MAKÜ
BURDUR MEHMET AKİF ERSOY ÜNİVERSİTESİ

9. INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT

19-20 MARCH, 2022 / BURDUR



CONFERENCE PROCEEDINGS BOOK

EDITOR
Prof. Dr. Hakan ONER
Assoc. Prof. Dr. Seyithan SEYDOSOGLU

ISPEC
9th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCE and RURAL DEVELOPMENT

DATE – PLACE
March 19-20, 2022
Burdur, TURKEY

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CONFERENCE ID

CONGRESS TITLE

9th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT

DATE–PLACE

March 19-20, 2022
Burdur, TURKEY

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ISPEC 9th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT



BURDUR MEHMET AKIF ERSOY UNIVERSITY, TURKEY

March 19-20, 2022

CONFERENCE PROGRAM

IMPORTANT, PLEASE READ CAREFULLY

- To be able to attend a meeting online, login via **https://zoom.us/join** site, enter ID "Meeting ID or Personal Link Name" and solidify the session.
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- The application works on tablets, phones and PCs.
- The participant must be connected to the session 5 minutes before the presentation time.
- All congress participants can connect live and listen to all sessions.
- Moderator is responsible for the presentation and scientific discussion (question-answer) section of the session.

Points to Take into Consideration - TECHNICAL INFORMATION

- Make sure your computer has a microphone and is working.
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ÖNEMLİ, DİKKATLE OKUYUNUZ LÜTFEN

- Kongremizde Yazım Kurallarına uygun gönderilmiş ve bilim kurulundan geçen bildiriler için online (video konferans sistemi üzerinden) sunum imkanı sağlanmıştır.
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- Moderatör – oturumdaki sunum ve bilimsel tartışma (soru-cevap) kısmından sorumludur.

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exp. H- 1, Lütfi ARSLAN

CONGRESS LANGUAGES: English and All Turkish Dialects

Opening Speech-

Date: 19.03.2022

Ankara Time: 09.00 - 09.45

***

Dr. Mustafa Latif EMEK

Chairman of IKSAD

***

Prof. Dr. Hakan ONER

Chairman of the Organizing Committee

***

Prof. Dr. Adem KORKMAZ

Rector of Burdur Mehmet Akif Ersoy University

Zoom Meeting ID: 813 0239 2783

Zoom Passcode: 990099

PARTICIPATING COUNTRIES:

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19.03.2022 | SESSION-1 | HALL-1

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Prof. Dr. Hasan Hüseyin ÖZTÜRK

Authors	Affiliation	Presentation title
Hasan Hüseyin Öztürk Bülent Ayhan Ümran Atay Kazım Turgut	Cukurova University	Effects of climate change on food supply security
Bülent Ayhan Kazım Turgut Ümran Atay Hasan Hüseyin Öztürk	Cukurova University	Reducing the effects of agricultural production on global climate change
Nusret Mutlu Hasan Hüseyin Öztürk Yilmaz Dağtekin Arzu Karaarslan	Cukurova University	Energy efficincy in pump station fir agriciltural irrigation
Nusret Mutlu Celal Kaya Tuğçe Topaloğlu Dikbaş Hasan Hüseyin Öztürk	Cukurova University	Integrated resource efficiency for sustainable agricultural production
Melek Zor Kübra Fettahoğlu	Agrı Ibrahim Cecen University	Bioactive components of persimmon and its effect on health
Tuğçe Dalli Bahar Oğul Esra Kütükçü	Kahramanmaras Sutcu Imam University	The relationship between wheat export and economic growth in Turkey
Merve Sari Savaş Korkmaz	Canakkale Onsekiz Mart University	Determination of potyvirus infections in cucurbit production areas of çanakkale province in Turkey
Ayşenur Şirin Savaş Korkmaz	Canakkale Onsekiz Mart University	Detection and molecular characterization of grapevine fanleaf virus in vineyard gardens of Çanakkale province
Fatma Özkan Suphi Deniz	Van Yuzuncu Yıl University	Determination of the quality of sugar beet fresh, lenox and ryegrass silage used in animal nutrition, comparatively with corn silage
Nejla Güloğlu Süleyman Aslan Sezer Öz Kürşat Alkoyak Ömer Faruk Karaşör	Republic of Türkiye Ministry of Agriculture and Forestry	Registration studies of domestic genetic resources in Turkey

(All speakers required to be connected to the session 10 min before the session starts)
Moderator is responsible for ensuring the smooth running of the presentation, managing the group discussion and dynamics.

19.03.2022 | SESSION-1 | HALL-2

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Prof. Dr. Şima SAHINDURAN

Authors	Affiliation	Presentation title
Hilmi Çiftçi Sinem Öztürk Erdem Çetin Çekiç	Bilecik Şeyh Edebali University	Determination of aroma contents of selected strawberry genotypes grown in Bilecik ecology
Derya Ilkay Abdikoğlu Hazım Serkan Tenikecier	Tekirdağ Namık Kemal University	The current status of forage crops at Trakya region and determination of roughage deficit
Seda Sucu	Tokat Gaziosmanpaşa University	Importance of table grape cultivation in viticulture in Tokat province
Gülçe Ilhan Sezai Ercişli	Atatürk University	İtaly and the netherlands certification system in fruit sapling growing
Gülçe Ilhan Sezai Ercişli	Atatürk University	Some physical and chemical soil properties of orchid growing areas in vercenik mountains
Belgin Coşge Şenkal Tansu Uskutoğlu	Yozgat Bozok University	Impacts of environmental factors on synthesis of secondary metabolites in medicinal and aromatic plants
Tansu Uskutoğlu Belgin Coşge Şenkal	Yozgat Bozok University	The environmental and agronomic factors in cannabis (*Cannabis sativa* L.) cultivation
Gonca Karaca Bilgen Cenk Akşit	General Directorate Of Agricultural Research And Policies	Irrigation management information system “tagem-suet” case study: irrıgatıon schedulıng of corn
Lerzan Öztürk	Viticulture Research Institute	Occurance and vertıcal distribution of free-living nematodes in agricultural areas in Tekirdağ, Edirne and Kırklareli provinces
Cemile Ebru Onursal	Batı Akdeniz Agricultural Research Institute	Effects of post-harvest salicylic acid application on shelf life quality after cold storage of fuerte avocado variety
Engin BAHÇECİ Kemal KIRIKÇI	Ministry of Agriculture and Forestry	The effect of shape index on egg quality traits and hatching results in ring-necked pheasant (*Phasianus colchicus*) eggs

(All speakers required to be connected to the session 10 min before the session starts)
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19.03.2022 | SESSION-1 | HALL-3

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Mehmet Cagrı KARAKURUM

Authors	Affiliation	Presentation title
Türker Atcali	Mehmet Akif Ersoy University	Parainfluenza-3 infections in animals
Sergiy Lavrenko Nataliia Lavrenko Ivan Mrynskii	Kherson State Agrarian and Economic University	Monitoring of pests development and forecasting
Türker Atcali Ramazan Yildiz	Mehmet Akif Ersoy University	Gastroıntestınal motility in ruminants
Alper Serhat Bal Mustafa Olfaz	Samsun Provincial Directorate of Agriculture and Forestry	Methods used in determining the quality of the carcase of sheep
Mazlum Mahsum Aslan Çağrı Kale	Van Yüzüncü Yıl University	Usage opportunities of walnut (*Juglans regia* L.) by-products in animal nutrition
Nataliia Lavrenko Sergiy Lavrenko Maksim Maksimov	Kherson State Agrarian and Economic University	Application of artificial neural networks in agriculture
Ahmet Böbrek	Mehmet Akif Ersoy University	The use of the internet of things to detect the new cultivation areas created by climate change
Ahmet Böbrek	Mehmet Akif Ersoy University	Use of the internet of things in following the temperature and humidity in hydroponic production
Harun Çinar Muhammed Yusuf Şirin	Burdur Mehmet Akif Ersoy University	Abomasum displacements
Nazan Kemaloğlu Alagöz Ismail Kirbaş Ömer Gürkan Dilek Merve Kilinç Yilmaz	Burdur Mehmet Akif Ersoy University	A research on measure - rangelands and rangeland improvement projects: The case of Burdur
Serdal Kurt	Kahramanmaraş İstiklal University	Isolation and identification of pathogen causing mastitis in small ruminants in Adana region, Turkey

(All speakers required to be connected to the session 10 min before the session starts)
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19.03.2022 | SESSION-1 | HALL-4

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Ali Reha AGAOGLU

Authors	Affiliation	Presentation title
Muhammet Taşlialan Semra Günay Aktaş	Eskişehir Teknik University	Land suitability assesment for jujube Eskişehir case
Burak Tolu Onur Öksüz	Gubratas	Investigation of the potential of blackberry growing according to soil analysis results in marmara region
Hasan Hüseyin Ipçak Sema Özüretmen Hülya Özelçam	Dicle University	Agroforestry systems: Integrating trees with sustainable forage and livestock production
Imge Ihsane Özcan	Zonguldak Bülent Ecevit University	Effect of plant growth regulators on secondary metabolites in some medicinal plants
Bahadır Şin Muhammet Fatih Şilbir Ömer Ümit Okçu	Sakarya Uygulamalı Bilimler University	Investigation of allelopathic effects of cannabis seed extract on some cultural plants and weeds
Tarık Balkan Hasan Karaağaçli	Tokat Gaziosmanpaşa University	Investigation of pesticide residues in tropical fruits
Sabri Erbaş Hasan Baydar Ümmü Tuğlu Murat Mutlucan	Isparta Uygulamalı Bilimler University	The characterization of yield and quality characters of advanced aspir genotypes in the f7 generation
Derya Erbaş	Isparta Uygulamalı Bilimler University	Impact of pre-harvest aminoethoxyvinylglycine and methyl jasmonate treatments on the antioxidant capacity and anthocyanin content of sour cherry at harvest
Aliyu Mustapha Abdullahi Raji Egigogo Abdullahi Kutiriko Abubakar Benjamin Oke Ujevbe Muhammad Awwal Abdullahi	Federal University of Technology Minna	Investigation into the problems and prospects of digital forensics for cyber-resilient automotive industry
Sabri Erbaş	Isparta Uygulamalı Bilimler University	Effect of salicylic acid application on yield and quality characters in lavandin (Lavandula x intermedia Emeric ex Loisel. var. Super A)
Gamze Gündoğdu	Bursa Uludağ University	The effect of artificial lighting use of lisianthus (*Eustoma grandiflorum*) on efficiency and quality

(All speakers required to be connected to the session 10 min before the session starts)
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19.03.2022 | SESSION-1 | HALL-5

