



# **EMEL ÇAKIR, PhD**Agricultural Engineer (Phytopathologist)

### **EDUCATION**

PhD Ankara Univeristy

2008-2015 Department of Plant Protection

Phytopathology

MSc Ankara University, Department of

2005-2008 Plant Protection, Phytopathology

Bachelor's Degree Atatürk University

Agriculture Faculty Department of

**Plant Protection** 

#### CAREER

- (1998--) Plant Protection Central Research Institute, Ankara. Phytopathology department; Ornamental, Vegetable, Industrial and Forage Crops Fungal Diseases, Biological Control
- (1994-1998) General Directorate Of Agricultural Reform

#### **ABOUT ME**

I completed undergraduate education at Atatürk University, Faculty of Agriculture, Department of Plant Protection, my master's degree (2008) and my doctorate (2015) at Ankara University, Institute of Science, Department of Plant Protection. I worked on Potato, Ornamental, Medicinal and Aromatic Plants, Industry and Forage Crops and Vegetable Fungal Diseases. Subject of experinces; Potato Diseases, Potato Wart Disease, Mycology, Biological Control Of Plant Diseases, Diagnosis, Crop Protection, Fungal Plant Pathology, Fungal Biology, Microbiology, Metabolites Mycotoxins, Mikoriza, Fungal Metabolism, Ecology, Seed Environmental Mycology, Plant Protection, Plant Disease Management, Molecular Plant Pathology, Disease Resistance Pathogen. I have worked in many national and international projects as a leader or researcher.

#### CONTACT

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#### PROJECTS

#### Projects Conducted

- Investigations on the control of potato Late blight, by using predictive computer forecasting models in Central Anatolia Region (TOVAG-2920), The Scientific And Technological Research Council Of Turkey, Project leader (2004-2007).
- Pathological and molecular identification of Synchytrium endobioticum (Schilb.) Perc. causing potato wart disease, and development of effective management strategies in Turkey. TUBİTAK-1050108, The Scientific And Technological Research Council Of Turkey, Project leader (2005-2008).
- Studies on the Detection of the Pathotypes of Potato Wart [Synchytrium endobioticum (Schilb.) Percival]
   Disease in Potato Cultivation Areas in Turkey and Determination of Potato Varieties Resistant to These Pathotypes. Ministry of Development (DPT) Projects, Leader (2006-2009).
- Studies on the Control of Potato Wart Disease (Synchytrium endobioticum) by Using Some Fungicides and Rhizobacteria. TAGEM, PhD, Project Leader (2011-2016).
- Investigation of possibilities of using boron in the control of Potato Wart Disease [(Synchytrium endobioticum) Schilb. Perc.]. National Boron Research Institute (BOREN), Project Leader (2013-2015).
- National Potato Wart [Synchytrium endobioticum (Schilb.) Percival] Disease Survey Project. Coordinator and Central Anatolia Project Leader TAGEM- GKGM (2002-2008).
- Investigations On Determination Of Disease, Pest And Beneficial Species And Population Development Of İmportant İnsect Species On Onion And Garlic Production Area İn Ankara And Kastamonu Provinces. TAGEM, Researcher (2013-2017).
- Youth in DNA Hunting in Oregano Field. The Scientific And Technological Research Council Of Turkey (TUBİTAK 218B103), Sub project leader (2019-2020).
- Development of National Potato Seed Production System, TUBİTAK (1007/19056-105 G 110) Researcher, (2005 -2009).
- Isolation and Monoculture Production of Naturally Occurring Mycorrhizae in Soils. TAGEM, Researcher (2017-2018).
- Development of Kastamonu Garlic Cultivation. TAGEM, Yardımcı Araştırıcı, TAGEM (2007-2010).
- Studies on the Distribution and Control of Cercospora Blight (*Cercospora* sp.) in Anise Production areas
  of Antalya, Burdur and Denizli Provinces of Turkey. TAGEM-Ankara Uni. BAP, Researcher (2000-2005).



