



TAGEM
R&D AND INNOVATION

INTERNATIONAL AGRICULTURAL RESEARCH
AND TRAINING CENTER / IZMIR

NEJAT ÖZDEN, PhD

Agricultural Engineer

EDUCATION

■ **Assoc. prof**

■ **PhD** Ege University
2005-2010 Agricultural Faculty

■ **MSc** Ege University
2000-2004 Agricultural Faculty

■ **Bachelor's Degree** Ege University
1995-1999 Agricultural Faculty

LANGUAGE English ÜDS 58.75

CAREER

■ 2019- Researcher, International Agricultural Research and Training Center - Izmir

■ 2014-2019 Deputy Director, International Agricultural Research and Training Center - Izmir

■ 2012-2014 Technical Coordinator, International Agricultural Research and Training Center - Izmir

■ 2011-2012 Researcher, International Agricultural Research and Training Center - Izmir

■ 2004-2011 Researcher, Menemen Soil and Water Resources Research Institute - Izmir

■ 2000-2004 Research Assistant, Ege University - Izmir

ABOUT ME

I was born in 1976 in Izmir. In 1999, he graduated from Ege University, Faculty of Agriculture, as the first in the department. He completed his master's degree in 2004 and his doctorate in 2010. Between 2000-2004, he worked as a "Research Assistant" at Ege University, Faculty of Agriculture, Department of Soil.

He has studies on soil survey and mapping, soil genetics and classification, remote sensing - geographic information systems, land use planning and organic agriculture.

CONTACT

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▪ **PROJECTS**

▪ **Projects Conducted**

1. Yield Estimation and Product Monitoring in Corn with Plant Growth Models and GIS, UA Techniques: İzmir Case Study (TAGEM, Researcher).
2. Determination of Boron Nutrition Status of Vineyards in İzmir, Manisa, Denizli Provinces and Investigation of the Effect of Boron Fertilization on Yield in Vineyards (BOREN, Project Leader).
3. Suggestion for Drought Management Adapted to Changing Climatic Conditions with the Aim of Continuing Agricultural Production, Küçük Menderes Basin Case Study (Ege University, Researcher).
4. Farming Tools for external nutrient Inputs and water Management - FATIMA (AB - H2020, Researcher).
5. Determination of Plant Nutrient and Potential Toxic Element Scopes of İzmir-Manisa-Aydın Provinces Agricultural Soils (TAGEM, Project Leader).
6. Agricultural Land Use Planning by GIS Techniques for the West Part of Bakırçay Basin (TAGEM, Project Leader).
7. Evaluation of Temporal and Spatial Variation of the Water Table in Menemen Left Bank Irrigation Area Using Geostatistical Methods (TAGEM, Researcher).
8. Determination of Plant Nutrient and Potential Toxic Element Scopes of Turgutlu-Ahmetli-Salihli Plains Agricultural Soils (TAGEM, Project Leader).
9. Environmental Technologies and The Phenomenon of Desertification (TÜBİTAK - Bilateral, Researcher).
10. Using of Updatable Land Information System for Soil and Water Management on Irrigation Scheme Level (TÜBİTAK - 1001, Project Leader).
11. Monitoring and Evaluation of Temporal and Spatial Change of Land Degradation in the Sample Area of Torbali and Kemalpaşa Districts of İzmir City with the Help of Remote Sensing and Geographical Information System Techniques (TAGEM, Researcher).
12. Determining Potential Soil Erosion Using RUSLE Model in Kocadere Basin and Planning the Soil Conservation (TAGEM, Researcher).
13. Agroecological Zoning in the Middle Gediz Basin (TAGEM, Researcher).
14. Determining of the potential erosion risk of Karaburun Peninsula, using RS and GIS techniques (Ege University, Researcher).



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15. A Study to Determine Olive Trees in Land Using Remote Sensing Method (Ege University, Researcher).
16. Researches on Determination of Gediz Vineyards by Satellite Images and Related that Estimation Yield Harvest Grape (Ege University, Researcher).
17. A Research on the Determination of Crop Pattern of the Torbali-Izmir Region by Remote Sensing Technique in the Year of 2001 (Ege University, Researcher).