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Ozgecan KORKMAZ AGAOGLU

Authors	Affiliation	Presentation title
Fatma Ertaş Oğuz Adnan Ayan	Iğdır University	Iğdır ilindeki malaklarda bulunan blastocystıs spp. pozitifliliğinin pcr ile araştırılması
Eda Baldan Toker Özer Ateş Kadir Yeşilbağ	Bursa Uludağ University	Investıgatıon of multiple viral infections in cattle with respiratory system problems in turkey
Esra Çağan Eren Kuter	Burdur Mehmet Akif Ersoy University	Determination of the nutrient composition and in vitro rumen dıgestibility of hemp seed meal produced different extraction temperatures
Yağmur Kuşcu Deniz Yeşil	Van Yüzüncü Yıl University	Postoperative multimodal analgesia in dogs
Gazel Ser Serhat Karaca Cafer Tayyar Bati	Van Yüzüncü Yıl University	Which methods should be used in animal science with repeated measurements data? An application
Merve Kilinç Yilmaz Ömer Gürkan Dilek Ismail Kirbaş Nazan Kemaloğlu Alagöz	Mehmet Akif Ersoy University	Investigation of the relationship of milk production input costs and producer milk prices in burdur province
Ali Burak Dörtkardeş Şima Şahinduran	Burdur Mehmet Akif Ersoy University	Viral diseases with stomatitis in ruminants
Beril Kocaman Muhammed Akif Açikgöz Ebru Bati Ay	Amasya University	Plant regeneratıon and shoot organogenesis by ethylene inhibitors from stem and leaf explants in sweet basil
Sefa ALTIKAT Ahmet ÇELİK	Iğdır University	The modelling of fuel consumption and residue incorporation level with deep learning neural network at the conservation tillage system
Ayşe ÖZER	Malatya Turgut Ozal University	World grape production and trade

(All speakers required to be connected to the session 10 min before the session starts)
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19.03.2022 | SESSION-2 | HALL-1

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Assoc. Prof. Dr. Gonca Ozan KOCAMUFTUOGLU

Authors	Affiliation	Presentation title
Mert Yilmaz Gülcan Demiroğlu Topçu	Ege University	Using sunn hemp (*Crotalaria juncea* L.) as a cover crop
Halit Bayrak	Süleyman Demirel University	Effects of pomegranate peel powder (*Punica granatum*) supplementation to rainbow trout (*Oncorhynchus mykiss*) feed on some organ indices growth performance and blood parameters
Violeta Leoreanu-Fotea	Al.I.Cuza University	Applications of algebraic hyperstructures
Kubilay Çağrı Yilmaz Taner Taş	Manisa Celal Bayar University	Exchange rate pass-through to animal protein product proces
Ismail Ülger Mahmut Kaliber Mustafa Özdemir	Erciyes University	Effect of different fruit pulp and sugar beet pulp mixture on storage and silage quality
Sílvia Martinho Virgínia Cruz Fernandes Sónia Figueiredo Cristina Delerue-Matos	Instituto Superior de Engenharia do Instituto Politécnico do Porto	The potencial harmful effects of microplastics reinforced by pesticides accumulation
Asuman Kaplan Evlice	Sivas Bilim ve Teknoloji University	Evaluation of gluten quality in some bread and durum wheat cultivars by glutopeak
Ilknur Gümüş Hamza Negiş Cevdet Şeker	Selçuk University	Effects of chicken manure biochar on the development parameters of corn (*Zea mays L.*)
Cennet Oğuz Kübra Nur Hacıseferoğulları	Selçuk University	Perspectives of women farmers on the use of technology in agricultural production in rural areas; case study of Konya province eregli district
Ayşe Baran Yazici Çetin Mutlu	Harran University	The determination of population changes of cicadellidae (hemiptera) species and significant species second product maize field in Şırnak
Deniz Çağla Bal Harun Hurma	Tekirdağ Namık Kemal University	Structural features of wheat and sunflower producing enterprises and evaluation of their attitudes in production process in thrace region

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19.03.2022 | SESSION-2 | HALL-2

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Assoc. Prof. Dr. Oktay TOMAR

Authors	Affiliation	Presentation title
Major Giurgiu Gheorghe Cojocaru Manole	Titu Maiorescu University	Medicinal herbs for modulating the gut and cutaneous microbiome in patients with psoriasis
Bahar Sancar Oktay Tomar	Kocaeli University	Plants containing natural dyes and their sustainability
Elżbieta Patkowska Elżbieta Mielniczuk	University of Life Sciences in Lublin	Biodiversity of soil-borne microorganisms under the scorzonera (*Scorzonera hispanica* L.) cultivation
Erol Köse Mustafa Olfaz	Ministry of Agriculture and Forestry	In limiting the red meat deficit in Turkey, assessment of meat potential of marya sheep
Aleksandra Tasic Ivan Pavlovic Milan Stevanovic	Scientific Veterinary Institute of Serbia	Simultaneous analysis of pesticide residues in serbian acacia honey using gas chromatography-mass spectrometry
Oktay Tomar Alptekin Mert Yilmaz	Kocaeli University	The importance of agricultural production for food safety
Ivan Pavlovic Milan Stevanovic Nemanja Zdravkovic Narcisa Mederle	Scientific Veterinary Institute of Serbia	Pathlogical importance of meloidae sp. (insecta, coleoptera) in honeybees
Bahar Sancar Oktay Tomar	Kocaeli University	Functional food and pharmacologıcal properties of capparis spinosa l. plant
Abdelmonim Zeroual Aziz Baidani Omar Idrissi	Hassan First University of Settat	Use of canopeo, a smart phone based application, as a nondestructive and simple tool to estimate drought tolerance in lentil
Daniel V. Stan Sebastian D. Sălăgean Alexandru Puia Andreea Sebestyen Ana M. Toma Alin Antal	Politehnica University of Timișoara	On-site solution for the dimensional nonconformity of the injected plastic parts

(All speakers required to be connected to the session 10 min before the session starts)
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19.03.2022 | SESSION-2 | HALL-3

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Erhan KEYVAN

Authors	Affiliation	Presentation title
Cəfərov Döyrüş Javarov Doyrush	Republic of Azerbaijan	Effect of a yeast culture (*Saccharomyces cerevisiae*) on ruminal digestion in male lambs
Aynur Bilmez Özçinar	Siirt University	Food grade oil quality of safflower (*Carthamus tinctorius* L.)
Habib Ullah Habib Muhammad Manzoor Mujahid Ali Malik Muhammad Akram Maqsood Ahmad Hasseb Ahsan Mazhar Iqbal Tahir Mehmood Malik Abdul Rehman	Agriculture Department (Water Management Wing)	Optimization of water depletion level and nutrient requirement in drip-irrigated high dense kinnow orchard
Cihat Erdem Bülbül Fatih Bilgi Levent Mercan Sevgi Marakli	Ondokuz Mayıs University	The detection of barley-specific nikita retrotransposon in domestic goose (*Anser anser domesticus*) genome by irap-pcr method
Javarov Doyrush Khanvalad	Scientific Research Institute of Animal Husbandry	Effect of a yeast culture (*Saccharomyces cerevisiae*) on ruminal digestion in male lambs
Kawar Sadeeq Saeed A. Yıldız Pakyürek Taha Zubair Sarhan	Harran University	Effects of sheep manure, bio and inorganic fertilizer on the growth and yield of broccoli (*Brassica oleracea L. var. italica*) grown under greenhouse conditions
Dino Davosir Ivana Šola Martina Šeruga Musić	University of Zagreb	Flavescene dorée phytoplasma infection induces changes to the phenolic profile of 'pinot noir' (*Vitis vinifera L.*) leaves
Rohat Gültekin	Soil Fertilizer and Water Resources Central Research Institute Directorate	Calculation of eto, kc values and water requirements for potato plants in different regions of Turkey
Chaudhary Muhammad Ayyub Saeed Ahmad Mujahid Ali Karim Yar Abbasi Saqib Ayyub Muhammad Hammad	University of Agriculture	Growth and yield evaluation of selected genotypes of chili under faisalabad conditions

(All speakers required to be connected to the session 10 min before the session starts)
Moderator is responsible for ensuring the smooth running of the presentation, managing the group discussion and dynamics.

19.03.2022 | SESSION-2 | HALL-4

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Omer Gurkan DILEK

Authors	Affiliation	Presentation title
Kave Koorehpaz	Urmia University	Epidemiology, diagnosis and treatment of pregnancy toxemia in ewes
Hacer Tüfekci	Yozgat Bozok University	Wool production in Turkey
Ishrat Jahan	Galgotias University	Effectiveness of rural development programmes in India
Kadir Emre Buğdayci Taha Gürsoy	Burdur Mehmet Akif Ersoy University	Burdur makü free-range laying hen study
Imen Souid Hasséne Zemni Synda Chenenaoui Atef Korchef Asma Ben Salem-Fnayou Abdelwahed Ghorbel Ibrahim Marzouk	King Khalid University	Screening of grapevine (*Vitis vinifera l.*) cultivars under tunisian saharan condition using fruit descriptors and abiotic stress tolerance indices
Abdullah Çağlar Oktay Tomar Bahar Sancar Murat Ataseven	Kocaeli University	Antıoxıdant and antimicrobıal properties of the plant agrimonia eupatoria l.
Amit Kumar Pradhan Bhaben Tanti	Gauhati University	Analysis of the relationship between variable component traits in the potential yield of boro rice (*Oryza sativa l.*) cultivars of assam, India
Abdullah Çağlar Oktay Tomar Alptekin Mert Yilmaz Murat Ataseven	Kocaeli Üniversitesi	Difficulties in food security with the covid-19 pandemic
Mohd Zaki Bin Jalil Herman Shah Anuar	University Utara Malaysia	Facilities management performance for back-end semiconductor manufacturing in malaysia perspectives
Murat Dikilitaş Ahmet Sidar Yavuz	Harran University	Effects of heavy metals at different concentrations on penicillium expansum

(All speakers required to be connected to the session 10 min before the session starts)
Moderator is responsible for ensuring the smooth running of the presentation, managing the group discussion and dynamics.

19.03.2022 | SESSION-2 | HALL-5

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Assoc. Prof. Dr. Ahu DEMIRTAS

Authors	Affiliation	Presentation title
Gennady Karaschuk Hanna Fedonenko Sergiy Lavrenko	Kherson State Agrarian and Economic University	Influence of variety composition, seeding rates and plant growth regulators on the yield of winter durum wheat
Nazlı Kalender Serap Dogan	Mardin Artuklu University	Who owns the soils? : A macro look to agro-ecosystem services
Wan Nadzri Osman Faisal Zulhumadi Mohamed Najib Salleh	Universiti Utara Malaysia	Acceptance and readiness of malaysian farmers towards drone technology: The perspective of drone entrepreneurs and agricultural agencies
Özay Güleş	Afyon Kocatepe University	Protective effects of gallic acid and lycopene against 4-nonylphenol-induced toxicity in rat kidney
Benyamin Lakitan Salsabila Ramadhani	Sriwijaya University	Responses of red lettuce grown at different population density using fine grained oil palm solid waste as growing substrate
Sabiha Gülanar Kocaarık Esin Ebru Onbaşılar	Ankara University	Goose breeding in Ardahan province
Peliyagodage Chathura Dineth Perera Prabath Priyankara Susil Mendis	University of Ruhuna	Farmers' perspective and distribution of mimosa pigra: A case study in matara district, Sri lanka
Sabiha Gülanar Kocaarık Esin Ebru Onbaşılar	Ankara University	Composition and quality properties of goose meat
Sergii Zaets Valery Netis Leonid Sergeev Olexander Rudik	Kherson State Agrarian and Economic University	Nitrogen supply system as a basis for realizing soybean productivity under irrigated conditions of the southern steppe of Ukraine
Murat Şevik	Necmettin Erbakan University	Seroprevalence of the epizootic hemorrhagic disease virus in cattle in the aegean region of Turkey