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#### PROJECTS

#### Projects Conducted

- Investigation of Socio-economic Effects of Potato Wart Disease in Nevşehir and Niğde Provinces. TAGEM., Researcher (2014-2015).
- Creation of plant pathogenic bacteria, fungi and virus collections and preparations of their catalogues.
   TAGEM, Researcher (2015-2018).
- Integrated Breeding Research to Improve Homogenity and Quality Characteristics of Common Sage (Salvia officinalis L.) Adapted to Central Anatolian Climatic Conditions. TAGEM, Researcher, TAGEM/TBAD/15/A04/P06/08 (2014-2020, First Part).
- Assessment of The High Quality Oregano (*Origanum vulgare* var. *hirtum*) Gynotypes Adapted to Central Anatolian Climatic Conditions and Investigation their Genetic Characterization. Researcher, TAGEM/TBAD/14/A04/P06/02 (2018-2020, First part).
- Molecular Diagnosis Of Soil-Borne Diseases in Potatoes. TAGEM/BSAD/E/18/A2/P1/559TAGEM, Reseacher (2018-2022).
- Research on the Prevalence and Control Possibilities of Angular Leaf Spot Disease (Pseudocercospora griseola) in Covered Beans in the Western Black Sea Region. TAGEM, Yardımcı Araştırıcı (2013).
- Monitoring project of the quarantine pests in potato. Researcher, GKGM (2010-2022).

#### **Ongoing Projects**

- Soilborne Pathogens and Control in Potato Production Areas of Central Anatolia Region (TOKPA)
   Coordinator, TAGEM, (2022-).
- Developing Intercropping Systems with Camelina to Increase the Yield and Quality Parameters of Local Underutilized Crops. Horizon 2020 (Eranet) ve SCOOP ID:49, Core organic TAGEMAB 50 no, Researcher (2021-).
- Biopesticide Formulation Studies. TAGEM, Researcher (2021-).
- Central Anatolian Medicinal Sage (Salvia officinalis L.) Breeding Research. TAGEM, Researcher (Second part, 2020-).
- Oregano (Thyme) Breeding Researches in Central Anatolia. TAGEM, Reseacher (Second part, 2018-).
- Creation of plant pathogenic bacteria, fungi and virus collections and preparations of their catalogues.
   TAGEM, Researcher (2015-2018).

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#### PUBLICATIONS

#### INTERNATIONAL ARTICLES AND PAPERS

#### **Articles Published in International Journals**

- Çakır, E., Ertek T.S., Katırcıoğlu Y.Z., Maden S. (2020). Occurrence of potato pink rot caused by Phytophthora erythroseptica in Turkey, with special reference to Phytophthora cryptogea. Australasian Plant Disease Notes, (2020) 15:14. https://doi.org/10.1007/s13314-020-0379-9
- Çakır, E., Bahtiyarca Bağdat, R., & Sarıgül Ertek, T. (2021). Fungal pathogens of oregano occurring at the breeding plots in Ankara. Journal of Plant Diseases and Protection, 128(5), 1367–1370. doi:10.1007/s41348-021-00469-4
- Çakır, E., Karahan, A., Kurbetli, İ. (2019). Involvement of Colletotrichum coccodes causing atypical symptoms of potato tubers in Turkey. Journal of Plant Diseases and Protection, 126, 173–176. doi:10.1007/s41348-019-00206-y
- Çakır E., Bahtiyarca Bağdat, R., Katircioglu, Y.Z., Maden, S. (2017). Occurrence of Root Rot Caused by Phytophthora cryptogea on Common Sage (Salvia officinalis) in Turkey. Journal of Agricultural Science and Technology A, 7 (6): 401-406 p. doi:10.17265/2161-6256/2017.06.00
- Çakır E., Maden S., 2015. First report of *Penicillium polonicum* causing storage rots of onion bulbs in Ankara province, Turkey. B.S.Plant Pathology, New Disease Reports 32: 24. doi.org/10.5197/j.2044-0588.2015.032.024
- Çakır E., Demirci, F, 2012. First Report of *Phytophthora cryptogea* on Potato Tubers in Turkey. Plant Disease 96:8, 1224.3 p. doi: 10.1094/PDIS-02-12-0193-PDN.
- Erzurum, K., Demirci, F, Karakaya, A, Çakır E., Tuncer, G, Maden S., 2005. Passalora Blight of Anise (*Pimpinella anisum*) and Its Control in Turkey. Phytoparasitica 33(3): 261-266. doi:10.1007/bf02979864
- Çakır E., 2005. First report of potato wart disease in Turkey. Journal Plant Pathology 54:584p. doi:10.1111/j.1365-3059.2005.01233.x
- van de Vossenberg, B.T.L.H., van Gent M., Meffert J.P., Nguyen, H.D.T., Smith, D., van Kempen, T., Helderman, C.M., Rosendahl-Peters, K.C.H.M., te Braak, N., Flath, K., Przetakiewicz, J., Perez, W., Çakir, E., Sikharulidze, Z.V., van Leeuwen, G.C.M., van der Lee, T.A.J. (2022). Molecular characterization and comparisons of potato wart (*Synchytrium endobioticum*) in historic collections to recent findings in Canada and the Netherland. Journal of Plant Pathology, 1-13.
- Çakır, E., Leeuwen, Van G.C.M, Kerstin, F, Meffert, J.P, Janssen, W.A.P, Maden, S. (2009). Identification of pathotypes of *Synchytrium endobioticum* found in infested fields in Turkey. OEPP/EPPO Bulletin 39:175–178p.



