DISCOVER ANATOLIA

ABSTRACTS BOOK

INTERNATIONAL ANATOLIAN CONFERENCE ON COFFEE & COCOA

Yesilyurt Municipality, Malatya-Turkey
3-5 December 2021

IKSAD GLOBAL PUBLISHING HOUSE

INTERNATIONAL ANATOLIAN CONFERENCE ON COFFEE & COCOA

YESILYURT MUNICIPALITY, MALATYA-TURKEY

3-5 DECEMBER 2021

ABSTRACTS BOOK

EDITOR

Sinem KARAKUNDAKOGLU

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CONFERENCE ID

CONFERENCE TITLE
Internatıonal Anatolıan Conference on Coffee & Cocoa

DATE AND PLACE
3-5 December 2021 / Yeşilyurt Municipality, Malatya-Turkey

ORGANIZATION
Discover Anatolia
Yeşilyurt Municipality
IKSAD Institute

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NUMBER of ACCEPTED PAPERS - 72
NUMBER of REJECTED PAPERS - 21

PARTICIPANTS COUNTRY
Turkey, Pelastine, India, Indonesia, United Kingdom, Vietnam, Mexico, Colombia, Nigeria, China, Morocco, Azerbaijan, Bulgaria, Yemen, Ukraine, Kyrgyzstan, TRNC, Serbia, Brazil, Albania

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CONFERENCE PROGRAM

OPENING CEREMONY

December 3, 2021
Turkey Time: 13:00 pm-14.00 pm
Venue: Conference Hall of Yesilyurt Prison Museum

Dr. Mustafa Latif Emek
President of the Institute of Economic Development and Social Research

Mr. Mehmet Çınar
Mayor of Yeşilyurt Municipality- Malatya

KEYNOTE SPEAKERS:

Prof. Dr. Mustafa TALAS
Prof. Dr. Sevi ÖZ

CLIMATE RISK FOR THE OCCURRENCE OF RUST IN COFFEE TREES
Dr. Jéfferson de Oliveira COSTA
Barbara Ludwig NAVARRO
Jéssica Nogueira SOARES
Carlos Alberto QUILOANGO-CHIMARRO
Prof. Rubens Duarte COELHO

ESTABLISHMENT AND DEVELOPMENT OF THE ETHNOBIOLOGICAL GARDEN AND RESEARCH CENTER OF THE SEMIARID DESERT OF COAHUILA IN NORTHERN MEXICO
Cristobal N. AGUILAR
José SANDOVAL
José L. MARTINEZ
Salvador HERNANDEZ-VELEZ
Jorge A. AGUIRRE-JOYA

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Dr. Nihan ABİR

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Dr. Murat CANPOLAT	UNIVERSITY STUDENTS DRINKING COFFEE: A FABULOUS FRAGRANCE
Dr. Fatmagül SAKLAVCI	COFFEE-THEMED MINIATURES IN OTTOMAN DEPICTION ARTS
Dr. Nihan ABİR	NOHUT KAHVESİ: II. DÜNYA SAVAŞININ TÜRK ROMANINDAKİ İZİ, KAHVEDEKİ TADI
Prof. Dr. Mustafa TALAS	TÜRK KÜLTÜRÜNDE KAHVE OLGUSU
Prof. Dr. Sevi ÖZ	KAHVENİN HİKÂYESİ

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Turkey Time Zone: 10.00-12.30

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Doç. Dr. H. Nurgül BEGİÇ

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Dr. Hüseyin YILMAZ	TÜRKİYE'DE KAHVE TÜKETİMİ VE GELİR İLİŞKİSİ ÜZERİNE AMPİRİK BİR ANALİZ
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Seydi YIKMIŞ Melikenur TÜRKOL	KAHVENİN ANA BİLEŞENLERİNDEN KLOROJENİK ASİT: OBEZİTE ETKİLERİ
Dr. Mustafa Sarper ALAP	KLASİK TÜRK EDEBİYATI ŞİİRLERİNDE KAHVENİN ÖZELLİKLERİ
Nurhayat Atasoy	COCOA AND HEALTH
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Assist. Prof. Dr. Eda GANİYUSUFOĞLU Prof. Dr. Hülya ÇİÇEK	KAHVE TÜKETİMİNİN İNSAN SAĞLIĞI ÜZERİNE ETKİLERİ

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Prof. Dr .Yüksel BAYRAKTAR

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Turkey Time Zone: 10.00-12.30

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Dr. Ghanshyam BARMAN

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MODERATOR:
Assist. Prof. Dr. Fatma H. Eren

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HALL-2, SESSION-2

Turkey Time Zone: 14.00-16.30

MODERATOR:
Dr. Eric de Souza Gil

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HALL-3, SESSION-2

Turkey Time Zone: 14.00-16.30

MODERATOR:
Prof. Dr. Mashour HABAZİ

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Blend IBRAHIM	COFFEE SHOP BRAND PAGES ON FACEBOOK: DO FIRM-CREATED CONTENT AND USER-GENERATED CONTENT MATTER?
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Nagihan KASATURA Prof. Dr. Serkan BERTAN	KAHVE SUNAN İŞLETMELERE YÖNELİK ALGILAMALAR
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LEILA GASIMOVA	URBAN SOILS AND SOIL POLLUTION BY THE EXAMPLE OF BAKU

PHOTO GALLERY


BİLTE


YEŞİLYURT BELEDİYESİ


Mehmet ÇINAR
Yeşilyurt
Belediye Başkanı


UZAKTAN EĞİTİM PORTALI


10:51
3 Aralık Cuma


biltek-V
5. ULUSLARARASI BİLİM, TEKNOLOJİ VE
SOSYAL BİLİMLERDE GÜNCEL GELİŞMELER SEMPOZYUMU
3-5 ARALIK 2021
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3-5 ARALIK 2021
Mehmet ÇINAR
ИКСАД

COFFEE ROASTING MACHINE INDUSTRIAL TYPE

The future of coffee roasting automation today

Complete solution, shorter coffee roasting time

TKM – SX series industrial roasters provide complete solution for wholesale coffee roasters and coffee extract manufacturers with capacity options up to 6,000 kg/h.

The series include 7 standard models with shorter roasting time, unlimited PLC and automation infrastructure.

Ready when necessary

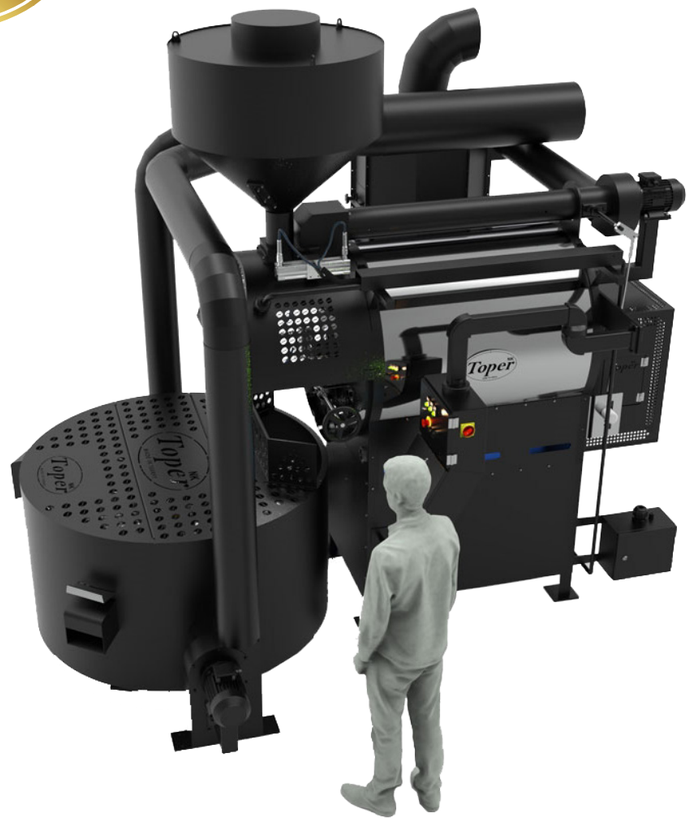
TKM – SX roasters are engineered, wired and prepared fully compatible for future development and upgrade.

Ready for high-tech automation

World's favorite industrial coffee roaster

TKM – X's are roasting all around the world for decades with premium features and capacity options from 120 to 2,000 kg/h.

5 models with various capacity options meet every wholesale coffee roaster's manufacturing requirements.



COFFEE ROASTING MACHINE SHOP TYPE TKM-SX LAB

The world famous TKM-SX shop-type coffee roasting machines developed by Toper for more than 20 years provide maximum quality and efficiency in roasting.

TKM-SX LAB allows you to create your profile for larger drum roasters while roasting your sample coffees between 50 gr and 500 gr.

Double drums can work independently of each other. In this way, especially green coffee producers can roast their test coffees in a shorter time.

Touch Panel – All control at your fingertips

Toper's new shop-type coffee roasters are equipped with advanced touch panel to ensure the best results in roasting at all times.

The microcomputer, which can store 12 different roasting recipes, allows you to fully control the 5 stages of roasting.

COFFEE ROASTING OPTICAL TYPE

Toper's optical series machines offer an unusual coffee roasting experience. You can directly follow the roasted coffees as well as automatic roasting profile roasting and cooling processes. With ready roasting profiles, you can quickly produce coffee in the desired style. Coffee grains heated by hot air flow provide the highest level of homogeneous roasting. The optical models with the capacity of 150 gr and 2500 gr will take up very little space in your business thanks to their compact designs.

Optical series coffee roasting machines will offer you a visual feast with all their abilities as well as the dance of roasted coffee grains.

CAFEMINO

Besides being a model roaster, Cafemino is a roaster that perfectly fits in cafés.

Having been introduced into the market after a 4-year-long research and development process, Cafemino have become one of the top roasters in the world in

32 countries since it was introduced into the market in 2006.

Cafemino, adapting to different geographical conditions, climate zones, coffee cultures and operational needs,has got the ability to roast all kinds of green coffee beans in the world. And now, Cafemino can roast minimum 150 grams of coffee thanks to its sample roasting feature.

Innovations of the new Cafemino will facilitate Roasting Masters' works and of course we consider Cafemino as a gift to Special Coffee World.

COFFEE ROASTING MACHINE SHOP TYPE TKM-SX

The TKM-SX roasters provide shop owners and baristas with advanced technologies, as well as higher capacity options.

Toper is offering the Advanced Touch Panel option on the new shop roasters for the best repeatable coffee roasting quality in the easiest way.

The micro computer is providing full control of the 5 roasting steps with 21 recordable preset coffee roasting prescriptions.

TKM-SX series super coffee roasters have 5 alternative models with capacity options of 10 – 90 kgs/h.

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ABSTRACTS

DISCOVER ANATOLIA

International Anatolian Conference on Coffee & Cocoa

CLIMATE RISK FOR THE OCCURRENCE OF RUST IN COFFEE TREES

KAHVE FABRİKASI ÜZERİNDE PAS OLUŞUMUNDA İKLİM RİSKİ

Jéfferson de Oliveira COSTA
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Rubens Duarte COELHO
Full Professor, University of São Paulo (USP-ESALQ), Biosystems Engineering Department

ABSTRACT

Brazil is the largest producer and exporter of coffee in the world and also occupies a prominent place in consumption. In this country, coffee is grown under diverse conditions and the main disease is rust (*Hemileia vastatrix*), which varies in pathogenicity among regions. Rust control requires research to provide growers and technicians with support for better and effective control of rust pathogenicity, which can be done by predictive or alert models. These models can anticipate information about when a disease will reach a critical level, thus avoiding unnecessary pesticide applications, which reduces the cost of coffee production and unnecessary labor. The objective of this work was to calculate the climatic risk of disease occurrence using the severity value as a criterion in decision making for the application of systemic or contact fungicides to high and medium-low fruit loads. An 18-year time series (1997–2014) from an automatic meteorological station located at the College of Agriculture Luiz de Queiroz, Piracicaba, Southwestern Brazil was used. To establish the climatic risk of the coffee crop, the disease prediction model was used, which relates the occurrence of coffee rust to leaf humidity and air temperature. The climatic risk was calculated using the variables of sprays as a function of weather conditions and sprays in the calendar. In conclusion, the climatic risk for the occurrence of coffee rust in the region of Piracicaba-SP is high during the evaluated season and the tested spraying situations.

Keywords: Coffee plantations, Preventive control, Prediction models

ÖZET

Brezilya, dünyanın en büyük kahve üreticisi ve ihracatçısıdır ve aynı zamanda tüketimde önemli bir yer tutar. Bu ülkede, kahve çeşitli koşullar altında yetiştirilir ve ana hastalık bölgeler arasında patojeniteye göre değişen pastır (Hemileia vastatrix). Pas kontrolü, yetiştiricilere ve teknisyenlere, tahmine dayalı veya uyarı modelleri tarafından yapılabilen pas patojenitesinin daha iyi ve etkili kontrolü için destek sağlamak için araştırma gerektirir. Bu modeller, bir hastalığın ne zaman kritik bir seviyeye ulaşacağı hakkında bilgi tahmin edebilir, böylece gereksiz pestisit uygulamalarından kaçınabilir, bu da kahve üretim maliyetini ve gereksiz işgücünü azaltır. Bu çalışmanın amacı, sistemik veya kontakt mantar öldürücülerin yüksek ve orta-düşük meyve yüklerine uygulanması için karar vermede bir kriter olarak şiddet değerini kullanarak iklimsel hastalık oluşma riskini hesaplamaktı. Brezilya'nın Güneybatısındaki Piracicaba,Tarım Koleji Luiz de Queiroz'da bulunan otomatik meteoroloji istasyonundan 18 yıllık bir zaman serisi (1997-2014) kullanıldı. Kahve mahsulünün iklimsel riskini belirlemek için, kahve pas oluşumunu yaprak nemi ve hava sıcaklığı ile ilişkilendiren hastalık tahmin modeli kullanılmıştır. İklimsel risk, hava koşullarının bir fonksiyonu olarak spreylerin değişkenleri ve takvimdeki spreyler kullanılarak hesaplandı. Sonuç olarak, Piracicaba-SP bölgesinde kahve paslarının oluşması için iklimsel risk, değerlendirilen mevsimde ve test edilen püskürtme durumlarında yüksektir.

Anahtar Kelimeler: Kahve tarlaları, Önleyici kontrol, Tahmin modelleri.

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ESTABLISHMENT AND DEVELOPMENT OF THE ETHNOBIOLOGICAL GARDEN AND RESEARCH CENTER OF THE SEMIARID DESERT OF COAHUILA IN NORTHERN MEXICO

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ABSTRACT

This document describes the establishment and development of the Center for Research and Ethnobiological Garden of the Semi-Desert of Coahuila (CIJE-UAdeC) with the aim of having a space where the conservation of local and regional living flora and fauna is promoted and the knowledge related to them is safeguarded, local and / or regional ethnobiological knowledge and those relations with the biocultural wealth of the semiarid region in the Northern Mexico are recovered and made visible. With emphasis on the semi-desert of Coahuila, promoting the dissemination and universal access to this knowledge, as well as its exchange, and accompanying nearby communities to improve their capacities and living conditions, the care of their flora and fauna and natural territories, through active participation in the actions and establishment of this space.

The new space promotes the active participation of nearby communities and rural people from their establishment and development in the various activities that strengthen their capacities and living conditions to restore or improve their territories. It has scientific and community service infrastructure for different scientific and technological disciplines; in addition to multipurpose rooms with state-of-the-art technology, areas equipped for use by researchers, students and the general public for continuing education and for community use.

The CIJE-UAdeC includes live species of plants, animals, insects and microbiota endemic to the semi-desert, all of them native to Coahuila. The Garden thus represents the great biodiversity of the region and its communities. Also, it includes the emerging strategic areas for social, economic and productive development at the regional level, actively collaborating with the communities of the region, promoting the strengthening of traditional and scientific knowledge, preservation, rational and economic use of the species under study, supporting undergraduate and graduate educational programs, multidisciplinary national and international research networks. It will also carry out research programmes for the sustainable use of resources. The idea of establishing this new space has been conceived in response to local, national and international actions on the Human Environment. The UAdeC intends to include a Bioinformatics component that strengthens the conservation and study activities of the species that will be included in the Botanical Garden. The CIJEUAdeC aims to become a space for the conservation and study of plant genetic resources in the semi-desert of Coahuila, as well as a multidisciplinary system of research, innovation, social development and sustainable use of semi-desert plant resources. The Center will be a recognized research unit for the undergraduate and graduate programs of several universities, within the State and the Country. It will support the research, innovation, and social development of the semi-desert of Coahuila. The projection of growth and consolidation aims to locate the CIJE-UAdeC as a reference center in Latin America dedicated to the conservation and sustainable use of semi-desert plant diversity, so national and international recognition will be sought, such as being part of: "Botanic Gardens Conservation International (BGCI)". Finally, it will include a Scientific-Cultural Ethnobiological Museum-UAdeC supported in collaboration with the Desert Museum, which will consist of two parts, a database of the ethnobiological collection and rooms (virtual and face-to-face) with access to the general public.

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ANADOLU'DA KAHVE YAPIMI VE SUNUMU MOTİFLİ MEZAR TAŞLARI

MOTIFS ABOUT COFFEE MAKING AND PRESENTATION ON TOMBSTONES IN ANATOLIA

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ÖZET

Geçmişten bugüne Anadolu coğrafyası farklı uygarlıklara ve medeniyetlere ev sahipliği yapmıştır. Tarihi süreç içerisinde Anadolu'ya yerleşen Türkler göç ettikleri ve yerleştikleri yerlerde ölülerini toprağın altına gömmüşler ve mezar taşını da bazı yazılar, işaretler ve sembollerle süslemişlerdir. Anadolu'nun her köşesi mezar ve mezar taşları konusunda zengin bir kültürel çeşitliliğe sahiptir. Mezar taşları mimari yapıları, üzerindeki yazıları ve motifleriyle birer sanat eseri niteliği taşır. Mezar taşları sanat tarihçileri, arkeologlar ve dinler tarihçiler tarafından bilimsel olarak farklı açılardan çalışılmıştır. Mezar taşları ait oldukları çevrenin halk inanışlarını, sanat anlayışını, edebiyatını içine alacak şekilde etnografik ve folklorik bir yansımanın ürünüdür. Dolayısıyla mezar taşları orada yaşayanların kültürel kimliklerinin önemli bir parçası olarak kabul edilir ve bu yönüyle tarihsel birer belge niteliğindedir. Mezar taşlarını sadece korumak ya da fotoğrafını çekip arşivlemek yetmez onların bilimsel açıdan incelenmesi gerekir. Mezar taşları üzerine işlenen motiflerden hareketle orada yaşayan insanların kültürleri, dini inanışları hakkında bilgiler elde edebiliriz. Anadolu'nun değişik yerlerindeki mezar taşları üzerinde kahvenin hazırlanışı ve sunumu ile ilgili motifleri insanlar hangi duygu, düşünce ve inancın etkisinde yapmışlardır? Niçin mezar taşları üzerine kahve takımları, fincanlar, kahve cezvesi, kahve kavurma tavası, kahve dibeği ve tokmağı ve kahve kutusu gibi eşyaların motiflerini kullanmışlardır? Bu sorulardan hareketle, Türk kültür ve medeniyetinin "tapu kayıtları" olarak da değerlendirilen mezar taşları üzerindeki kahve yapımı ve sunumu ile ilgili motifler Anadolu'nun farklı yerlerinden örneklerle karşılaştırmalı olarak dinler tarihi ve halk inanışları bağlamında incelenecektir.

Anahtar kelimeler: Kahve, Mezar, Mezar taşı, Ölüm, Kültür, İnanış.

ABSTRACT

Anatolian geography has hosted different civilizations and civilizations from past to present. Turks who settled in Anatolia during the historical process buried their dead under the ground where they migrated and settled, and decorated the tombstone with some inscriptions, signs, and symbols. Every corner of Anatolia has a rich cultural diversity in terms of tombs and tombstones. Gravestones are works of art with their architectural structures, inscriptions, and motifs. Gravestones have been scientifically studied from different perspectives by art historians, archaeologists and religious historians. The tombstones are the product of an ethnographic and folkloric reflection, including the folk beliefs, artistic understanding and literature of the environment in which they were made. Therefore, tombstones are considered an important part of the cultural identity of the people living there, and in this respect, they are historical documents. It is not enough to just protect the tombstones or take photos and archive them, they need to be examined scientifically. Based on the motifs engraved on the tombstones, we can obtain information about the cultures and religious beliefs of the people living there. On the tombstones in different parts of Anatolia, under the influence of which emotion, thought and belief did people make the motifs related to the preparation and presentation of coffee? Why did they use the motifs of items such as coffee sets, cups, coffee pots, coffee roasting pans, coffee sticks and mallets, and coffee boxes on tombstones? Based on these questions, the motifs related to coffee making and serving on the tombstones, which are also considered as the "deed records" of Turkish culture and civilization, will be examined in the context of the history of religions and folk beliefs, in comparison with examples from different parts of Anatolia.

Key words: Coffee, Grave, Tombstone, Death, Culture, Believe

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BALKANLARDA TÜRK KAHVESİ KÜLTÜRÜ

TURKISH COFFEE CULTURE IN THE BALKANS

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ÖZET

Balkanlar, Avrupa'nın güney doğusunda yer alan bir yarımada. Batısında Adriyatik Denizi, güneyinde Akdeniz ve doğusunda Ege, Marmara ve Karadeniz yer alıyor. Kuzey sınır olarak Tuna ve Drava nehirleri kabul ediliyor. Türk milletinin Balkanlarla, daha doğrusu bizim tarihimizle Rumeli ile ilişkisi çok erken dönemlerde başlamıştır. Türkler V. Yüzyıl başlarından itibaren Balkanlara girmişlerdir. Atilla'nın bu bölgenin büyük bölümünü ele geçirerek İstanbul yakınlarına kadar geldiği biliniyor. XI ve XII. Yüzyıllarda ise Peçenek, Kuman ve Uz Türkleri Balkanlar'a gelip yerleştiler. XIII. yüzyıl ortalarında da muhtemelen Moğol istilasından kaçan Sarı Saltuk ile sonradan onun adıyla anılan Türkmen aşireti Balkanlar'a geçti ve Dobruca dolaylarında ilk Türk cemaatini meydana getirdi. Türklerin Balkanlara yerleşmesi ile birlikte mutfak kültürlerini de beraberinde götürdüler bu kültürlerden biri de bu bildirinin teması olan Türk kahvesidir. Habeşistan menşeli olduğu bilinen kahve, dünyanın pek çok yerinde sıcak içeceklerin başında gelir. Türk Kahvesi olarak isimlendirilen kahve türü ise Balkanlarda da aynı isimlendirme ile en çok tüketilen kahve çeşitlerinden biridir. Habeşistan'dan Yemen'e oradan da İstanbul'a ulaşan kahve Osmanlı coğrafyasına hızla yayılmıştır. Türk kahvesi ismiyle Balkan milletlerinin vazgeçilmez lezzeti olmuştur. Buradan da tüm dünyaya yayılan kahve sudan sonra en çok tüketilen içecek olan kahve, bölgeden bölgeye farklı isimler almıştır. Balkanlarda en çok Türk kahvesi olarak bilinen ve özellikle evlerde Türk Kahvesi çeşidi tüketilmektedir. Bu çalışmamızda Türk kahvesinin Balkan ülkelerindeki Tüketim ve sunum serüveni üzerinde durulacaktır.

Anahtar Kelimeler: Balkanlar, Kahve, Türk kahvesi, Kültür

ABSTRACT

The Balkans is a peninsula in the evolution of Europe. In the west, the sea, Mediterranean Adri and Aegean, Marmara and Black Sea are located. The Danube and Drava rivers are accepted as the northern border. The Turkish nation was in very early trends with the Balkans, or rather, with our history, Rumelia. Turks entered the Balkans from the beginning of the 5th century. This part of Atilla is known from Istanbul to his relatives by taking over most of it. XI and XII. In the centuries, Pecheneg, Cuman and Uz Turks came and settled in the Balkans. XIII. the first Turkish community to the Balkans and to Dobruca with those who escaped from the survivors of Sarlan Salt in the past. With the Turks settling in the Balkans, they took their cuisine with them. One of these things is Turkish coffee, which is a culture at the beginning. A well-known coffee of Abyssinia comes at the head of many days in the world. The type of coffee called Turkish Coffee is one of the most consumed coffee varieties with the same naming in the Balkans. From Abyssinia to Yemen, and reaching Istanbul in the region, coffee spread rapidly throughout the Ottoman geography. With the name of Turkish coffee, it has become the flavor of Balkan millet. Coffee, which is the most consumed coffee after the water spreading all over the world, is the place where the popular names of the region take place. The Turkish coffee variety is consumed mostly in the Balkans, and especially at home. In this study, the consumption and presentation adventure of Turkish coffee in the Balkan countries will be emphasized.

Keywords: Balkans, Coffee, Turkish coffee, Culture

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DETERMINATION OF USES OF TURKISH COFFEE IN MILK DESSERTS: TURKISH COFFEE RICE PUDDING (SÜTLAÇ)

ABSTRACT

Turkish coffee has an important place in Turkish gastronomy due to its intense aroma, different cooking and presentation techniques. Rice pudding (sütlaç), one of the favourite desserts of Turkish cuisine, has been consumed for a long time. In this study, which was carried out to bring these two elements of Turkish cuisine together in a common taste, Turkish coffee was used in order to add functional properties to rice pudding, which is a traditional milk dessert. In the study, 3 experimental samples were prepared. Traditional sütlaç was chosen as the control group, and other experimental samples included Turkish coffee. Sütlaç samples included Turkish coffee were produced using two different milks. Sensory analyses (hedonic scale, triangle test) were carried out in order to determine the similarities and differences between Turkish coffee sütlaç prepared with almond milk and cow's milk, and sütlaç prepared with the traditional method. The sensory parameters of the samples were determined as taste, smell and colour. In sensory evaluations, according to flavour profile analysis, traditional sütlaç had a significant difference compared to desserts prepared with Turkish coffee, and its preferability was high. The preference level of Turkish coffee sütlaç is numerically above the average. Considering these findings, Turkish coffee sütlaç can be preferred by the consumer, but similar studies should be continued to increase the flavour element and the data obtained should give a quality enhancing the flavour characteristics of Turkish coffee rice pudding.