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19.03.2022 | SESSION-3 | HALL-1

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Assoc. Prof. Dr. Burcu Menekse BALKAN

Authors	Affiliation	Presentation title
Talal Lahreche Mohamed Lamine Bradaie	Ziane Achour University	Antioxidant potential, total phenolic compounds and flavonoid contents of olive leaves (*Olea europaea* L.) Extract
Nazife Gözde Ayter Arpacioğlu Zekiye Budak Başçiftçi Murat Olgun	Eskişehir Osmangazi University	Evaluation of some features affecting production and production of two-row barley (*Hordeum vulgare* L.) varieties brought in eskisehir conditions
Sergiy Lavrenko Nataliia Didenko Yaroslava Mosiichuk Mykola Zosymchuk Mykola Kharytonov Mykhaylo Babenko Bohdan Mazurenko Mohammad A. Rahman Khandakar R. Islam	Kherson State Agrarian and Economic University	A model approach to recycle biosolids for rejuvenating marginal lands in Ukraine
Salih Ceylan Burcu Gök	Burdur Mehmet Akif Ersoy University	Opinions of youth living in ağlasun district on agriculture, livestock and tourism on rural development: A phenomenological study
Nataliia Didenko Mykhailo Romashchenko Anastasiia Sardak Serhii Kolomiiets Volodymyr Vasiuta Oleksand Zhuravlov	Institute of Water Problems and Land Reclamation	Formation of water and nutrient regimes for corn under different methods of irrigation and tillage
Özgür Cengiz Ali Nazli	Van Yüzüncü Yıl University	Current status of epınephelus margınatus (actinopteri: serranoidei: serranidae) in Turkey
Behrooz Jannat Sara Mohamadi Narges Abdoli Tayebeh Zienali Parisa Sadighara	Shahre-kord University	The nitrate content of commonly consumed agricultural products including vegetables, cereals, and legumes in Iran
Sancar Bulut Zeki Gökalp	Kayseri University	The future of agriculture and new employment areas in agriculture
Sergiy Lavrenko Olena Vedmedenko Olga Sobol Vladislav Kryvyi Nataliia Lavrenko	Kherson State Agrarian and Economic University	Aspects of functioning of new models of biogeocenoses of membranes and entomophilic cultures as an indispensable component
Oktay Tomar Bahar Sancar	Kocaeli University	Usage of amaranthus spp. As a functional and alternative nutritional source

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19.03.2022 | SESSION-3 | HALL-2

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Assist Prof. Dr. Eren KUTER

Authors	Affiliation	Presentation title
Ali Assadi-Alamouti Reza Rostami-Alamouti	University of Tehran	Effects of free choice provision and the level of wheat straw on performance and behavioral responses of holstein calves from day 50 through 90 of age
Ufuk Erol Ömer Faruk Şahin Kürşat Altay	Sivas Cumhuriyet University	First molecular detection and prevalence of anaplasma ovis in sheep and goat in Sivas province
Mariannys Rodríguez Gasca M. Alberto J. Alvares Alberto J. Alvares	University of Brasilia	Proposal for a digital twin platform for monitoring and optimization of hydroponic cultivation, based on the iso 23247 standard
Ufuk Erol Ömer Faruk Şahin Ayperi Aytmirzakizi Kürşat Altay	Sivas Cumhuriyet University	First investigation of theileria and babesia species in sheep using reverse line blotting in chuy region in Kyrgyzstan
Taibi Mohamed Elaziouti Abdelkader Laouedj Nadjia Dellal Abdelkader	Université des Sciences et de la Technologie d'Oran Mohammed Boudiaf	Study of the interaction of heavy metals (Cu(II), Zn(II)) ions with a clay soil of the region of naima-tiaret-algeria
Yusuf Şavşatli	Recep Tayyip Erdoğan University	Relationships between some fruit traits of bitter melon (*Momordica charantia* L.)
Abdennasser Dahmani Yamina Ammi Salah Hanini	University Ahmed Zabana of Rélizane	Artificial intelligence models for predict the hourly global solar radiation of different algorithms training and transfer function in medea of algeria
Ömer Barış Özlüoymak	Çukurova University	Development of seed spacing measurement system by machine vision
Mohammad Imran Eun-Bi Kim Mohammad Shaheer Akhtar Dong-Heui Kwak Sadia Ameen	Jeonbuk National University	Electrochemical detection of ethylenediamine chemical by well-defined tungsten oxide nanowalls grown by hfcvd technique
Reyda Kıyıcı Hasan Altan Akkan Bayram Kudret Karaayvaz Mehmet Karaca Zafer Özyıldız Asım Kart Simge Garlı	Burdur Mehmet Akif Ersoy University	Investigation of the effects of orally administered sweetgum oil to wistar rats on liver and kidney

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19.03.2022 | SESSION-3 | HALL-3

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: **990099**

HEAD OF SESSION: Assist Prof. Dr. Umair AHSAN

Authors	Affiliation	Presentation title
Faisal Zulhumadi Wan Nadzri Osman Mohamed Najib Salleh	Universiti Utara Malaysia	Comparison study of drone technology development in paddy rice farming in malaysia, Indonesia, Thailand, and Brunei
Önder Akkaş Şenol Güzel	Burdur Mehmet Akif Ersoy University	Collective breeding and collective milking modeling in large animal production: The case of Burdur
M.M.N.T. Bandara N. Dahanayake P.C.D. Perera S. Subasinghe	University of Kelaniya	Selection of a best hormone combination for shoot regeneration in turmeric (*Curcuma Longa*).
Alptekin Mert Yilmaz Oktay Tomar	Kocaeli University	The future of agricultural tourism (agro-tourism) in Turkey
Gennady Karaschuk Vadym Ilchuk Sergiy Lavrenko	Kherson State Agrarian and Economic University	Influence of variety composition, row space and nutrition background on the yield of table pumpkin
Alptekin Mert Yilmaz Oktay Tomar Özge Can Niyaz	Kocaeli University	Geographical indication cheese consumption behavior of consumers
Amol Shinde Sameer Nanivadekar Bhushan Chavan Sushrut Patankar Raju Kumar Swami	A P Shah Institute of Technology	Design and development of manually operated agricultural sprayer
Tülay Özkan Ramazan Bakirci	Burdur Mehmet Akif Ersoy University	Production and marketing problems in goose growing businesses in Turkey
Valentim Coelho Júlia Machado Inês Guerra Eugénia Gouveia	Instituto Politécnico de Bragança	In vitro antagonism evaluation of endophyte Chaetomium aureum against Cryphonectria parasitica
Murat Şevik	Necmettin Erbakan University	Seroprevalence and risk factors of bluetongue virus infection in small ruminants in Antalya province, Turkey

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19.03.2022 | SESSION-3 | HALL-4

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Şima SAHINDURAN

Authors	Affiliation	Presentation title
Asmaa Benaissa	University of Sciences and Technologies of Houari Boumediene	Plant growth promoting rhizobacteria as biocontrol agents for sustainable agriculture
Volkan Ari	Doctor Tarsa Agriculture Industry and Trade Inc.	Enhancing the controlled release fertilizers with smart adhesive feature and their characterization
S. H. Abbasi A. Mahmood Muhammad Imran	National University of Science and Technology	Mathematical modeling and proportional-integral control of UAV feather
Ali Küçük Yakup Yildirim	Burdur Mehmet Akif Ersoy University	Bovıne parainfluenza vırus 3 (Bpıv3) isolation detected in the mediterranean region genetic comparison with reference strain and Turkey Isolates
Subhasri Sarkar	Siksha O Anusandhan Deemed to be University	Relationship among sensitive parameters of SWAT: A case study applicable to the hirakud reservoir, India
Arzu Karataş	Recep Tayyip Erdoğan University	Evaluation of six composts obtained from different recycled waste materials used as substrates for squash production
Berrabah Hamza Madjid Zaiter Khaled Zemri Cheikh	Relizane University	The influence of specific media under axial loading on nanotube materials with the presence of instability phenomena
Sibel Yaman Dilek Öztürk Simge Garli	Burdur Mehmet Akif Ersoy University	Pochonia chlamydosporia and colletotrichum higginsianum isolation in New Zealand white rabbits
Berrabah Hamza Madjid Zaiter Khaled Zemri Cheikh	Relizane University	The walls of the carbon nanotubes under loading of the buckling one introduces the temperature
Halit Çetiner Ibrahim Çetiner	Isparta Uygulamalı Bilimler University	Performing regression analysis for yield estimation of different agricultural crops

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19.03.2022 | SESSION-3 | HALL-5

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Mehmet Cagrı KARAKURUM

Authors	Affiliation	Presentation title
Bikash Kalita Bhaben Tanti	Gauhati University	Distribution and conservation status of Paris polyphylla Sm.- a medicinally important threatened plant in Eastern Himalaya, India
Veysel Bay Çağrı Kandemir Turgay Taşkın	Ege University	Mastitis in sheep and its importance
Sabnoor Yeasrin Jyoti Bhaben Tanti	Gauhati University	Evaluation of biochemical and antioxidant properties of some boro rice (*Oryza sativa* L.) varieties of assam, India
Çağrı Kandemir Veysel Bay Turgay Taşkın	Ege University	Importance, causes and protection methods of foot root in sheep breeding
Nadezda V. Belova	Institute of Animal Physiology	Hormonal changes in rabbits against the background of the adaptogen lithium ascorbate using
Halit Yücel Kübra Ekinci Altuğ Karaman	Kahramanmaraş Sütçü İmam University	Comparison of enzyme activities of industrial potential selenomonas ruminantium in two different in vitro medium
Neddar Houaria	Université Mostaganem	The future of a bio agriculture
Halit Yücel Kübra Ekinci Altuğ Karaman	Kahramanmaraş Sütçü İmam University	In the hydrolysis of the lignocellulotic structure neocallimastix sp. The effect of carbohydrate-active enzyme (cazyme) on rumen fungus
Saimah Khan	Integral University	Utilization of peels of citrus fruits for extracting essential oil using steam distillation
Menekse Bulut	Igdir University	Whey and whey utilization

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20.03.2022 | SESSION-1 | HALL-1

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Ali Reha AGAOGLU

Authors	Affiliation	Presentation title
Vadim A. Ezerskij Elena M. Koloskova	Institute of Animal Physiology	Microbiota of sheep rumen in conditions of keeping in a pen and its correction by the introduction of the adaptogen lithium ascorbate into the ration
Murat Güney Muhammet Ali Gündeşli	Gaziantep University	The effect of climate change on molecular change on fruit trees
Anastasiya N. Ovcharova Konstantin S. Ostrenko	Institute of Animal Physiology	The effect of the probiotic lactobacillus reuteri on the nonspecific resistance and productivity of piglets after weaning
Muhammet Ali Gündeşli Murat Güney	Gaziantep University	The effect of climate changes on fruit growing
Chandrakant Naikodi	Davangere University	An iot based eco-friendly solid waste monitoring and alerting system for recycling, reusing and repurposing as a sustainable practice
Burcu Tuncer	Van Yüzüncü Yıl University	Current status of registered vegetables with leaves consumed in Turkey
Brahim Mittou	University Kasdi Merbah of Ouargla	Multiplicative arithmetic functions (definitionds and examples)
Burcu Tuncer	Van Yüzüncü Yıl University	Current status of cucurbitaceae family vegetable species registered in Turkey
Elena M. Koloskova Vadim A. Ezerskij	Institute of Animal Physiology	The effect of feed additive on the normalization of the microbiota of the rumen of dairy calves
Gökce Ünal Ilkay Dellal	International Livestock Research and Training Center Directorate	Evoluation of supports given for small ruminant livestock in terms of breeder satisfaction: national sheep and goat breeding project, the case of akkaraman sheep breeding suproject in Çankırı province