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## PUBLICATIONS INTERNATIONAL ARTICLES AND PAPERS Articles Published in International Journals

- Çakır, E. (2007). Prediction Studies Supported by Computer on Potato Late Blight in Central Anatolia in Turkey. EPPO Bulletin 37, 309-312p.
- Çakır, E., Duran, H, Altın, N, Akbaş, H, Yeşilova, Ö, Çolak, A, Uçkun, A, Aydın, H, Güler, B. (2005). Potato wart disease survey in Turkey. EPPO Bulletin 35:3,489–490p.
- Ünal, F., Çakır, E. (2017). Molecular Identification of Sooty Molds on Wheat Fields in Central Anatolia Region and Effect of Seed Germination. Eurasian Journal of Agricultural Research, Cilt 1, Sayı 1, 73 – 81s.
- Bahtiyarca Bağdat, R., Çinkaya, N., Yüksel Demiray, K., Bozdemir, Ç., Çakır E. (2017). Common Sage (Salvia officinalis L.) Breeding Studies in Central Anatolian Climatic Conditions. International Journal of Secondary Metabolite, Vol. 4: 3 (2017) pp. 499-507.
- Çakır, E., Ertek, T.S., Maden, S. (2019). Patates Depolarında Lastiğimsi (Ekşi) Çürüklük (Geotrichum candidum) Hastalığı. International Congress on Agriculture and Foresty Research, 13s.,8-12 April 2019, Marmaris, Turkey.
- Çakır,, E., Ertek T.S., Demirci, F. (2019). Patateste Sclerotium sp.'nin Neden Olduğu Kök Çürüklüğü. International Congress on Agriculture and Foresty Research, 52s., 8-12 April 2019, Marmaris.
- Çakır, E., Ertek, T.S., Maden, S. (2019). Molecular identification of *Phytophthora erythroseptica* causing pink rot of potato in Turkey. 1st International Molecular Plant Protection Congress Abstract Book. 44 p. Sözlü bildiri, April 10-13, 2019, Adana, Turkey.
- Çakır, E., Bahtiyarca Bağdat, R., Ertek, T S. (2019). Pathogenic fungi species isolated and genetically characterized in oregano field plantation of Central Anatolian climatic conditions. 1st International Molecular Plant Protection Congress" 95 p, April 10-13, 2019, Adana, Turkey.
- Çakır, E., Ünal, F. (2019). Fungal Diseases Problems in Potato warehouses in the Central Anatolia Region in Recent Years. II. Uluslararası Tarım Kongresi Bildiri Kitapcığı, 21-24 Kasım 2019, Ankara, s96.
- Ünal, F., Çakır, E. (2019). Streptomyces Bacteria and Their Use in Biocontrol of Cereal Diseases. II.
   Uluslararası Tarım Kongresi Bildiri Kitapcığı, 21-24 Kasım 2019, Ankara, s17.
- Bahtiyarca Bağdat, R., Çakır, E. (2018). Antifungal Activity of Certain Map Extracts and Essential Oils Against Ascochyta rabiei. International Conference on Agriculture, Forest, Food Science and Technologies. Proceeding book, 193s. 2-5 Nisan 2018, Çeşme-İzmir/Turkey.
- Ünal, F., Aşkın, A., Çakır, E. (2018). Potential Biologic Control Agents Isolated from Turfgrass Areas in Turkey. Proceeding book of International Conference on Agriculture, Forest, Food Sciences and Technologies (ICAFOF 2018 Çeşme-İzmir/ Turkey), s:143.
- Çakır, E., Bahtiyarca, Bağdat, R., Yeken, M. and Özer, G.(2023). First report of leaf spot disease caused by *Xenodidymella glycyrrhizicola* on *Glycyrrhiza glabra*. (in press)