Keywords: Turkish coffee, dairy dessert, Turkish gastronomy, sütlaç

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DÜNYA KAHVELERİNİN TANITIM MÜZESİ PROJE ÖNERİSİ

MUSEUM PROJECT PROPOSAL OF WORLD COFFEE

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ÖZET

Akdeniz, Ege ve Anadolu çağlar boyu birçok medeniyete ev sahipliği yapmıştır. Bu bölge aynı zamanda göç yoludur. Birçok medeniyet bu bölgeyi konaklama ve geçiş amaçlı kullanmıştır. Bu medeniyetler beraberinde kültür, bilim, mevcut teknoloji, sanat, tarım, hayvancılık, denizcilik, savaş aletleri teknolojilerini ve mutfak kültürü konusunda birikimlerini bu bölgeye aktarmıştır. Dünya'ya kahvenin yayılması konusunda Türkiye'nin payı çok büyüktür. Farklı demleme ve işleme teknolojileriyle tüm dünyada kullanılan kahve doğal içecek sınıfında bulunmaktadır.

Gelişen hazır yemek kültürü ve hızlı yaşam koşulları sonucunda, bölgenin sahip olduğu kahve kültürü yok olmaya başlamıştır. Yeni nesil kahveler gençler arasında daha çok tercih edilmeye başlanmıştır. Türk kahvesi de kültürel miraslarımız arasında yer almaktadır.

Çağlar Boyu Dünya Kahveleri Müze Projesinin kurulmasıyla yeni nesillere kahve kültürümüzü aktarabileceğiz ayrıca dünya kahvelerinin tanıtımı ile bölgemize yerli ve yabancı ziyaretçilerin gelişini artırıp kahve sektöründeki yeni trendlere değerlendirilecektir.

Proje kapsamında müze, kafe, otantik kahvelerin, cezve çeşitlerinin, hediyelik kahve fincanlarının ürünlerin satıldığı market, çocuk oyun parkı, kahve eğitim akademisi, otopark alanı, web sitesi ve sosyal medya tanıtım sayfaların oluşturulması AR ve VR teknoloji bölümü bulunmaktadır.

Bu bildiride geleneksel kahve ile yeni nesil kahve karşılaştırılacak olup. Gelişen kahvenin tarihçesi, sektöründe kalite kapasite ve verimlilik değerlendirmeleri sunulacaktır.

Anahtar kelimeler: dünya kahveleri, kahve, müze, kültürel miras

ABSTRACT

Mediterranean, Aegean and Anatolia have hosted many civilizations throughout the ages. This region is also a migration route. Many civilizations have used this region for accommodation and transit. These civilizations have transferred their knowledge culture, science, current technology, art, agriculture, animal husbandry, maritime, war tools technologies and culinary culture to this region. Turkey's share in the spread of coffee to the world is very large. Coffee, which is used all over the world with its different brewing and processing technologies, is in the natural beverage class.

As a result of the developing fast food culture and fast living conditions, the coffee culture of the region has begun to disappear. New generation coffees have started to be preferred more among young people. Turkish coffee is also among our cultural heritage.

With the establishment of the World's Coffee Museum Project, the knowledge and cultural heritage will be transfered to new generations.

In the scope of this project, there is a museum, cafe, market where authentic coffees, coffee pot types, gift coffee cups are sold, children's playground, coffee education academy, parking area, creation of website and social media promotion pages, AR and VR technology section.

In this paper, traditional coffee and new generation coffee will be compared. The history of developing coffee, quality, capacity and efficiency evaluations in its sector will be presented.

Keywords: world coffees, coffee, museum, cultural heritage

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UNIVERSITY STUDENTS DRINKING COFFEE: A FABULOUS FRAGRANCE

ABSTRACT

Coffee consumption, which is stated to be an important part of social life, is increasing. Brand coffee shops have increased the consumption of other coffees instead of traditional Turkish coffee. The purpose of this qualitative research is to try to determine why university students consume coffee so much, what they find in brand coffee shops, and what needs these places meet. For this purpose, qualitative interviews were conducted with 12 university students (8 = female, 4 = male) aged between 18 and 24, and the research results were based on these data. As a result of the thematic analysis of the qualitative interviews, the following seven main themes were determined: “allure of brand coffee shops”, “compatibility with cigarettes”, “being a source of peace”, “going well in chat environment”, “ensuring being healthy”, “addictive”, “sharing on social media”. As a result, this research presented results that university students drink coffee for different reasons. Within the framework of the findings obtained, practical suggestions were presented to professionals and researchers providing psychological help services.

Keywords: coffee, brand coffee shops, thematic analysis, university students

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COFFEE-THEMED MINIATURES IN OTTOMAN DEPICTION ARTS

OSMANLI TASVİR SANATLARINDA KAHVE TEMALI MİNYATÜRLER

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ABSTRACT

The coffee, Latin name is *coffea arabica*, is 7-8 meters is a tall plant. The beverage prepared by mixing-roasted and ground beans with water is also called coffee. Coffee emerged as a food in Abyssinia, was recognized in Yemen at the beginning of the 15th century and became widespread as a beverage at the end of the century. It reached Mecca and Cairo in the early 16th century and European centers in the mid-17th century. According to researchers, the date of arrival of coffee in the Ottoman lands is 1554. It has an important place in Turkish literature and folklore. It is found to be contrary to Islam due to its stimulating effects in certain periods. Various legends and stories about coffee and coffee houses have emerged, poems have been written and have been the subject of depiction arts. Miniature is one of the traditional Turkish descriptive manuscript arts, such as calligraphy, illumination, marbling and binding. The manuscripts presented to the Sultan and other high-ranking people before the printing press began to be used. Uighur miniatures are considered to be the pioneers of Seljuk miniatures. The oldest examples of Islamic miniatures are belong to 12-13th. centuries. With the arrival of the Seljuk Turks to Anatolia, the first Turkish-Islamic miniature style was born. As a result of the Mongol invasion, a new style of depiction emerged in miniature art, and it found the opportunity to develop with Fatih. The effects of Turkmen miniature style and Western art were also seen in the works of II. Bayezid period, and the most important examples of the classical style were given in the time of Kanuni. After 1750, Ottoman miniature continued with mostly clothes albums and sultan portraits. Different techniques began to be applied in the works prepared in the 18-19th centuries, and in time, the traditional Ottoman miniature came to an end. Circumcision ceremonies, feasts, weddings, festivities, religious ceremonies, dress albums Sufism, science and literature have been worked in the miniatures. So that they became important documents that describe historical events and convey the lifestyle, customs and traditions of the period. The depictions of coffee, coffee house and coffee makers in the miniatures of the 16-19th centuries show that coffee customs were common in these periods. These miniatures constitute the subject of our study. For this purpose, information about coffee-themed depictions was given by researching the sources prepared until today.

Keywords: Coffee, Ottoman, Depiction Arts, Miniature

ÖZET

Latince adı *coffea arabica* olan kahve 7-8 m. boyunda bir bitkidir. Bu bitkinin meyvelerine, kavrulmuş ve öğütülmüş çekirdeklerinin su ile karıştırılması ile hazırlanan içeceğe de kahve denilmektedir. Kahve, Habeşistan'da yiyecek olarak ortaya çıkmış, 15. yüzyılın başlarında Yemen'de tanınarak yüzyılın sonlarında içecek halinde yaygınlaşmıştır. 16. yüzyılın başlarında Mekke'ye, Kahire'ye ve 17. yüzyılın ortalarında da Avrupa merkezlerine ulaşmıştır. Kahvenin Osmanlı topraklarına geliş tarihi araştırmacılara göre 1554'tür. Belli dönemlerde uyarıcı etkilerinden dolayı İslâm aykırı bulunan, Türk edebiyatı ve folklorunda önemli yer tutmuştur. Kahve ve kahvehanelerle ilgili çeşitli menkıbe ve hikâyeler ortaya çıkmış, şiirler yazılmış, tasvir sanatlarına da konu olmuştur. Tasvir sanatlarından birisi olan minyatür, matbaanın kullanılmaya başlamasından önce padişah ve diğer yüksek mertebeli kişilere sunulan el yazması kitapları süsleyen hat, tezhip, ebru ve cilt gibi birbiriyle ilişkili geleneksel Türk sanatlardan birisidir. Uygur minyatürleri Selçuklu minyatürlerinin öncüleri sayılmaktadır. İslâm minyatürlerinin en eski örnekleri 12-13. yüzyıllara aittir. Selçuklu Türkleri'nin Anadolu'ya gelmesiyle ilk Türk-İslâm minyatür üslubu doğmuştur. Moğol istilası sonucunda İslâm minyatür sanatında yeni bir tasvir tarzı ortaya çıkmış, İstanbul'un fethinden sonra Fâtih'le gelişme imkânı bulmuştur. II. Bayezid dönemi eserlerinde Türkmen minyatür üslûbu ve Batı sanatının da etkileri görülmüş, Kanuni döneminde klasik üslubun en önemli örnekleri verilmiştir. 1750 yılından sonra Osmanlı minyatürü daha çok kıyafet albümleri ve padişah portreleriyle sürmüştür. 18-19 yüzyıllarda hazırlanan eserlerde farklı teknikler uygulanmaya başlamış ve zamanla geleneksel Osmanlı minyatürü sona ermiştir. Minyatürler tarihi olayları betimleyen, dönemin yaşam tarzını, örflerini, adetlerini, geleneklerini, göreneklerini aktaran önemli belgelerdir. Sünnet törenleri, bayramlar, düğünler, şenlikler, dini merasimler, kıyafet albümleri tasavvuf, bilim ve edebi konulu eserler olmuştur. 16-19. yüzyıl minyatürlerindeki kahve, kahvehane, kahveci oğlan, kahveci, kahveci başı ve kahveci usta tasvirleri bu dönemlerde kahve adetlerinin yaygın olduğunu göstermektedir. Çalışmamızın konusunu da bu minyatürler oluşturmaktadır. Bu amaçla günümüze kadar hazırlanmış kaynaklar araştırılarak kahve konulu tasvirler hakkında bilgi verilmiştir.

Anahtar Kelimeler: Kahve, Osmanlı, Tasvir Sanatları, Minyatür

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Nohut Kahvesi: II. Dünya Savaşının Türk Romanındaki İzi, Kahvedeki Tadı

Chickpea Coffee: The Trace of World War II in Turkish Novel, The Taste in Coffee

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ÖZET

Pişirilişinden tüketilişine birçok lezzeti ve ritüeli içinde barındıran kahve, Türk toplumunda her dönemde önemli bir yere sahip olmuştur. Kahvenin lezzeti, pişirilme tekniği, sunulma biçimi, insanları bir araya getirmesi ve sohbet etmeye imkân tanıyan bir araç olması Türk sosyal hayatında daima karşılığını bulmuş, kahve Türkçeye birçok sözcük ve deyim kazandırmıştır. Nitekim kahvenin dile etki edecek kadar çok tüketilen bir içecek olması, onun edebî türlerde de takip edilebileceğinin işaretidir.

"Nohut Kahvesi: II. Dünya Savaşının Türk Romanındaki İzi, Kahvedeki Tadı" başlıklı bu çalışmada da kahvenin Türk edebiyatındaki yerinden kısaca söz edilecek ve kahve tüketiminin edebiyatta hangi yönleriyle yer aldığına değinilecektir. Çalışmanın odak noktasını ise varlığıyla keyif ve mutluluk veren kahvenin yokluğunun yarattığı psiko-sosyal durumun Türk romanındaki iki örnek üzerinden incelenmesi oluşturacaktır. Bu amaçla II. Dünya Savaşına girmemesine rağmen, savaşın olumsuz koşullarından fazlasıyla etkilenen Türkiye'nin o dönemki sosyal hayatını anlatan *Karartma Geceleri* ve *Mücella* romanları ele alınacak ve bu yokluk yıllarının yarattığı zorunlu tada, nohut kahvesine bakılacaktır. Nohut kahvesinin tadı, romanlardaki kullanılma biçimi, sosyal göstergesi, hangi ihtiyaçla ortaya çıktığı, halk içinde yaygın olarak kullanılıp kullanılmadığı söz konusu romanlar üzerinden değerlendirilecektir. Ayrıca *Karartma Geceleri*'nin erkek, *Mücella*'nın kadın olan ana karakterlerinin bu dönemdeki maddi sıkıntılarının, tüketim ile yeme-içme davranışlarına etkisi incelenecek ve kahvenin kişiler üzerindeki etkisinin roman karakterlerini ve karakterlerin çevreleriyle ilişkilerini nasıl şekillendirdiği açıklanacaktır.

Anahtar Kelimeler: nohut kahvesi, türk kahvesi, II. Dünya Savaşı, Türk romanı, *Karartma Geceleri*, *Mücella*, Rıfat Ilgaz, Nazan Bekiroğlu

ABSTRACT

Coffee, which contains many flavors and rituals from cooking to consumption, has always had an important place in Turkish society. The taste of coffee, the way it is cooked, the way it is presented, the fact that it brings people together and is a tool that allows conversation, has always found their way in Turkish social life, and coffee has brought many words and idioms to Turkish. The fact that coffee is a beverage that is consumed so much that it affects the language is a sign that it can be followed in literary genres as well.

This study titled "Chickpea Coffee: The Trace of World War II in Turkish Novel, The Taste in Coffee" will briefly mention the place of coffee and aspects of coffee consumption in Turkish literature. The focus of the study will be to examine the psycho-social situation created by the absence of coffee, which gives pleasure and happiness with its presence, through two examples in the Turkish novel. *Karartma Geceleri* and *Mücella*, which describe the social life of Turkey at that time during World War II, and will look at chickpea coffee, the obligatory flavor created by the war years. He will evaluate the taste of chickpea coffee, the way it is used in the novels, its social sign, the need for it, and whether it is widely used in the public through the novels in question. In addition, the main characters of *Karartma Geceleri*, who are male and *Mücella* are female, will examine the effects of the financial difficulties of this period on consumption and eating and drinking behaviors, and will explain how the effect of coffee on people shapes the novel characters and the relationships of the characters with their environment.

Keywords: chickpea coffee, turkish coffee, World War II, Turkish novel, *Karartma Geceleri*, *Mücella*, Rıfat Ilgaz, Nazan Bekiroğlu

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TÜRK KÜLTÜRÜNDE KAHVE OLGUSU

ÖZET

Kültür yaşaam biçimidir. İnsanların toplumda gelenekleri, değerleri, örf ve adetleri, hergünkü münasebet özellikleri, düşünceleri vev inançlarıyla beraber yaratmış oldukları somut unsurları kapsayan karmaşık bir bütün olan kültür her şeyden önce insan için insan tarafından yaratılmıştır. Somut ve soyut özellikli boyutlarıyla toplumsal yaşamda etkileşimin ürünü olan kültürün ait oldukları toplumu diğer toplumlardan farklı ve özel kılan yönleriyle bir bütün olduğu söylenebilir.

Kahve bir bitki olarak Güney Amerika ile özdeşleşmiş iken, kültürel olarak başında Türk kavramı olan önemli konu başlıklarından birini Türkler için teşkil etmektedir. Ancak ünü Türkiye'nin dışına uzanan bir yaşam biçimi numunesi olarak Türk sosyal yaşamaında kıymetli bir yer edinmiştir. Artık kahvenin ikram olarak ve takdim olarak bir Türk markası olması bir olgu biçimini almıştır. Kahvede kullanılan malzemeler, kahve içilen ortamlar önemli bir yaşam biçimi örneği olarak yer tutmayı başarmıştır.

Bu araştırmada kültürel bir olgu olarak kahve geleneği incelemeye tabi tutulmuştur. Osmanlı Döneminden beri Türkiye'de önemli bir gelenek unsuru olarak varlığını sürdürdüğü ve gelişim gösterdiği görülmektedir.

Anahtar Sözcükler: Kahve, kültür, gelenek, kahve kültürü

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KAHVENİN HİKÂYESİ

ÖZET

Kahve ağacının ilk bulunduğu yer olan Habeşistan'ın Kaffa yöresinin Arapça karşılığı "qahwah"-dır. Araplar bugün bilinen kahveyi henüz tanımıyorken "qahwah" kelimesi, keyif veren içki ve şarap anlamında kullanmaktaydı. Bugünkü anlamını ise 14. yüzyılda kazanmaya başlamıştır. "Qahwah" kelimesi; Türkçede "kahve"ye dönüşmüş, Avrupa'da *café*, *caffe*, *koffie*, *coffee*, *koffie*, *kaffee* şekillerine gelmiştir.

Kahve uzun süre sadece Araplar tarafından kullanıldıktan bir yüzyıl sonra Suriye, Mısır, İran ve Hindistan'a yayılmıştır.

Kahve, beyaz ve kokulu çiçeklere sahip, kirazı andıran kırmızı meyvesinin içinde iki çekirdek bulunan, dikildikten yaklaşık 3 yıl sonra meyve vermeye başlayan ve 30-40 yıl boyunca aralıksız meyve veren bir ağaç türüdür. Doğal haline bırakıldığında 8-10 metreye kadar uzayan ağaç, meyvelerin kolay toplanabilmesi için sürekli budanarak 4-5 metre uzunluğunda bir çalı boyutunda tutulur. Kahvenin defne yaprağına benzer derimsi ve kenarları dalgalı kışın dökülmeyen koyu, parlak ve sivri uçlu yaprakları vardır.

Kanuni Sultan Süleyman döneminde (1520-1566) Yemen Valisi Özdemir Paşa, Yemen'de içtiği ve çok sevdiği kahveyi İstanbul'a getirmiştir. Kahve, kısa zamanda itibarlı bir içecek olarak saray mutfağında yerini almış ve büyük ilgi görmüştür. Saray görevleri arasına "kahvecibaşı" adında bir de rütbe bile eklenmiştir. Padişahın ya da bağlı olduğu devlet büyüğünün kahvesini pişirmekle görevli olan kahvecibaşı, sadık ve sır tutmasını bilenler arasından seçilirdi.

Kahve'nin Osmanlı'da sevilmesiyle birlikte "İşlenmiş Kahve Satılan Yer" anlamına gelen "Tahmis" sözcüğü, Mısır çarşısının batı tarafındaki sokağa isim olarak verilmiştir.

Anahtar Kelimeler: Kahve, Kahvecibaşı, Tahmis

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KAHVE FERMANTASYONUNUN LEZZET VE AROMAYA ETKİSİ

EFFECT OF COFFEE FERMENTATION ON TASTE AND AROMA

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ÖZET

Kahve, hoş aroması ve ferahlatıcı tatları nedeniyle dünyadaki en yaygın olarak kullanılan alkolsüz içecek ürünlerinden birisidir. Aroma, asitlik ve burukluk açısından farklı temel parametreler ile karakterize edilen farklı kahve türleri vardır. Ancak, sadece *Coffea arabica* ve *Coffea canephora* olmak üzere iki tür tarımsal ekonomik açıdan değerlidir. Kahve aroması profili fermantasyondan etkilendiği karmaşık bir süreçtir. Zengin aromaya katkı sağlayan çok sayıda uçucu ve uçucu olmayan bileşikler analiz edilmiştir. Ayrıca aroma üzerine etki eden kahve türü, çeşidi, coğrafya ve kavurma süresi gibi değişkenlerde mevcuttur. Fermantasyon, kompleks moleküllerin monomerlerine parçalanarak sıvı ve uçucu bileşikler ürettiği kimyasal reaksiyonlar bütünüdür. Bu reaksiyonlar kahvenin işleme süresince sadece müsilajın uzaklaştırılması için değil, aynı zamanda iyi kontrol edildiği taktirde temel duyusal parametreleri oluşturmak için de önemlidir. Fermantasyonun iyi yönetilememesi durumunda mikroorganizma kaynaklı hoş olmayan tatlar ve istenmeyen özelliklerin ortaya çıkması kalite açısından dezavantaj oluşturmaktadır. Olgunlaşmış kahve kirazları hasat edildikten sonra yeşil kahve çekirdekleri elde etmek için yaş, kuru ve yarı kuru olmak üzere üç farklı işleme yöntemi vardır. Mikroorganizmalar, enzimler, asitler ve alkoller kullanılarak müsilajın uzaklaştırılması kahve fermantasyon sürecinin önemli bir basamağını oluşturmaktadır. Normalde insanlar kahveyi rahatlamak ve içerisindeki çeşitli aromaların tadını çıkarmak için tüketirler. Besinsel faydalarının yanı sıra potansiyel bir antioksidan görev üstlenerek sağlık üzerinde pozitif yönde fizyolojik ve psikolojik etkilerde göstermektedir.

Anahtar kelimeler: Kahve, fermantasyon, aroma, lezzet

ABSTRACT

Coffee is one of the most widely used non-alcoholic beverage products in the world due to its pleasant aroma and refreshing taste. There are different types of coffee that are characterized by different basic parameters in terms of aroma, acidity and astringency. However, only two species, *Coffea arabica* and *Coffea canephora*, are of agricultural economic value. The coffee flavor profile is a complex process in which it is influenced by fermentation. Numerous volatile and non-volatile compounds that contribute to the rich aroma have been analyzed. In addition, there are variables such as coffee type, variety, geography and roasting time that affect the aroma. Fermentation is a set of chemical reactions that break down complex molecules into monomers and produce liquid and volatile compounds. These reactions are important not only for the removal of mucilage during coffee processing, but also for establishing basic sensory parameters if well-controlled. In case the fermentation is not managed well, the emergence of unpleasant tastes and undesirable features originating from microorganisms creates a disadvantage in terms of quality. There are three different processing methods, wet, dry and semi-dry, to obtain green coffee beans after ripe coffee cherries are harvested. Removal of mucilage using microorganisms, enzymes, acids and alcohols is an important step in the coffee fermentation process. Normally, people consume coffee to relax and enjoy the various aromas in it. In addition to its nutritional benefits, it acts as a potential antioxidant and has positive physiological and psychological effects on health.

Keywords: Coffee, fermentation, aroma, flavor

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TÜRKİYE'DE KAHVE TÜKETİMİ VE GELİR İLİŞKİSİ ÜZERİNE AMPİRİK BİR ANALİZ

AN EMPIRICAL ANALYSIS ON THE RELATIONSHIP BETWEEN COFFEE CONSUMPTION AND INCOME IN TURKEY

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ÖZET

Dünya nüfusun üçte birinin tükettiği kahve 14.yy. da Etiyopya'da ortaya çıkmış 16.yy.da Osmanlı Devletinden tüm dünyaya yayılmıştır. Kahve geleneksel bir içecek olmasının yanı sıra petrolden sonra en değerli emtia olarak görülmektedir. Sosyal yaşamın vazgeçilmezleri arasında da olan kahve, Türkiye'de çaydan sonra en fazla tüketilen içecek olmakla beraber sosyal statü göstergesi olarak da görülebilmektedir.

Bu çalışmanın amacı Türkiye'de kahve tüketimi ve gelir arasındaki ilişkiyi ampirik olarak ortaya koymaktır. Çalışma veri kısıtlaması nedeni ile 1990 yılından başlamış olup 2019 yılına kadar elde edilen yıllık verileri kapsamaktadır. Çalışmada kahve tüketimin göstergesi olarak Uluslararası Kahve Organizasyonu veri tabanından alınan ve Türkiye'nin ithal ettiği kahve miktarı kullanılırken büyümenin göstergesi olarak Dünya Bankasından alınan kişi başı Gayri Safi Yurtiçi Hâsıla kullanılmıştır. Ampirik sonuçlara ulaşmak için Genelleştirilmiş Dickey-Fuller (ADF), Phillip-Perron (PP) ve Kwiatkowski, Phillips, Schmidt ve Shin (KPSS) birim kök testleri ve Johansen Eşbütünleşme analizinden yararlanılmıştır.

Ekonometrik analizlerde bir ön koşul olarak serilerin durağanlığının incelenmesi gerekmektedir. Bu aşamada ADF, PP ve KPSS testleri değişkenlerin seviyede birim köklü olduğunu ortaya koyarken 1.farkları alınan değişkenlerin durağan olduğu görülmüştür. Değişkenler arasında uzun dönem ilişkinin varlığını tespit etmek için yapılan Johansen Eşbütünleşme analizi sonucunda kahve tüketimi ve gelir arasında istatistiksel olarak anlamlı bir ilişki olmadığı görülmüştür.

Elde edilen bulgular Türkiye'de kahve tüketimi ve gelir arasında uzun dönemli bir ilişkinin olmadığını ortaya koymuştur. Bu sonuç kahve kullanıcılarının kahveden vazgeçemediğini göstermektedir. Şöyle ki bireyler geliri düştüğü zaman çay gibi ikame mallara yönelmek yerine 100'den fazla kahve çeşidinden gelirine uygun kahve çeşitlerinden birisini seçmekte veya geliri yükseldiğinde çeşitli kahve türlerinden daha kaliteli kahve tüketimine geçmektedir.

Anahtar Sözcükler: Kahve Tüketimi, Gelir, Johansen Eşbütünleşme Analizi

ABSTRACT

The one third of the coffee that is consumed throughout the world was appeared in Ethiopia in 14th century and spread to the all-world by Ottoman Empire in 16th century. As well as being a traditional beverage, coffee is considered as the most valuable commodities after oil. Among the indispensables of social life, coffee can also be seen as an indicator of social status besides being the most consumed drink after tea in Turkey.