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20.03.2022 | SESSION-1 | HALL-2

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Ozgecan KORKMAZ AGAOGLU

Authors	Affiliation	Presentation title
Chandrakant Naikodi	Davangere University	IoT based local market and hotel garbage monitoring system for chicken and sheep farming with layered accommodation for generating consistent income at regular intervals for farmers
Arzu Koçak Mutlu	Siirt University	Plasental development
Adollah Mohammadi-Sangcheshmeh	University of Tehran	Does exposure of bovine oocyte to aflatoxin b1 impair in vitro meiotic maturation in?
Fuat Argiş Mehmet Ramazan Rişvanli Remzi Atlihan	Van Yüzüncü Yıl University	The adult population change of european grapevine moth [*Lobesia botrana* (DENIS & Schiffermüller) (Lepidoptera: Tortricidae)] at the vinyards in Midyat
Yevheniia Tkachova Mikhail Fedorchuk	Mykolaiv National Agrarian University	Dependence of the yield of hyssop officinalis on moisture when grown in the south of Ukraine
Fikret Yaşar Özlem Üzal	Van Yüzüncü Yıl University	Investigation of the effect of calcium applications on micro element intake in pepper plant under salt stress
Antonina Panfilova Yaroslav Byelov Alena-Mariia Tarabrina	Mykolayiv National Agrarian University	Conditions and prospects of growing grain and legume crops in Ukraine
Fikret Yaşar Özlem Üzal	Van Yüzüncü Yıl University	Determination of the most suitable nutritional solution for pepper seedle development
Athanasios Sotirios Dounavis	University of Western Macedonia	Biotechnological investigation for waste valorization and biofuel production
Serhat Yildiz	Van Yüzüncü Yıl University	The importance of forage turnip (*Brassica rapa l.*) and usage in animal nutrition

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20.03.2022 | SESSION-1 | HALL-3

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Gonca Ozan KOCAMUFTUOGLU

Authors	Affiliation	Presentation title
Kratbi Fouad Ammi Yamina Hanini Salah	University of Médéa	Prediction of the retention of organic molecules by nanofiltration and reverses osmosis membranes using the multiple linear regressions
Emine Kucuker Erdal Aglar	Siirt University	Batman fruit growing potential problems and solving suggestions
Gemma Dc Santos	University of Science and Technology	Acceptance of type 2 diabetes patients in veitchia merrillii fruits (bunga de tsina) as an alternative medicine in lowering blood sugar level
Emine Kucuker Erdal Aglar	Siirt University	Sirnak province fruit growing potential
Haripriyan U Kalaiselvan S Omkar Singh Kushwaha	Anna University	Ga-ann and ga-anfis hybrid modeling method for systematic investigation of thermal conductivity of MWCNTs dispersed in ethylene glycol/water nanofluids
Can Metin Yazici Yahya Öztürk	Burdur Mehmet Akif Ersoy Üniversitesi	Organic production system in egg chicken breeding
Nehal Fatima Benelhadj Ben Djelloul Saadia Rahmani Soraya	Hassiba Benbouali University	Physicochemical characteristics of the Algerian kernel date
Ayşe Özlem Tursun	Malatya Turgut Özal University	Development of summer savory (*Satureja hortensis L.*) in increased temperature and carbon dioxide
Kouidri Ikram Kaidameur Djilali	University Ahmed Zabana of Relizane	Optimal design of plate heat exchanger
Tuğba Karakan Sakine Yalçın	Ankara University	Feeding silkworm

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20.03.2022 | SESSION-1 | HALL-4

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Erhan KEYVAN

Authors	Affiliation	Presentation title
Xiaohui Wang Xing Feng	Guangdong University of Technology	Intermolecular hydrogen-bonds assisted to achieve solid-state dual emission molecules with mechanical force-induced enhanced emission
Sultan Filiz Güçlü Fatma Koyuncu	Isparta University of Applied Sciences Atabey Vocational School	Determınatıon of optimum temperature and incubation period for pollen germination and tube growth in “İstanbul” medlar variety
Racharla Manju Bhargavi K. Amukthamalyada V. Karuna D. Ruchitha G. Nikitha	Jawaharlal Nehru Technological University	Social distancing cap sensor
Tahir Karaşahin	Aksaray University	Number of imported bull sperma by years
Bernard Amponsah-Dadzie Olusola Samuel Makinde	Federal University of Technology	Climate driven parametric models on cholera transmission dynamics
Tahir Karaşahin	Aksaray University	Goat presentation and evaluation of Turkey by years
Benelhadj Djelloul Saadia Nehal Fatima Zahra Rahmani Soria Mouas Amina	Université Hassiba ben Bouali Chlef	Role of rhizobial and mycorrhizal symbiosis in improving the growth of Acacia saligna and Retama monosperma
Ali Kiyak	Burdur Mehmet Akif Ersoy University	Identification and characterization of constans-like gene family in Prunus persica L.
Sulekha Tripathi Praveen Garg Jyoti Pandey	Department of Science VITS College	Impact of integrated farming system and ecofriendly approaches to sustainable agriculture
Nilgün Poyraz Suat Sezen	Kütahya Dumlupınar University	Determination of polyhydroxyalkanoate and polyhydroxybutyrate synathase gene variations of microorganisms with bioplastic production capability isolated from agricultural soils

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20.03.2022 | SESSION-1 | HALL-5

Ankara Local Time: 10:^{00}-12:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Omer Gurkan DILEK

Authors	Affiliation	Presentation title
Chinonso Ruth Ifeduba Olusola Samuel Makinde	Federal University of Technology	Gender classification based on some anthropometric information
Selime Canan Utku Can Torun	Ondokuz Mayıs University	Relationship between price and quality in cherry orchard, case of Amasya province
Liu Xuan	Chang'an University	Fatigue life evaluation of the welded structure of pump impeller based on measured s-n curve
Sevinç Korkmaz Akar Yakup Yildirim	Burdur Mehmet Akif Ersoy University	Serological survey of pestivirus infection in honamli goat breed
Wang Mengfei	Chang'an University	Bony crack structures representation and classification based on crowd-valued covered multi-fractal analysis
Selçuk Seçkin Tuncer Süleyman Kozat	Van Yüzüncü Yıl University	The importance of copper, zinc and selenium minerals in ruminant nutrition
Wang Mengfei	Chang'an University	Leaf spot images segmentation using entropy thresholding based on chaotic whale optimization algorithm
Selçuk Seçkin Tuncer Süleyman Kozat	Van Yüzüncü Yıl University	Turkish horse breeds
Mohammed El Amine Zennaki Lahcene Tennouga Brahim Bouras Kouider Medjahed	Tlemcen University	Modification of polystyrene waste, application to dye retention
Belgin Büyükbaş Ramazan Topak	Selçuk University	Evaluation of agricultural production and irrigation status of Ankara province

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20.03.2022 | SESSION-2 | HALL-1

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Ahu DEMIRTAS

Authors	Affiliation	Presentation title
S.Deepti Ch. Shivani S.Kalyani B.Shruthi Goud K.Ramya	Bhoj Reddy Engineering College for Women	Toll tax collection system using advanced rfid and gsm technology
Yunus Emre Konuksever Şima Şahinduran	Burdur Mehmet Akif Esoy University	The effects of ghrelın and leptin hormones on puberta in ruminants
Abdelaali Belaid Brahim Bouras Tayeb Hocine Lahcen Tenouga	Université deTlemcen.	Synthesis of copolymers based on acrylamide and biopolymer, application in adsorption of methylene blue from aqueous solutions.
Türker Batmaz	Eskişehir Osmangazi University	The effects of rural development policies carried out Turkey on agriculture-livestock sectors
Dhananjay R. Mishra Pankaj Dumka Saksham Sharma Harshit Gautam	Jaypee University of Engineering and Technology	Impact of wax-filled glass bottles on the performance of conventional solar still
Veli Batur	Selçuk University	Artificial meat as a source of animal protein
Amiya Kumar Sahoo Dhananjay R. Mishra	Jaypee University of Engineering and Technology	Multi-objective optimization of EDM drilling process on NiTi-alloy through GRA and PSO a hybrid approach
Yusuf Polat Neslihan Balpinar	Burdur Mehmet Akif Ersoy University	An Ethnobotanical preliminary research on public bazaars of bergama (İzmir)
Gemma Dc Santos	Nueva Ecija University of Science and Technology	Acceptance of type 2 diabetes patients in Veitchia merrillii Fruits (Bunga de Tsina) as an alternative medicine in lowering blood sugar level
Fatma Yildiz Zeynep Akar	Gümüşhane University	Determination of antioxidant activities of fruit and leaves of sumac plant using different solvents

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20.03.2022 | SESSION-2 | HALL-2

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Burcu Menekse BALKAN

Authors	Affiliation	Presentation title
Olubukola Olayemi Olusola-Makinde	The Federal University of Technology	Assessment of haemolytic activities of bacterial isolates from a municipal abattoir wastewater effluents and receiving water milieu
Mushap Kuru Enes Akyüz Mustafa Makav	Kafkas University	Changes in iron and globulin concentration and alanine aminotransferase enzyme activity during parturition and early lactation in gurcu goats
Bouzidi Amel Gilardoni Gianluca Ben Ismail Manel Gozzini Davide Hammami Saoussen Giovanni Vidari Hellal Ahmed Noureddine	University Yahia Fares of Medea Urban Pole	Isolation of flavonoid from biologically actif extract of Tunisian Limoniastrum monopetalum (L.) boiss.
Fırat Bülbüller Serhat Karaca	Van Yüzüncü Yıl University	Smart agriculture: Precision livestock farming applications
Li Hongxia	Chang' An University	Concrete cracks detection in farmland water conservancy project images using a multi-scale deeply supervised u-net
Erinç Gümüş	Aksaray University	Evaluation of usage possibilites of insect larvae oil as alternative energy source in poultry nutrition
Clement Olusola Ogidi	Olusegun Agagu University of Science and Technology	Towards utilization of microorganisms in fermented cereal foods and beverages as source of antimicrobial and preservative agents
Sedat Sevin Lale Taş Doğukan Özen	Ankara University	İnvestigation of the socio-economic status of organic beekeeping enterprises in Turkey
Racharla Manju Bhargavi S. Bhavana M. Chandana B. Sai Vidya	BRECW	Transmission line faults detection and indication to electricity board
Aslı Selvi Sinan Sefa Parlat	Selçuk University	Effects of sodium carbonate / sodium bicarbonate mixtures with equimolar concentrations on production traits and egg shell quality of aged commercial laying hens in heat stress condition

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20.03.2022 | SESSION-2 | HALL-3

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assist. Prof. Dr. Umair AHSAN