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#### PUBLICATIONS

#### **INTERNATIONAL ARTICLES AND PAPERS**

#### **Articles Published in International Journals**

- Çakır, E. (2007). Prediction Studies Supported by Computer on Potato Late Blight in Central Anatolia in Turkey. EPPO Bulletin 37, 309-312p.
- Ünal, F., Aşkın, A., Çakır, E. (2018). Çim Alanlarında Waitea circinata var. circinata'nın Sebep Olduğu Kahverengi Halkalı Yama Hastalığı ve Mücadele Olanakları. Proceeding book of International Conference on Agriculture, Forest, Food Sciences and Technologies (ICAFOF 2018 Çeşme-İzmir/ Turkey). Book Of Abstracts 144p.
- Özercan, B., Çakır, E., Kalanlar Ş., Demir A. (2017). Nevşehir ve Niğde İllerinde Üreticilerin Patates Siğil Hastalığına Bakışı. International Conference on Agriculture Forest Food Sciences and Technologies 15-17 Mayıs 2017 Cappadocia.
- Çakır, E., Ünal, F. (2017). Rhizoctonia Anastomosis Groups Damaging on Potato and Control of the Disease. International Conference on Agriculture Forest Food Sciences and Technologies, Book Of Abstracts 756p, 15-17 Mayıs Cappadocia.
- Çakır, E., Bahtiyarca Bağdat, R., Katırcıoğlu, Y.Z, Maden, S., 2017. Occurrence of root rot caused by Phytophthora cryptogea on common sage (Salvia officinalis) in Turkey. International Conference on Agriculture Forest Food Sciences and Technologies, 713s, 15-17 Mayıs Cappadocia.
- Bahtiyarca Bağdat, R., Cınkaya, N, Yuksel, K, Bozdemir, C, Çakır, E. (2017). Orta Anadolu Bölgesi Tıbbı Adaçayı (*Salvia Officinalis* L.) Islahı Araştırmaları. I. International Congress On Medicinal And Aromatıc Plants: "Natural And Healthy Life" Book Of Abstracts, 1607s, Mayıs 2017, Konya, ISBN: 978-605-4988-14-3.
- Ünal F., Çakır E., 2017. Molecular Identification of Sooty Molds on Wheat Fields in Central Anatolia Region and Effect of Seed Germination. International Conference on Agriculture Forest Food Sciences and Technologies, 524s, 15-17 Mayıs Cappadocia.
- Çakır, E., Keçeçi, M., DEMİRCİ, F. (2016). Effect of boron on potato wart disease (Synchytrium endobioticum).
   Uluslararası katılımlı Türkiye VI. Bitki Koruma Kongresi 5-8 Eylül 2016 Konya, Bildiri Özetleri S: 688.
- Polat, Z, Çakır E., Beşirli, G, Sönmez, İ. (2014). Determination Of Garlic Fungal Diseases From Field and Storage Garlic In Taşköprü, Kastamonu, Turkey. Balkan Agricultural Congress, 8-11 September 2014, 752p., Edirne, Turkey.
- Çakır, E., Şahin, F, Bayrak, O.M. (2006). Resistance of Potato varieties Against to *Synchytrium endobioticum* (Schilb.) Percival Causing Potato Wart Disease in Turkey and Its Molecular Characterization. Workshop on Wart Disease, Book of Abstracts, 10p. The Netherlands.
- Çakır, E. (2005). Some Studies on Potato Wart [Synchytrium endobioticum (Schilb.) Perc.] in Turkey. EPPO Workshop on Synchytrium endobioticum, 2005-12-13/14 Paris.
- Tülek, S., Çakır E., Ertek, TS., Canpolat, S. (2019). Molecular studies on the pathogenesis of *Synchtrium endobioticum*. 1st International Molecular Plant Protection Congresss Abstract Book, (Sözlü) April 10-13, 2019, Adana, Turkey.