▪ Ongoing Projects

1. Roadmap for carbon farming schemes – ROAD4SCHEMES (AB - EJP Soil, Researcher).
2. Soil organic carbon sequestration potential of agricultural soils in Europe - CARBOSEQ (AB - EJP Soil, Researcher).
3. Effect of Alfalfa (*Medicago sativa L.*) Cultivated in Organic and Conventional Agriculture Systems on Soil Properties, Yield and CO₂ Emission (TAGEM, Researcher).
4. Determining the Effect of Different Nitrogen Levels Applied by Subsurface Fertigation Method on Corn Yield and Some Quality Properties (TAGEM, Researcher).
5. Potential for Using Innovative Compost as Soil Additive in Organic Waste Management: Assessment Regarding Production Technology, Challenge of Climate Change, Soil Quality and Plant Growth (TÜBİTAK 1001, Researcher).
6. Effects of Olive Blackwater Treated with Different Methods on Some Soil Properties and Corn Yield (TAGEM, Researcher).
7. Determination of Agricultural Nitrate and Phosphorus Pollution Using ArcSWAT Method in Menemen Plain - Example of Seyrek Secondary Irrigation Area (TAGEM, Researcher).
8. Production of Liquid Chemical Fertilizers Suitable for Crop Production in Wet and Dry Conditions and Comparison of Their Activities with Conventional Solid Chemical Fertilizers, and Development of Appropriate Machines in order to Use Liquid Fertilizer (Private Sector - TAGEM, Researcher).



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■ **PUBLICATIONS**

■ **INTERNATIONAL ARTICLES AND PAPERS**

■ **Articles Published in International Journals**

1. BAYRAM, S. E., ELMACI, Ö. L., ÖZDEN, N., 2016. Nutrition Status of Peach (*Prunus persica L.*) Orchards in the South Part of İzmir Province, Journal of Tekirdag Agricultural Faculty, 2016; 13(4).
2. ALTINBAŞ, Ü., BOLCA, M., ESETLİLİ, M.T., GÜLGÜN, B., ÖZEN, F., GENCER, G., GÜNEY, A., HEPCAN, Ş., ÖZDEN, N., 2007. A GIS Aided Model for Rating Natural Protection Areas According to Natural Protection Priorities, - The International Journal of Sustainable Development and World Ecology, 14 (2007) 1-9. Published by Spiens Publishing, London.
3. KURUCU, Y., BOLCA, M., ALTINBAŞ, Ü., ESETLİLİ, M.T., ÖZDEN, N., ÖZEN, F., 2004. Determination of Electromagnetic Energy Reflection Characteristics of Cotton Planted Areas During by Using Satellite Images and a Portable Spectrometer. Journal of Applied Sciences 4 (3): 374-379. ISSN 1607-8926.

■ **International Papers, Seminars, etc.**

1. ŞAHİN TAYSUN, K., TAYSUN, A., YILMAZ, G., ÖZDEN, N., 2019. Environmental Evaluation of Change in Land Use / Cover in the Selected Area in Torbalı and Kemalpaşa Districts of İzmir Province, 13th National & 1st International Environmental Engineering Congress, Gebze Technical University p:265-268, 10-12 October, Gebze, Kocaeli.
2. ŞAHİN TAYSUN, K., TAYSUN, A., VE ÖZDEN, N., 2018. Distribution of Potential Soil Loss Values and Wind Erodibility Groups (WEG) of Areas under The Effect of Wind Erosion in Manisa-Akselendi Plain. 1st International, 14th National Congress on Agricultural Structures and Irrigation Proceedings&Abstracts, 1.Uluslararası, 14.Ulusal Tarımsal Yapılar ve Sulama Kongresi, s.623. 26-28 Eylül, Antalya.
3. YILMAZ, G., N. ÖZDEN, E. BORA, G. YÜCEERİM, 2017. Estimation of soil erosion within a small watershed in the mountainous region of Balıkesir-Bigadiç using RUSLE and GIS. 5th International Participation Soil and Water Resources Congress, Proceedings Book-v: 1, p: 630-641, 12-15 September, Kırklareli / Turkey.
4. ŞAHİN TAYSUN, K., ÖZDEN, N., TAYSUN, A., 2017. Monitoring Temporal Change of Land Cover and Land Degradation in the Sample Area of Torbalı and Kemalpaşa Districts of Izmir City. 5th International Participation Soil and Water Resources Congress.12-15 September, Kırklareli.
5. ÖZDEN, N., KARAGÜL, V., SÖKMEN, Ö., CANDAN, N., ŞEN, S., Ertürk, A., 2016. Microelement Contents of Aegean Region Vineyards in Soil and Plant, AgroBor 2016, International Symposium on Boron in Agriculture, 16-18 November 2016.