Authors	Affiliation	Presentation title
Nassiba Benzamra Brahim Bouras Lahcene Tennouga Kouider Medjahed	Tlemcen University	Rheological and physicochemical study of complex based on carboxymethylcellulose and amphoteric surfactant
Yamina. Ammi Cherif. Si-Moussa Hanini Salah	University of Médéa	Qspr-neural networks model for the prediction of the removal of organic compounds by nanofiltration
Ceren Görgişen	Soil, Fertilizer and Water Resources Central Research Institute Directorate	Irrigation scheduling of subsurface drip irrigation
Adel Mokhtar Soumia Abdelkrim Mohammed Hachemaoui Mehdi Zahraoui Bouhadjar Boukoussa	University of Oran	Highly efficient metallic nanoparticles based mofs mediated catalysts for catalytic reduction
Gökhan Mazman Ramazan Topak	Selçuk University	Land consolidation assessment of urunlu village in the cumra district of Konya
Caterenciuc Cristina	Institute of Horticulture and Food Technologies	Conduct of the main phenological phases in varieties of blackberry under the influence of climate conditions
Yeter Çilesiz Ilker Yüce Tolga Karaköy	Sivas Bilim ve Teknoloji University	The evaluation of some Field Pea (*Pisum arvense L.*) genotypes in terms of quality traits in Sivas ecological conditions
Naima Melzi Yamina Ammi Salah Hanini	University of Médéa	Prediction of viscosity for non polar gas using multiple linear regressions
Ilker Yüce Yeter Çilesiz Tolga Karaköy	Sivas Bilim ve Teknoloji University	Investigation of the morphological traits of some Feed Pea (*Pisum arvense* L.) genotypes in ecological conditions in sivas province

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20.03.2022 | SESSION-2 | HALL-4

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assist. Prof. Dr. Eren KUTER

Authors	Affiliation	Presentation title
Aziz Rrexhepi Besarta Rexhepi Sahatqija Adelina Rexhepi Braha	University of Applied Sciences Ferizaj	Factors that affect the fit of the person in the workplace
Dareen S. Jamel Ahmed K. Abdulrazzaq Amena A.Al-Mossawii	University of Iraq	Effect of ganoderma lucidum (reishi mushroom) extracts and filtrate against of Fusarium oxysporum isolates that cause Fusarium wilt disease on potatoes
Roheela Yasmeen	Lahore Garrison University	Temperature as an environmental stress that results in loss of poultry flock
Abderrazek MESSAOUDI Laszlo Peter KISS	University of Miskolc	Buckling analysis of straight beams having an intermediate spring support
Wallyson THOMAS Laszlo Peter KISS	University of Miskolc	Analytical and finite element analysis of a boring bar as a single-span beam
Chandrakant Naikodi	Davangere University	Smart chaırs with auto-measurıng of basıc functions viz weight, temperature, pulse rate, oxygen, sitting hours and pressure sensors for tracking health status and signs of disease
Kayode David Ileke Mary Foluke Olaoye	Federal University of Technology	Perforation index assessment of Maize seeds treated with some Agro wastes Powder against maize weevil, Sitophilus zeamais (Motschulsky) [Coleoptera: Curculionidae]
Zyad Thalji Nisrean Thalji	Imam Abdulrahman Bin Faisal University	Intelligent water drops algorithm for solving graphs coloring problem
Vivien Vágner	University of Pannonia	Promoting organisational sustainability by the help of knowledge management
Sabeela Shabab Wali Khan Mashwani Assad Ullah	Kohat University of Science & Technology	Enhanced homotopy perturbation method for nonlinear differential equations
Sipan SOYSAL Fatih ÇIĞ Murat ERMAN	Siirt University	An overview on latest selected some ecological researches

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20.03.2022 | SESSION-2 | HALL-5

Ankara Local Time: 13:^{00}-15:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assist. Prof. Dr. Ayman El Sabagh

Authors	Affiliation	Presentation title
Yogita Nain Nitin Chawla	Russian State Social University	Biocontrol of pea root rot incited by Fusarium solani f. sp. pisi with rhizosphere mycoflora
Elena Sergeevna Tkacheva	Department of Epizootology and Microbiology	Converting organic agriculture production in the mekong river: Trends and policy implications
Zeeshan Yousaf	Government College University	Efficacy of a. vera supplemented canola meal based diets on growth performance, nutrient digestibility and carcass composition of catla catla fingerlings
Favour C. Uroko	University of Nigeria Nsukka	"Peace, peace when there is no peace": The church and increasing suicide among christians in Nigeria
Yogita Nain Nitin Chawla	Department- Plant Pathology	Biocontrol of pea root rot incited by Fusarium solani f. sp. pisi with rhizosphere mycoflora
Nadezhda Viktorovna Vorobyeva	South-West State University	Platelet functions in newborn calves of the yaroslavsk breed
Stanislaw Strzelecki	Lodz University of Technology	Turbulent oil film in multilobe journal bearing with the sleeve of continuous profile
Radheshyam Sihag Shankar Lal Jat	ICAR-IARI, Division of Agronomy	Conservation agriculture based sustainable intensification: A system optimization approach for sustainable crop production

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20.03.2022 | SESSION-3 | HALL-1

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Şima SAHINDURAN

Authors	Affiliation	Presentation title
Sushma Verma Yogita Nain	College of Agriculture	In-vitro and in-vivo management of anthracnose caused by colletotrichum gloeosporioides (Penz. & Sacc).
Chandrakant Naikodi	Davangere University	Add-on to smart beds wıth auto-measurıng of basıc functions viz weight, temperature, pulse rate, oxygen, sleep hours and pressure sensors for tracking health status and sgns of disease
Atif Iqbal Wali Khan Mashwani Abdul Ghafoor	Instituite of Numerical Sciences	Application of haar wavelet collocation method for the numerical solutions of modified equal width and regularized long wave equations
Naveen Malik Bhupinder Singh	ICAR-IARI, Division of Agronomy	Industrial waste for use as wealth in agriculture for green economy
Laila Kundziņa Baiba Rivža Pēteris Rivža	Latvia University of Life Sciences and Technologies	Trends of business organization donations: Type of donations, goals of donations, motivation to donate and amounts of donations
Sandeep Gawdiya	ICAR-IARI, Division of Agronomy	Precision nutrient management in wheat under conservation agriculture
Muhammad Aldo Kurniansyah Hari Kaskoyo Christine Wulandari Rudi Hilmanto	Lampung University	Consumer preference relationship to quantity of eucalyptus globulus oil products in the community forest of terbanggi besar district, central lampung regency
Musadhique Kottaparamban Mohammed Jabir Kannanchery Kunnath	King Khalid University	Culinary structuralism and food in literature: Theorizing cooking as a cultural act
Ellenia Difa Irgiarinda Indra Gumay Febryano Hari Kaskoyo Rudi Hilmanto	Universitas Lampung	The exsistence of mangroves on small island : Is it related to people's perceptions?

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20.03.2022 | SESSION-3 | HALL-2

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Erhan KEYVAN

Authors	Affiliation	Presentation title
Arta Basha Jakupi Festim Haliti Teuta Jashari Kajtazi	University “Hasan Prishtina	Found in translation how hip-hop music shapes architecture
Hien Nguyen Phuc Xuyen Le Thi Kim	Foreign Trade University	Dividend payouts and company’s value in the context of the financial turmoil: An empirical evidence in Vietnam
Abdelkader Gourbi Houcine Mıloudi	Djillali LIABES University	Sensitivity analysis of a hybrid photovoltaic system
Boban Stanković	Department of Environmental Protection	Flock composition and associativity of insectivorous songbirds during the cold period of the year in central serbia
Juwita Indra Gumay Febryano Christine Wulandari Hari Kaskoyo	University of Lampung	Farmers' perceptions of the agroforessstry patterns offered by the company
Shivang Kumar Sinha Pratheek R Bidri Swamy D R Rashmi Srinivasaiah Jagadish Rangaswamy Vallipuram Kanagasingam	Visvesvaraya Technological University	Identification of enablers of organizational commitment for an organization-a micmac approach
Putri Nur Syamsia Agus Setiawan Dian Iswandaru Gunardi Djoko Winarno	Lampung University	Bird trade flow in central cross of sumatra (case study: Bird market, bandar jaya village, central lampung regency, lampung province, indonesia)
Fortună Maria Emiliana Ungureanu Elena Rotaru Razvan Ovidiu Costică Ungureanu Jităreanu Carmenica Doina	Ion Ionescu de la Brad’’ University of Agricultural Sciences and Veterinary Medicine of Iasi	Obtained and characterization of biodegradable hybrid polymerıc materıals based on polycaprolactone
Sagarika R Kusum L R Neha Swamy D R Rashmi Srinivasaiah Vallipuram Kanagasingam	Visvesvaraya Technological University	Early deterioration index -a micmac approach
Kanza Jamil	Jinnah University For Women	Neutracutical product: Cupcakes using kelp as a functional ingredient, to lower cholesterol in body & help in weight loss by lowering body fat.

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20.03.2022 | SESSION-3 | HALL-3

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Assoc. Prof. Dr. Ahu DEMIRTAS

Authors	Affiliation	Presentation title
Kanza Jamil Alishba Amir Maheen Saleem Maira Saeed Maryam Mujahid Rabia Khan	Jinnah University For Women	Development of antioxidant rich jellies with berberis vulgaris (barberry) and clitoria ternatea (butterfly pea flower)
Egzona Hasani Besim Beqaj	Candidate University of Pristina	The importance of technology, digital service platforms in creating a functional strategy, competitive advantages for banks
Moses Adeolu AGOI Ismail Olaniyi MURAINA	Lagos State University of Education	A multi cloud adoption strategy for effective information sharing and management
Florin Victor Jeflea Alexandru Tugui	"Ovidius" University of Constant	The practical perspective of consulting companies about societal technological megatrends
Portnoi Elena Brinza Dumitru Foca Ecaterina Stratan Valentina Fulga Veaceslav	Nicolae Testemitanu State University of Medicine and Pharmacy	The influence of blood sugar level on tumor cells markers expression
Rotaru Razvan Fortună Maria Emiliana Harabagiu Valeria	"Petru Poni" Institute of Macromolecular Chemistry	Ferroelectric polyvinylidene fluoride/barium titanate composite prepared by ultrasonication and electrospinning
Kamlesh Kumar Simardeep Kaur	ICAR-Indian Agricultural Research Institute	Productivity and nitrogen use efficiency of Maize (Zea mays L.) as affected by nitrification inhibitors
Kadek Wikan Nandini Christine Wulandari Hari Kaskoyo Indra Gumay Febryano	Lampung University	Forest rehabilitation planning by community forest (HKm) group in lampung province, Indonesia
Chen-Wei Wang Wen-Kai Wang Chia-Ying Lin Ching-Dong Chang Tzu-Chieh Lin Hung-Yi Wu	National Pingtung University of Science and Technology	Survey of the genotypes of parrot bornavirus in 2021

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20.03.2022 | SESSION-3 | HALL-4