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#### **NATIONAL ARTICLES and PAPERS**

#### **Article Published in National Journals**

- Çakır E., Zelya, A.G., Maden, S. (2019). Comparison of the Turkish Pathotypes of Potato Wart Caused by Synchytrium endobioticum with the Ukranian pathotypes. Plant Protection Bulletin, 59 (1), 1-6p. doi.org/10.16955/bitkorb.422160
- Çakır, E., Demirci, F. (2011). Control Practices Of Potato Wart Disease From The Past To The Present. Selçuk Tarım ve Gıda Bilimleri Dergisi 25 (2): (2011) 106-113.
- Çakır, E., Made,n S. (2010). Pathotypes Of The Causal Agent Of Potato Wart Disease (Synchytrium endobioticum (Schilb.) Perc.) And Its Distribution In The World And In Turkey. Selçuk Tarım ve Gıda Bilimleri Dergisi. Sayı:1, Cilt:24, 80-91p.
- Çakır,, E., Maden S. (2016). Fungal storage rot agents determined in onion warehouses in Ankara (Polatlı)
- province. Plant Protection Bulletin, 56(2): 135 143s. ISSN 0406-3597
- Çakır E., Demirci, F. (2013). Effects of some plant activators against Potato wart disease [Synchytrium endobioticum (Schilb.) Per.]. Plant Protection Bulletin, 53(4):239-250.
- Çakır, E., Ertek Sarıgül, T. (2019). First Report Of Powdery Mildew Caused By Erysiphe Sedi On The Ornamental Plant Kalanchoe (Kalanchoe blossfeldiana) In Turkey. International Agricultural Congress, 21-24 Kasım 2019, Ankara, s95. (oral presentation)
- Çakır, E., Bahtiyarca Bağdat, R., Ertek, T.S. (2019). Fungal Pathogens of Oregano Fields in Ankara Province. International Congress on Agriculture and Foresty Research, 7p., 8-12 April 2019, Marmaris. (oral presentation)
- Çakır, E., Maden, S, Ünal F. (2018). Pathotype Studies on Potato Wart Disease (Synchytrium endobioticum) in Turkey. International Conference on Agriculture, Forest, Food Science and Technologies. Proceeding book, 193s. 2-5 Nisan 2018, Çeşme-İzmir/Turkey. (oral presentation)
- Çakır, E., Ünal, F. (2018). Challenges in the Application of Arbuscular Mycorrhizal Fungi for the Control of Plant Diseases. International Conference on Agriculture, Forest, Food Science and Technologies. Proceeding book, 194s. 2-5 Nisan 2018, Çeşme-İzmir/Turkey. (oral presentation).
- Çakır, E., Bahtiyarca Bağdat, R., Çınar, O. (2016). Fungal diseases in Medicinal Sage (Salvia officinalis L.) Cultivation. III. Tıbbi ve Aromatik Bitkiler Sempozyumu Bildirileri, 4-6 Ekim 2016, Antalya, S: 76.
- Çakır, E., Onaran, H, Duran, H, Bilgin, M.G. (2006). Reactions of commercial potato cultivars against wart disease and effect of the disease on yield in Turkey. IV. National Potato Congress Proceedings Book Niğde, 242-249s.



