hellim peynirlerine en iyi alternatifi belirlemede tüketicilere ve üreticilere yardımcı olmak için bilgi veya öneriler olarak kullanılması ile bu kapsamda duyusal analiz için farklılıkları ortaya çıkarmıştır. Kuzey Kıbrıs'tan Lefkoşa, Girne, Karpaz, Güzelyurt, Lefke ve Gazimağusa bölgelerinden toplam 11 adet endüstriyel ve ev yapımı Hellim peyniri numunesi market ve köylerden toplanarak soğuk zincir kırılmadan laboratuvara ulaştırılmaktadır. Duyusal analize akademisyenler ve sektörün önde gelen kişileri tarafından toplamda 8 panelist katıldı. Sıralama sonuçlarına bakıldığında karar vericiler tarafından yapılan duyusal değerlendirme sonucunda endüstriyel hellim peynirlerinin daha fazla öne çıktığı, ev yapımı hellim peynirlerinin ise daha az beğenildiği görülmektedir. Araştırma sonuçlarını güçlendirmek ve ürün kalitesi, memnuniyet ve gıda güvenliği ile ilgili tutumları etkileyen faktörleri bulmak için gelecekte örnek verileri geliştirmek için araştırma genişletilmelidir.

Anahtar Kelimeler: Hellim Peyniri, Bulanık Topsis yöntemi, Duyusal Analiz

STUDY ON GERMINATION AND SEEDLING GROWTH OF TWO CANOLA CULTIVARS AS AFFECTED BY CADMIUM AND COPPER SULFATE

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1. Introduction

Rapeseed is one of the oily plants that has been cultivated in our country and it is supplied oil requirement in high amount. Some heavy metals such as Zn Cd and Cu, which are required at optimum concentrations for plant growth, can be inhibit growth and metabolism at high concentrations. The toxicity of heavy metals causes damage to the plant and its death. Various sources include industries, municipal sewage and fuel, increase the concentration of these pollutants. Also, the use of chemical fertilizers, especially phosphate fertilizers, increase the amount of these elements in the soil. High concentrations of Cu can induce many changes in the cell and cause changes in membrane permeability, chromatin structure, enzymatic activity of respiratory processes and photosynthesis. Cadmium is one of the most dangerous pollutants in the soil, whose adverse effects include the prevention of root and shoot growth, the severity decrease in crop yield and the effect on nutrient uptake and biological balance. In addition, this metal poses a very serious problem for the health of humans and animals with the accumulation in important crops and subsequent entry into the food chain,

Saberi et al. (2010) investigated the effect of concentrations of 10, 20 and 30 mg/l of Cd and Cu on germination and growth of atriplex, Cd had a significant effect on percent and speed of germination and Cu had no significant effect on germination percentage but decreased seedling growth. Jelisenkova et al. (2003) showed that Cu, Mg, Pb and Cd had a greater effect on early growth of root than germination in fennel, cumin and anis. Mahmood et al. (2005) also stated that different levels of Cu had no significant effect on corn germination but decreased the early growth of corn.

Considering the importance of the effects of heavy elements on plant growth, the aim of this study was to investigate various germination and seedling growth indices of two canola cultivars affected by cadmium and copper sulfate.

2. Materials and Methods

This research was conducted in Seed Technology Laboratory of Agricultural Faculty of Sarayan, University of Birjand in autumn 2017.

First, the seeds were disinfected with 5% sodium hypochlorite solution. Then, it was washed three times with distilled water and disinfected in a 1: 1000 Benomil fungicide solution for 20 minutes. All of the used materials, including petridishes and filter papers, were sterol in autoclave. This experiment was a factorial based on completely randomized design with three replications. The treatments included cadmium and copper sulfate at concentrations of 0, 10, 20 and 30 ml and two new rapeseed cultivars (Hayola 50 and Homolious). In each petri dish was placed 25 seeds and different treatments were applied. Distilled water was used for control treatment. Petri dishes were placed in a growth chamber at 23°C. Germination percentage, Daily germination rate (DGS), Mean daily germination (MDG), Vigor index (VI) Plant length (PL), Root length (RL) and Seedling length (SL) were measured after seeding time (12 days).

Data analysis was performed using SAS software and mean comparison with Duncan's test at 1% probability level. Drawing diagrams were also done using Excel.

3. Results and discussion

The effect of different levels of cadmium on any of the germination indices and seedling growth was not significant. Different levels of copper sulfate had a significant effect on shoot, root, seedling length and seed vigor index at 1 % level. The effect of two canola cultivars on all germination indices and seedling growth was significant at 1% level. Interaction effects between all treatments did not have a significant on any of the traits.

With increasing concentration of copper sulfate, shoot length decreased, so that the maximum length was belong to 0 ml with 6.03 mm and the lowest belong to 30 ml with 4.59 mm.

Along with increasing concentrations of copper sulfate, root length decreased. The highest root length was observed at 0 and 10 ml, with 7.62 and 7.30 mm, respectively, and the lowest belong to 30 ml with 5.07 mm.

Seedling length decreased with increasing Cu concentration. was The highest seedling length were observed at zero and 10 ml with 13.66 and 13.64 mm and the lowest at 30 ml with 10.4 mm.

The index of seed vigor decreased with increasing copper sulfate concentration. At 0 and 10 ml concentration, with 10.13 and 9.95, had the highest and in 30 ml with 7.51 had the lowest.

Copper sulfate had no significant effect on germination percentage, MDG and DGS. On all measured germination indices, two canola cultivars was significant at 1% level, so that the Hayola 50 was better and had higher than Homolious for all traits except germination rate.

Seedling length decreased with increasing copper sulfate concentration. As you can see, at concentrations of 0 and 10 milliliters, with a mean of 13.66 and 13.64 mm, the seedling length at its highest concentration and in the concentration

4. Conclusion

The results of this study showed that although different concentrations of Cu were not significant on germination percentage of rapeseed cultivars, they had a negative effect on seedling growth and consequently on seedling vigur index of rapeseed cultivars.

Due to the fact that different concentrations of cadmium did not have a significant effect on germination percentage and seedling growth, these rapeseed cultivars can be used in plant refinement, but it should be noted that according to the results, hayola 50 are more resistant cultivars than other. It is suggested that in higher researches, higher concentrations of cadmium and copper should be tested.

Key words: Heavy elements; Seed vigor; Tension; Oily seeds