Ankara Local Time: 16:^{00}-18:^{30}

Meeting ID: **813 0239 2783**| Passcode: 990099

HEAD OF SESSION: Prof. Dr. Mehmet Cagrı KARAKURUM

Authors	Affiliation	Presentation title
Isah Ndakara Abubakar Hajar Saikouk Moad Essabbar	Euromed University of Fes	AI-diven insulin delivery system to enhance the glucose level of patients: A review
Ninh Thi Kim Anh Dang Hoang Xuan Huy	Nha Trang University	Covid-19: Impact on the hospitality workforce in Nha Trang, VietNam
Sipan Soysal Fatih Çığ Murat Erman	Siirt University	An Overview on Latest Selected Some Ecological Researches
Rasheed Olatunde Ajetunmobi Ismail Olaniyi Muraina Adedokun Ademola Hakeem	Adeniran Ogunsanya College of Education	Computer science and its role in covid19: Awareness and vaccination
Nguyen Tu Nhi Pham Duc Thuan	Can Tho University	Urbanization in soc trang city – Vietnam (2007 – 2020)
Farkhanda Shaheen Najeeb Ullah Khan Muhammad Naeem Faisal Alishba Roobi Bilal Aslam Haseeb Anwar	University of Agriculture	Understandıng the expression level of mdm2 and rb1 genes in female breast cancer
Kitti Lekszikov	University of Pannonia	Introduction and application of industry 4.0 technologies: focus on the hungarian sme sector
Bouharati Khaoula Bouharati Imene Guenifi Wahiba Laouamri Slimane	Constantine Hospital University	Estımatıon of the impact of certain risk factors on hepatitis b and c in the setif region - algeria
Snezhana Hristova	Plovdiv University	Riemann-Liouville fractional-order delay nonlinear systems and stability
Gabriella Michalec habil Andrea Bencsik	University of Pannonia	The success factor for SMEs: Organizational trust
Guohai Lin Gaukhar Niyetalina	Narxoz University	The role of marketing in paper producing company

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TÜRKİYE' DE KAYIT ALTINA ALINAN CUCURBİTACEAE FAMİLYASI SEBZE TÜRLERİNİN MEVCUT DURUMU

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ÖZET

Cucurbitaceae familyası sebzeleri, dünyada olduğu gibi Türkiye' de de yaygın şekilde yetiştirilen ve ekonomik öneme sahip sebze türleridir. Türkiye' de 2021 yılı verilerine göre Cucurbitaceae familyası grubu sebzelerin üretim miktarı toplam 7 808 381 t' dur. En çok üretimi yapılan türler sırasıyla karpuz (3 468 717 t), hıyar (1 890 160 t), kavun (1 638 638 t), sakız kabağı (609 622 t), balkabağı (97 168 t), çerezlik kabak (64 861 t) ve acur (39 215 t)' dür. Burada sunulan tebliğ, Türkiye' de 2022 yılına kadar kayıt altına alınmış Cucurbitaceae familyası sebze türlerine (hıyar, kabak, kavun, karpuz, acur ve kudret narı) ait çeşitlerin mevcut durumunu ve çeşit tiplerini belirlemek amacıyla hazırlanmıştır. Bu amaçla verilerin toplanmasında Tohumluk Tescil ve Sertifikasyon Merkez Müdürlüğü web sitesinden ve Tohumluk Tescil ve Sertifikasyon Merkez Müdürlüğü tarafından yayınlanan kayıt listelerine ait bültenlerden yararlanılmıştır. Araştırma sonucunda, bugüne kadar Cucurbitaceae familyası sebze türlerine ait toplam 1 140 adet kayıt altına alınmış çeşidin olduğu belirlenmiştir. En fazla kayıt altına alınan türler sırasıyla hıyar (496 çeşit), kavun (235 çeşit), kabak (205 çeşit), karpuz (193 çeşit), acur (10 çeşit) ve kudret narı (1 çeşit) olmuştur. Acurda geliştirilen çeşitlerin tamamı açıkta tozlanan çeşitlerden oluşurken, diğer türlerde kayıtlı çeşitlerin büyük çoğunluğunu hibrit çeşitler oluşturmuştur. 2022 yılına kadar, hıyarda toplam 469, kabakta 186, kavunda 207, karpuzda 172, kudret narında ise 1 adet hibrit çeşidin geliştirildiği saptanmıştır. Hıyarda en fazla kayıtlı çeşit sayıları Beith Alpha (79 çeşit), badem (57 çeşit) ve kornişon (27 çeşit), kavunda Kırkağaç (59 çeşit), Galia (57 çeşit) ve Ananas (27 çeşit), kabakta ise sakız kabağı (36 çeşit) ve anaçlık kabakta (32 çeşit) olmuştur.

Anahtar Kelimeler: Çeşit, Hıyar, Kabak, Karpuz, Kavun, Kayıt, Sebze

CURRENT STATUS OF CUCURBITACEAE FAMİLY VEGETABLE SPECIES REGISTERED IN TURKEY

ABSTRACT

Cucurbitaceae family vegetables are widely grown and economically important vegetable species in Turkey as well as in the world. According to the data of 2021 in Turkey, the production amount of Cucurbitaceae family group vegetables is 7 808 381 t in total. The most produced species are watermelon (3 468 717 t), cucumber (1 890 160 t), melon (1 638 638 t), squash (609 622 t), pumpkin (97 168 t), squash for snacks (64 861 t), and acur (39 215 t) respectively. This paper has been prepared in order to determine the current status of the registered cultivars and cultivar types belonging to the Cucurbitaceae family vegetable species (cucumber, squash, pumpkin, melon, watermelon, acur, and bitter melon) in Turkey until 2022. For this purpose, the website of the Central Directorate of Seed Registration and Certification and the bulletins of the registration lists published by the Central Directorate of Seed Registration and Certification were used to collect data. As a result of the research, it was determined that there are 1 140 recorded varieties belonging to Cucurbitaceae family vegetable species so far. The most recorded species were cucumber (496 cultivars), melon (235 cultivars), pumpkin and squash (205 cultivars), watermelon (193 cultivars), acur (10 cultivars), and bitter gourd (1 cultivar), respectively. While all of the varieties registered in acur were open-pollinated varieties, the majority of the varieties registered in other species were hybrid varieties. It was determined that 469 hybrid cultivars were recorded in cucumber, 186 in squash and pumkin, 207 in melon, 172 in watermelon, and 1 hybrid cultivar in bitter melon. In cucumber; highest number of registered cultivars cv. Beith Alpha (79 cultivars), cv. Badem (57 cultivars), and gherkin (27 cultivars), melon; cv. Kırkağaç (59 varieties), cv. Galia (57 varieties), and cv. Ananas (27 varieties), in pumpkin and squash; squash (36 varieties) and rootstock squash (32 varieties).

Keywords: Cultivar, Cucumber, Squash, Watermelon, Melon, Registration, Vegetable

GİRİŞ

Cucurbitaceae familyası grubu sebzeler, dünyada olduğu gibi ülkemizde de yaygın şekilde yetiştirilen ve ekonomik öneme sahip sebze türleridir. Ülkemiz, kabakgiller familyası içerisinde yer alan kavun, hıyar, bal kabağı ve yazlık kabak türlerinin mikro gen merkezi durumundadır (Tan 1998). Ülkemizde 2021 yılı verilerine göre Cucurbitaceae grubu sebzelerin toplam üretim değeri 7 808 381 t olup, en çok üretimi yapılan türler sırasıyla karpuz (3 468 717 t), hıyar (1 890 160 t), kavun (1 638 638 t), sakız kabağı (609 622 t), balkabağı (97 168 t), çerezlik kabak (64 861 t) ve acur (39 215 t)' dür (URL 1). Türkiye' de 2017-2021 yılları arasında karpuz (-13.5), kavun (-9.6) ve acurun (-6.3) üretim değerlerinde yıllar bazında düşüşler yaşanırken, en çok üretimi artan türler ise çerezlik kabak ve sakız kabağı olmuştur (Tablo 1). Ülkemizde yaygın olarak yetiştirilen bu türlerin yanı sıra, ekonomik önemi daha az ve üretim miktarı daha düşük değerlerde olan, su kabağı ve kudret narı da ülkemizde yetiştirilmektedir (Balkaya ve Karaağaç, 2005; Aslan ve ark., 2019). Burada sunulan tebliğ, Türkiye' de 2022 yılına kadar kayıt altına alınmış Cucurbitaceae familyası sebze türlerine ait çeşitlerin mevcut durumunu belirlemek amacıyla hazırlanmıştır. Bu amaçla verilerin toplanmasında Tohumluk Tescil ve Sertifikasyon Merkez Müdürlüğü web sitesinden ve Tohumluk Tescil ve Sertifikasyon Merkez Müdürlüğü tarafından yayınlanan kayıt listelerine ait bültenlerden yararlanılmıştır.

Tablo 1. Türkiye' de yıllara göre Cucurbitacae familyası sebze türlerinin üretim miktarı (ton) (URL1)

Tür	2017	2018	2019	2020	2021	Değ.(%)
Hıyar	1 827 782	1 848 273	1 916 645	1 886 239	1 890 160	3.4
Kabak	449 561	474 527	447 830	547 208	609 622	35.6
Balkabağı	89 737	87 207	92 319	93 659	97 168	8.3
Çerezlik kabak	41 326	55 043	50 265	57 184	64 861	56.9
Kavun	1 813 422	1 753 942	1 777 059	1 724 856	1 638 638	-9.6
Karpuz	4 011 313	4 031 174	3 870 515	3 491 554	3 468 717	-13.5
Acur	41 863	42 631	43 204	40 644	39 215	-6.3
TOPLAM	**8 275 004**	**8 292 797**	**8 197 837**	**7 841 344**	**7 808 381**	**-5.6**

4. CUCURBİTACEAE FAMİLYASI SEBZE TÜRLERİNE AİT KAYITLI ÇEŞİTLER

Ülkemizde sebze türlerine ait yeni çeşitlerin kayıt altına alınmasında görevli olan kuruluş, Tarım ve Orman Bakanlığı'na bağlı bir kuruluş olan Tohumlukların Tescil Kontrol ve Sertifikasyon Müdürlüğü'dür. Ülkemizde Adana, Antalya, Ankara, Manisa, Kocaeli ve Samsun illerinde olmak üzere toplam 6 adet kuruluş bulunmaktadır. Kayıt altına alma; yurt içinde veya yurt dışında ıslah edilen veya bulunan ve geliştirilen bitki çeşitlerinin farklı, yeknesak ve durulmuş olduğunun ve/veya biyolojik ve teknolojik özellikleri ile hastalık ve zararlılara dayanıklılığının ve tarımsal değerlerinin tespit edilerek kütüğe kaydedilmesini ifade etmektir. Ülkemizde yeni çeşitlerin geliştirilmesinde özel teşebbüs hakim durumdadır. Araştırma

Enstitüleri, Ziraat Fakülteleri ve Kamu Kuruluşlarının çeşit geliştirmede katkısı çok düşük düzeydedir. Aşağıda kayıt altına alınan Cucurbitacaea familyası sebze türlerine ait standart tohumluk kayıt listesi 3 başlık altında gruplandırılmıştır.

4.1. SADECE STANDART TOHUMLUK ÜRETİMİ YAPILAN ÇEŞİTLER

Sebze türlerinde, kayıt altına alınan çeşitlere ait, sadece laboratuvar kontrolleriyle ticarete arz edilen ve çeşide ait kimliğini ve saflığını doğrulamak için kontrol denemelerine tabi tutulan tohum veya çoğaltım materyaline standart tohumluk denilmektedir. Bugüne kadar Cucurbitaceae familyası sebze türlerine ait toplam 164 çeşidin standart tohumluk kaydı yapılmıştır. En fazla standart tohumluk kaydı yapılan türler sırasıyla hıyar (64 çeşit), kavun (36 çeşit), kabak (33 çeşit) ve karpuz (28 çeşit) olmuştur (Tablo 2).