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- Çakır, E., Maden, S. (2015). Fungal Diseases of Onions Occurring Onion Growing Areas in Ankara Province.
   National Agriculture Congress, Program and Abstracts Book, Poster, 163p.
- Çakır, E., Demirci, F. (2015). Effects of Some Plant Activators on Potato Wart Disease. II. National Agriculture Congress, Program and Abstracts Book, Poster 164p.
- Çakır, E., Maden, S. (2015). Fungal Storage Rot Determined İn Onion Warehouses In Ankara Province. VII.
   Ulusal Bahçe Bitkileri Kongresi. Bildiri Özetleri Kitabı, 14p. (oral presentation)
- Çakır, E., Demirci, F. (2015). Effects of Some Fungicides Against Potato Wart Disease (*Synchytrium endobioticum*). II. National Agriculture Congress, Program and Abstracts Book, 83p. (oral presentation)
- Çakır, E., Demirci, F. (2015). Pathotype Identification Methods of Potato Wart disease agent Synchytrium endobioticum, Advantages and Disadvantages. II. National Agriculture Congress, Program and Abstracts Book, 84s. (oral presentation)
- Koç, G., Demirci, F., Çakır, E. (2015). Effects of Some Fungicides on Antagonistic Yeast Candida famata. VII. Ulusal Bahçe Bitkileri Kongresi. Bildiri Özetleri Kitabı, poster, 128s.
- Çakır, E., Duran, H, Altın, N, Çolak, A, Aydın, H, Akbaş, H, Yeşilova, Ö, Esen, H, Uçkun, A, (2004). Studies on Determination of Potato Wart (*Synchytrium endobioticum* (Schilb.) Perc.) in Potato Growing Areas of Turkey. I. Plant Protection Congress, 8-10 September, 2004. (oral presentation)
- K, Erzurum, Maden, S., Karakaya, A, Tuncer, G, Demirci, F, Çakır, E. (2001). The Studies on Cercospora Blight Disease in the Anise Growing Areas of Antalya, Burdur and Denizli Provinces. IX. Phytopathology Congress, 3-8 September 2001, Tekirdağ. Trakya University Rectorate Publications No: 45, 317-323s.
- Çakır, E. (2019). Oregano and Sage Diseases. Yüksek Verim ve Kalite Kriterlerine Sahip Tıbbi Aromatik Bitki yetiştiriciliği, işlenmesi ve pazarlanmasında karşılaşılabilecek sorunlar ve çözüm yolları çalıştayı, TBMAE 25 Mart 2019, Ankara.
- Çakır, E. (2015). Potato Dry Rot Disease. Agromedya Journal, Issue 16 Potato Special File, 100s.
- Erdoğan, P., Erdoğuş, F.D., Karahan, A., Çakır E., Değirmenci, K. (2015). Control of Potato Pests and Diseases. Ziraat Odaları, Türk Çiftçisinin Sesi, 76, 14.
- Çakır, E. (2014). Potao wart Disease (*Synchytrium endobioticum*). Agromedya Journa, IDecember 2014, Issue:13, 116-120s.
- Çakır, E. (2012). Major Diseases in Autumn Vegetables and Their Control. Tarım Türk, 37:72-74s.
- Çakır, E., Demirci, F. (2010). Potato Wart (Synchytrium endobioticum). Tarım Türk, 21:84-88.
- Çakır E., 2012. Pepper Cultivation. Republic Of Türkiye Ministry Of Agriculture And Forestry Department Of Training And Publication, Farmer Education Series Publication No.:2012/55.