The aim in this study is to empirically demonstrate the relationship between coffee consumption and income in Turkey. Due to data limitation, the study covers the annual data from 1990 to 2019. The data of International Coffee Organization and the coffee amount imported by Turkey was used as coffee consumption indicators while the Gross Domestic Product per capita from the World Bank was used as indicator of growth. To reach empiric results, Augmented Dickey-Fuller (ADF), Phillip-Perron (PP) and Kwiatkowski, Phillips, Schmidt and Shin (KPSS) unit root tests and Johansen Co-integration test analysis were used.

The stationarity of the series should be examined as a prerequisite in econometric analysis. At this stage, while ADF, PP and KPSS tests revealed that the variables had unit root at the level, it was seen that the variables with the first difference were stationary. As a result of the Johansen Co-integration analysis to determine the existence of a long-term relationship between the variables, it was seen that there was statistically no significant relationship between coffee consumption and income.

The findings demonstrate that there is no long-term relationship between coffee consumption and income in Turkey. This result reveals that coffee consumers cannot give up coffee. That is, individuals choose one of the more than 100 types of coffee suitable for their income instead of turning to substitute goods such as tea when their income decreases, or they switch to higher quality coffee consumption from various types of coffee when their income increases.

Keywords: Coffee Consumption, Income, Johansen Co-integration Analysis

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KAHVE ZANAATKARI BARİSTALARIN KOSTÜMÜ; "ÖNLÜK" ÜZERİNE BİR ÇALIŞMA

COFFEE CRAFTSMEN BARISTAS' COSTUME; A STUDY ON "APRON"

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ÖZET

Kahve dünyada kabul görmüş içeceklerin başında gelir. Türk tarihinde Osmanlı döneminden itibaren var olan kahve, İstanbul'dan Anadolu'ya yayılarak kendine has geleneklerini oluşturmuştur. Türk kültüründe kahve yapımı ve sunumu özel günlerde ritüeller eşliğinde yapılır. Geçmişte mahalle kahvehanelerinde ya da evlerde bakır cezvede odun ve kömür ateşinde pişirilen kahveler kulpsuz ince fincanlarda sunulmuştur.

Türk kültüründe özel bir yeri olan kahvenin, tarihsel süreçte gelenek ve görenek bağlamında kullanılan araç ile gereçlerinin de önemli bir kültür aktarıcısı olduğu söylenebilir. Türk kahvesi, literatüre girmiş ve 2013 yılında UNESCO tarafından, "İnsanlığın Somut Olmayan Kültürel Mirası Temsili" listesine kaydedilmiştir.

Kahvenin evlerde, iş ve arkadaş toplantılarında tüketilmesinin yanında XVI. yüzyıl ortalarından itibaren İstanbul'da kahvehane adı verilen halka açık mekanlarda da tüketilmeye başlanmasıyla sosyal yaşamda değişimler başlamıştır. Kahvehaneler bazı dönemlerde topluma faydalı mekanlar olarak işlev görürken bazen ayaklanmaların başladığı yerler olması nedeniyle kapatılmıştır.

Günümüz kahveciliği ya da kahve kültürü değişime uğrayarak evler dışında kahvehanelerin yanı sıra yeni dönem sosyalleşme anlayışını yansıtan kafelerde küresel markaların hazır kahve tüketiminin çoğalmasıyla yatırımcıların dikkatini çeken bir sektör haline gelmiştir. Bu değişim süreci Anadolu'da kahve kültürünün değişime uğramasına ve yeni nesil kahvehanelerin açılmasına neden olmuştur. Talep karsısında geleneksel kahvehaneler yerine kadın ve erkeklerin birlikte zaman geçirecekleri yeni sosyalleşme ortamları oluşmuştur. Bu bağlamda açılan kafelerde genç neslin kahvecileri Baristalar olmuştur. Barista, yeni kahvehane anlayışı ve çevresinde oluşan kültürün bir parçasıdır. Baristalar ustadan çırağa öğreti yöntemiyle eğitilip, kavrulmuş kahve çekirdeğini içim için hazırlayarak sunumunu yapan kişilerdir.

Bu çalışmada; kahve ve kahvecilik geleneği çevresinde gelişen geleneksel birikimin tarihsel süreçteki değişimleri incelenecek ve yeni zanaatkar baristalar için "önlük" teması çalışılacaktır. Günümüz moda trendlerine uygun ve ihtiyaca yönelik işlevsel önlük tasarımları hazırlanacak, tasarımda kullanılan araç ve gereçlerin tanıtımı yapılacaktır.

Anahtar kelimeler: Kültür, kahve, kafe, barista, tasarım, önlük

ABSTRACT

Coffee is one of the most accepted beverages in the world. Coffee, which has existed in Turkish history since the Ottoman period, spread from Istanbul to Anatolia and created its own unique traditions. In Turkish culture, coffee making and serving is done with rituals on special days. In the past, the coffees that were cooked in the neighborhood coffee houses or in the houses in a copper pot over wood and coal fire were served in thin cups without handles.

It can be said that coffee, which has a special place in Turkish culture, is an important cultural bearer alongside the tools and equipment used in the context of tradition and custom in the historical process. Turkish coffee entered the literature and was registered in the "Representation of the Intangible Cultural Heritage of Humanity" list by UNESCO in 2013.

In addition to the consumption of coffee in homes, business and friend meetings, Since the middle of the 16th century, changes in social life have started with the consumption of coffee in public places called coffeehouses in Istanbul. While coffeehouses functioned as beneficial places for the society in some periods, they were sometimes closed because they were places where riots started.

Today's coffee or coffee culture has undergone a change, and it has become a sector that attracts the attention of investors, with the increase in instant coffee consumption of global brands in cafes reflecting the new era's understanding of socialization, as well as coffee houses outside the homes. This process of change caused the coffee culture to change in Anatolia and the opening of new generation coffee houses. In response to the demand, new socialization environments have emerged where men and women will spend time together, instead of traditional coffee houses. In this context, coffee makers of the new generation's coffee makers are named as Baristas in the new cafés'. The barista is a part of the new coffeehouse understanding and the culture around it. Baristas are the people who are trained by the method of teaching from master to apprentice, prepare the roasted coffee beans for drinking and present them.

In this study; The changes in the historical process of the traditional accumulation that developed around the coffee and coffee making tradition will be examined and the "apron" theme will be studied for new craftsmen and baristas. Functional apron designs suitable for today's fashion trends and needs will be prepared, and the tools and equipment used in the design will be introduced.

Keywords: Culture, coffee, cafe, barista, design, apron

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KAHVENİN ANA BİLEŞENLERİNDEN KLOROJENİK ASİT: OBEZİTE ETKİLERİ

CHLOROGENIC ACID, A MAIN COMPONENT OF COFFEE: EFFECTS ON OBESITY

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ÖZET

Kahve, dünyada arzu edilen organoleptik özellikleri nedeniyle en çok tüketilen içeceklerden biridir. Potansiyel sağlık yararları nedeniyle kahve, son zamanlarda birçok çalışmada araştırılmaya devam etmiştir. Özellikle içerisinde mevcut bulunan biyoaktif bileşenleri (kafein, klorojenik asitler ve diterpenoid gibi) dikkat çekmektedir. Bu özelliklerinden dolayı son zamanlarda gıda alanında fonksiyonel ürün geliştirmede tercih nedeni olmuştur. Klorojenik asit bitkinin köklerinde, tohumlarında ve yapraklarında doğal olarak bulunmaktadır. Özellikle kahvenin ana temel fenolik bileşiği olan klorojenik asitlerin (KA) sağlık üzerine etkileri son zamanlarda fazlaca araştırılmaktadır. KA, kafeoil, dikaffeoil, feruloil, ve kumaroilkinik asitler dahil olmak üzere kinik asitli hidroksisinnamik esterlerinin hepsini ifade etmektedir. İn vitro ve İn vivo modellerde KA'nın antioksidan ve antiinflamatuar etkilerinden dolayı sağlık üzerine birçok etkileri raporlanmıştır. Özellikle raporlarda obezite, metabolik, kardiyovasküler, antikanserojen, nörolojik ve anti-inflamatuar gibi etkileri tespit edilmiştir. Bu çalışmada son yıllarda KA ile ilgili yapılmış özellikle kardiyovasküler hastalığın ana riskini teşkil eden obezite ile ilgili in vitro ve in vivo çalışmalardaki gelişmelerden bahsedilmiştir. Raporlarda dikkat çeken, orta düzeyde kahve tüketen yetişkinler için (3 – 4 fincan günlük ortalama tüketim), sağlık risklerine dair çok az kanıtlara sahip olduğu. Aynı zamanda sağlık üzerine etkilerinin olduğu sonuçları vardır. Sonuç olarak, KA'nın raporlarda belirtilen sağlık faydalarından yararlanılarak yeni ürün geliştirme (fonksiyonel gıdalar) çalışmalarının artırılması ve etkilerinin araştırılması gerektiği düşünülmüştür.

Anahtar Kelimeler: Kahve, Klorojenik asit, Obezite, Kardiyovasküler

ABSTRACT

Coffee is one of the most consumed beverages in the world due to its desirable organoleptic properties. Because of its potential health benefits, coffee has continued to be explored in many recent studies. In particular, the bioactive components (such as caffeine, chlorogenic acids and diterpenoids) present in it attract attention. Due to these features, it has recently been preferred in the development of functional products in the food field. Chlorogenic acid is naturally found in the seeds, roots and leaves of the plant. Especially, the effects of chlorogenic acids (CGA), which is the main basic phenolic compound of coffee, on health have been studied extensively recently. CGA refers to all hydroxycinnamic esters with quinic acid, including caffeoyl, dicaffeoyl, feruloyl, and coumaroylquinic acids. Many effects on health have been reported due to antioxidant and anti-inflammatory effects of CGA in vitro and in vivo models. Especially in the reports, effects such as obesity, metabolic, cardiovascular, anticarcinogenic, neurological and anti-inflammatory have been determined. In this study, developments in vitro and in vivo studies related to CGA, especially obesity, which constitutes the main risk of cardiovascular disease, are mentioned. What is noteworthy in the reports is that for adults who consume moderate amounts of coffee (average consumption of 3 to 4 cups per day), there is little evidence of health risks. It also has implications for health effects. As a result, it was thought that new product development (functional foods) studies should be increased and its effects should be investigated by taking advantage of the health benefits stated in the reports.

Keywords: Coffee, Chlorogenic acid, Obesity, Cardiovascular

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KLASİK TÜRK EDEBİYATI ŞİİRLERİNDE KAHVENİN ÖZELLİKLERİ

FEATURES OF COFFEE IN CLASSICAL TURKISH LITERATURE POETS

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ÖZET

Türk kültürünün geleneksel içeceği olan ve tüm dünyada "Türk Kahvesi" olarak bilinen kahve, geçmişten günümüze vazgeçilmez bir içecek olmuştur. Özellikle evliliklerin ilk adımı olan isteme merasimlerinde geleneksel olarak kahve içilmektedir. Kahve, günümüzde farklı esans ve çeşitleriyle insanlara sunulmasına rağmen bilinen tek kahve geleneksel olan tadı ve kokusuyla kendisini belli eden Türk kahvesidir.

Arapça bir sözcük olan kahvenin Yemen'den geldiği söylenmektedir. Sözlüklerin bazılarında kahvenin manası "içilecek şey" dir, diğer başka sözlüklerde de kahve, şarap ve içilecek şey olarak adlandırılmıştır. Her ne kadar kahvenin manasına "şarap" dense de şarap ile kahve arasında belirgin bir fark vardır. Kahvenin rengi ile şarabın rengi farklıdır, şarap kırmızı renktedir ve kahve ise kahverenginin koyu şeklidir. Kahverengi ismi de kahvenin renginden gelmektedir.

Osmanlı İmparatorluğu döneminde kahve sözcüğü genellikle "şarap" olarak bilindiği için ilk başta pek hoş karşılanmamıştır ve bazı zamanlarda kahve içilmesi yasaklanmıştır, ayrıca alimler tarafından yazılan bazı fetvalarda da kahvenin yasaklanması ve kahveden uzak durulması söylenmiştir. Kahvenin yasaklanması konusunda Şeyhülislam Ebussuûd Efendi'de sert bir fetva yazmıştır, ancak tüm bu yasaklamalara rağmen kahve vazgeçilmez bir içecek olmuştur.

Klasik Türk edebiyatı divan şiirlerinde birçok konuda şiir yazılmıştır. XVI. Yüzyılın sonlarından başlayarak sonraki yüzyıllarda kahve ile ilgili çeşitli şiirler yazılmıştır. Kahve konulu şiirler, birçok divan şairinin şiirlerinde yer almaktadır. Divan şiirlerinde kahveye nazaran şarap konulu daha çok şiir yazılmıştır, ancak kahve için yazılmış şiirlerde şarap ile kahve arasındaki farklar görülebilmektedir. Kahve ile yazılmış olan şiirlerde kahvenin İstanbul'da yaygınlaşması ile birlikte kahveye olan ilginin arttığı belirtilmiştir. Kahvenin alimlerin zekalarını açan bir içecek olduğu konusunda şiirler bulunmaktadır. Bazı şiirlerde şarap, bir başka nesne veya kişi ile ilişkilendirilmekteyken kahve sadece kendi özellikleri ile ele alınmıştır. Kahve ile ilgili diğer şiirlerde de kahvenin özellikleri ve insan sağlığına faydaları konu edilmiştir. Klasik Türk edebiyatı şiirlerinde değişik yüzyıllarda şairler tarafından kahve ile ilgili şiirler yazılmıştır, özellikle Lale devrinde 18. Yüzyıl şairi Nedîm, kahve konulu şiirler yazmıştır. 18. Yüzyıl şairlerinden Kânî'de kahve konulu şiirler yazmıştır.

Anahtar: Türk, Kahve, Kültür

ABSTRACT

Coffee, which is the traditional drink of Turkish culture and known as "Turkish Coffee" all over the world, has been an indispensable beverage from past to present. Coffee is traditionally drunk especially in the ceremonies of asking, which is the first step of marriage. Although coffee is offered to people today with different essences and varieties, the only known coffee is Turkish coffee, which reveals itself with its traditional taste and smell.

Coffee is Arabic word said to come from Yemen. In some dictionaries, the meaning of coffee is " drink", in other dictionaries it is called coffee, wine and something to drink. Although coffee means "wine and drink thing", there is a distinct difference between wine and coffee. The color of coffee and wine are different, wine is red in color and coffee is the darker form of brown. Brown color comes from coffee's color.

Since the word coffee was generally known as "wine" during the Ottoman Empire, it was not welcomed at first, and it was forbidden to drink coffee at times, and in some fatwas written by scholars, it was said that coffee should be banned and avoided. Sheikh al-Islam Ebussuud Efendi wrote a harsh fatwa on the prohibition of coffee, but despite all these prohibitions, coffee has become an indispensable beverage.

Poetry has been written on many subjects in classical Turkish literature divan poetry. End of the century of XVI. various poems about coffee were written in the following centuries. Poems about coffee are included in the poems of many divan poets. In Divan poems, more poems on wine were written compared to coffee, but the differences between wine and coffee can be seen in poems written for coffee. In the poems written with coffee, it is stated that the interest in coffee increased with the spread of coffee in Istanbul. There are poems about coffee being a beverage that opens the minds of scholars. In some poems, while wine is associated with another object or person, coffee is only discussed with its own characteristics. In other poems about coffee, the characteristics of coffee and its benefits to human health are discussed. In classical Turkish literature poems, poems about coffee were written by poets in different centuries, especially in the Tulip Era, 18th century's poet Nedîm wrote poems about coffee. One of the 18th century poets, century's other poet Kânî wrote poems about coffee.

Keywords: Turkish, Coffee, Culture

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COCOA AND HEALTH

ABSTRACT

Cocoa beans which are the raw materials of cocoa products are obtained from the fruits of the Theobroma cacao tree. As with other nutrients cocoa has many health benefits. Cocoa contains antioxidants such as calcium, carotene, thiamine, magnesium, sulfur, riboflavin, flavonoids, and chemical compounds with some important fatty acids. Cocoa: contains antioxidants such as calcium, carotene, thiamine, magnesium, sulfur, riboflavin, flavonoids, and chemical compounds with some important fatty acids. Cocoa, the raw material of chocolate, provides many benefits to health due to its flavonoids, which are powerful antioxidants. However, to benefit from this strong antioxidant effect, it is necessary to consider some criteria when choosing chocolate. The less processed the cocoa, the higher its antioxidant effect. Since cocoa contains intensely protective substances that fight against damage to tissues, it can have an anti-inflammatory effect that causes diseases. At the same time, dark chocolate is very important for cardiovascular health. Thanks to the intense antioxidants it contains, it plays an important role in reducing and balancing LDL cholesterol, which causes plaque formation in the vessels and is expressed as bad cholesterol. However, it is supported by studies that it has a protective effect by increasing the level of HDL cholesterol, which is described as good cholesterol and can reduce the risk of some cancers, diabetes, arthritis, depression and Alzheimer's disease. Today, there are many foodstuffs in which cocoa is used as a functional food. Chocolate is one of the most consumed products. Chocolate is a processed product obtained by adding sugar, oil, other additives and some milk to cocoa. In addition to many positive effects on health; Since the content of energy, saturated fat and sugar are high, it is important to control the amount and frequency in the recommendations to be given regarding the consumption of chocolate. For this reason, more parallel studies should be conducted to determine the optimal dose and the side effects of high doses in chocolate and cocoa consumption and to clarify the long-term effects.

Keywords: Cocoa, Health, Antioxidants

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KAHVE SÖZCÜĞÜNÜN ETİMOLOJİSİ VE ARAP LİTERATÜRÜNDEKİ YANSIMALARI

THE ETYMOLOGY OF THE COFFEE AND ITS REFLECTIONS IN ARABIC LITERATURE

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ÖZET

Kahve, modern dünyanın en tercih edilen sıcak içeceklerinden biridir. Bünyesinde barındırdığı kafeinin insan vücudunda meydana getirdiği reaksiyonun dikkati arttırması ve uyanıklık hissiyatı sağlaması, keşfedildiği ilk günden bu yana entelektüel camianın ilgisinden kaçmamıştır. Geçmişi çok eskiye dayandığından, günümüz insanı, kahve fincanından aldığı her yudumda, büyük ve köklü bir kültür tarihine de iştirak ettiğinin bilincinde olmalıdır. Kahvenin kökeninin Afrika'ya dayandığı ve bir içecek olarak kullanımının ilk kez Güney Arabistan'da gerçekleştiği düşünülmektedir. Dolayısıyla günümüzde tüm dünyaya yayılmış olan kahve kültürünün başlangıcına inmek için, Arap edebiyatına göz atılması lüzumu doğmaktadır. Bugün pek çok dünya dilinde, o veya bu şekilde, benzer bir sesletim ile ifade edilen "kahve", esasen Arapça kökenli bir sözcüktür. Muhtemelen kahve kelimesi, ilk olarak Arapça *ḳ-h-y* (قهي) kökünden türetilmiştir. Arap dilinde *ḳahiye* (قَهِيَ) fiili, *"iştahı kesildi"* anlamına gelmektedir. Bu anlam, ilk başlarda *ḳahve* (قَهْوَة) sözcüğünün, içenlerin iştahını kesen bir şarap cinsinin tanımlanması için kullanılmasıyla ilişkilidir. Arapçadaki bu kök, İbranicede *"zayıf", "yılgın", "dumansı"* ve *"mat"* gibi anlamlarla ilişkili olan *k-h-h* (כהה) köküyle de kökteştir. Kahvenin ne zaman ve hangi şartlar altında keşfedildiği kesin olarak bilinmemektedir. Kahve bitkisinin, Madagaskar'dan Sierra Leone'ye, Kongo'dan Etiyopya dağlarına kadar, Afrika'nın dağlık alanlarında yabani olarak yetişebildiği, hatta bu bitkinin Arap Yarımadası'na has olabileceği bir gerçektir. Mamafih kahvenin Antik Yunan, Roma, Orta Doğu ve Afrika halkları tarafından bilindiğine ve kullanıldığına dair somut bir veri bulunmamaktadır. Öte yandan Arap ve Avrupalı tarihçiler tarafından, bazı efsanevi Afrika anlatılarının aktarıldığı yahut altıncı yüzyıldan kalma bazı kayıp yazmalara atıfların yapıldığı gözlemlenmektedir. Ancak elimizdeki mevcut kayıtlar dikkate alındığında, kahve kültürünün on beşinci yüzyılın ortalarında, Güney Arabistan'da yer alan Yemen'in Sufi dergâhlarında ortaya çıktığını söylemek icap eder. Buna karşın Arap literatüründe kahve olgusunun etrafında şekillenen efsanelerin, kültürün ve şiirlerin yadsınamaz bir edebî değeri bulunmaktadır. Bu çalışmada, kahvenin etimolojisinin ve Arap edebiyatındaki yansımalarının, bilimsel bir metotla araştırılması hedeflenmektedir.

Anahtar Kelimeler: Arap Dili ve Edebiyatı, Kahve, Kahve Efsaneleri, Kahve Sözcüğünün Etimolojisi, Kahve Hakkında Arapça Şiirler.

ABSTRACT

Coffee is one of the most preferred hot beverages in the modern world. Because the caffeine in it increases the attention of the person and provides a feeling of alertness, it has attracted the attention of the intellectual community since the first day it was discovered. Due to its historical background, today's people should be aware that with every sip they take from a cup of coffee, they also participate in a great and long-established cultural history. Coffee has its origins in Africa. But its use as a beverage is thought to have occurred for the first time in Southern Arabia. Therefore, to understand the beginning of the coffee culture, which has spread all over the world today, it is necessary to look at Arabic literature. Today, in many world languages, "coffee", which is expressed with a similar pronunciation in one way or another, is a word of Arabic origin. Probably the word "qahwa" was originally derived from the Arabic root *q-h-y* (قهي). The verb *qahiye* (قَهِيَ) in Arabic means *"he has lost his appetite"*. This meaning is related to the use of the word *qahwa* (قَهْوَة) at first to describe a type of wine that makes its drinkers lose their appetite. This Arabic root is also cognate with the Hebrew root *k-h-h* (כהה), which is associated with the meanings such as *"weak", "dim", "smoky"* and *"dull"*. It is not known exactly when and under what conditions coffee was discovered. It is a fact that the coffee plant can grow wild in the highlands of Africa, from Madagascar to Sierra Leone, from Congo to the Ethiopian mountains, and that this plant may even be indigenous to the Arabian Peninsula. However, there is no satisfying data, which proves that the coffee was known and used by the peoples of Ancient Greece, Rome, the Middle East, and Africa. On the other hand, some Arab and European historians recorded some legendary African narratives or cited some lost manuscripts from the sixth century. However, considering the available records, it is necessary to say that the coffee culture emerged in the Sufi lodges of Yemen, located in South Arabia, in the middle of the fifteenth century. On the other hand, there is an undeniable literary value of the legends, culture, and poems, which were shaped around the phenomenon of coffee in Arabic literature. This study is aimed to investigate the etymology of coffee and its reflections in Arabic literature with a scientific method.

Keywords: Arabic Language and Literature, Coffee, Coffee Legends, Etymology of the Coffee, Arabic Poems about Coffee.

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THE EFFECTS OF COFFEE CONSUMPTION ON HUMAN HEALTH

KAHVE TÜKETİMİNİN İNSAN SAĞLIĞI ÜZERİNE ETKİLERİ

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ABSTRACT

Coffee is one of the most widely consumed beverages worldwide and is made from the roasted coffee beans yielded by coffee plants that belong to the Rubiaceae family. Although there are different types of coffee plants, the most common two species are Coffea Arabica (coffee Arabica) and Coffea Canephora (coffee Robusta).

Caffeine is the main component of coffee, which is an alkaloid that can be found in coffee beans, tea leaves, cocoa beans, other plants, other beverages (tea, energy drinks, soft drinks), foodstuffs (chocolate, cocoa) and medicines. Coffee contains a variety of biologically active and health-promoting components, including chlorogenic acids, polyphenols, melanoidins, and diterpenes (kahweol and cafestol). Coffee also contains a variety of additional nutrients, including potassium, magnesium, niacin, and antioxidants such as tocopherols. Coffee has varying amounts of caffeine based on the method used to prepare it, the type of coffee used, agronomic and environmental conditions. Positive effects of regular coffee consumption on health: increased alertness and reduced exhaustion; lower risk of diabetes; lower risk of chronic liver disease; prevention of gallstones; lower risk of cardiovascular disease; increased metabolic rate; prevention of stroke and certain cancers; lower risk of neurodegenerative diseases such as Parkinson's and Alzheimer's disease. However, caffeine has various effects on the organism and excessive consumption of caffeine can cause harmful effects on health. Some of these harmful effects include consumption, addiction, anxiety, increased blood pressure and vasoconstriction, insomnia, irritability, restlessness, stomach upset, increased heart and respiratory rates, increased risk of osteoporosis, increased frequency of urination during pregnancy, resulting in low birth weight, miscarriages and premature birth.

As a result, it is stated that regular coffee use (1-3 cups per day) is advantageous for human health. However, it has been shown that excessive coffee consumption leads to various complications.

Keywords: Coffee, caffeine, health, diseases

ÖZET

Kahve, dünya çapında en çok tüketilen içeceklerden biridir ve Rubiaceae familyasına ait kahve bitkilerinin kavrulmuş kahve çekirdeklerinden yapılır. Farklı kahve bitkisi türleri bulunmasına karşın en yaygın iki tür Coffea Arabica (kahve Arabica) ve Coffea Canephora (kahve Robusta) dır.