4.2. SERTİFİKALI TOHUMLUK ÜRETİMİ YAPILAN ÇEŞİTLER

Orijinal tohumluk veya kendisinden elde edilen, çeşit safiyetini ve sağlığını devam ettiren tohumluğa sertifikalı tohumluk denilmektedir. Cucurbitaceae familyası sebze türlerinde toplam 724 çeşidin sertifikalı tohumluk kaydı yapılmıştır. En fazla sertifikalı tohumluk kaydı yapılan türler hıyar (312 çeşit), kavun (145 çeşit), karpuz (134 çeşit) ve kabak (127 çeşit) olmuştur (Tablo 3).

Tablo 2. Sadece standart tohumluk üretimi yapılan Cucurbitaceae familyası sebze türlerine ait çeşit sayıları (URL2)

Tür Adı	**Çeşide ait bilgi**	**Adet**	**Toplam**
Hıyar	Belirtilmemiş	1	**64**
	Hibrit	61	
	Turşuluk (hibrit)	2	
Kabak	Belirtilmemiş	2	**33**
	Anaç	3	
	Anaç (hibrit)	6	
	Hibrit	21	
	Sakız kabağı (hibrit)	1	
Kavun	Hibrit	23	**36**
	Kırkağaç (AT)	2	
	Kırkağaç (hibrit)	2	
	Sarı (AT)	1	
	Sarı (hibrit)	1	
	Yuva (hibrit)	1	
	Ananas (hibrit)	4	
	Dilimli yerel tip (AT)	2	
Karpuz	Belirtilmemiş	4	**28**
	Hibrit	23	
	Tozlayıcı (AT)	1	
Acur	AT	3	**3**
TOPLAM			**164**

AT: açıkta tozlanan

Tablo 3. Sertifikalı tohumluk üretimi yapılan Cucurbitaceae familyası sebze türlerine ait çeşit sayıları (URL2)

Tür Adı	Çeşide ait bilgi	Adet	Toplam
Hıyar	Belirtilmemiş	2	**312**
	AT	2	
	Turşuluk (AT)	3	
	Çengelköy (AT)	1	
	Hibrit	224	
	Badem	4	
	Beith Alpha	7	
	Turşuluk (hibrit)	15	
	Kornişon (hibrit)	11	
	Badem (hibrit)	26	
	Langa (hibrit)	1	
	Beith Alpha (hibrit)	16	
Kabak	Belirtilmemiş	1	
	AT	2	
	Sakız kabağı (AT)	2	
	Bal kabağı (AT)	1	
	Kestane kabağı (AT)	1	

Tablo 3. Devam (URL2)

Tür Adı	Çeşide ait bilgi	Adet	Toplam
Kabak	Su kabağı (AT)	1	**127**
	Hibrit	77	
	Anaç (hibrit)	19	
	Çerezlik kabak (hibrit)	6	
	Sakız kabağı (hibrit)	13	
	Su kabağı (hibrit)	2	
	Kestane kabağı (hibrit, anaç)	1	
	Bal kabağı (hibrit, anaç)	1	
Kavun	AT	3	**145**
	Sarı (AT)	2	
	Kırkağaç (AT)	10	
	Yuva (AT)	3	
	Ananas (AT)	2	
	Balıkesir kavunu (AT)	1	
	Hibrit	25	
	Anaç (hibrit)	3	
	Kırkağaç (hibrit)	24	
	Galia (hibrit)	37	
	Ananas (hibrit)	13	
	Piel De Sapo (hibrit)	5	
	Western Shipper	1	
	Charentais (hibrit)	1	
	Kanarya (hibrit)	12	
	Kantalop (hibrit)	2	
Karpuz	Belirtilmemiş	7	**134**
	AT	4	
	Tozlayıcı (AT)	4	
	Diploid (AT)	1	
	Hibrit	71	
	Crimson Sweet (hibrit)	2	
	Crimson Tide (hibrit)	3	
	Uzun Çizgili (hibrit)	2	
	Diploid (hibrit)	34	
	Triploid (hibrit)	6	
Acur	AT	5	**6**
	AT (bodur)	1	
TOPLAM			**724**

AT: açıkta tozlanan

4.3. ÜRETİM İZİNLİ ÇEŞİTLER

Üretim izinli çeşitler, yurt içinde veya yurt dışında ıslah edilen veya bulunan ve geliştirilen bitki çeşitlerinin biyolojik ve teknolojik özellikleri ile hastalık ve zararlılara dayanıklılığının ve tarımsal özelliklerinin tespit edilerek, çeşit tescil edilinceye kadar verilen süreli izne sahip çeşitlerdir. Cucurbitaceae familyasına ait türlerde üretim izinli çeşit sayıları Tablo 4' de sunulmuştur. Tablo 4' den üretim izinli toplam çeşit sayısının 252 adet olduğu, en fazla üretim izinli çeşit sayısına sahip türün hıyar (120 çeşit) olduğu dikkat çekmektedir.

Tablo 4. Üretim izni verilen Cucurbitaceae familyası sebze türlerine ait çeşit sayıları (URL2)

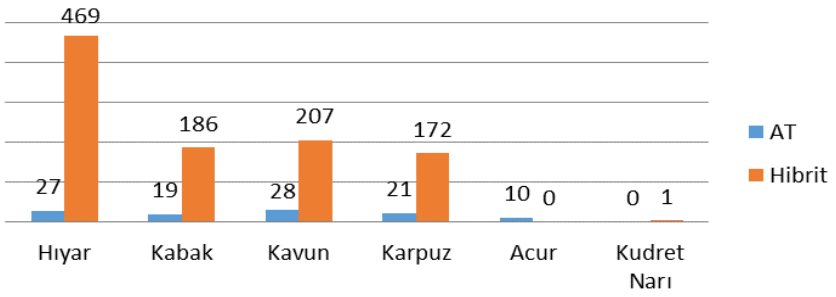
Tür Adı	Çeşide ait bilgi	Adet	Toplam
Hıyar	Belirtilmemiş	7	**120**
	Hibrit	8	
	Langa (hibrit)	2	
	Kornişon (hibrit)	16	
	Badem (hibrit)	27	
	Beith Alpha (hibrit)	56	
	Turşuluk (hibrit)	3	
	American Slicer (hibrit)	1	
Kabak	Belirtilmemiş	3	**45**
	Anaç (hibrit)	4	
	Hibrit	12	
	Çerezlik kabak (AT)	3	
	Çerezlik kabak (hibrit)	3	
	Sakız kabağı (hibrit)	20	
Kavun	Belirtilmemiş	1	**54**
	Kırkağaç	1	
	Hibrit	2	
	Galia (hibrit)	20	
	Ananas (hibrit)	8	
	Kırkağaç (hibrit)	20	
	Piel de Sapo (hibrit)	1	
	Charentais (hibrit)	1	
Karpuz	Hibrit	4	**31**
	Diploid (hibrit)	23	
	Triploid (hibrit)	4	
Acur	AT	1	**1**
Kudret narı	Hibrit	1	**1**
TOPLAM			**252**

AT: açıkta tozlanan

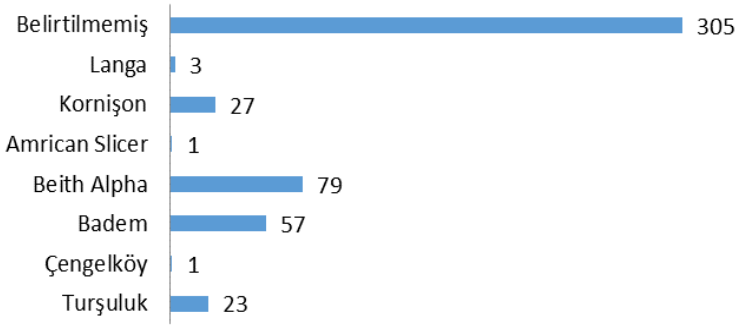
4.4. KAYIT ALTINA ALINAN CUCURBİTACEAE FAMİLYASI SEBZE TÜRLERİNDE TOPLAM TİP VE ÇEŞİT SAYILARI

2022 yılına kadar kayıt altına alınmış toplam tip ve çeşit sayıları (sadece standart tohumluk üretimi yapılanlar, sertifikalı tohumluk üretimi yapılanlar ve üretim izinli çeşitler) Tablo 5' de verilmiştir. Bugüne kadar Cucurbitaceae familyası grubu sebzelerde toplam kayıtlı çeşidin 1

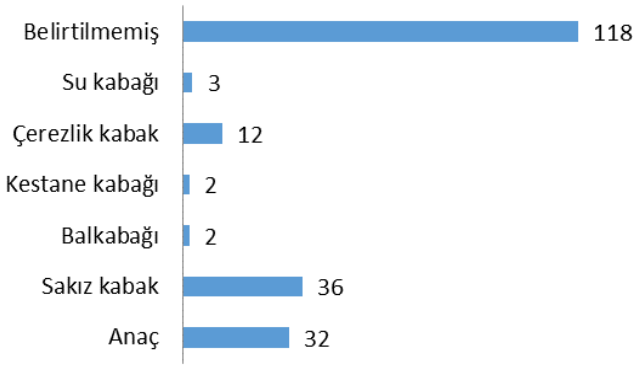
140 adet olduğu belirlenmiştir. En fazla kayıt altına alınan türler sırasıyla hıyar (496 çeşit), kavun (235 çeşit), kabak (205 çeşit), karpuz (193 çeşit), acur (10 çeşit) ve kudret narı (1 çeşit) olmuştur (Tablo 5). Hibrit çeşitler, birim alandan yüksek verim ve gelir getirmeleri, meyvelerinin kaliteli olması, hastalık ve zararlılara dayanıklılarının yüksek olması, adaptasyon yeteneklerinin iyi olması nedenleriyle bitkisel üretimde kullanımları her geçen gün hızla artmaktadır. 2022 yılına kadar, hıyarda toplam 469, kabakta 186, kavunda 207, karpuzda 172, kudret narında ise 1 adet hibrit çeşit geliştirildiği belirlenmiştir (Şekil 1). Cucurbitaceae grubu sebzelerde acur hariç, diğer tüm türlerde hibrit çeşitler ön plana çıkmıştır. Acurda ise kayıtlı çeşitlerin tamamının (10 çeşit) açıkta tozlanan çeşitlerden oluştuğu saptanmıştır (Şekil 1). Bugüne kadar kayıt altına alınmış hıyar, kabak, kavun ve karpuz türlerine ait çeşit tipleri ve sayıları Şekil 2, Şekil 3, Şekil 4 ve Şekil 5' de özetlenmiştir. Aşağıdaki grafiklerde, belirtilmemiş sütunundaki değer, sadece hibrit ya da açıkta tozlanan (AT) çeşit olarak belirtilen veya herhangi bir çeşit tipi belirtilmemiş grubun toplamından elde edilmiştir.