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6. ÖZDEN, N., KORKMAZ, N. GUNDUZ, M., 2015. Water Distribution Performance at Drought Years in Menemen Irrigation System. International Soil and Water Resources Congress 01-04 September 2015. Kahramanmaraş.
7. KORKMAZ, N., GÜNDÜZ, M., ŞEN, S., ÖZDEN, N., 2015. Geostatistical Approach on Seasonal Variation of Groundwater Depth and Salinity in İzmir-Menemen Plain. International Soil and Water Resources Congress 01-04 September 2015. Kahramanmaraş.
8. ÖZDEN, N., KORKMAZ, N., GÜNDÜZ, M., 2014. Using of Land Information System at The Menemen Right Bank Irrigation System. II. Drought and Desertification Symposium with International Participation. 16-18 September 2014, Konya.
9. TAYSUN, A., ÖZDEN N., ŞAHİN TAYSUN K., OKUR M., 2014. Investigation Of Some Factors That Affect The Sand Dune Formation And Activity In Manisa Akselendi Plain And Their Comparison To The Sand Dune Activity In Karapınar, 2nd International Drought and Deserification Symposium, 16-18 September 2014, Konya.
10. ŞAHİN TAYSUN, K., ÖZDEN, N., NURLU, E., TAYSUN, A., 2014. Evaluation of Land Degradation In Torbalı And Kemalpaşa Distrits Of İzmir City, 2nd International Drought and Deserification Symposium, 16-18 September 2014, Konya.
11. ÖZDEN, N., KURUCU, Y., 2012. Parcel Based Crop Pattern Planning of the Left Bank Irrigation Area of Menemen Plain by Remote Sensing Tecgniques, 8th International Soil Science Congress on "Land Degradation and Challenges in Sustainable Soil Management, May 15-17, 2012, Çeşme-İzmir/TURKEY, v:3, p:290-295.
12. YILMAZ, G., ACAR, C.O., UYSAL, H., ÖZDEN, N., 2012. Rainfall Erosivity Factor (R) Values Determined from Daily Rainfall Data and Its Annual Distribution in Balıkesir-Kocadere Creek Watersheed, , 8th International Soil Science Congress on "Land Degradation and Challenges in Sustainable Soil Management, May 15-17, 2012, Çeşme-İzmir/TURKEY.
13. KURUCU, Y., ALTINBAŞ, Ü., UYSAL, H., BOLCA, M., ESETLİLİ, M.T., ÖZEN, F., YÖNTER, G., ÖZDEN, N., YOLCU, G., KARAKURT, H., ALTUN, N., 2010. Creating Soil Lost Mapping of the Karaburun Peninsula by Geographical Information System and Remote Sensing Technique. International Soil Science Congress on "Management of Natural Resources to sustain Soil Health and Quality", May, 26-28, 2010, Ondokuz Mayıs University, Samsun-Turkey.
14. KURUCU, Y., ALTINBAŞ, Ü., UYSAL, H., BOLCA, M., ESETLİLİ, M. T., ÖZEN, F., YÖNTER, G., ÖZDEN, N., KARAKURT, H., YOLCU, G., ALTUN, N., 2009. Creating Potential Erosion Risk Map Of The Karaburun Peninsula By Geographical Information System And Remote Sensing Technique. - International Conference on Sustainable Development in Southeast Europe, 16-18 June 2009, Tekirdag and 19-20 June 2009, Istanbul-TURKEY.



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15. ÖZDEN, N., ALTINBAŞ, Ü., 2008. Research on Determining of Reflection Values of Rhodoxeralf, Haprendoll and Xerofluent Great Soil Groups, Symposium on Geophysics and Remote Sensing in Determination of Near-Surface Structures, April 30-May 2, 2008, İzmir-Türkiye.
16. KURUCU, Y., ALTINBAŞ, Ü., BOLCA, M., ESETLİLİ, M.T., ÖZDEN, N., ÖZEN, F., 2003. Research on the Determination of the Areas of Cotton Plantation and Cotton Yield in Aydın District, Aegean Region, Using Satellite Images. International Congress on Information Technology in Agriculture, Food and Environment (ITAFE'03). 07-10 October 2003, İzmir/ Turkey.