Kafein, kahvenin ana bileşeni olup kahve çekirdeklerinde, çay yapraklarında, kakao çekirdeklerinde, bazı bitkilerde, birçok içecekte (çay, enerji içecekleri, meşrubatlar), gıda maddelerinde (çikolata, kakao) ve ilaçlarda bulunan bir alkaloiddir. Kahve, klorojenik asitler, polifenoller, melanoidinler ve diterpenler (kahweol ve kafestol) dahil olmak üzere çeşitli biyolojik olarak aktif ve sağlığı geliştirici bileşenler içerir. Kahve içeriğinde bulunan kafein miktarı, kahve hazırlama yöntemine, kahve türüne, zirai ve çevresel faktörlere bağlı olarak farklılık göstermektedir. Kahve ayrıca potasyum, magnezyum, niasin ve tokoferoller gibi antioksidanlar dahil olmak üzere çeşitli ek besinler içerir. Düzenli kahve tüketiminin sağlık üzerindeki olumlu etkileri: artan uyanıklık ve azalan yorgunluk; düşük diyabet riski; daha düşük kronik karaciğer hastalığı riski; safra taşlarının önlenmesi; daha düşük kardiyovasküler hastalık riski; artan metabolik hız; felç ve bazı kanserlerin önlenmesi; Parkinson ve Alzheimer hastalığı gibi nörodejeneratif hastalıklar için daha düşük risk gibi durumlardır. Ancak kafein organizma üzerinde çeşitli etkilere sahiptir ve aşırı miktarda kafein tüketimi sağlık üzerinde zararlı etkilere neden olabilir. Bu zararlı etkilerden bazıları, bağımlılık, kaygı, artan kan basıncı ve vazokonstriksiyon, uykusuzluk, sinirlilik, huzursuzluk, mide rahatsızlığı, kalp ve solunum hızlarında artış, osteoporoz riskinde artış, idrara çıkma sıklığında artış, hamilelikte düşük görülmesi, düşük doğum ağırlığı ve prematüre doğumlardır.

Sonuç olarak, düzenli kahve kullanımının (günde 1-3 fincan) insan sağlığı için avantajlı olduğu belirtilmektedir. Ancak fazla miktarda kahve tüketiminin çeşitli komplikasyonlara yol açtığı gösterilmiştir.

Anahtar Kelimeler: Kahve, kafein, sağlık, hastalıklar

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COFFEE AND ENVIRONMENTAL ISSUES

KAHVE VE ÇEVRESEL SORUNLAR

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ABSTRACT

Coffee is a beverage made from the infusion of roasted and ground coffee seeds. It's one of the most marketed items on the globe. In 2020, approximately 166.64 million bags of coffee were consumed globally. Coffee consumption is expected to more than double by 2050. The environmental issues of coffee production are becoming more severe as the coffee industry expands. As a result, assessing coffee's environmental sustainability is critical. Life cycle thinking is increasingly seen as a key concept for ensuring a transition towards more sustainable production and consumption patterns. This study attempts to present some of the studies on the environmental impacts of coffee, from cultivation to distribution to consumers, consumption, and disposal. Life cycle assessment (LCA) studies found in the literature have been reviewed for this purpose. LCA is a well-established method for quantifying environmental impacts associated with all stages of a product's life. According to the literature review, the coffee industry is associated with several environmental impacts, including water pollution, deforestation, soil degradation, and decreased biodiversity. Agricultural production is the hotspot in the life cycle of coffee and life cycle assessment can assist to identify more sustainable options. To ensure long-term sustainability, coffee production and processing must consider environmental concerns. Finally, this review underlines the necessity to achieve further sustainability on coffee, as many aspects are still in need of evaluation, such as the different production methods and disposal of the wastes.

Keywords: Coffee, environmental impacts, circular economy, sustainable agriculture, life cycle assessment.

ÖZET

Kahve, kavrulmuş ve öğütülmüş kahve tohumlarının infüzyonundan yapılan bir içecektir. Dünyada en çok satılan ürünlerden biridir. 2020 yılında dünya genelinde yaklaşık 166,64 milyon poşet kahve tüketilmiştir. Kahve tüketiminin 2050 yılına kadar iki katından fazla artması beklenmektedir. Kahve endüstrisi genişledikçe kahve üretiminin çevresel sorunları daha ciddi hale gelmektedir. Bu sebeple kahvenin çevresel sürdürülebilirliğinin değerlendirilmesi kritik öneme sahiptir. Yaşam döngüsü düşüncesi daha sürdürülebilir üretim ve tüketim kalıplarına geçişin sağlanmasında kilit bir kavram olarak görülmektedir. Bu çalışma, kahvenin ekimden tüketicilere dağıtımına, tüketimine ve bertarafına kadar çevresel etkileri üzerine yapılan bazı çalışmaları incelemek amacıyla hazırlanmıştır. Bu amaçla literatürde bulunan yaşam döngüsü analizi (YDA) çalışmaları derlenerek sunulmuştur. YDA, bir ürünün tüm yaşam döngüsü basamaklarındaki çevresel etkileri ölçmek için kullanılan bir yöntemdir. Yapılan literatür taramasına göre, kahve endüstrisi su kirliliği, ormansızlaşma, toprak bozulması ve biyolojik çeşitliliğin azalması dahil olmak üzere bir dizi çevresel etki ile ilişkilidir. Tarımsal üretim, kahvenin yaşam döngüsündeki önemli bir basamaktır ve daha sürdürülebilir seçeneklerin belirlenmesi için kritiktir. Uzun vadeli sürdürülebilirliği sağlamak için ise kahve üretimi ve işlenmesi ile ilgili çevresel etkiler dikkate alınmalıdır. Son olarak, bu gözden geçirme, farklı üretim yöntemleri ve atıkların bertarafı gibi birçok basamağın hala değerlendirilmesi gerektiğinden, kahve konusunda daha fazla sürdürülebilirliğin sağlanmasının gerekliliğinin altını çizmektedir.

Anahtar Kelimeler: Kahve, çevresel etkiler, döngüsel ekonomi, sürdürülebilir tarım, yaşam döngüsü değerlendirmesi.

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ÖNDE GELEN KAHVE ÜRETİCİSİ ÜLKELERİN KARŞILAŞTIRMALI ÜSTÜNLÜĞÜNÜN ÖLÇÜLMESİ

MEASURING THE COMPARATIVE ADVANTAGE OF LEADING COFFEE PRODUCER COUNTRIES

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ÖZET

Dünya genelinde son otuz yıldaki kahve üretimi, büyük ölçüde artış göstermiştir. Bununla birlikte gerçekleştirilen kahve üretiminin yarıdan fazlası ihraç edilmektedir. Kahve ihracatı sadece ham meyve olarak değil aynı zamanda işlenip katma değer sağlanarak kahvenin türevleri şeklinde de yapılmaktadır. Artan üretim ve ihracat değerleri, kahve ticaretinin uluslararası düzeyde büyüyüp gelişmesini tetiklemektedir. Kahve ticareti, özellikle üretici ülkeler açısından önemli bir gelir kaynağı niteliği taşımaktadır. Ancak günümüzde üretici ülkeler dışında kahve çekirdeğini işleyerek katma değeri yüksek yeni ürünler geliştiren ülkeler de ihracatçı konumunda bulunmaktadırlar. Kahve ticaretinin gelişmesi ve ürün çeşitliliğinin bol olması, kahve piyasasında rekabet edebilirliğin ülkeler açısından önemini açıkça ortaya koymaktadır.

Ele alınan çalışmanın amacı, üretici ülkeler arasında ihracatı en yüksek olan on ülkenin uluslararası kahve ticaretinde karşılaştırmalı üstünlüklerinin ve rekabet güçlerinin tespit edilmesidir. Bu bağlamda Brezilya, Vietnam, Kolombiya, Honduras, Endonezya, Hindistan, Uganda, Etiyopya, Guatemala ve Peru ülkelerine ait 2001-2020 verileri kullanılmıştır. Çalışmanın yöntemi, Balassa (1965) ve Vollrath'ın (1991) geliştirdikleri uluslararası karşılaştırmalı üstünlükler ve rekabet endekslerinin her bir ülke için hesaplanması olarak belirlenmiştir. Hesaplaması gerçekleştirilen endeksler şu şekilde sıralanmaktadır: Açıklanmış Karşılaştırmalı Üstünlük Endeksi (RCA), Göreli İhracat Avantajı Endeksi (RXA), Göreli İthalat Avantajı Endeksi (RMA), Göreli Ticaret Avantajı Endeksi (RTA) ve Göreli Rekabet Avantajı Endeksi (RC). Yapılan hesaplamalar sonucunda kahve ihracatında Etiyopya, Honduras ve Uganda'nın RCA, RXA, RTA ve RC endekslerine göre karşılaştırmalı üstünlüğe sahip olduğu anlaşılmıştır. Dünyada en büyük kahve üreticisi konumunda bulunan Brezilya ise kahve ihracatındaki rekabet gücü sıralamasında altıncıdır. Bu alanda en düşük rekabet avantajına sahip ülke de Hindistan olarak tespit edilmiştir.

Anahtar Kelimeler: Kahve İhracatı, Rekabet Gücü, Açıklanmış Karşılaştırmalı Üstünlük Endeksi (RCA), Göreli Ticaret Avantajı Endeksi (RTA), Göreli Rekabet Avantajı Endeksi (RC)

ABSTRACT

Worldwide, coffee production in the last thirty years has increased drastically. However, more than half of the coffee production is exported. Coffee is exported not only as raw fruit, but also in the form of derivatives of coffee by processing and providing added value. Increasing production and export values trigger the international growth and development of coffee trade. Coffee trade is an important source of income, especially for producing countries. Today, however, countries that develop new products with high added value by processing coffee beans are also in the position of exporters, apart from the producing countries. The development of coffee trade and the abundance of product variety clearly reveal the importance of competitiveness in the coffee market for countries.

The aim of the study is to determine the comparative advantages and competitiveness of the ten countries with the highest exports in international coffee trade. In this context, 2001-2020 data from Brazil, Vietnam, Colombia, Honduras, Indonesia, India, Uganda, Ethiopia, Guatemala, and Peru were used. The method of the study was determined as the calculation of the international comparative advantage and competitiveness indices developed by Balassa (1965) and Vollrath (1991) for each country. The calculated indices are listed as follows: Relative Comparative Advantage Index (RCA), Relative Export Advantage Index (RXA), Relative Import Advantage Index (RMA), Relative Trade Advantage Index (RTA), and Relative Competitive Advantage Index (RC). As a result of the calculations, it has been understood that Ethiopia, Honduras, and Uganda have a comparative advantage in coffee exports according to the RCA, RXA, RTA and RC indices. Brazil, which is the largest coffee producer in the world, ranks sixth in coffee export competitiveness. The country with the lowest competitive advantage in this field has been identified as India.

Keywords: Coffee Export, Competitiveness, Revealed Comparative Advantage (RCA), Relative Trade Advantage Index (RTA), Relative Competitive Advantage Index (RC)

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GASTROTURİZM POTANSİYELİ OLAN YEREL BİTKİ KAHVELERİ

GASTROTOURISM POTENTIAL OF LOCAL COFFEE VARIETIES

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ÖZET

Modern tarım ve kitlesel fabrikasyon üretim maliyet ve pratiklik açısından avantajlıdır. Bu avantajlarından dolayı yerel üretime rağbet gitgide azalmış yöresel ürün ve unsurlar son yıllarda iyice unutulmaya yüz tutma süreci girmişlerdir. Bu durum dünyanın her yerinde aynı ürün ve uygulamalara ulaşımı kolaylaştırmıştır. Söz konusu olguya mutabık bir şekilde günümüzde *Rubiaceae* (Kökboyasıgiller) familyasının *Coffea* cinsine ait kahve bitkisi modern yetiştiriciliği ve seri fabrikasyon üretim imkanlarıyla dünya genelinde hegoman sıcak içecek olma niteliğine sahip olmuştur. Nitekim dünyada günümüzde en fazla içilen birkaç içecekten bir tanesi kahvedir. Lakin seri üretimin sağladığı avantajlar yanında tekdüzelik ve monotonluk gibi dezavantajları mevcuttur. Yeknesaklık ötesinde farklı kültür ve tecrübeleri deneyimleme isteği turizmin en önemli motivasyonlarından birisidir. Bu motivasyonla tarihi derinliğe sahip lokal ürünlerin turizm destinasyonun içinde serpiştirilmesi son yılların trendleri arasındadır. Her ne kadar farklı içerik, pişirme ve sunuş teknikleriyle kahveler spesifik özellikler kazanıyor olsalar da hammadde itibariyle dünyanın her yerinde rahatlıkla ulaşılabilir bir ürün olma niteliğindedirler. Türkiye doğal ve beşerî coğrafik etmenlerin etkisiyle tarihi süreçte teşekkül etmiş *Coffea* cinsi dışında bazı yabani ve endemik bitkilerden üretilmiş kahvelere sahiptir. Lokal mahiyetin ötesine ulaşamamış çok sayıda bitkiden üretilmiş kahvelerden en çok bilinenlerin başında; bıttım, kenger otu, nohut, çörek otu ve hindiba kahveleri gelmektedir. Çalışmada bazı yöre ve kültürlerle özdeşleşmiş bu beş bitki ve bu bitkilerden elde edilen kahveler ele alınmıştır. Bu çalışmadaki amaç gastroturizm potansiyeline sahip unutulmayla karşı karşıya kalan söz konusu bu ürünlerin çıkış faktörleri, elde edilme ve üretilme yöntemleri, pişirilme teknikleri, kültürel mahiyetleri, ekonomik ve fonksiyonel durumlarını gün yüzüne çıkararak sektör temsilcilerinin dikkatine sunmaktır. Özellikle kırsal turizmde bu tür yöresel ürünlerin destinasyonlara ilave edilmesine ilham olmak ve bu amaçla gelen turistlerin memnuniyetini doyum ve tatmini artırmak aracığıyla sağlamaya vesile olmak bu çalışmanın önemi oluşturmaktadır. Bu çalışmada ele alınan ürünlerin üretildiği mahallin kırsal olduğu göz önüne alındığında kırsal kalkınmaya avantaj sağlayacağı kaçınılmaz bir sonuç olarak ifade edilebilir.

Anahtar sözcükler: yerel ürün kahveleri, bıttım, kenger otu, nohut, çörek otu, hindiba

ABSTRACT

Modern agriculture and mass production are advantageous in terms of cost and practicality. Due to the advantages of mass production, the demand for local production has gradually decreased in recent years. This has enabled access to the same products and applications all over the world. Parallel to this phenomenon, today, coffee, belonging to the *Coffea* genus of the *Rubiaceae* family, has become the dominant hot beverage worldwide. Coffee is one of the most consumed beverages globally. However, despite the advantages of mass production in quantity and quality of the coffee, there are disadvantages such as uniformity and monotony. Beyond uniformity, the desire to experience different cultures and experiences is one of the most important motivations for tourism. Therefore, the visibility of local products with historical depth in the tourism destination is a trend of recent years. Although coffees gain specific features with different ingredients, cooking, and presentation techniques, they are easily accessible worldwide in terms of raw materials. Turkey is rich in terms of coffees that are produced from non- Coffea families. The local coffees are produced from some wild and endemic plants formed in the historical process due to natural and human geographical factors. The most well-known coffees produced from a large number of plants that have not reached beyond the local nature are; *bıttım* (Turpentine), *kenger otu* (cardoon), *nohut* (chickpea), *çörek otu* (black cumin), and *hindiba* (chicory) coffees. This study discusses these five plants, each from a different region, culture, and plant. The study aims to bring obtaining and production methods, cooking techniques, cultural characteristics, economic and functional conditions of these products to the attention of the tourism sector representative, which is undervalued in current tourism discourse but has great gastro tourism potential. The importance of this study is to encourage to add and popularize such local products to be another reason for these destinations to be on tourism list and to provide the satisfaction of the tourists coming for this purpose and thus increase the rural tourism potential. Considering that the products discussed in this study are produced in rural areas, it can be stated that it will provide an advantage for rural development.

Keywords: local coffee products, turpentine coffee, cardoon coffee, chickpea coffee, black cumin coffee, chicory coffee

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Orman ve Meâdin ve Zirâat Nezâreti Tarafından Hazırlanan "Kahve Ağacı" Başlıklı Risale

Treatise Entitled "Coffee Tree" Prepared by The Ministry of Forestry and Mines and Agriculture

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ÖZET

Kahvenin nasıl ve ne zaman ortaya çıktığı ile ilgili günümüze kadar yapılmış çok sayıda araştırma bulunmaktadır. Kahvenin 16. yüzyılın ikinci yarısında Kahire'den İstanbul'a, buradan da bilhassa Osmanlı sefirleri vasıtasıyla Avrupa'ya taşındığı bilinmektedir. Kahvenin birçok dünya dilinde dahi "Türk Kahvesi" ifadesine karşılık gelecek şekilde kullanılıyor olması ve kahve ile ilgili Türk dil varlığı içindeki deyim, mâni, şiir ve benzerleri de Türkler için kahvenin ne kadar önemli olduğunu göstermektedir.

Bu bildirinin konusu olan "Kahve Ağacı" başlıklı risalede kahvenin pek çok yönüyle ilgili değerlendirmeler yer almaktadır. Zirâat Nezâreti tarafından hazırlandığı anlaşılan ve 16 sayfadan müteşekkil bu risalede yer alan başlıklar şunlardır: Kahve Ağacı Hakkında Malûmât-ı Târihiye (s. 2-4), Kahve Ağacının Tarîfi (s. 4-5), Kahvenin Hasâisi (s. 5-6), Kahvenin Kuvve-i Gıdâiyesi ve Sıhhate Olan Tesîri (s. 6-8), Kahve Yetiştiren Memâlik-i Muhtelifeden Vukû Bulan Kahve İhrâcatı (s. 8), Memâlik-i Muhtelifede Vukû Bulan Kahve Sarfiyâtı (s. 8), Ticârette Satılan Kahvelerin Envâ-ı Muhtelifesi (s. 8-10), Tohumun Mahall-i Zer'i (s. 10-14), Kahve Tohumunun Diyâr-ı Âhara Sûret-i Nakli (s. 14-15), Kahvenin Sûret-i Hasadı ve Umûmiyetle İstimâl Olunduğu Hâle Getirilmek Üzere Usûl-i Tathîriyesi (s. 15-16), Bir Dönüm Arâzîden Alınacak Kahve Mahsûlünün Mikdârı (s. 16). Bu bildiri çerçevesinde kahvenin kısa tarihi, özellikleri ve sağlığa olan etkisini konu edinen bölümler Latin alfabesine aktarılarak değerlendirilecektir.

Anahtar kelimeler: Kahve, Tarım Bakanlığı, Kahve Ağacı.

SUMMARY

There are many studies conducted to date on how and when coffee emerged. It is known that coffee was transported from Cairo to Istanbul in the second half of the 16th century, and from there to Europe, especially by Ottoman ambassadors. The fact that coffee is used to correspond to the expression "Turkish Coffee" even in many world languages and the idioms, poems and similar expressions related to coffee in the Turkish language shows how important coffee is for the Turks.

In the treatise titled "Kahve Ağacı", which is the subject of this paper, there are evaluations about many aspects of coffee. The titles included in this 16-page treatise, which is understood to have been prepared by the Ministry of Agriculture, are as follows: Information About the Coffee Tree (p. 2-4), Description of the Coffee Tree (p. 4-5), The Harvest of the Coffee (p. 5-6), the Power of the Coffee and its Health Effect (p. 6-8), Its exports between different coffee-growing countries (p. 8), Variety of Coffees Sold in Trade (p. 8-10), Sowing Place of Seed (p. 10-14), Transplantation of Coffee Seed to the Land of the Other Places (p. 14-15), The Harvest of Coffee and Its Method to Make it Usable Generally (p. 15-16), The Quantity of Coffee Crops to be Harvested from One Acres of Land (p. 16). Within the framework of this paper, the sections dealing with the short history, properties and health effects of coffee will be evaluated by transferring them to the Latin alphabet.

Keywords: Coffee, Ministry of Agriculture, Coffee Tree.

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KAHVEDE YAPILAN TAĞŞİŞ VE BUNLARIN TESPİT METODLARI

ADULTERATION IN COFFEE AND ITS DETECTION METHODS

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ÖZET

Kahve dünyada en çok tüketilen içeceklerden biridir. Kahve üreten, kahve ihraç eden ve kahve ithal eden ülkeler için kahve yüksek ekonomik değere sahiptir. Ekonomik değeri yüksek olan bu gıda sıklıkla tağşişe uğramaktadır. Kahvede tağşiş iki şekilde gerçekleştirilmektedir. İlki çekirdeklerin kalitesini değiştirerek (farklı türler, coğrafi köken ve kusurlu çekirdekler), ikincisi ise kavurma ve öğütme işlemlerinden sonra ekonomik değeri düşük, bol bulunan ve kahveye benzerliği yüksek maddelerin ilave edilmesiyle tağşiş yapılmaktadır. Tağşiş niyetiyle kahve kabuğu ve çubukları gibi kahve işleme yan ürünleri, kullanılmış kahve telvesi, esmer şeker, arpa, mısır, soya fasulyesi, hindiba, çavdar, tritikale ve açai gibi maddeler kahveye katılmaktadır. Gıdanın orijinalliğinin değerlendirerek gıda kalitesini ve ayrıca gıda güvenliğini garanti edecek analitik metodolojiler gerçekten gereklidir. Kahvedeki tağşişlerin tanımlanmasında klasik olarak kullanılan analitik teknikler; mikroskopi, kromatografi ve spektroskopidir. Bunun yanı sıra kahve de dahil olmak üzere gıdalardaki tağşişlerin tespiti için yeni bir eğilim olan moleküler DNA bazlı yöntemlerin kullanılması umut verici görünmektedir. Bu derlemede kahveye yapılan hilelerin tarihsel süreci ile bu hilelerin tespitinde kullanılan teknikler hakkında bilgi verilecektir.

Anahtar Kelimeler: kahvede tağşiş, kalite, gıda analizi

ABSTRACT

Coffee is one of the most consumed beverages in the world. Coffee has high economic value for coffee producing, coffee exporting and coffee importing countries. This food, which has a high economic value, is often adulterated. Adulteration in coffee is carried out in two ways. The first is by changing the quality of the beans (different types, geographical origin and defective beans), and the second is by adding substances with low economic value, abundant and high similarity to coffee after roasting and grinding processes. Coffee processing by-products such as coffee husks and sticks, used coffee grounds, brown sugar, barley, corn, soybeans, chicory, rye, triticale and açai are added to coffee with the intention of adulteration. Analytical methodologies are really needed to ensure food quality as well as food safety by assessing the authenticity of food. Analytical techniques classically used in the identification of adulteration in coffee; microscopy, chromatography and spectroscopy. In addition, the use of molecular DNA-based methods, which is a new trend, for the detection of adulteration in foods, including coffee, seems promising. In this review, information will be given about the historical process of adulteration of coffee and the techniques used in the detection of such adulteration.

Keywords: coffee adulteration, quality, food analysis

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TRABZON'DA VATANDAŞIN KAHVE VE ÇAY TÜKETİM TERCİHLERİNİN KIYASLANMASI ÜZERİNE BİR ARAŞTIRMA

A RESEARCH ON THE COMPARISON OF COFFEE AND TEA CONSUMPTION PREFERENCES OF CITIZENS IN TRABZON

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ÖZET

Bu araştırma, Türkiye'nin Rize'den sonra en çok çay ekim alanına sahip Trabzon'da, Trabzonlu tüketicilerin kahve tüketim alışkanlıklarını çay tüketim alışkanlıkları ile kıyaslamayı amaçlamak için yapılmıştır. Araştırmanın evrenini Trabzon ilinde doğmuş ve günümüzde yaşamına Trabzon'da devam eden yetişkin bireyler oluşturmaktadır. Araştırma örneklemini ise tesadüfi örneklem yöntemiyle seçilen 40 kişi oluşturmaktadır. 25 – 30 Ekim 2021 tarihleri arasında Trabzon ilinde 40 kişiyle görüşülmüş ve derinlemesine mülakat yöntemi kullanılarak veriler toplanmıştır. Hazırlanan mülakat sorularına verilen cevaplara göre yeni sorular sorularak çalışma tamamlanmıştır. Elde edilen veriler incelendiğinde 4 kişinin verdiği cevaplar çalışmanın amacına göre yeterli olmadığından çalışmadan çıkartılmış, geriye kalan 36 kişiden elde edilen veriler ile çalışma tamamlanmıştır. Çalışmanın sonucuna göre çay, çalışmaya katılan kişiler tarafından kahveye göre daha çok tercih edilen içecek olarak karşımıza çıkmıştır. Kahve olarak daha çok Türk kahvesi tüketilmekte olup, Türk kahvesinden başka tüketilen kahveler nescafe ve filtre kahvedir. Katılımcılar evlerine misafirliğe gelenlere ağırlıklı olarak çay ikram etmek eğiliminde olduklarını ve buna sebep olarak ise hazırlaması kolay, aynı anda daha çok kişiye ikram edilebilmesi, misafir tercihi, yöresel ürün olmasını göstermektedirler. Bazı katılımcılarımız ise kendi ailelerinde gelenek olarak çay ikram edilse bile misafirliğin sonunda mutlaka kahve ikram edildikten sonra uğurlama yaptıklarını belirtmişlerdir. Çay tüketmeyi kahveden daha çok tercih edenler sebep olarak, herşeyin yanına yakıştığını, kendi kültürlerine ait olduğunu, ulaşılabilirliğinin daha rahat olduğunu belirtmiş olup buna karşılık kahve tüketmeyi tercih edenler ise tadını ve aromasını sevdiklerini, daha fazla keyif verdiğini, dinç tuttuğunu belirtmişlerdir.