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- OTHER PUBLICATIONS
- Ph.D. Thesis, Master Thesis, Reports, Books etc.
- Hansen JG, , B,, Bain, R, , Schmiedl, J, , Ritchie, F, , Bucena, L, Çakır, E., Cooke, L, , Dubois, L, , Filippov, A, , Hannukkala, A, , Hausladen, H, , Hausvater, E, , Heldak, J,, Hermansen, A, , Kapsa, J, , Pliakhnevich, M, , Koppel, M, , Lees, A, , Musa, T, , Ronis, A,, Schepers, H, , Vogelaar, K, Vanhaverbeke, P. (2009). The development and control of Late Blight (*Phytophthora infestans*) in Europe in 2007 and 2008, In: EuroBlight Workshop, Hamar, Norway. 28 31 October. PPO-Special Report 384, Applied Plant Research, AGV Research Unit., p 11-30.
- Ertürk S., Alkan M., Çakır E., Elibüyük E. A., Koca E. (2018). Classification of Pesticides according to Mode of Action. Birişik N. (Ed.). Chemical Control from Theory to Practice (s. 99-116). Ankara. Republic of Turkey Ministry of Food Agriculture and Livestock General Directorate of Food And Control, Matsa Printing house. ISB978-605-2207-13-0
- Bahtiyarca Bağdat, R., Çakır, E., Çınar, O. (2022). Functional Uses, Trade and Sustainability of Medicinal and Aromatic Plants.(in: Effects of Climate Change on Secondary Metabolites of Medicinal Aromatic Plants and Plant Diseases, Ed. Rüveyde Tunçtürk (534p)), Section 6, 146-183p, İksad Publishing House, Ankara 2023. ISBN: 978-625-8246-05-6
- Çakır, E.(2023). Innovative and Multidisciplinary Approaches in Agricultural Sciences. (in New Approaches in the Control of Potato Wart Disease in European Union, Ed. Meltem AVAN (400p)), Section 3, 47-81, İksad Publishing House, Ankara 2023. ISBN: 978-625-6404-98-4
- Çakır, E., Bahtiyarca Bağdat, R. (2023). Strategic Sector: AGRICULTURE-2 (in: THE YIELD AND QUALITY PARAMETERS OF Origanum vulgare var. hirtum, CULTIVATED UNDER CENTRAL ANATOLIAN ECOLOGICAL CONDITIONS, AND IDENTIFIED DISEASES IN THEIR PLANTATIONS, Ed: Dr. Öğr. Üyesi Mustafa YAŞAR, Prof. Dr. Aydın AKKAYA (548p)), Section 8, 208- 237p, İksad Publishing House, Ankara 2022. ISBN: 978-625-6404-81-6
- Potato Integrated Pest Management Technical Instruction, T.C. Republic Of Türkiye Ministry Of Agriculture And Forestry General Directorate Of Agricultural Research And Policies, Department of Plant Health Research 2015-2017-2022 edition, 117s (coordinator). <a href="https://www.tarimorman.gov.tr/TAGEM/Menu/28/Yayinlar\_veriler">https://www.tarimorman.gov.tr/TAGEM/Menu/28/Yayinlar\_veriler</a>
- Çakır, E. (2015). Studies On The Control Of Potato Wart Disease (Synchytrium endobioticum) By Using Same Fungicides And Rhizobacteria. Ankara University, Graduate School Natural and Applied Sciences, Department of Plant Protection. Doctoral thesis June, 2015, 122 pages.
- Çakır, E. (2008). Türkiye'de Patates Siğili Etmeni *Synchytrium endobioticum*'un Irklarının Belirlenmesi. Ankara University, Graduate School Natural and Applied Sciences, Department of Plant Protection. Master's thesisJune, 2008, 59 pages.





- Membership, Training, Course, Meeting, Congress, Symposium and Other Activities
- Plant Biosafety Research GMO Analysis Applied Training, TUBİTAK (MAM) İstanbul, Türkiye
- GMO Analysis Applied Training Course in Processed and Unprocessed Food Products (Ankara Gida Kontrol Lab. Müd.)
- Synchytrium endobioticum (Survey, sampling methods for infested field, soil tests, direct examination, scheduling and quarantine regulations (Canada Food Inpection Agency/KANADA)
- Training on detection and identification of potato fungal diseases, Plant Protection Service in Netherlands, Wageningen
- Synchytrium endobioticum (identification of pathotypes and quarantine regulations), Julius Kühn Institute (JKI) Almanya
- Project Managers Project Management, TUBİTAK/Gebze-ISTANBUL
- Identification of potato wart agent Synchytrium endobioticum isolates of Turkey with the help of potato differential varieties from Ukrainian selection, Ukrainian Secientific-Research Plant Quarantine Station, Chernivtsi Region/Ukraine
- Determination of potato wart pathotypes using the Glynne-Lemmerzalh method Julius Kühn Institute (JKI) Almanya
- Integrated Control Training in Greenhouse Cultivation, İzmir.
- Biosafety and Biotechnology Education, Antalya.