Şekil 1. Kayıt altına alınan türlerin dağılımı



Şekil 2. Kayıt altına alınmış hıyar tipleri ve çeşit sayıları



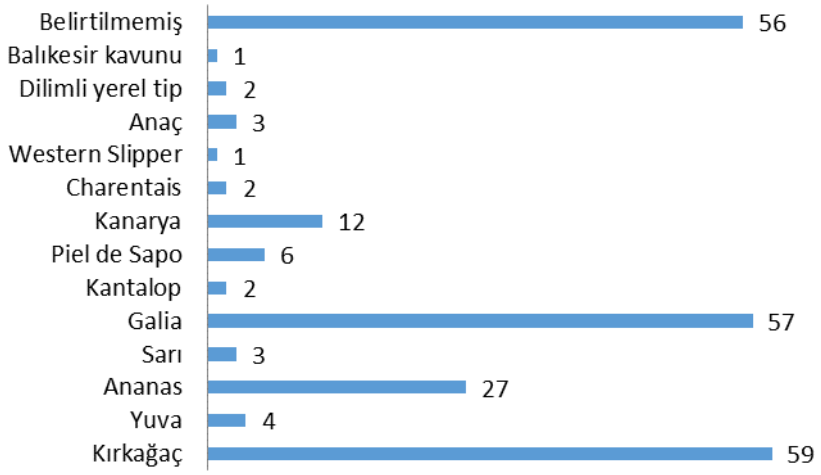
Şekil 3. Kayıt altına alınmış kabak tipleri ve çeşit sayıları

Tablo 5. Kayıt altına alınan Cucurbitaceae familyası sebze türlerinin tipleri ve çeşit sayıları (URL2)

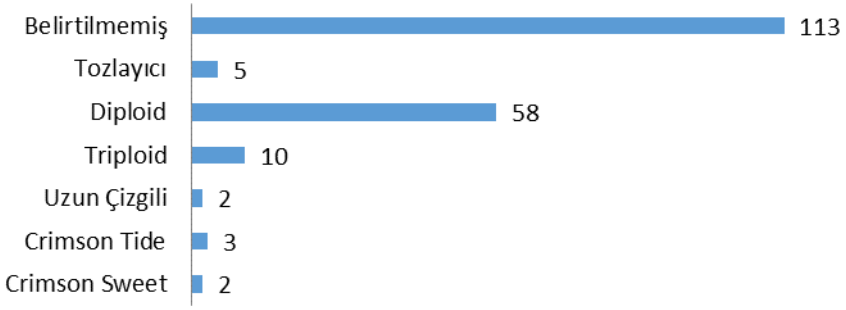
Tür Adı	**Çeşide ait bilgi**	**Adet**	**Toplam**
Hıyar	Belirtilmemiş	10	
	AT	2	
	Turşuluk (AT)	3	
	Çengelköy (AT)	1	**496**
	Badem	4	
	Beith Alpha	7	
	Hibrit	293	
	Turşuluk (hibrit)	20	
	Langa (hibrit)	3	
	Kornişon (hibrit)	27	
	Badem (hibrit)	53	
	Beith Alpha (hibrit)	72	
	American Slicer (hibrit)	1	
Kabak	Belirtilmemiş	6	
	AT	2	
	Sakız kabağı (AT)	2	
	Bal kabağı (AT)	1	
	Kestane kabağı (AT)	1	**205**
	Su kabağı (AT)	1	
	Çerezlik kabak (AT)	3	
	Anaç	3	
	Hibrit	110	
	Anaç (hibrit)	29	
	Sakız kabağı (hibrit)	34	
	Çerezlik kabak (hibrit)	9	
	Su kabağı (hibrit)	2	
	Kestane kabağı (hibrit, anaç)	1	
	Bal kabağı (hibrit, anaç)	1	
Kavun	Belirtilmemiş	1	
	AT	3	
	Kırkağaç (AT)	13	
	Sarı (AT)	3	
	Yuva (AT)	3	
	Ananas (AT)	2	
	Dilimli yerel tip (AT)	2	**235**
	Balıkesir kavunu (AT)	1	
	Hibrit	52	
	Anaç (hibrit)	3	
	Galia (hibrit)	57	
	Ananas (hibrit)	25	
	Piel de Sapo (hibrit)	6	
	Kırkağaç (hibrit)	46	
	Yuva (hibrit)	1	
	Kantalop (hibrit)	2	
	Western Shipper (hibrit)	1	
	Charentais (hibrit)	2	
	Kanarya (hibrit)	12	
Karpuz	Belirtilmemiş	11	

	AT	4	**193**
	Tozlayıcı (AT)	5	
	Diploid (AT)	1	
	Hibrit	98	
	Crimson Sweet (hibrit)	2	
	Crimson Tide (hibrit)	3	
	Uzun Çizgili (hibrit)	2	
	Diploid (hibrit)	57	
	Triploid (hibrit)	10	
Acur	AT	9	**10**
	AT (bodur)	1	
Kudret narı	Hibrit	1	**1**
TOPLAM			**1 140**

AT: açık tozlanan



Şekil 4. Kayıt altına alınmış kavun tipleri ve çeşit sayıları



Şekil 5. Kayıt altına alınmış karpuz tipleri ve çeşit sayıları

Cucurbitaceae familyası sebze türlerinden özellikle kavun ve hıyar türlerinde, tip ve çeşit sayısının fazla olduğu tespit edilmiştir. Hıyar tiplerinden 'Langa' hıyarı, yerli, çok eski bir hıyar çeşididir. Meyve boyu 35-40 cm, koyu yeşil renkli, ince kabuklu, sert, sulu, lezzetli ve iri bir çeşittir. 'Çengelköy' hıyarı da yerli çeşidimizdir. Kabuğu açık yeşil renkte, az çekirdekli, ufak ve tombulcadır. Bu yerli lezzetli çeşitlerimiz, yerlerini artık maalesef daha verimli olan hibrit çeşitlere bırakmıştır. 'Beith Alpha' hıyar çeşidi son yıllarda en çok tercih edilen çeşit konumunu

almıştır. Bu hıyar çeşidinin meyveleri lezzetli, silindirik şekilli, 13-15 cm uzunluğunda, parlak yeşil kabuk rengine sahiptir.

Kavun çeşitlerinden de en çok kayıt altına alınan tiplerin 'Kırkağaç', 'Galia' ve 'Ananas' tipi olduğu belirlenmiştir. 'Kırkağaç (Altınbaş)' kavunu; oval ve uzun şekilli meyvelere sahiptir. Meyve kabuk rengi sarı, üreri yeşil benekli, kırışık ve kalındır. Meyve eti beyaz, tatlı ve suludur. 'Galia' kavunu; yuvarlak meyveli, kabuk rengi sarımsı-açık yeşil, meyve eti yeşil renkli ve tatlıdır. 'Ananas' kavunu, oval şekilli, meyve et rengi yeşilimsi-sarı, meyve kabuk rengi sarımsı-turuncu, üzeri ağlı yapıda, şeker oranı yüksek bir kavundur. 'Yuva' kavunu, yuvarlak meyvelere sahip, koyu yeşil renklidir. Meyve eti kalın, kabuğu incedir. 'Kantalop' kavunu; meyve kabuğu ağsı yapıda, yuvarlak meyveli, alt ve üstten basıktır. Dilimli bir yapıdadır. Meyve et rengi turuncumsu sarı renkli, meyvesi yumuşak, sulu ve tatlıdır. Tablo 6' da ise bu türlerin ilk kayıt yılları ve çeşit adları sunulmuştur.

Tablo 6. Cucurbitaceae familyası sebze türlerinde ilk kayıt yılları ve çeşide ait bilgiler (URL2)

Tür	**Çeşit Adı**	**Başvuru Yapan Kuruluş**	**İlk Kayıt Altına Alındığı Yıl**
Kavun	Ananas	Batı Akdeniz Tarımsal Araştırma Enstitüsü Müdürlüğü	26.04.1984
Karpuz	Crimson Sweet	May-Agro Tohumculuk San. ve Tic. A.Ş	14.05.1992
Hıyar	Çengelköy Hıyarı 5802	Atatürk Bahçe Kültürleri Mrk.Arşt.Ens.Müd.	16.04.1968
Kabak	Zeybek	Bursa Tohumculuk Ziraat Ve Ticaret A.Ş.	7.01.1992
Acur	BT Ege Acur 016	Bursa Tohumculuk Ziraat Ve Ticaret A.Ş.	18.11.2004

5. SONUÇ

Yapılan araştırma sonucunda, Cucurbitaceae grubu sebze türlerinde (acur türü hariç) kayıt altına alınmış çeşitlerin büyük çoğunluğunun hibrit çeşitlerden oluştuğu, acur türünde kayıtlı çeşitlerin tamamının açıkta tozlanan çeşitlerden oluştuğu saptanmıştır. Günümüze kadar Cucurbitaceae familyası sebzelerinde, en çok kayıtlı çeşitlerin bulunduğu türlerin sırasıyla hıyar (496 çeşit), kavun (235 çeşit), kabak (205 çeşit) ve karpuz (193 çeşit) olduğu saptanmıştır. Hıyar, kabak, kavun ve karpuz türlerinin hem ekonomik yönden önemli sebze türleri olması hem de tüketiciler tarafından çok talep edilen türler olmaları nedeniyle bu türlerde ıslah çalışmaları sonucu geliştirilen ve kayıt altına alınan çeşit ve tip sayısının da oldukça fazla olduğu dikkat çekmiştir. Çeşit tiplerinin belirtilmediği grup dikkate alınmazsa; hıyarda en çok kayıtlı altına alınmış olan tipler Beith Alpha (79 çeşit) ve badem (57 çeşit), kabakta sakız kabağı (36 çeşit) ve anaçlık kabak (32 çeşit), kavunda ise Kırkağaç (59 çeşit), Galia (57 çeşit) ve Ananas (27 çeşit) tipleri olmuştur.

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URL 2. https://www.tarimorman.gov.tr/BUGEM/TTSM

MAKÜ
BURDUR MEHMET AKİF ERSOY ÜNİVERSİTESİ

ISPEC INSTITUTE

Ref : AFHRU5780002
opic : Letter of Acceptance 25/02/2022

Dear: Burcu TUNCER

Herewith, the international scientific committee is happy to inform you that the peer-reviewed entitled < **Current Status Of Cucurbitaceae Family Vegetable Species Registered In Turkey**> has been accepted for oral presentation as well as inclusion in the conference proceedings of the ISPEC 9th INTERNATIONAL CONFERENCE ON AGRICULTURE, ANIMAL SCIENCES AND RURAL DEVELOPMENT to be held in Burdur, Turkey during March 19-20, 2022 that will take place at the Burdur Mehmet Akif Ersoy University conference room and Zoom Online Meeting Program.

We are looking forward to hearing from you.
With Warmest Regards

Prof. Dr. Hakan ÖNER
Head of Conference
(Burdur Mehmet Akif Ersoy University
Faculty of Veterinary Medicine Dean)

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of participation

This certificate is proudly presented to

Burcu TUNCER

in oral and technical presentation,
recognition and appreciation of research contributions to

**ISPEC 9th INTERNATIONAL CONFERENCE ON
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held on March 19-20, 2022 / BURDUR, TURKEY**

with the paper entitled

Current status of cucurbitaceae family vegetable species registered in Turkey

Prof. Dr. Hakan Öner
Head of Conference
(Burdur Mehmet Akif Ersoy University
Faculty of Veterinary Medicine Dean)

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