Anahtar Kelimeler: Çay, kahve, tercih, tüketim alışkanlığı, Trabzon

ABSTRACT

This research was conducted to compare the coffee consumption habits of consumers of Trabzon with their tea consumption habits in Trabzon, which has the largest tea cultivation area in Turkey after Rize.The basis of the research consists of adult individuals who were born in Trabzon and continue their lives in Trabzon today. The research sample consists of 40 people selected by random sampling method. Between 25-30 October 2021, 40 people were interviewed in Trabzon and data were collected using in-depth interview method. The study was completed by asking new questions according to the answers given to the prepared interview questions. When the data obtained were examined, the answers given by 4 people were not sufficient for the purpose of the study, so they were excluded from the study, and the study was completed with the data obtained from the remaining 36 people. According to the results of the study, tea emerged as the beverage preferred more than coffee by the participants. More Turkish coffee is consumed as coffee, and coffees consumed other than Turkish coffee are instant coffee and filter coffee. Participants show that they tend to offer tea mainly to guests who come to their homes, and the reason for this is that it is easy to prepare, can be served to more people at the same time, is a guest preference and a local product. Some of our participants, on the other hand, stated that even if tea is served as a tradition in their own families, they always send off after coffee is served at the end of the visit. Those who prefer to consume tea more than coffee stated that tea has a good taste harmony with everything, it belongs to their own culture, and its accessibility is more comfortable. On the other hand, those who prefer to consume coffee stated that they like its taste and aroma, that it gives more pleasure end keeps it vigorous.

Keywords: Tea, coffee, preference, consumption habits, Trabzon

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ETİYOPYA KAHVE KÜLTÜRÜ VE SERAMİK SUNUM KAPLARI

ETHIOPIA COFFEE CULTURE AND CERAMIC PRESENTATION CONTAINERS

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ÖZET

Kahve çok sık tüketilen bir içecek türüdür. Afrika kıtası kahve yetiştirmeye elverişli coğrafi özelliklere sahiptir. Kıtada yetiştirilen kahvelerin genetik çeşitliliğinin dünya genelinde eşsiz olduğu bilinmektedir. Etiyopya, Kenya, Uganda, Rwanda, Tanzanya, Brundi ve Zimbabve başlıca üretim merkezleridir. Kıtadaki kahve üretiminin neredeyse yarısı Etiyopya'dan karşılanmaktadır. Ayrıca; dünyadaki kahve üretiminde Brezilya, Vietnam, Kolombiya ve Endonezya'dan sonra Etiyopya beşinci sırada yer almaktadır.

Kahvenin ne zaman ve kim ya da kimler tarafından keşfedildiği henüz kesin olarak bilinmemektedir. Orta Afrika'da yer alan Çad bölgesinde son dönemlerde yapılan arkeolojik kazılarda tarih öncesine dayanan kahve çekirdeğinin artıkları bulunmuştur. Bu buluntudan yola çıkarak, kahve ağacının kökünün Afrika'dan gelmiş olduğu düşünülmektedir. Bilimsel verilerin yanı sıra rivayetlere göre ilk kahve bitkilerinin keşfi Etiyopya'nın yüksek rakım ve tropikal iklim koşullarında gerçekleştiği yönündedir. Bu sebeple Etiyopya, kahve bitkisinin ve kahve kültürünün doğduğu yer olarak kabul edilmektedir.

Ülkede yüzyıllardır yaygın olarak kahve yetiştirildiği için üreticiler kahve çekirdeklerinin hasat edilmesi ve işlenmesi süreçlerinin her aşamasında ustalaşmıştır. Ülke ekonomisine büyük oranda katkısı olan kahve, sosyal yaşamın parçası olarak önemli bir yere sahiptir. Özellikle kahvenin hazırlanması, sunumu ve tüketimi bir tören haline dönüşmüştür. Etiyopyalı kadınlar tarafından gerçekleştirilen kahve töreni; kavurma, demleme ve bardaktan geçirme olmak üzere üç aşamadan oluşmaktadır. Toplumda en önemli sosyal bağlardan biri olarak kabul edilen tören, yaklaşık 2 - 3 saat arasında sürmektedir. Tören sırasında; kahveyi kavurmak için tava (Menkeshkes), tütsü kabı (Machesha), havan (mukecha), havaneli (Zenzena), demlik (Jabena) ve bardak (Finjals) kullanılmaktadır.

Çalışma kapsamında, Etiyopya kahve kültürü araştırılmış ayrıca kahve sunumu törenlerinde kullanılan ve kilden üretilen Jabena, Machesha ve Finjals formlarına odaklanılarak üretim süreçleri incelenmiştir. İlkel üretim yöntemleri ile şekillendirilen kahve sunum kapları farklı renk ve biçimlerde üretilmektedir. Etiyopya'nın kahve yetiştiriciliğindeki öncü rolüne bağlı olarak devam eden yerel seramik üretimi ülke ve kıtanın ekonomik kalkınmasında oldukça önemli bir konuma sahiptir.

Anahtar Kelimeler: Etiyopya Kahvesi, Kahve Kültürü, Jabena, Machesha, Finjals

ABSTRACT

Coffee is a type of beverage that is consumed very often. The African continent has geographical features suitable for growing coffee. It is known that the genetic diversity of coffees grown on the continent is unmatched worldwide. Ethiopia, Kenya, Uganda, Rwanda, Tanzania, Brundi, and Zimbabwe are the main production centers. Almost half of the coffee production on the continent comes from Ethiopia. Also, Ethiopia ranks fifth in world coffee production after Brazil, Vietnam, Colombia, and Indonesia.

It is not known precisely when and by whom coffee was discovered. Prehistoric coffee beans have been found in recent archaeological excavations in the Chad region in Central Africa. Based on this find, it is thought that the root of the coffee tree came from Africa. In addition to scientific data, according to rumors, the first coffee plants were discovered in Ethiopia's high altitude and tropical climate conditions. For this reason, Ethiopia is considered to be the birthplace of the coffee plant and coffee culture.

Because coffee has been widely grown in the country for centuries, producers have mastered every harvesting and processing stage. Coffee, which contributes significantly to the country's economy, has an important place in social life. In particular, the preparation, presentation, and consumption of coffee has become a ceremony. Coffee ceremony performed by Ethiopian women; It consists of three stages: roasting, brewing, and glassing. The ceremony, which is accepted as one of society's most critical social bonds, lasts approximately 2-3 hours. During the ceremony; pan (Menkeshkes), incense pot (Machesha), muddeler (mukecha), pestle (Zenzena), teapot (Jabena), and glass (Finjals) are used to roast the coffee.

Within the scope of the study, Ethiopian coffee culture was researched, and production processes were examined by focusing on the Jabena, Machesha, and Finjals forms used in coffee presentation ceremonies and produced from clay. Coffee serving cups shaped with primitive production methods are made in different colors and shapes. Local ceramic production, which continues depending on Ethiopia's leading role in coffee cultivation, has a significant position in the country's economic development and the continent.

Keywords: Ethiopian Coffee, Coffee Culture, Jabena, Machesha, Finjals

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EVALUATION OF COFFEE WASTES AS RENEWABLE ENERGY SOURCE

KAHVE ATIKLARININ YENİLENEBİLİR ENERJİ KAYNAĞI OLARAK DEĞERLENDİRİLMESİ

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ABSTRACT

Due to the rapid depletion of fossil fuels and environmental and political constraints, the demand for clean and renewable energy is increasing in recent years. Based on this, biomass is recognized not only as a clean energy carrier, but also as an advantageous alternative for the creation of a decarbonized society. Bio-waste, which is found in large quantities worldwide, is rich in biodegradable organic matter. By utilizing from bio-waste as feedstocks to attain valuable bio-based products, resource and waste problems will be solved as being "double green". With the utilization of bio-waste, renewable energy and bio-based chemicals are provided while reducing pollution at the same time. Therefore, the use of biowaste as a resource is of scientific and industrial interest. In this study, 32 research, and 13 review articles published in the last 10 years using coffee to be considered as a waste biomass were selected and examined in detail. Based on the results in the literature, it can be stated that waste coffee can be considered as an important bio-waste.

Keywords: Coffee waste, bio-waste, bioenergy, biomass, renewable energy source.

ÖZET

Fosil yakıtların hızla tükenmesi nedeniyle ve çevresel ve politik kısıtlamalar sayesinde temiz ve yenilenebilir enerji talebi son yıllarda gittikçe artmaktadır. Buna dayanarak biyokütle, sadece temiz bir enerji taşıyıcısı olmakla kalmayıp aynı zamanda karbondan arındırılmış bir toplum oluşturulması için avantajlı bir alternatif olarak kabul edilmektedir. Dünya çapında büyük miktarlarda bulunan biyo-atık ise, biyolojik olarak parçalanabilen organik madde bakımından zengindir. Biyo-atıkların değerli biyo-temelli ürünler elde etmek için hammadde olarak kullanılması, kaynak ve atık sorunlarını "yeşil bir yaklaşım" olarak çözecektir. Biyo-atık kullanımı ile yenilenebilir enerji ve biyo-bazlı kimyasallar sağlanırken aynı zamanda kirlilik azalmaktadır. Sonuç olarak, biyo-atıkların kaynak olarak kullanımı, bilimsel ve endüstriyel açıdan ilgi çekicidir. Bu çalışmada, kullanılmış/atık olarak nitelendirilecek kahveyi biyokütle kaynağı olarak kullanan son 10 yılda yayınlanmış 32 adet araştırma makalesi ve 13 adet derleme makale seçilip ayrıntılı olarak incelenmiştir. Literatürdeki sonuçlara dayanarak, atık kahvenin önemli bir biyo-atık olarak değerlendirilebileceği belirtilebilir.

Anahtar Kelimeler: Kahve atığı, biyoatık, biyoenerji, biyokütle, yenilinebilir enerji kaynağı.

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Günümüz Arap Kabilelerinde Acı Kahve/ Mırra Geleneği

The Tradition of Bitter Coffee/Mirrah in Today's Arabian Tribes

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ÖZET

Kahve, yetmişten fazla ülkede yetişen bir içecektir ve dünyada ham petrolden sonra en çok ticareti yapılan ikinci üründür. İçerdiği kafein nedeniyle günümüzde dünya çapında en popüler içeceklerden birisidir. İnsanoğlunun bulunduğu her yerde kendisine pazar payı bulan bu içeceğin yapımı, kullanım şekli ve ona yüklenen manalar çeşitlik arz eder. Örneğin Türkler kahvelerini su ile kahveyi karıştırıp kaynatarak, Amerikalılar sıcak ya da şekerli veya şekersiz olarak harmanlayarak, Fransızlar beş dakika kaynatılan suya ilave ederek, İtalyanlar ise özel buhar basıncı makinesi (Espresso) ile tüketirler. Birbirinden farklı bu kullanımların yanında lezzetine lezzet katmak için öğütülmüş kakule ile beraber hazırlanan ve içilmesi için özel fincanlarda çok sıcak bir şekilde servis edilen acı Arap kahvesinin yeri daha farklıdır.

Arap kültürünün bir parçası ve kabilelerin misafirperverliğinin ve cömertliğinin sembolü olarak kabul edilen Arap kahvesi, dünyanın çeşitli yerlerinde kullanılan kahvelerden farklıdır. Fakirlik, zenginlik, mutluluk ve hüzün dâhil her durumda cömertlikleriyle ayırt edilen Araplarda kahve cömertlik ve yardımseverliğin remzidir. Beş yüz yıldan fazla babadan oğula geçen bu kültür Araplara milli bir miras olarak kalmıştır. Gelenek gereği ihmaline izin verilmeyen, saygı duyulması ve uyulması gereken yasaları, düzenlemeleri ve ritüelleri vardır. Kabilelerin kahveye olan bu ihtiramlarının sonucunda kahvenin, hayatlarına, alışkanlıklarına, şiirlerine ve geleneklerine nüfuz etmesi kaçınılmaz olmuştur. Kabilelerde kahveye özgü Arap Meclisi oluşmuş ve insanların kahve ile olan davranışı ve kahve görgüsü gerekli hale gelmiştir. İşte bu bildiride günümüz Arap kabilelerinin tamamında hala devam ettirilen kahve kültürünün ortaya çıkışı, kabilelerin kahveye yüklediği anlamlar, kahvenin yapımı ve bu işte kullanılan aletler ile kahve kültürünün Araplar için önemi üzerinde durulacaktır.

Anahtar Kelimeler: Kahve, Arap, İçecek, Mırra, Kabile

ABSTRACT

Coffee is a beverage grown in more than seventy countries and is the second most traded product in the world after crude oil. It is one of the most popular beverages worldwide today, due to the caffeine it contains. The production of this beverage, which finds a market share for itself in every place where human beings exist, the way it is used and the meanings attributed to it vary. For example, Turks consume their coffee by mixing water with coffee and boiling it, Americans blend it hot with or without sugar, the French by adding it to boiled water for five minutes, and Italians use a special steam pressure machine (Espresso). In addition to these different uses, the place of bitter Arabian coffee, which is prepared with ground cardamom to add flavor to its taste and served very hot in special cups for drinking, has a different place.

Considered a part of Arab culture and a symbol of the hospitality and generosity of the tribes, Arabic coffee is different from the coffee used in various parts of the world. Coffee is a reminder of generosity and benevolence among Arabs who are distinguished by their generosity in every situation including poverty, wealth, happiness and sadness. This culture, which has been passed down from father to son for more than five hundred years, has been a national legacy to the Arabs. It has laws, regulations, and rituals that are not allowed to be neglected by tradition and must be respected and followed. It was inevitable for the tribes to penetrate their lives, habits, poems and traditions as a result of their admiration for coffee. The Arab Council specific to coffee was formed in the tribes and the behavior of people with coffee and coffee manners became necessary. In this paper (academic), the emergence of coffee culture, which is still maintained in all Arab tribes, the meanings attributed to coffee by tribes, the production of coffee and the tools used in this business, and the importance of coffee culture for Arab will be emphasized.

Key Words: Coffee, Arabian, Beverage, Mirrah, Tribe

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COFFEE CONSUMPTION MOTIVATION AND THE COVID-19 PROCESS

KAHVE TÜKETİM MOTİVASYONU VE COVİD 19 SÜRECİ

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ABSTRACT

With the change in the concept of consumption, the source of motivation of individuals has changed. With the changing concept of motivation, individuals have participated in consumption activities in order to get pleasure and benefit psychologically and socially. As a result of effects such as purchasing power, being affected by the social environment and experiencing the different, it has led to diversification in consumption preferences. One of these variations is coffee consumption. Traditional Turkish coffee consumption has changed over time with the type of coffee bean, amount of use, water temperature, brewing time and types, other materials used, and the differentiation of the tools used. With this change, coffee consumption has moved from the home environment to social environments (coffee operators, shopping centers, etc.), and individuals have started to consume and socialize in the same time period. However, as a result of the pandemic and mass isolation, socialization activities have been interrupted and consumption continued in the home environment. The aim of this study is to determine the changes in coffee consumption during and after the pandemic and the consumption types applied by the consumer while adapting to this process. In the research, a random sample will be selected and information will be obtained from coffee consumers with the help of interview questions. In line with the information obtained, the relationship between the pandemic and coffee consumption will be determined as a result of expressions such as personal pleasure of coffee consumption, changing consumption preferences and consumption frequency before and after the pandemic, conscious consumption, socializing, following the majority, consumption coffee with a brand image, consuming for personal image. With these answers, the consumption motivation of the consumer and the need for social approval and the effect of the concern to resemble the social environment on consumption will be examined.

Keywords: Coffee consumption, Consumption motivation, Social approval

ÖZET

Tüketim kavramının değişmesi ile bireylerin motivasyon kaynağı değişmiştir. Değişen motivasyon kavramıyla bireyler haz almak, psikolojik ve sosyal açıdan faydalanmak amacıyla tüketim faaliyetine dahil olmuşlardır. Satın alma gücü, sosyal çevreden etkilenme ve farklı olanı deneyimleme gibi etkilerin sonucu olarak tüketim tercihinde çeşitlenmeye neden olmuştur. Bu çeşitlenmelerden biri de kahve tüketimidir. Geleneksel Türk kahvesi tüketimi zaman içinde çekirdeğin cinsi, kullanım miktarı, su sıcaklığı, demleme süresi ve çeşitleri, kullanılan diğer malzemeler, kullanılan araç-gerecin farklılaşması ile değişikliğe uğramıştır. Bu değişim ile kahve tüketimi ev ortamından sosyal ortamlara (kahve işletmecileri, alışveriş merkezleri vb.) taşınmış, bireyler tüketim ile sosyalleşmeyi aynı zaman dilimi içinde gerçekleştirmeye başlamıştır. Ancak pandemi ve kitlesel izolasyon sonucunda sosyalleşme faaliyetleri yarıda kalmış, tüketim ev ortamında devam etmiştir. Bu çalışmanın amacı pandemi esnasında ve sonrasında kahve tüketiminde meydana gelen değişiklikler ve tüketicinin bu sürece uyum sağlarken uyguladığı tüketim çeşitlerini belirlemektir. Araştırmada rastgele örneklem seçilip, kahve tüketicilerinden görüşme soruları yardımı ile bilgi alınacaktır. Elde edilen bilgiler doğrultusunda kahve tüketiminin kişisel haz alma, pandemi öncesi ve sonrasında değişen tüketim tercihleri ve tüketim sıklığı, bilinçli tüketim, sosyalleşmek, çoğunluğa uymak, marka imajına sahip kahveleri tüketmek, kişisel imaj için tüketmek gibi ifadelerin neticesinde pandemi ile kahve tüketimi arasındaki ilişki belirlenecektir. Bu cevaplar ile tüketicinin tüketim motivasyonu ve sosyal onay alma ihtiyacı ile sosyal çevreye benzeme kaygısının tüketime etkisi incelecektir.

Anahtar kelime: Kahve tüketimi, Tüketim motivasyonu, Sosyal onay

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BAZI KAHVE GENOTİPLERİNİN BAZI MÜHENDİSLİK ÖZELLİKLERİNİN BELİRLENMESİ

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ÖZET

Dünyada ve Türkiye'de kahve kültürü son derece önem arz etmektedir. Kahvede tat, koku, aroma tüketici seçiminde önemlidir. Araştırmada bazı kahve genotiplerinin geometrik, hacimsel özellikleri belirlenmiş ve karşılaştırılmıştır. Genotipler arasında uzunluk, genişlik, kalınlık ortalamaları sırasıyla; 0.85 mm-1.18 mm, 0.67 mm-0.88 mm, 0.34 mm-0.52 mm arasındadır. Brezilya orjinli kahve genotipleri en yüksek geometrik ortalama çap (mm) ve yüzey alanı (mm) sahipken, Etiyopya orjinli kahve genotipi 4 kahve genotipleri arasında en düşük değere sahiptir. Kahve genotiplerinde küresellik (%) ve tohum hacmi (mm^3) sırasıyla; %63-%78, 0.11 mm^3-0.25 mm^3 arasında değişmektedir. Küresellik bakımından Brezilya orjinli kahve genotipleri diğer genotiplerden daha düşük küresellik (%) değeri elde edilirken tohum hacmi bakımından (mm^3) en yüksek değer elde edilmiştir. 1000 tane ağırlığı bakımından kahve genotipleri 117 g-141 g arasında elde edilmiştir.

Anahtar Kelimeler: Kahve Genotipleri, Küreselllik, Menşei, Yüzey Alanı

ABSTRACT

Coffee culture is extremely important in the world and in Turkey. Taste, smell and aroma in coffee are important in consumer selection. In the study, geometric and volumetric properties of some coffee genotypes were determined and compared. The averages of length, width and thickness among the genotypes, respectively; It is between 0.85 mm-1.18mm, 0.67 mm-0.88mm, 0.34 mm-0.52mm. While the coffee genotypes originating from Brazil had the highest geometric mean diameter (mm) and surface area (mm), the Ethiopian origin coffee genotype had the lowest value among the 4 coffee genotypes. Sphericity (%) and seed volume (mm^3) in coffee genotypes, respectively; It varies between 63%-78%, 0.11 mm^3-0.25 mm^3. In terms of sphericity, the Brazilian origin coffee genotypes had a lower sphericity (%) value than other genotypes, while the highest value was obtained in terms of seed volume (mm^3). In terms of 1000 grain weight, coffee genotypes were obtained between 117 g and 141 g.

Keywords: Coffee Genotypes, Sphericity, Origin, Surface Area

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PREDICTION OF RETAIL PRICES OF ROASTED COFFEE BY TIME SERIES ANALYSIS

ABSTRACT

The coffee is the type of beverage obtained by the preparation of the seeds of various operations as a result of various operations from the fruits of coffea. The seeds of these fruits are consumed by brewing in water after various transactions. Although every country has its unique drinks in which the cultural palate habits, the coffee has succeeded in the life of most people in the earth differently. Each society has loaded its meaning to the coffee; has been roasted, brewed, and presented. Since the day it emerged, it has been a livelihood of the people and held to the economy of the region. Nowadays, it continues to achieve people's liking and to stand in every corner of the world. Therefore, it still maintains the property of being the most trading substance after oil in the world. The coffee is in about 80 countries, such as Africa, South, Central America, the Caribbean, and Asia. When we look at the area of growth, it can be considered a variety of coffee. Each type of coffee has its own unique characteristics, taste, smell. But all are the variations of four main types. Arabica, Robusta, Liberica and Excelsa are the main types of coffee. These four different types of seeds are sold in various parts of the world and people have coffee. Because coffee production and consumption are very common, and the coffee industry is very large, coffee prices are important and changeable. Time series analysis is used to analyse the changing values depending on the time. Statistical analyses are made on the sorted data, and the results are made, and the future estimates are made. In this study, coffee prices in different countries in the world are organized annually. The resulting data were analysed with the time series and the future price estimates were performed.

Keywords: Coffee Prices, Time Series Analysis, Prediction

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KAHVE YEMEN'DEN GELİR

COFFEE COMES FROM YEMEN

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ÖZET

Yemen denildiği zaman genel olarak aklımıza iki şey gelmektedir. Bunlardan ilki "Ano Yemen'dir, Gülü çemendir, Giden gelmiyor, Acep nedendir?" türküsünde yer alan ve kızgın Yemen çöllerinde şehit olup, geri dönmeyen askerlerimizdir. Yemen denilince aklımıza gelen ikinci şey ise, Yemen Salnamelerine göre Yavuz Sultan Selim'in Mısır Seferi sonrasında İstanbul'a getirilen ve buradan da Avrupalı sefirler vasıtasıyla önce Marsilya ve Paris'e daha sonra ise tüm Avrupa'ya yayılan kahvedir.

Yemen Vilayet salnamelerinde kahve ile ilgili olarak, Mekteb-i Tıbbiye-i Şahane Muallimlerinden Kaymakam İbrahim Şevki Bey tarafından hazırlanmış olan ilmî bir rapor yer almaktadır. Buna göre asıl olarak kahve, kahve ağacının mahsulü olup, salkımlar halinde gelişen meyvenin içinde, bir zar ve zarın dışında daha sert bir kabuk ile kaplı çekirdeğe denilmektedir. Bunun yanında bu çekirdeğin kavrulup, öğütülerek, su ile kaynatılması sayesinde elde edilen içecek ve bu içeceğin pişirilip satıldığı yer de kahve olarak adlandırılmaktadır.

Bahsedilen raporda dünyaca meşhur kahvenin Yemen'den dünyaya yayıldığı ve bu kahvenin yayılma noktası olan "Kahvet'ül-Moha" adıyla anıldığı belirtilmektedir.

İbrahim Şevki Bey tarafından hazırlanan bu raporda gerek kahvenin dış kabuğundan, gerekse kahve çekirdeklerinden elde edilen içeceğin vücuda sağladığı faydalar ve ne gibi dertlere şifa olduğundan bahsedilmektedir. Ayrıca bu raporda, kahveye lezzet veren ıtırın kaybolmaması için kahve çekirdeklerinin nasıl kavrulması ve pişirilmesi gerektiği konusunda da bilgiler bulunmaktadır.

Anahtar Kelimeler: Kahve, Yemen, Yemen Vilayet Salnamesi

ABSTRACT

When Yemen is mentioned, two things come to mind in general. The first of these is our soldiers who were martyred in the hot deserts of Yemen and did not return, which is included in the song in which the words "Ano Yemen'dir, Gülü çemendir, Giden gelmiyor, Acep nedendir?" are mentioned. The second thing that comes to mind when Yemen is mentioned is coffee, which, according to the Yemeni Yearbooks, was brought to Istanbul after Yavuz Sultan Selim's Egypt expedition and then spread to Marseille and Paris and then to all of Europe via European ambassadors.

In the provincial yearbooks of Yemen, there is a scientific report about coffee prepared by District Governor İbrahim Şevki Bey, one of the teachers of the Mekteb-i Tıbbiye-i Şahane. According to this, coffee is actually the product of the coffee tree, and inside the fruit that develops in clusters, it is called a core covered with a membrane and a harder shell outside the membrane. In addition, the beverage obtained by roasting, grinding, and boiling this bean with water and the place where this beverage is cooked and sold are also called coffee.

In the aforementioned report, it is stated that the world-famous coffee spread from Yemen to the world and that this coffee is called " Kahvet'ül-Moha", which is the spreading point.

In this report prepared by İbrahim Şevki Bey, the benefits of the beverage obtained from both the outer shell of the coffee and the coffee beans and the healing of the problems are mentioned. In addition, this report contains information on how to roast and cook coffee beans so that the aroma that gives coffee is not lost.

Keywords: Coffee, Yemen, Yemen Provincial Yearbook

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KAHVE KELİMESİNİN HARFLERİ ÜZERİNE BİR FETVÂ

A FATWA ON THE LETTERS OF THE WORD COFFEE

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ÖZET

Kahve, Osmanlı topraklarında 16. yüzyıldan itibaren yaygınlaşan keyif verici bir içecek olup onunla ilgiliçeşitli fetvâlar verilmiş ve fıkhi hükmü ortaya konulmuştur. Kahve önce Habeşistan'da bir yiyecek olarak ortaya çıkmış, sonra Yemen'de içecek olarak yayılmış, ardından Mekke, Kahire ve İstanbul'a gelmiş, 17. yüzyılın ortalarında da Avrupa'ya ulaşmıştır. Osmanlı'da kahve hakkında 16.yüzyılda şeyhülislâm ve müftüler birbirine aykırı fetvâlar verebilmişlerdir. Mesela Şeyhülislâm Ebussuud Efendi kahvenin ancak uyku giderici ve zihni açıcı olarak içildiğinde helal olduğunu, oyun ve eğlence olarak içildiğinde ise haram olduğunu bildirmiştir. Şeyhülislâm Bostanzade Muhammed Efendi ise kahvenin faydalarını da anlatan 64 beyitlik bir fetvâ vermiş ve meseleye noktayı koymuştur. Osmanlı'da bu fetvâdan önce kahvenin caiz olmadığı yönünde yaygın bir kanaat oluşmuş bulunmaktadır. Osmanlı fetvâlarında kahve bazı ilginç tartışmaların da konusu olmuş, mesela kahvenin hükmüne dair farazi bir konuşma boşanma konusu yapılabilmiştir. Hatta çeşitli gramer konuları kahve ile ilişkilendirilerek kahve sözcüğünün haflerinin hükmü fıkhi tartışma konusu yapılmış ve buna dair beyit örnekleri bile verilmiştir. Mesela kahvenin Osmanlı topraklarına yeni girdiği 16. yüzyıla ait bir fetvâda kahve sözcüğünde geçen *hâ* harfi konu edilerek bunun Arap alfabesindeki üç *hâ*dan hangisi ile yazıldığı bahis konusu edilip bununla ilgili yapılan tartışmada hangi tarafın haklı olduğu sorulmuştur. Böyle bir soruya yine Şeyhülislâm Bostanzade Muhammed Efendi tek beyitlik bir manzum fetvâ vererek buna ait hükmü ortaya koyup meseleyi çözmüştür. İşte bu bildiride öncelikle kahve ile ilgili yazılmış manzumeler ve verilmiş fetvâlar tanıtılacak, sonra da kahve üzerine yapılan bu harf tartışması açıklanacaktır.

Anahtar kelimeler: Kahve, Osmanlı, fetvâ, tartışma, harf.

ABSTRACT

Coffee is an enjoyable beverage that has become widespread in the Ottoman lands since the 16th century, and various fatwas have been given about it and the fiqh provision has been put forward. Coffee first emerged as a food in Abyssinia, then spread as a beverage in Yemen, then came to Mecca, Cairo and Istanbul, and reached Europe in the middle of the 17th century. In the 16th century, Sheikh al-Islam and muftis were able to give contradictory fatwas about coffee in the Ottoman Empire. For example, Shaykh al-Islam Ebussuud Efendi stated that coffee is halal only when it is drunk as a sleep-reducing and mind-opening agent, and is haram when drunk as a game or entertainment. Sheikh-ul-Islam Bostanzade Muhammed Efendi, on the other hand, gave a 64-verse fatwa describing the benefits of coffee and put an end to the issue. Before this fatwa, there was a widespread belief that coffee was not permissible in the Ottoman Empire. Coffee was also the subject of some interesting discussions in the Ottoman fatwas, for example, a hypothetical conversation about the ruling of coffee could be made the subject of divorce. In fact, by associating various grammatical issues with coffee, the ruling of the letters of the word coffee has been made a subject of fiqh debate and even couplet examples have been given. For example, in a fatwa of the 16th century, when coffee had just entered the Ottoman lands, the letter *hâ* in the word coffee was mentioned and it was discussed which of the three *hâ* in the Arabic alphabet was written, and it was asked which side was right in the discussion. Again, Shaykh al-Islam Bostanzade Muhammed Efendi gave a single couplet verse fatwa to such a question and solved the issue by revealing the relevant provision. In this paper, first of all, the poems written about coffee and the fatwas given will be introduced, and then this letter discussion on coffee will be explained.

Keywords: Coffee, Ottoman, fatwa, discussion, letter.

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BİŞKEK'TEKİ KAHVEHANELERİNE YÖNELİK YAPILAN YORUMLARIN VE E-ŞİKAYETLERİN DEĞERLENDİRİLMESİ

ANALYSIS OF E-COMPLAİNTS AND COMMENTS ON COFFEE SHOPS İN BİSHKEK

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ÖZET

Son zamanlarda Bişkek'teki kahvehanelerin sayısı artıyor ve aynı zamanda kahvehanelerin çalışmaları hakkında yapılan yorumları sayısı da artıyor. Bu çalışmada Bişkek'teki faaliyet gösteren kahvehanelerine yönelik müşteri yorumlarının ve şikayetlerinin incelenerek, müşteri şikayet konularının belirlenmesi ve işletmelere yönelik çözüm önerilerinin geliştirilmesi amaçlanmıştır. Çalışmanın amacı doğrultusunda Kırgızistanda en sık ziyaret edilen ve yorum yazılan www.2gis.com sayfasında Bişkek'teki kahvehanelerine yönelik yapılmış olan yorumlar nitel araştırma yöntemlerinden içerik analizi tekniği kullanılarak analiz edilmiştir. Çalışma kapsamında kahve kültürü ve müşteri şikayetleri ile ilgili literatür taranmıştır. Araştırma aşamasında müşteriler tarafından yapılan 191 işletmenin yorumların ve şikayet içerik analizi yöntemiyle incelenmiştir. Bu şikâyetler; ürün, fiyat, fiziki koşullar ve hizmet kalitesi olmak üzere dört ana temadan oluştuğu görülmüştür.Kahvehane işletmeleri ortaya çıkan şikâyet unsurları çerçevesinde iyileştirme yapmaları, gerekli önlemleri almaları, müşteri şikayetleri dikkate alınarak buna göre ürün ve hizmet tasarımına gitmelidirler.

Anahtar sözler: Bişkek,2gis.com, Kahvehane, Müşteri E-şikayeti

ABSTRACT

In this study, it is aimed to analyze customer comments and complaints about coffee houses operating in Bishkek, to determine customer complaints issues and to develop solutions for businesses. The comments were analyzed using the content analysis technique, one of the qualitative research methods. Within the scope of the study, the literature on coffee culture and customer complaints was reviewed. During the research phase, comments and complaints of 191 businesses made by customers were analyzed by content analysis method. These complaints; It has been seen that it consists of four main themes, namely product, price, physical conditions and service quality.

Keywords: Bishkek,2gis.com, Coffee Shop, Customer E-complaint

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ASSOCIATION OF SOME CAFFEINATED BEVERAGE CONSUMPTION WITH METABOLIC SYNDROME IN ADULTS

ABSTRACT

Aim:The association between caffeinated beverage consumption and risk of the metabolic syndrome(MetS) remains controversial. For this reason, the aim of the study was investigate whether caffeinated beverage consumption is associated with metabolic syndrome.

Method:Data from 196(80.1% female; 46.9% with MetS) participants were included in this cross-sectional study. Metabolic syndrome was assumed if at least three of the following cardiovascular risk factors were present: central obesity, high blood pressure, low HDL-cholesterol concentration, high triglyceride concentration, and hyperglycemia. Subjects were categorized based on self-reported daily caffeinated beverage intake frequency: “almost every day”, “several times a week” and “never”. The caffeinated beverages asked were Turkish coffee, filter coffee, two-in-one coffee, three-in-one coffee, tea and green tea.

Results:The mean age of the participants was 43.9±13.0 years. 67.4% of the participants were overweight and obese. Most of the participants stated that they do not consume filter coffee(98.0%), green tea(90.3%), two-in-one coffee(89.3%) and three-in-one coffee(82.7%). The most commonly consumed caffeinated beverages are tea(90.3%) and Turkish coffee(49.5%). 48.6% of those consuming tea and 51.5% of those consuming Turkish coffee stated that they add sugar. The frequency of consumption of Turkish coffee, three-in-one coffee and tea was associated with metabolic syndrome($p<0.05$). While tea consumption frequency was higher in individuals with MetS; Turkish coffee and three-in-one coffee consumption frequency were found to be higher in individuals without MetS($p<0.05$). Sugar added to beverages was not associated with metabolic syndrome($p>0.05$).

Conclusion:In this study, the consumption of caffeinated beverages did not vary. It is seen that they tend to consume more tea and Turkish coffee. These beverages and three-in-one coffee have been found to be associated with metabolic syndrome independently of added sugar. However, in order to say that these beverages are associated with metabolic syndrome, it is necessary to evaluate many factors.

Keywords: Caffeinated bevarages, Coffee, Tea, Three-in-one coffee, Metabolic syndrome

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A COMPARATIVE STUDY OF THE PHYSICO-CHEMICAL PROPERTIES AND DIETARY FIBER COMPOSITION OF VIETNAMESE COCOA BEANS AND BEANS FROM COCOA PRODUCING COUNTRIES

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ABSTRACT

This study investigated for the physico-chemical properties and dietary fibre content (DF) of cocoa beans in the five cocoa producing regions namely Highlands Vietnam, Mekong Delta Vietnam, Ghana, Ivory Coast and Philippines. The dietary fiber content as well as proximate composition (seed dimension and size, bean mass, moisture, fat, total protein, and ash content) of the dried fermented cocoa beans were analyzed using the AOAC methods.

The result showed that the cocoa beans from Highland Vietnam and the Philippines recorded the highest length of 23.01 mm. The Philippines beans were the thickest with a diameter of 8.67 mm. However, the bean size (of width and mass) showed no significant difference for all five surveyed regions. The cocoa beans of Ivory Coast recorded the highest moisture and ash content of 7.52 and 4.76%, respectively. Crude lipid content is the most important parameter in cocoa bean. Noticeably, the highest of lipid component were recorded by the cocoa beans from Philippines and Ghana, with values ranging between 43.0 and 45.0 (%wb), whereas the cocoa beans from Highland and Mekong Delta of Vietnam recorded the lowest concentration of lipid content between 13.44% and 22.45%. There was no significant difference of the protein content from all five (5) surveyed cocoa (between 12.82% and 13.94 (%wb). The fiber content of cocoa beans of Highland, Mekong Delta Vietnam, Ghana and Philippines were the highest value in the range of 59.45 and 65.29 (%wb). Noticeably, the fat content of seven proninent cultivars of Vietnamese cocoa beans sampled was over 50%. This study compares the chemical-physical properties of Vietnamese cocoa beans to that of other main cocoa producers in the world. Thus these results have great potential for cocoa industrialized cultivation of Vietnam.

Keywords: Cocoa, Dietary fiber, Physico-Chemical Properties, Seed size

DISCOVER ANATOLIA

International Anatolian Conference on Coffee & Cocoa

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SEPARATION USING SUPERCRITICAL FLUID

ABSTRACT

Any fluid has a critical point which is reached at specific conditions of pressure and temperature The fluid is considered as "Supercritical" since it is submitted to a temperature and a pressure higher than its critical point Placed into the supercritical domain, the fluid has specific physico-chemical properties, at the interface between the liquid phase and the gaseous phase. Supercritical fluids has properties of both liquids and gases e.g. a high density (like liquids), low viscosity (like gases) and a diffusivity coefficient between those of gases and liquids

ADVANTAGES OF SUPERCRITICAL CO_2

- **Carbon dioxide is the most commonly used supercritical fluid:**
  - Cheap, easily available at high purities
  - Chemically inert
  - Non-toxic
  - Non-flammable
  - Free of bacteria
  - Low critical point: 31°C and 74 bar
- **Allows the fluid to be used at mild conditions of temperatures:**
  - Integrity of thermally sensitive materials
  - Recycled CO_2 from industrial waste
  - Wide selective molecules extraction with pressure variation
  - Products are free from oxidation
  - Products and residues are solvent free

High pressure process using supercritical fluids offer the wide range of possibility to get new products with special characteristics by designing new processes, using process sustainable. High pressure processing tool avoids the technical limitations for solvent residues using harmful conventional solvents in chemical processes. Supercritical fluids are already applied in several processes developed to commercial scale in pharmaceutical, food and textile industries. Extraction of valuable compounds from plants using high pressure technology. Granules formation using supercritical fluids solves the difficulties of conventional particle size reduction processes using thermal and fluid dynamic properties, high density gases is used for impregnation of solid particles, particle coating, foaming etc. Biochemical and chemical reactions using supercritical fluids is applied at industrial scale to obtain products with high commercial value, while the use of supercritical fluids as heat carriers is a newly emerging field.

Keywords: critical, supercritical, commercial, industries

DISCOVER ANATOLIA

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ADVANCES IN TANNIN BIODEGRADATION FOR VALORIZATION OF COFFEE WASTE

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ABSTRACT

Coffee (*Coffea spp*) is one of the most consumed and commercialized beverages globally; it has a high nutritional content and exceptional organoleptic characteristics. Coffee wastes have high functional, nutritional, and biotechnological potential, as well as important biological properties. However, the presence of tannins and caffeine limits its use.

Considering the chemical composition and the functional and biological properties, coffee wastes are the raw material used in this work, The food losses and by-products of coffee cherry can be valued using environmentally friendly technologies such as fermentation, hydrostatic pressure, ultrasound, and heat treatments.

Recent research has focused on the study of reduction of the anti-physiological components (tannins and caffeine). In this contribution, we describe some research efforts to do it. New research on tannin biodegradation may continue to value other chemical structures such as polysaccharides and lipids and identify the profiles of the available phytochemicals of different varieties.

Under the concept of circular economy, valorisation has a high potential for obtaining functional and nutritional compounds, as well as significant business opportunities.

Keywords: coffee waste; tannin biodegradation, valorisation

DISCOVER ANATOLIA

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Displacement of cocoa and coffee producing areas due to the effects of climatic variations in Colombia

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ABSTRACT

The effects of climatic and altitudinal variations on the physical characteristics of coffee and cocoa beans were analyzed in two studies carried out in the department of Norte de Santander, located in the northeastern region of Colombia. The production zones were divided into altitudinal gradients and farms were selected in each gradient to analyze the weight, size and percentage of hulls of the beans (cocoa) and the weight and size of the beans (coffee). Also, climatological records from 1985-2015 from 15 IDEAM weather stations reported in the study "Technical guideline documents for climate change management and low carbon and climate resilient development" (CORPONOR-UFPS, 2018) were analyzed. The data obtained were examined using descriptive statistical estimators, analysis of variance and Tukey's multiple comparisons tests. In the cocoa research the area was divided into 6 altitudinal gradients of 200 m. each, from 0 m.a.s.l. to 1,200 m.a.s.l.. In each gradient, 5 farms were selected with 2 sampling replicates (2019 and 2020 harvests), for a total of 60 observations.

The study determined a positive relationship between altitude and kernel weight, with the highest weights obtained between the altitudinal gradients of 801 m.a.s.l. and 1200 m.a.s.l., and the lowest weights between 0 m.a.s.l. and 600 m.a.s.l. The values of the percentage of husk (testa) in the kernels showed an inversely proportional relationship with respect to altitude. The trends of 36 years of records of mean annual temperature and precipitation at the Tibú Climatological Station, located at 50 m.a.s.l., within the main cocoa producing areas, revealed significant increases of + 0.03315 °C/year, and variations to the year 2040 estimated between +0.70 to +0.79 °C. The trend in mean annual precipitation shows a slight, non-significant increase in precipitation in the area, and estimated variations to 2040 between +0.5 to +1.5 mm/year. The temperature for this region is currently high (around 27 °C), so further increases in temperature are a threat to cocoa production. In conclusion, both the weight of the beans and the percentage of husks are affected by altitude, with the best yields occurring in the 801-1000 m and 1001-1200 m gradients, which allows inferring a future shift of the crop towards these altitudinal gradients.

The results indicate a tendency to segment the cocoa and coffee producing areas of the department of Norte de Santander into two areas: 1) Traditional cocoa growing zone (altitudes below 600 meters above sea level) and coffee (altitudes below 1,200 m.a.s.l. m) with beans of medium and small size, lower weight and high content of husks and "café pasilla" respectively, with aptitudes for the national market and; 2) Emerging zone for the cultivation of cocoa (altitudes above 600 meters above sea level) with large size beans and low husk content and; for the cultivation of coffee at altitudes between 1,200 to 1,800 meters above sea level, with beans of medium to large size and low content of "café pasilla", apt for the international market. The findings of the two studies, and their comparison with the climatic trends of the producing areas, allow inferring a gradual displacement of coffee and cocoa crops to higher altitudinal levels that guarantee an ecologically and economically sustainable development.

Key words: Coffee, cocoa, beans, altitude, climate

In the coffee research, the production strip was divided into 5 altitudinal gradients (of 200 m each), from 1,000 m a.s.l. to 1,800 m a.s.l.. Four farms per gradient were randomly selected and the 2017 and 2018 harvests were analyzed, for a total of 40 observations. 120 g of green kernels per sample were sorted by size and weight with sieves # 18, 16 and 14; and 50 green kernels per sample were weighed to determine trends by altitudinal floor. The highest value of grain size retained on sieve # 18 was 17.99 g ± 8.16 g (floor 2) and the lowest was 12.87 g ± 5.30 g (floor 1); on sieve # 16 the highest value was 87.30 g ± 18.60 g (floor 2) and the lowest was 62.56 g ± 19.49 g (floor 1); in sieve # 14 the highest value was 52.86 g ± 18.20 g (deck 1) and the lowest value was 28.60 g ± 10.10 g (deck 2) and; the residues the highest value corresponded to deck 5 with an average of 16.03 g ± 10.63 g and deck 3 obtained the lowest value with 8.82 g ± 3.54 g. In conclusion, the best coffee bean yields were found from 1,200 m.a.s.l. to 1,800 m.a.s.l. and the lowest values of weight and size were located in the gradients below 1,200 m.a.s.l.

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Application of Remote Sensing and GIS for study the current state of the Arabica Coffee and propose enhancing their quantity and quality in Yemen

ABSTRACT

Yemen has been famous for growing and exporting coffee since ancient times, because Yemeni coffee is one of the finest types of coffee because it is distinguished from others by high specifications and characteristics, and this is a natural result of being grown in the ideal environment in terms of climate, altitude from sea level, soil suitability, irrigation water quality and other characteristics that outperform on international standard references. However, the quantities of production for the coffee crop in Yemen have been in continuous decline since the sixties of the last century (it was 53000 ton in 1962, but it decline to 3600 ton in 2018), as statistics and numbers of export quantities indicate for this crop, in addition to the lack of interest in high quality, and this may be due to several reasons, some of which are natural and others related to population activities, for example: the climatic changes that are taking place, which It affected agricultural production in Yemen in general and coffee production in particular, which appears in the form of increased drought periods at the year level and its concentration in certain months of the year, which led to thirst and death of coffee trees and a constant decrease in the area of cultivation, in addition to competition for some cash crops such as Qat, which It is grown in the same environment suitable for coffee cultivation, not to mention the increase in local consumption of Yemeni coffee for example in 2010 the product was 19000 ton but export 3000 ton only and other reasons. This paper aims to use remote sensing techniques and geographic information systems to study the current situation of coffee in Yemen, produce maps of coffee cultivation areas, study production indicators, study all information related to climate, soil, terrain, areas of deterioration of its cultivation, infrastructure and areas of high quality, and also aims to make a visualization A proposal to improve the quantity and quality of Yemeni coffee and make maps of environmentally suitable areas for future expansion in its cultivation, especially those historically famous for the cultivation of high quality Yemeni coffee. Comparing it with the specifications of high quality coffee production according to the international standard reference. The study concluded that coffee cultivation in Yemen depends on small producers who make efforts and expenses more than the return from selling the crop; in addition to that they are exposed to price fluctuations and suffer from poor marketing and failure to include the quality factor in prices. The maps also showed that the appropriate areas are concentrated in the parts of the western and southern Yemeni governorates, especially those located in the Yemeni highlands. Its production is concentrated in 17 governorates and 98 districts. The total amount of production for the year 2018 AD was 18702 tons, and the cultivated area did not exceed 33942 hectares, while the area suitable for cultivation, which can be exploited, exceeds 100,000 hectares.

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THEOBROMINE EXTRACTION FROM MEXICAN THOEBROMA CACAO

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ABSTRACT

There is incontrovertible importance attached to organic compounds extracted from food plants mostly because of their medicinal attribute and use as primary source of pharmaceutical product. This research work extracted and identified 3, 7-dimethylxanthine (theobromine) from the Mexican cocoa beans, *theobroma cacao* using different chemicals mixtures.

The white crystalline powders obtained were then characterized by FT-IR, TGA and HPLC-MS especially to establish the compound and also ascertain the effects of varying chemicals on the theobromine obtained. The yields obtained using different chemical mixtures were 0.10, 1.40, 2.00 and 3.74 % under similar conditions. From the results, the use of MgO with trichloromethane gave the highest yield (3.74 %). The TGA results showed that sample extracted with NH_4OH/$CHCl_3$ was thermally least stable. The mass spectra showed that all the samples analyzed have the same fragmentaton patterns with base peaks and molecular ions at m/z = 138.1 and 181.0, respectively.

The results of the FT-IR, HPLC and MS analysis revealed that change in chemical mixture used for the extraction has no effects on the chemical composition of the theobromine but only the percent yields obtained. Economically, the organic solvents (DCM and TCM) used could be recovered for further use in the extraction. Through appropriate chemical mixtures, theobromine could be made available for immediate use in the laboratory and other applications.

Keywords: Theobromine; Extraction; Mexican *Thoebroma Cacao*

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ANALYSIS FACTORS THAT SUPPORT ECONOMIC VALUE OF "CODOT" (BAT) COFFEE AGROFORESTRY: A CASE STUDY OF HIMAWARI FOREST WOMEN GROUP IN LAMPUNG, INDONESIA

ABSTRACT

One of the forestry commodities that play an important role in the Indonesian economy is coffee. This plants are seasonal crops that exist in most farmers' lands that apply agroforestry cropping patterns. The type of coffee plant can help people increase income through long-term profits. One of the mainstay coffee varieties, especially in the Hiwari Forest Women Group (FWG) area, is codot (bat) coffee. Opportunities for the development of codot coffee management can be a good potential for the future, especially in improving the economy of the surrounding community, so it is important to know the factors that support the economic value of agroforestry products of codot (bat) coffee. The purpose of the study was to determine the internal and external factors in increasing the economic value of codot (bat) coffee. This research was conducted using the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) Matrix analysis methods so that conclusions were obtained related to the supporting factors for increasing the economic value of codot (bat) coffee. The results of the study stated that the internal influencing factors were strategic geographical location, easy accessibility, good quality of codot (bat) coffee, good production technology, lack of knowledge about the benefits of codot (bat) coffee, and the effect of shade plants. While external factors consist of a fairly high demand for local codot (bat)coffee, the development of information and communication technology that is getting better, and business partners outside the Tanggamus Regency.

Keywords: Codot (bat) coffee, internal factors, external factors, economic improvement

DISCOVER ANATOLIA

International Anatolian Conference on Coffee & Cocoa

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Medicinal plants used to combat COVID-19 in Fez city, northern Morocco: Ethnobotanical Approach

ABSTRACT

The lack of effective vaccines against Coronavirus disease 2019 (COVID-19) is pushing researchers to identify potential sources from natural products that can help fight the pandemic. In Morocco, medicinal and aromatic plants (MAPs) have long been used to combat infectious diseases. Thus, this work aims to quantify the ethnobotanical knowledge of medicinal plants used by herbalists for fighting against the COVID-19 in Fez city.

Semi-structured interviews were conducted with well-known traditional herbalists. A quantitative analysis approach was used resulting in the determination of plant use value (PUV) and family use value (FUV) to evaluate the ethnobotanical knowledge.

In total, 49 medicinal plants species were recorded belonging to 28 botanical families, the Lamiaceae was the most dominant family. Analysis of the PUV index showed that the most important species were *Syzygium aromaticum* (L.) Merr. & Perry, *Thymus vulgaris* L., *Eucalyptus globulus* Labill., and *Artemisia vulgaris* L. Most remedies were prepared from the aerial part in the infusion form and mostly administered orally. It was mentioned that 47.36 % of customers were very satisfied using herbal remedies to combat this viral infection.

Therewith, ethnobotanical and ethnopharmacological information collected in our study provides basic data on medicinal plants which is promising in the treatment and prevention of COVID-19.

Keywords: Covid-19, medicinal plants, traditional medicine, ethnobotany, Fez, Morocco.

DISCOVER ANATOLIA

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RATIONALITY OF THE APPLICATION OF CROP ROTATION SCHEMES IN FERTILITY RESTORATION OF THE SOILS REMAINED UNDER FLOOD WATER

ABSTRACT

Protection of soil fertility is an important problem in provision of the population's with food in terms of food security. Due to intensive use of soils, non- compliance with agrotechnical rules in growing of agricultural plants, the decrease of soil fertility, degradation, secondary salinization and other processes occur. The floods occuring as a result of the natural disasters affect the soil fertility. An aim of the research is to work out measures system for fertility restoration of soils remained under the flood by considering of the zonal agrotechnics using the biohumus and organic- mineral fertilizer.

The research object is meadow- grey and alluvial- meadow soils remained under flood water five- field vegetable, fodder- technical crops are a rotation scheme: 1. annual Lucerne; 2. two- year Lucerne; 3.cotton; 4.grain; 5.vegetable (tomato, aubergine, pepper).

The conequences of the applied sections indicate that the irrigated meadow- grey and alluvial-meadow soils remained under flood water have been irrigated for long years, the irrigation debris gather on the surface. Although the amount of humus along the profile changed downwards due to the burial of the top fertile layer of soil, a new increase was observed after the 80-90 cm layer.

The secondary salinization as a result of rising groundwater in irrigated meadow- grey and alluvial- meadow soils remained under flood water caused the salt amount increase in soil and it negatively affected the plant productivity. The cotton, grain and vegetable productivity was 7,5% while the salt quantity was 0,20- 0,50%. But it decreased 54,5% when saltness was 0,5- 1,0% and 24,7% and 1,0- 2,0%.

The organic- mineral bioactive fertilizer and biohumus were used to restore fertility of soils remained under flood water, to increase the cotton productivity, vegetable entering the crop rotation during the research. The productivity was accordingly 15- 20% and 10- 15% in comparison with control in the variants with organic- mineral bioactive fertilizers and biohumus.

So using the crop rotation schemes in fertility restoration of soils remained under flood water and application of organic fertilizer are rational means.

Key words: irrigated meadow- grey soils, irrigated alluvial- meadow soils, crop rotation scheme, biohumus, organic- mineral bioactive fertilize.

DISCOVER ANATOLIA

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Socio-economic Importance of Cocoa Certification Program to Cocoa Farmers in southwest, Nigeria

ABSTRACT

Cocoa (*Theobroma cacao Lineus*) has remained a valuable crop and major foreign exchange earner among other agricultural commodities exported of the Nigerian economy. It creates jobs for an estimated fourteen million people. Cocoa is mostly produced in 14 of the 36 States in Nigeria. The major producing states are Ondo, Osun, Ogun, Ekiti, and the Oyo States, in the southwest geopolitical zone of the country. Besides its contribution to the nation's economy, Cocoa is very nourished and contains carbohydrates, fats, proteins, natural minerals, and vitamins; these compounds are beneficial to human health. Cocoa has a unique natural taste and colour and possesses a delicious aroma used in many food products for extra flavour and colour. Research conducted at Harvard Medical School showed that consumers of cocoa had significantly lower rates of heart disease and cancer compared to those who did not consume it. However, these qualities have been threatened by the indiscriminate use of agrochemicals and unwholesome cultural practices of the rural farmers. It is because of this challenge that the Nigerian government in collaboration with Fair Trade International (FLO), UTZ Certified, and Rainforest Alliance (RA) introduced a certification program. This is a procedure through which an independent body gives a certificate that cocoa farmer(s), processors, local traders, importers, and exporters have been assessed and adhered to specific standards. The ultimate aim of this certification is to ensure that the cocoa sold under the seal of a standard organization, guarantees the authenticity and the integrity of sustainably produced cocoa being purchased by consumers; so also, to increase the earning power of the cocoa farmers and improve their socio-economic status. These benefits of certification have however remained skeptical since many pieces of research have not been carried out in this regard. Thus, it has become imperative to examine the socio-economic importance of the Cocoa Certification Programme to Cocoa Farmers in southwest, Nigeria with aim of promoting its acceptance, practice, and sustainability among cocoa farmers in Nigeria.

Keywords: agrochemicals, cocoa, certification, commodities, farmers, indiscriminate, southwest, standard

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MEASURING THE RELATIONSHIP BETWEEN COFFEE, PHOTOGRAPHY AND TOURISM IN THE CENTRAL HIGHLANDS OF VIETNAM

ABSTRACT

The study measures the relationship between coffee, photography, and tourism in the Central Highlands region of Vietnam. Descriptive statistical methods, expert surveys, and in-depth interviews with 20 tourists and scientists who have a good understanding of coffee tourism and photography tourism were conducted. The aim of this study is to see: "To what extent can coffee tourism and photography tourism help develop local communities and leverage the livelihoods of those active in the field?". Research results show that coffee tourism and photography tourism can stabilize and increase income for small-scale coffee farmers as well as coffee farms through diversifying their income sources, contributing to community development. In addition, research results on the role of photography in tourism activities indicate that quality tourism artwork contributes positively to local tourism promotion. These promotion activities include: promoting tourism through travel photo contests, offering artsy photography services for tourists visiting destinations, using travel photos in teaching specialized tourism majors, etc. From there, policy implications for the development of coffee and photography tourism in the Central Highlands of Vietnam are proposed.

Keywords: Coffee, photography, Tourism, Central Highlands, Vietnam

DISCOVER ANATOLIA

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INTEGRATED VALORIZATION OF SPENT COFFEE GROUNDS TO BIOFUELS AND CARBON MATERIALS -A KEY TO CIRCULAR ECONOMY

ABSTRACT

Utilization of renewable resources has attracted renewed attention recently owing to countless benefits obtainable through them. Nowadays it is important to limit the use and combustion of fossil fuels such as oil and coal. There is a need to create environmentally acceptable projects that can reduce or even stop greenhouse gas emissions. Spent coffee grounds (SCG) are abundant, low-cost and versatile feedstocks for a wide range of high-valued end products. With a goal to achieve zero waste, this study aims to further broaden the diversity by using the residue for biodiesel production, as well as for the manufactures of activated carbon and fuel pellet. In this article, we dealt with the objectives of energy policy with regard to environmental protection, waste utilization, and conservation of natural resources. The major objective of the work was to assess the possibility of the use of spent coffee grounds (SCG) as fuel and carbon materials. The research also confirmed the antioxidant capability of the coffee grounds. The production of SCG's biodiesel followed the conventional esterification and transesterification processes. The activated carbon (AC) generated from SCG demonstrated a comparable purification capacity and can as well be employed in various applications. The study highlighted spent coffee grounds as a promising precursor for the production of biofuels. Therefore, the obtained residue offered not only a cut in raw material's cost, but also an increase in net profit through the commercialization of other value-added by-products and further cut in the usual funds normally allocated for waste reduction as the entire pathways revolves around circular economy.

Keywords: Biofuels, Circular Economy, Activated Carbon, Biorefinery, Biomass

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Synthesis of One-dimensional (1D) Titanate Nanotube Catalytic Materials for the Production of Renewable Aviation-fuel Precursors

ABSTRACT

In this work, Titanate nanotubes materials synthesized via hydrothermal treatment of TiO_2 P25 with NaOH solution have been reported as low-cost and efficient solid heterogenous catalytic materials in the chemical syntheses of renewable biofuel precursors. From the experimental activities performed, titanate nanotubes demonstrated better and fascinating catalytic activity above most of the commonly used zeolites (such as H-MOR, H-β, ZrP, SO_4^{2-}/Al_2O_3, and H-ZSM-5 catalysts) that have been used in the generation of renewable fuel precursors in biorefinery. Moreover, using these derived titanate nanotubes are beneficial with environmental benign characteristic features over homogeneous catalytic materials. The catalytic materials are easily regenerated with little or no loss in activities after five consecutive recycle tests. Interestingly, these materials can also be employed as catalytic supports for other materials in various chemical reactions. Furthermore, synthesis of these materials via hydrothermal techniques equally represents the system with sustainability in focus with interesting performance demonstrated. From the structural characterization techniques, the hydrothermal treatment for TiO_2 P25 with NaOH solution followed by an ion-exchange process with acid significantly accounts for its distinct morphology, higher specific surface area and the number of acid sites on the surface of the catalyst. Since these catalysts can also be used repeatedly used without significant loss in activity, they are advantageous and suitable for practical use in industries. The precursors employed in this work are equally obtainable from lignocellulosic biomass which means agro-wastes can easily be transformed to value-added products thus adding value to generation of revenues and as well reduce further funds meant for waste management.

Keywords: *Biomass, Biofuels, Sustainability, lignocellulose, Catalysis, Titanate nanotubes*

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Antioxidant activity of crude Methanol extracts and fractions (Flavonoids, Alkaloids) from Sawdust of Tetraclinis articulata (Vahl) Masters

ABSTRACT

The present study was dedicated to the study of the total phenol content and the antioxidant activity of the crude Methanol extracts and the fractions (*flavonoids* and *alcaloides*) of the sawdust from *Tetraclinis articulata* in Morocco. The dosage of the crude extract showed high *phenolic* and *flavonoids* compounds in the sawdust of *Tetraclinis articulata*. The study of the antioxidant activity of the Samples was carried by two different methods namely the trapping of free radicals DPPH and the reduction of iron (FRAP). Results indicated that *flavonoids* fraction from *sawdust* was a more potent reducing agent and radical scavenger than others extracts (IC50= 0.0495µg/ml and EC50= 0.2999µg/ml). The results of this activity showed that these samples of sawdust have a very interesting anti-oxidant activity and reveal promising prospects for the future exploitation of waste wood industry of *Tetraclinis articulata* as a potential source of natural antioxidants.

Keywords: Sawdust, *Tetraclinis articulate*, Antioxidant activities, DPPH radical scavenging activity, FRAP Ferric Reducing Antioxidant Power

DISCOVER ANATOLIA

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DETERMINATION OF THEOBROMINE CONTENT IN CHOCOLATE AND CHOCOLATE SPREADS BY UV-VIS SPECTROPHOTOMETRY: A COMPARISON BETWEEN PRODUCTION DATES

ABSTRACT

Background: Health benefits of cocoa have been related with the high content of antioxidants of Theobroma cocoa beans. Theobromine, which is found in higher amounts than caffeine, seems to be behind several effects attributed to cocoa intake. Theobromine is a bitter alkaloid beneficial in the treatment of hypertension, arteriosclerosis and angina pectoris. Therefore, theobromine deserves attention as one of the most attractive molecules in cocoa. The objective of this study was to determine theobromine contents in chocolates commonly found in Turkish marketplace and comparison of their contents according to different production dates.

Method: Several types of chocolates (bitter (≥60% cacao), half-bitter (45-55% cacao), milk-chocolate, and chocolate-spreads) were analysed using UV-Vis spectrophotometry by duplicate measurements. Samples (n=20) of the same brand, from different production dates have been selected for each chocolate sample, therefore a total of 40 samples were analyzed to determine theobromine content.

Results: Overall range for theobromine content varied from 1.8 to 9.7 mg/g depending on the product type. Of all chocolate brand samples, bitter-chocolate had the highest (8.1±1.01 mg/g) concentration of theobromine in comparison to half-bitter-chocolate as (6.4±0.79 mg/g), also milk-chocolate (2.7±0.26 mg/g) and chocolate-spreads (2.7±0.81 mg/g) having the lowest concentration of theobromine. The mean content of theobromine (mg/g) according to the different production dates in bitter-chocolates (8.1±1.01, 8.2±1.10, p>0.05), half-bitter-chocolates (6.3±0.74, 6.4±0.82, p>0.05), milk-chocolates (2.7±0.31, 2.8±0.20, p>0.05), and chocolate-spreads (2.7±0.81, 2.7±0.80, p>0.05) were not differ. It was determined that there was a positive strong correlation between samples according to the production dates (r=0.988, p=0.000), so the contents were found similar for each specific type of chocolates.

Conclusion: When the health effect is concern, dark chocolates would be suggested over other chocolates by having higher contents of theobromine compounds.

Keywords: Chocolate, Dark Chocolate, Chocolate Spreads, Theobromine, Production Dates

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DRINK COFFEE FOR BETTER MENTAL HEALTH

ABSTRACT

Numerous studies demonstrate that coffee consistently improves the health of the brain. The caffeine can stimulate cognitive performance, makes us smarter, promotes mental focus, clarity and sharpens memory. Coffee has been known to help fight against depression. The caffeine in coffee stimulates neurotransmitter pathways in the brain and the mood can be improved. Our earlier studies demonstrated anti-depressant activity of caffeine both in Wistar rats and ICR mice with experimental model of depression. Women drinking more than 4 cups of coffee daily lowered their risk of depression by 20% and suicide attempts were 53% less. Even one cup of coffee per day has been linked with a 15% decreased risk of depression.

Moderate coffee consumption can significantly reduce the risk of Alzheimer's disease or delay its onset. But high consumption of coffee actually increases dementia risk according the latest studies. Researchers came to an interesting conclusion that more than six cups impairs memory and it is associated with smaller brain volume and a 53% increased risk for dementia.

The health benefits of coffee have different mechanisms. The main pharmacological effects of caffeine are mediated by adenosine receptors blockade and by blocking the activity of inhibitory neurotransmitters in the brain. All this can lead to improved memory and overall better mental function, better reaction times, increased alertness and attentiveness. Experimental data suggest involvement of purinergic mechanisms also. But possibly one of the most notable health benefits of coffee is related to its strong antioxidant activity. A cup of coffee contains more antioxidants than a cup of grape juice, blueberries, raspberries, or oranges.

In conclusion coffee is a good promoter of central nervous system health, the exact benefits being dependent directly on the quantity consumed.

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BENEFICIAL EFFECTS OF COFFEE IN SOME NEUROLOGICAL DISORDERS

ABSTRACT

Latest research suggests that polyphenols and caffeine, which are found in high quantities in coffee, can be associated with a reduced risk for development of Alzheimer's disease. It was also demonstrated that coffee can even help reduce the risk of Alzheimer's disease and Parkinson's disease by 30-35% according to some clinical studies. The caffeine content of coffee works to block the build-up of a certain type of plaque that contributes to the cognitive decline associated with Alzheimer's and Parkinson's. A review of 201 studies published in the British Medical Journal in 2017 found that moderate coffee drinking is associated with a lower risk of dementia. Regarding brain health in particular the authors wrote that coffee was "consistently associated with a lower risk of Parkinson's disease…depression and cognitive disorders, especially for Alzheimer's disease..."

Caffeine – a psychoactive and neurostimulating substance, is one of the main ingredients of coffee and is hypothesized to help maintain cognitive functions in the elderly. Taking into account the fact that most people drink coffee for pleasure because of its taste, the additional and unexpected health benefit would be an added value. In conclusion moderate coffee drinking might in fact become an element of a rational and healthy diet.

DISCOVER ANATOLIA

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DEVELOPMENT OF NATURAL EXFOLIANT WITH ANTIOXIDANT PROPERTIES PREPARED FROM SPECIAL COFFE PROCESSING BY-PRODUCTS

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ABSTRACT

With the increase in food production, there is an increase in the generation of waste and several studies around the world are being carried out in order to create solutions to decrease or eliminate the environmental liabilities generated (ALBURQUERQUE et al., 2012; VIRMOND et al., 2012; CASTRO; SATO, 2013). However, in order for the residues to be utilized and to have greater added value, it is necessary to know the chemical composition from scientific and technological investigations (HOFFMANN et al., 2009). These residues have in their composition vitamins, minerals, fibers and antioxidant compounds important for physiological functions. However, most are wasted (MATIAS et al., 2005). Such residues could be used, minimizing food waste and generating a new food source or new products for the cosmetics area. (MELO et al., 2010). The characterization of vegetable raw materials is essential to prove the reproducibility of biological actions and chemical composition. The process requires agronomic knowledge, physical-chemical characteristics, among other observations that allows the quality control of the physical-chemical characteristics (contents of markers, humidity and control of microbial contamination, for example) ensuring the dosage and correct administration for the desired biological activity (MARQUES; VIGO, 2009; ZHANG et al., 2012).In the specific case of natural cosmetics or based on natural products, as the market is expanding, there are still no problems of excess demand or lack of products to supply the market. Assessing the state of the art of the residue, it appears that until then only studies related to the chemical composition were carried out, including physical-chemical tests and tests of the antioxidante potential of the by-product, and presented relevant results(KOBORI,JORGE, 2005; AMIM;MUKHRIZAH,2006;KONG;ISMAIL,2011).The amount of coffe by-products is extremely hing, being mainly composed of immature, defective coffe and coffe grounds. These by-products emerged as potential candidates to replace synthetic chemicals as active ingredients in cosmetic and skin care formulations, as they are a source of antioxidants and polyphenols,including caffeine (RIBEIRO et al, 2013).The work has the objective of developing a technological process to use the by-product of the Garoa Coffe, Coffe shop located in Goiânia-Go-Brazil, and processing of specialty coffees for the development of a natural exfoliating cosmetic product with antioxidant properties.**Results:** For the physicochemical characterization of the pulverized vegetable raw material, the microscopic analysis of the powder demonstrated the intimate nature of the sample as well as its degree of purity,presentig a volatile contente of 4,31%(m/m), the determination of the particle size distribution classified the sample as coarse powder and the swelling index was 1,93 mL ± 0.12 using 96°GL alcohol as the swelling agent.

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PHYTOPATHOMETRY OF CERCOSPORIOSIS IN COFFEE USING DISPRO SOFTWARE

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ABSTRACT

Brown eye spot (*Cercospora coffeicola*) on coffee is one of the oldest plant diseases in America and was first reported in Brazil in 1887. Currently, in almost all regions of this country coffee trees are susceptible to cercosporiosis due to favorable conditions to pathogen proliferation such as poor soils. Symptoms include leaf spots with a clear center and defoliation. These spots may also appear on berries. The consequences are lower production and a depreciation of the quality of the beverage. In the evaluation of diseases, the use of scales is not a substitute for experience and knowledge of the characteristic symptoms of a specific disease. However, diagrammatic scales can improve the efficiency, reproducibility and accuracy of the inexperienced assessor, as well as experienced assessors, by providing a standard reference point for comparison. The objective of this work was to compare the performance in the assessment of brown eye spot severity using DISPRO software. The accuracy achieved in the visual assessment of brown eye spot severity was high, with the best performance recorded in the 2nd repetition. In addition, the precision and accuracy achieved using the DISPRO software was high according to the Willmont concordance indices, with the best performance recorded in the 1st and 4th repetition. The results suggest that accurate quantification of the damage caused by this disease can be obtained by phytopathometry to facilitate decision-making in coffee sanitary management.

Keywords: *Coffea arabica*, *Cercospora coffeicola*, diagrammatic scale, phenological scale.

ÖZET

Kahvedeki kahverengi göz lekesi (Cercospora coffeicola) Amerika'nın en eski bitki hastalıklarından biridir ve ilk olarak 1887'de Brezilya'da bildirilmiştir. Şu anda, bu ülkenin hemen hemen tüm bölgelerinde kahve ağaçları, zayıf topraklar gibi patojen çoğalmasına uygun koşullar nedeniyle cerkosporiosis'e karşı hassastır. Semptomlar arasında açık bir merkeze sahip yaprak lekeleri ve defoliasyon bulunur. Bu lekeler meyvelerde de görünebilir. Bunun sonuçları daha düşük üretim ve içeceğin kalitesinin değer kaybıdır. Hastalıkların değerlendirilmesinde, ölçeklerin kullanımı, belirli bir hastalığın karakteristik semptomlarının deneyim ve bilgisinin yerini tutmaz. Bununla birlikte, diyagramsal ölçekler, karşılaştırma için standart bir referans noktası sağlayarak deneyimsiz değerlendiricinin yanı sıra deneyimli değerlendiricilerin verimliliğini, tekrarlanabilirliğini ve doğruluğunu artırabilir. Bu çalışmanın amacı, DISPRO yazılımı kullanılarak kahverengi göz noktası şiddetinin değerlendirilmesinde performansı karşılaştırmaktı. Kahverengi göz spotu şiddetinin görsel değerlendirmesinde elde edilen doğruluk yüksekti ve en iyi performans 2. Ayrıca, DISPRO yazılımı kullanılarak elde edilen hassasiyet ve doğruluk, Willmont konkordato endekslerine göre yüksekti ve en iyi performans 1. ve 4. Sonuçlar, kahve sıhhi yönetiminde karar vermeyi kolaylaştırmak için fitopometri ile bu hastalığın neden olduğu hasarın doğru niceliğinin elde edilebileceğini göstermektedir.

Anahtar Kelimeler: *Coffea Arabica*, *Cercospora coffeicola*, diyagramatik ölçek, fenolojik ölçek.

DISCOVER ANATOLIA

International Anatolian Conference on Coffee & Cocoa

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Study of acute effect of caffeine on cognition among adults- An exploratory intervention trial

ABSTRACT

INTRODUCTION/BACKGROUND:

Information processing has substantial role in performing intellectual activities such as thinking, reasoning, remembering, imagining, or learning. Caffeine being a CNS stimulant improves mental performance, especially on alertness, attention, concentration and learning depending on the quantity of intake. In the present study, an attempt is made to study the effect of caffeine on cognitive processing in healthy individuals.

METHODOLOGY:

This cross sectional study was conducted in 50 subjects at Mahatma Gandhi Medical College & Research Institute. MOCA questionnaire was utilized to assess the level of cognition of each subject. Visual reaction time, auditory reaction time and critical fusion frequency prior and after consumption of 75 mg of caffeine in 200 ml of milk.

RESULTS:

Both visual and auditory reaction time were significantly reduced ($p<0.001$) after intake of caffeine intake. The ability of the subject to appreciate the flickering light stimuli to be steady (critical flicker fusion frequency) was significantly improved 15% after caffeine intake.

CONCLUSION:

Decrease in visual and auditory reaction and increase in critical flicker fusion frequency values indicate caffeine increases alertness thereby it may enhances performance efficiency in reasoning, planning, judgment, organizing, concept formation, and problem solving.

KEY WORDS:

Visual reaction time, Auditory reaction time, MOCA

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TENSIOMETRY APPLIED IN THE ESTIMATION OF WATER CONSUMPTION OF DRIP IRRIGATED COFFEE TREES

DAMLA SULAMA İLE SULANAN KAHVE AĞACININ SU TÜKETİMİ TAHMİNİNDE UYGULANAN TANSİYOMETRİ

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ABSTRACT

The coffee areas under production and establishment in Brazil total approximately two million hectares. Irrigated coffee plantations occupy around 10% of this area planted with Arabica coffee, while Robusta coffee accounts for 35%. Coffee is one of the main irrigated crops in Brazil, and its water consumption has been quantified mainly through micrometeorological variables such as reference evapotranspiration (ET_o) and crop coefficient (K_c). The coefficients used in irrigation management and in the estimation of coffee evapotranspiration (ET) are currently the subject of research at the regional level. Both Kc and ET vary mainly as a function of the phenological stage of the crop. Therefore, as plants age and reach maturity, vegetation coverage of the soil surface increases, which alters the value of K_c. Although several studies present Kc values for coffee plants, there are still divergences in the values found and a lack of information in different situations. For example, on the same property, there is variation in the water demand of the coffee plant due to the genotypes used, the age of the plants, crop management systems, the depth of the roots, and the water retention capacity of the different types of soil in the area. The objective of this work was to estimate the characteristic parameters of coffee water requirements, i.e., ET and K_c, based on two methods of estimating ET_o and tensiometry. The study was conducted in four different seasons in Piracicaba, southeastern Brazil. The *Coffea arabica* variety Catuaí Vermelho (IAC 144) was subjected to precision drip irrigation managed through tensiometry. The average irrigation amount ranged from 1.73 to 2.67 mm day-1 and the estimated Kc based on tensiometry and Et_o (Penman-Monteith and Priestley Taylor) showed values ranging from 0.59 in season four to 0.98 in season two.

Keywords: *Coffea arabica*, Evapotranspiration, Irrigation, Soil matric potential.

ÖZET

Brezilya'da üretim ve tesis altında bulunan kahve alanları yaklaşık iki milyon hektardır. Sulanan kahve tarlaları Arabica kahvesi ekili bu alanın yaklaşık% 10'unu kaplarken, Robusta kahvesi% 35'ini oluşturmaktadır. Kahve Brezilya'daki ana sulanan ürünlerden biridir ve su tüketimi esas olarak referans evapotranspirasyon (ET_o) ve mahsul katsayısı (K_c) gibi mikrometeorolojik değişkenler aracılığıyla ölçülmüştür. Sulama yönetiminde ve kahve evapotranspirasyonu (ET) tahmininde kullanılan katsayılar şu anda bölgesel düzeyde araştırma konusudur. Hem K_c hem de ET esas olarak mahsulün fenolojik aşamasının bir işlevi olarak değişir. Bu nedenle, bitkiler yaşlandıkça ve olgunluğa ulaştıkça, toprak yüzeyinin bitki örtüsü kapsamı artar ve bu da Kc'nin değerini değiştirir. Çeşitli çalışmalar kahve bitkileri için K_c değerleri sunsa da, bulunan değerlerde hala ayrışmalar ve farklı durumlarda bilgi eksikliği vardır. Örneğin, aynı özellikte, kullanılan genotipler, bitkilerin yaşı, mahsul yönetim sistemleri, köklerin derinliği ve bölgedeki farklı toprak türlerinin su tutma kapasitesi nedeniyle kahve tesisinin su talebinde farklılıklar vardır. Bu çalışmanın amacı, ETo ve tenziyometriyi tahmin ederek iki yönteme dayanarak kahve suyu gereksinimlerinin karakteristik parametrelerini, yani ET ve Kc'yi tahmin etmekti. Çalışma Brezilya'nın güneydoğusundaki Piracicaba'da dört farklı mevsimde gerçekleştirildi. Coffea arabica çeşidi Catuaí Vermelho (IAC 144), tenziyometri yoluyla yönetilen hassas damla sulamaya tabi tutuldu. Ortalama sulama miktarı 1,73 ila 2,67 mm gün^{-1} arasında değişmektedir ve tenziyometriye dayalı tahmini K_c ve Et_o (Penman-Monteith ve Priestley Taylor) dördüncü sezonda 0,59 ile ikinci sezonda 0,98 arasında değişen değerler göstermiştir.

Anahtar Kelimeler: *Coffea arabica*, Evapotranspirasyon, Sulama, Toprak matrik potansiyeli.

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Impacto del Cambio Climático en la calidad del grano del café en el Municipio de Toledo Departamento Norte de Santander Colombia

Impact of Climate Change on the quality of coffee beans in the Municipality of Toledo Norte de Santander Department

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RESUMEN

El propósito de la investigación en determinar como la variabilidad de las temperaturas y precipitaciones en las zonas cafetaleras del Departamento Norte de Santander de Colombia están afectando la calidad de los granos de café, tomando como referente estudios realizados en países productores de café en África y América Latina en el que revelan efectos negativos del cambio climático. Se tomaron registros de 8 años de las variaciones climáticas que fueron analizadas para una serie de datos del periodo 2010-2017 de la Estación Climatológica San Antonio, ubicada a 1.539 msnm, propiedad del Centro Nacional de Investigaciones de Café, en el que se evidenció una variabilidad en las temperaturas (tendencias al incremento) y de las precipitaciones (tendencias a la disminución) que influyen en los procesos fisiológicos por stress hídrico y térmico (Silveira et al., 2016).

Palabras Clave: Café, cambio climático, evaluación, impactos.

ABSTRACT

The purpose of the research is to determine how the variability of temperatures and rainfall in the coffee-growing areas of the Norte de Santander Department of Colombia are affecting the quality of coffee beans, taking as a reference studies conducted in coffee-producing countries in Africa and Latin America that reveal negative effects of climate change. Eightyear records of climatic variations were taken and analyzed for a series of data from the 2010-2017 period of the San Antonio Climatic Station, located at 1,539 meters above sea level, owned by the National Coffee Research Center, which showed a variability in temperatures (increasing trends) and rainfall (decreasing trends) that influence physiological processes by water and thermal stress (Silveira et al., 2016).

Keywords: Coffee, climate change, assessment, impacts.

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MECHANICAL AND MORPHOLOGICAL PROPERTIES OF PHB/COFFEE DREGS COMPOSITES

ABSTRACT

Biodegradable polymers from renewable natural sources, such as poly (3-hydroxybutyrate) (PHB), are increasingly considered as viable alternatives to the use of synthetic polymers obtained in the petroleum industry. However, its properties and high cost limit some of its applications. On the other hand, several residual lignocellulosic materials, such as coffee dregs (COFD), have been used as filler in polymer composites to improve their properties, in addition to reducing the environmental impact associated with their disposal.

In this work, the effect of the coffee dregs content before and after the extraction of the oil contained in them, on the mechanical and morphological properties of PHB was evaluated. Oil extraction was performed in a Soxhlet extractor. PHB composites filled with coffee dregs were prepared in a twin screw extruder. The melt flow index (MFI) results indicated that the incorporation of filler in the polymer matrix leads to a decrease in viscosity. However, the addition of coffee dregs without oil to the polymer promoted a antiplasticizing effect, contributing to an increase in viscosity. Young's Modulus and tensile strength decreased with increasing filler content due to the weak interfacial interaction between the hydrophilic filler and a hydrophobic polymer. Higher elongation at break values were obtained with the addition of increasing concentrations of coffee dregs. However, the oil extraction led to obtaining a material with superior mechanical resistance due to better adhesion properties.

Keywords: Byoplastic. Biopolymer. Biocomposite. Poly(3-hydroxybutyrate). Coffee wastes. Oil extraction.

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CAFFEINE IS GENTLEMAN OPENING HEMATOENCEPHALIC BARRIER FOR ANALGESIC

ABSTRACT

Caffeine belongs to methylxantines group and has psychostimulative effect, observed the first time in goats, when eating beans of plant gahva (etymology for words kahva and coffee) led to hyperactivity of the animals. Methylxanthines are alkaloids inhibiting phosphodiesterase enzymes and can be found in high concentrations in tea, coffee, and chocolate. Theophylline, theobromine, and caffeine are the most popular.

Coffee is widely used roborating drink, reducing fatigue in shift workers, improving reaction time and having diuretic effect as well in the first hour. Maximum recommended daily caffeine intake for children is 40-80 mg per day (depending on age) and 400 mg for adults (a cup of Turkish coffee contains 165 mg). In high doses it can produce anxiety, insomnia, tremor, increased heart rate and gastric hyperacidity. It is not suitable for children and adults with psychiatric or cardiac conditions.

Based on pharmacological experience, caffeine is added to the most analgesics used commonly for headaches, boosting their efficiency but not knowing the precise mechanism.

Hematoencephalic (blood-brain) barrier enables selective crossing of substances from blood to extraneuronal fluid found in central nervous system. It is semipermeable and composed of endothelial cells, astrocytes and pericytes.

The experiment was performed on Wister rats, comparing serum/brain tissue concentration of intraperitoneally injected acetylsalicylic acid (562 mg/kg), with or without caffeine injection (50 mg/kg), with timing 15, 45 and 60 minutes (spectrophotometry).

Caffeine lowers serum/brain tissue ratio of acetilsalicylic acid, accelerating its penetration to the brain, thus having synergistic effect with acetylsalicylic acid bringing pain relief.

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RESPONSES OF GRAFTING COFFEE CROPS TO THE NUMBER OF BIOPORY HOLES

ABSTRACT

The research location was at coordinates S: 4.12.082, E: 103.26,539, 1200 m of sea level, slope of less than 10%, Rantau Dadap, Semendo, Muara Enim Regency, South Sumatra. The research was conducted during rainy season from January to May 2018. The coffee that became the object of research was grafted coffee (rootstock aged 15 years and scion aged 3 years) from Robusta variety. The research used a randomized block design with five treatments and four replications. Every units had three trees of coffee as samples. Treatments were b0 (without biopore holes), b1 (1 biopore hole), b2 (2 biopore holes), b3 (3 biopore holes), and b4 (4 biopore holes). The biopore holes were made with a diameter of 10 cm and a depth of 100 cm which was positioned 100 cm from the coffee stem. Before research, the some of variables on coffee tree samples was counted, there were 57-61 leaves, 4-5 primary branches, 8-9 secondary branches, 5-12 tertiary branches. The results showed that there was no significant effect of the number of biopore holes on the growth and yield of coffee crops. There was a trend that increasing the number of biopore holes could increase the growth and yield of grafting coffee. The application of 4 biopore holes could increase the greenness of the leaves (5.80%), secondary branch diameter (7.0%), number of leaves (77.8%), flower buds (6.5%), fruit bunches (14.4%). %), and the number of fruit (22.84%) compared with no biopori holes. Application of 4 holes biopore during the rainy season for grafting coffee could improve the greenishness of leaves, branch diameter, number of flower and fruit bunches, and coffee cherries.

Keywords: *Grafting Coffee, Robusta, Biopore, Semendo.*

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Azerbaycan'da kahve kültürü (tarihsel-etnografik araşdırma)

ÖZET

16. yüzyıldan beri Azerbaycan'da kullanılan sıcak içeceklerden biri de kahvedir. Kahve, Orta Çağ'ın sonlarından beri bazı Doğu ülkelerinde yaygınlaşmasına rağmen, İslam alimleri yüzyıllar önce iyileştirici özellikleri hakkında yazmışlardır. İslam Ebu Bekir Muhammed ibn Zekeriya el-Razi kahvenin tıbbi özellikleri hakkında bilgi vermiştir. O, XVII. yüzyıla kadar önemini kaybetmeyen "el-Havi" adlı tıp ansiklopedisinde bunn (kahve çekirdeği) ve onun sindirim sistemine olan faydalarını belirtmiştir. Ünlü hekim İbn Sina (980-1037) da kahvenin (bunn) tıbbi önemine dikkat çekmiştir. 17. yüzyıl Osmanlı tarihçisi Katib Çelebi kahve ve özellikleri, Yemen'deki ilk kullanımı ve Osmanlı İmparatorluğu'ndaki kahvehaneler hakkında ilginç bilgiler vermiştir.

Azerbaycan'da Safevi döneminden kalma içecekler listesine eklenen kahve, başlangıçta yönetici sınıf tarafından kabul görmüştür. Safevi sarayında kahveci ve kahve şefi görevi vardı. Sarayın erzak deposu ve mutfak olarak hizmet veren *abdarhana* faaliyette bulunmaktaydı. Saraylarda *"şerbethane"* adı verilen özel bir oda vardı. Adından da anlaşılacağı gibi, şerbethanede şerbet, ayrıca erağicat (dilstile olunarak çeşitli bitkilerden alkolsüz tıbbi cevherler) ve diğer içecekler yapılmaktaydı. Yönetici elitin içeceği olan kahve, saray abdarhanesinde ve şerbethanesinde kahveci tarafından demlenmekteydi. Kavrulmuş kahve çekirdekleri havanda ezilir, çaydanlıkta su ve biraz şeker ile birge kaynatılır. Memuar kaynaklara göre, doğulular buna baharat da eklemekteydiler.

Özellikle, kış aylarında günlük içilen kahve misafir ağırlama zamanı onlara da ikram edilirdi. Kahve şu anda Azerbaycan'da yaygın olmasa da günlük hayattaki yerini koruyor. Halk arasında "çaydanlık" ("çaydanlık") kelimesinin yanı sıra "kafadan" ("kahvedan") da kullanılmaktadır. Bakü sakinleri büyük bir kızartma tavasına "kafagoran" ("kahve kavurma makinesi") derler. Kahve falı Azerbaycan'ın bazı bölgelerinde yaygındır.

Anahtar kelimeler: Azerbaycan, Safevi dönemi, kahve, Osmanlı, Yemen, abdarhana

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CHANGE OF STRUCTURAL-AQGGREGAECOMPOSITION OF GREY-BROWN SOILS DEPENDING OF VERTICAL ZONING

ABSTRACT

Soil cover of the north-eastern region of the Greater Caucasus degraded and lost fertility because of different reasons.

An aim of the research is to study structural-aggregate and granulometric composition of grey-brown soils expanded in the same region taking into account the zonal characteristics of the soil cover in the north-eastern zone of Greater Caucasus.

A research object is grey-brown soils spreaded in the north-eastern region of the Greater Caucasus.

Change of structural-aggregate and granulometric composition depending on vertical zoning and utilization directions was identified on the basis of the sections of grey-brown soils expanded in the north-eastern region of Greater Caucasus.

The structural-aggregate composition of grey-brown soils were sifted in different sizes in a dry form and divided into separate fractions, a comparative analysis was performed.

The particles more than 3 mm are in the raw grey-brown soils in comparison with the cultivated and irrigated variants.

The raw variants of grey-brown soils are light clayey in the low layers, average loamy in the middle layers, and heavy loamy in the upper layers according to physical clay (<0.01 mm). The cultivated grey-brown soils are characterized by being average clayey of upper layers, average loamy of low layers, but the irrigated variants are characterized by being mean and heavy loamy of upper layers, average loamy of law layers.

Physical clay gathered more in the upper layers of the grey-brown soils.

All the variants of grey-brown soils which were investigated are characterized by being less of dust fractions. Compared to raw variants of these soils, the dust fraction is collected in the middle layers in the variants used in the upper, under agricultural crops, an amount of the large dust particles of grey-brown soils was more in all the variants. These soils can be called large dusty-loamy soils according to granulometric composition.

Keywords: north-eastern region of the Greater Caucasus, grey-brown soils, structural-aggregate composition of soils, granulometric composition

DISCOVER ANATOLIA

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Coffee symbolism and symbolic inside the Albanian society: medical and anthropological aspects

ABSTRACT

Coffee and its consumption has been embedded inside Albanian culture since centuries, and its usage has assumed ritualistic elements of anthropological value. *First*, coffee has always been considered a socialization element, with people coming closer to each other through mutually offering a coffee. *Second*, its stimulant values as a mental, memory and attention enhancer have become clear. *Third*, a ritualistic approach toward coffee consumption becomes touchable as one consumes it once achieving maturity, why not adulthood. *Fourth*, cabalistic perspectives have rendered coffee consumption unavoidable in some specific settings. Offering a coffee during post-funeral meetings of sympathy is necessary. Fortune telling in actions close – but not synonymous – to witchcraft is usually done through clairvoyant women that look through coffee cups once the client has consumed the drink. *Fifth*, a certain order and rule is applied even during large meetings while distributing coffees to participants: such a hierarchy is not fortuitous, and missing it will be a sign of disrespect.

There are obvious societal elements that have ever since regulated the consumption of coffee, probably even before fiscal and state ordnances intervened. As such, behavioral approaches can shed light to effects of coffee consumption with regard to society, its composition and level of sophistication it achieved.

DISCOVER ANATOLIA

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COFFEE AND COFFEE POTS AND THE CONSTRUCTION EMIRATI IDENTITY

ABSTRACT

Coffee has been presented as one of the aspects that unite all Arabs as Arabic coffee is famous worldwide. However, with the decline of pan-ideology, namely pan-Arabism for this study, and the developing attention to national boundaries, increased attention was given to symbols specific to the nation-state. States re-evaluated the previously symbols and re-claimed them in an aspect that would help the national boundaries. The coffee and coffee pots have been used in a similar aim in the United Arab Emirates (UAE). The UAE, founded fifty years ago as the federation of seven emirates, deemed it necessary to find new symbols to unite the seven emirates while differentiating itself from neighbouring countries such as Oman, Qatar, Bahrain, and Saudi Arabia. Coffee as a beverage embedded in Arab culture was used for this purpose. Even though all of these nations use the coffee and coffee pots as symbols in their identity construction policies, details unique to the nation-state (for this study, the UAE) exclude the rest of the neighbours while uniting the seven emirates. The UAE, for example, claim a specific type of coffee pot to unite the seven emirates, which is drawn in one-dirham coin as well. While it is practically impossible, the UAE aims to show a unique coffee pot for the seven emirates. This was popularized with postcards, coins, monuments, and magnets across the UAE. Coffee as a beverage is also differentiated from the neighbouring countries by adding specific spices and ways of preparation and serving to the Emirati one. This study argues that coffee and coffee-pots are used in parallel to the modernist approach of nationalism. This study is based on Micheal Billig's *Banal Nationalism*, Benedict Anderson's *Imagined Communities*, and Eric Hobsbawm's *Invented Tradition*. This study fundamentally argues that the coffee was (re)invented as a tradition and was used extensively until it was banalized to help the community to be imagined as a natural.

Keywords: Emirati identity, coffee-pots, Emirati coffee, coffee and nation-building project, Arabic coffee

DISCOVER ANATOLIA

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Coffee house as a public space

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ANNOTATION

The article considers the impact of coffee consumption culture on socio-cultural processes. It is noted that the coffee shop as a public space was as new as coffee was a new beverage. Throughout its social history, this drink has been a powerful force that has not only brought change to people's lives, but created forms of a new reality. Wherever coffee houses appeared, they became a place of socialization of people, where creativity, philosophy, politics and religion were discussed. Coffee establishes itself as a drink of intellectuals. Coffee began its 'gastronomic career' in the public sphere as a distinctly public beverage and only later it migrated to the private sphere to appear on the home tables of the bourgeoisie. Changing the scope of the objects of study of the past will enable people to overcome the abstractness in the study of history and culture. This approach affirms the humanistic position, which ensures that destiny and human life are the most objective criteria for the humanness of a state.

Key words: coffee, coffee house, social space, socio-cultural changes.

DISCOVER ANATOLIA

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COFFEE CULTURE IN MEKONG DELTA – VIETNAM

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ABSTRACT

Coffee is a very popular drink in Vietnam, especially in the South of Vietnam, including the Mekong Delta. Since the French came to Vietnam in the nineteenth century, coffee has become familiar and used everywhere in Vietnam. However, each region in Vietnam has a different style of drinking coffee, in other words, in each region in Vietnam there is a different coffee culture. In the Mekong Delta, the last land reclaimed in Vietnam, where the culture of the emigrants makes a very comfortable, gentle and benevolent way of life. In the Mekong Delta, where the people here are attached to rivers, canals, hot and humid climate conditions, that's why the habit and style of using coffee in the Mekong Delta has a different points compared to other places in Vietnam. Coffee culture in the Mekong Delta has its own characteristics, it reflects a unique art of using coffee, creating an attractive and admirable culture.

The following article is about coffee culture in the Mekong Delta based on actual surveys and interviews with professional coffee sellers, the article hopes to provide a scientific perspective on coffee culture. In the Mekong Delta, the land is very interesting in terms of culture, including the coffee culture in Vietnam.

Keywords: Coffee, culture, Mekong Delta, Vietnam

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VIETNAMESE COFFEE: HISTORY AND CULTURE

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ABSTRACT

Vietnam coffee ranks the second in the world in term of export volume, right behind Brazil and it is the biggest Robusta coffee exporter as well. Its history was in the 80s of the nineteenth century, coffee trees was introduced and cultivated by the French in the colonial period. Initially, this drink was only for the nobility, for instance French officials, or intellectuals in urban areas. There was a time when drinking coffee was also a measure of the style and class of a person. However, gradually, coffee became a popular drink in people Vietnamese daily life. In history, the Central Highlands Vietnam was chosen to grow coffee, and at the present, this region has become the largest coffee-growing area in the country with the best quality coffee.

Vietnamese coffee has a rich and creative culture appearing in every aspect of life. Unique creations such as egg coffee have conquered many coffee lovers. In addition, coffee iced milk, coconut coffee, yogurt coffee, weasel coffee are Vietnamese coffee speciality. In fact, coffee is not only a drink but also the culture and lifestyle of Vietnamese people. Vietnamese coffee is mostly made in the French style, “phin” coffee using filters. People pour boiling water and wait for the coffee to expand, soak up the water and strain each drop. Enjoying and thrilled waiting for each drop of coffee to drop a little is a special hobby of coffee lovers in Vietnam, indeed Vietnamese people have their style of enjoying coffee. They definitely donot consider coffee a quick drink, but enjoy coffee as a culture of sipping and thinking, meanwhile people often sip coffee, read newspapers, and chatting with friends. Undoubtedly, Vietnamese prefer their Robusta coffee as bold, bitter, and aromatic.

Keywords: Coffee beans, Vietnam

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COFFEE SHOP BRAND PAGES ON FACEBOOK: DO FIRM-CREATED CONTENT AND USER-GENERATED CONTENT MATTER?

ABSTRACT

Social media marketing efforts through social media platforms, such as Facebook, are essential for effective marketing strategies of coffee brands. The coffee brands are dynamically involved in Facebook through an active newsfeed, promotions, photos about products and services, offers to the customers to generate content related to the products, and discussion forums to express product criticism or recommendations. However, there is a lack of information and little examination of the use of Facebook to understand consumer behavior, especially in coffee shops. This study's purpose is to examine the effect of firm-created content (FCC) and user-generated content (UGC) as two drivers of consumers' engagement (liking, commenting, and sharing) on coffee shop Facebook pages. A structural equation modeling approach was applied based on 257 online questionnaires completed by Facebook users who follow specific coffee shop pages. This study selected global franchise coffee-shop brands in North Cyprus, like Gloria Jean's Coffees and Caffè Pascucci. With 14 coffee shops located in the three main cities in North Cyprus, both brands are the most notable coffee brands in the country. The results showed that the FCC positively affected "like," "share", and "comment". In addition, the effect of FCC on commenting was stronger higher than that of UGC.

Furthermore, the results showed that UGC was significantly related to "like," "share," "comment." The effect of UGC on "liking" and "sharing" was stronger when compared with FCC. This research indicated that product involvement partially mediates the relationship between social media brand communication (FCC and UGC) and consumers' engagement on coffee shop Facebook pages. This study provides new insight about marketing knowledge to hospitality scholars, especially in the coffee shop Facebook page era. The study is the first in the North Cyprus context to link study constructs to understand their influence on the coffee shop industry.

Keywords: Coffee Shops, Hospitality Industry, Consumer Behavior, Marketing Strategies Social Media Marketing, Social Media Brand Communication, North Cyprus

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The Coffee in Turkish and Arabic Poetry

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ABSTRACT

In this research, I will study the meaning of coffee, the beginning of its discovery, and the controversy surrounding whether it is halal or haram.

I will present some of the fatwas issued on it .

I present the meaning of coffee, the beginning of its discovery, the controversy that took place among the jurists about it, some of the fatwas that were issued regarding it. and the participation of poets in this controversy, as a group of them praised it, and another group criticized it.

We will present examples of the most beautiful of what poets said in describing them and their drinking tools, especially the poetry of Nev'i, Nâbî, Nedim, Gelibolulu Mustafa Âli, Ruhi Al-Bagdadî, Muhammad Mami Al-Rumi, Abu Al-Fath Al-Maliki Al-Maghrebi, and Ahmed Al-Anayati Al-Nabulsi.

Keywords: Coffee, Fatwas, Turkish and Arabic Poetry.

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KAHVE SUNAN İŞLETMELERE YÖNELİK ALGILAMALAR

ÖZET

Yüzyıllardır günlük hayatın ve kültürün vazgeçilmez bir parçası olan ve toplumun tüm kesimleri tarafından yüksek düzeyde tüketilen bir içecek türü olan kahve, hem ticari olarak, hem de sosyal yaşam açısından önemli bir yere sahiptir. Tüketicilerin sosyalleşmek amacıyla fazlasıyla tercih ettikleri buluşma noktalarından biri kahve işletmeleridir. Kahve tüketiminin artması kahveye yönelik işletmelerin de artmasına sebep olmuştur.

Bu çalışmanın amacı; kahve sunan işletmelere yönelik algılamaların değerlendirilmesidir. Starbucks işletmesinin tüketiciler tarafından nasıl algılandığını değerlendirmek amacıyla yapılan bu çalışmada, TripAdvisor (TA) seyahat yorum sitesinde yapılan yorumlar ele alınacak ve içerik analizi yöntemiyle değerlendirilecektir. Bu çalışmada kahve tüketicileri tarafından en çok tercih edilen işletmelerden biri olan Starbucks işletmesi ele alınacaktır. Türkiye, 551 mağaza ile Avrupa'da en çok Starbucks mağazası olan 2. Ülke konumundadır.

Anahtar kelimeler: Kahve, Starbucks, Kahve tüketimi.

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FEATURES OF CULTİVATİON OF THE SHİRVAN-SHAHİ GRAPE VARİETY DURİNG MİCROPROPAGATİON

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ABSTRACT

One of the most common problems in clonal micropropagation of plants is a bacterial infection in the transplant. The prepared nutrient media have a direct effect on the *in vitro* cultivation of the plant as a favorable substrate for the development of bacterial and fungal microflora. The results of *in vitro* experiments proved the presence of internal pathogens in the aboriginal Shirvan-Shahi grape variety. To increase the efficiency of microclonal propagation of the Shirvan-Shahi grape variety, ways to eliminate the pathogenic microflora from the internal organs and tissues of the plant were developed by conducting experiments with various antibiotics.

The effect of antibiotics on the activity of bacterial infections and their effectiveness were determined during the cultivation of the Shirvan-Shahi grape variety *in vitro* and *in vivo*. Carbohydrates are also a favorable growth environment for pathogens. In addition to chemotherapy to control pathogens, optimization of carbohydrates in the nutrient medium is important. Carbohydrates are added as a source of carbon to maintain the osmotic pressure of the cells as well as to provide the carbon supply. Preserving the osmotic pressure of the nutrient medium affects the cell division rate and morphogenesis. As a source of carbon, sucrose can be toxic in high concentrations and can inhibit the growth and development of the crop. As the concentration of sucrose in the nutrient medium decreases, the percentage of pathogen infection also declines. Sucrose is one of the main factors that stimulate the rapid growth of the plant *in vitro*.

Therefore, a sharp decrease in the concentration of sucrose in the nutrient medium has a negative impact on the dynamics of development. To perform successful microclonal propagation, the most optimal variant is selected by regulating the dynamics of plant development with other components of the nutrient medium.

Keywords: Shirvan-Shahi, *in vitro* , sucrose, micropropagation

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URBAN SOILS AND SOIL POLLUTION BY THE EXAMPLE OF BAKU

ABSTRACT

This paper analyses soil samples from twelve districts of Baku city. We took 30 soil samples from the core of the agglomeration, such as parks, squares and roadside zones. Soil samples were collected from different ground layers depending on soil density. In recent decades, as a result of ongoing reconstruction works in the parks, the natural soil cover remains under the soils transported from the regions of Azerbaijan. Soil samples were taken from parks located in various parts of the city, and we can see a tangible difference in their properties.

The results of the analyzes show that gray-brown soil types are quite poor in terms of humus in some "untouched" areas. It`s content does not exceed 2%, ranging from 1.28 to 1.95% along highways. With increasing depth, there is a gradual decrease in humus up to 0.83%. The best result in terms of the area of green zones per person was achieved in Sabail district, the lowest result is in Nasimi district. Although in each case the green zones are 2.1-26.3 times less than the sanitary standard. The content of total nitrogen in these soils coincides with the content of organic materials in soils. The content of carbonates ($CaCO_3$) in mixed gray-brown soils in parks and in the roadside zones of Baku city varies from 7.74% to 17.94%. Their lowest content is found in the uppermost layer (0-20 cm).

This is probably due to deflationary processes, since the upper layer is loose and suspended. The composition of exchange bases is dominated by Ca^{++}, the value of which within 0-25 cm (Botanical Garden) is 57% -60% of the sum of exchange bases. The content of Mg^{++} in the upper layer of ground is also quite high, 36.6% - 36.25%. The indicators of Na^{++} reveal the degree of solonetziness. The pH value indicates an alkaline reaction varies from 7.8 to 8.2 depending on the depth of layers. And so it can be concluded that a change in the alkaline-acid regime of soils leads to physiological disturbances and death of plants. The soils become less acidic, while the alkalinity of the soils increases from the periphery to the center.

The analysis of soil samples for determination of heavy metals was also carried out. Comparative analysis of elements such as Cd, Zn, Sn, Cu, Ni, Cr, Pb, As, Co, was determined by an atomic adsorption spectrophotometer. It is known that the soil is imported in most of Baku's parks. However, given the comparative nature of the work, soil samples were taken from green areas, where the soil had not been affected for many years, and from roadside areas under constant pressure. When analyzing the experimental results, it was found that the Clarke index of heavy metals at a depth of 0-20 cm is within the normal range, but at a depth of 20-50 cm it exceeds the norm in most parks.

Key words: urban soils, green areas of the cities, heavy metal pollution, urbanization.