▪ NATIONAL ARTICLES AND PAPERS

▪ Articles Published in National Journals

1. ÖZDEN, N., USLU, İ., SÖKMEN, Ö., METİNOĞLU, F., 2021 Determining and Mapping the Fertility and Microelement Scopes of the Agricultural Soils of İzmir Province, Soil Water Journal Special Issue, 2021, page: 31-40.
2. ÖZDEN, N., ŞEN, S., 2020. Some Studies on and Necessary Steps for Improving Degraded Agricultural Lands and Reclaiming Them, Çiftçi ve Köy Dünyası, Türkiye Ziraat Odaları Birliği Dergisi, Sayı: 426, s:28-32.
3. ESETLİLİ, M.T., KURUCU, Y., ÖZDEN, N., ŞANLI, F.B., ÖZEN, F., BOLCA, M., 2020. The Contribution of Multispectral Data in Soil Survey and Mapping Studies with Stereo Photo Interpretation Techniques, Ege Üniv. Ziraat Fak. Derg., 57 (4): 591-602 DOI: 10.20289/zfdergi.695768
4. KURUCU, Ü., ALTINBAŞ, Ü., UYSAL, H., BOLCA, M., ESETLİLİ, M.T., ÖZEN, F., YÖNTER, G., ÖZDEN, N., YOLCU, G., KARAKURT, H., ALTUN, N., 2010. Creating Soil Lost Mapping of the Karaburun Peninsula by Geographical Information System and Remote Sensing Technique. Anadolu J. Agric. Sci., 2010, 25(S-1):20-28.
5. ÖZDEN, N., ALTINBAŞ, Ü., 2005. Research on Determining of Reflection Characters of Different Soil Taxonomic Units By Utilizing Remote Sensing Technique. Ege Üniv. Ziraat Fak. Derg., 42(2): 143-153, ISSN 1018-8851, Bornova/İzmir.



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▪ National Papers, Seminars, etc..

1. NAMLI A., OKUR N., KIZILKAYA R., TURGAY O.C., GÖÇMEZ S., KALINBACAK K., KAYIKÇIOĞLU H.H., ÖZDEN N., BALCIOĞLU I.A., 2020. Causes, Effects and Removal Methods of Soil Pollution, Türkiye Ziraat Mühendisliği IX. Teknik Kongresi Bildiri Kitabı-1, s:155-190, Ocak 2020, Ankara, ISBN-978-605-01-1321-1.
2. ÖZDEN, N., GÖÇMEZ, S., 2019. Turgutlu, Ahmetli, Salihli Ovaları Tarım Arazilerinin Verimlilik Durumlarının Belirlenmesi Ve Haritalanması, 8. Ulusal Bitki Besleme ve Gübre Kongresi, 12-15 Mart 2019, Antalya.
3. ESETLİLİ, M.T., ÖZEN, F., ÖZDEN, N., BOLCA, M., KURUCU, Y., ALTINBAŞ, Ü., 2011. Uzaktan Algılama Tekniği Kullanılarak Zeytin Ağaç Varlığının Belirlenebilirliği, Torbalı (İzmir) Örneği. Ulusal Zeytin Kongresi, 22-25 Şubat 2011, Akhisar-Manisa.
4. TAYSUN, A., ÖZDEN N., ŞAHİN TAYSUN K., OKUR M., 2011. Akselendi Ovasında Potansiyel Rüzgar Erozyonu Tehlikesinin Dağılımı ile İlgili Kumulların Oluşum Nedenleri, DSİ, Ulusal Su Mühendisliği Sempozyumu, 12-16 Eylül, Kartal-İstanbul.
5. TAYSUN, A., ÖZDEN, N., ŞAHİN TAYSUN K., OKUR, M., OKUR, O., 2010, Manisa Akselendi Ovasında Rüzgar Erozyonunun Etkileri, Alınan Önlemlerin Durumu ve Etkinliği ile Geleceğe Yönelik Çözüm Önerileri, Çölleşme ile Mücadele Sempozyumu, 17-18 Haziran, s: 361-370, Çorum.
6. OKUR, O., TAYSUN, A., ÖZDEN, N., ŞİMŞEK Lİ N., ŞAHİN TAYSUN, K., YÜCER A., Palta Ç., 2010, Karapınar Rüzgar Erozyonu Koruma Alanında WEQ Sınıfları, Kuru Agregatlar ve Potansiyel Toprak Kayıplarının Mevsimsel Değişimi İle Yıllara Göre Sediment Hareketlerinin Alansal Dağılımı, Çölleşme ile Mücadele Sempozyumu, 17-18 Haziran, s: 471-497, Çorum.
7. TAYSUN, A., ÖZDEN, N., ŞAHİN TAYSUN, K., YILMAZ, G., VASSILOPOULOS, A., EVELPIDOU, N., 2009. Manisa Akselendi Ovasındaki Kumul Aktivitesinin Nedenleri, Evrimi ve Çevresel Değerlendirmesi, I.Ulusal Kuraklık ve Çölleşme Sempozyumu, 16-18 Haziran 2009, Konya.
8. BOLCA, M., KURUCU, Y., ALTINBAŞ, Ü., ESETLİLİ, M.T., ÖZDEN, N., ÖZEN, F., 2005. Uydu Verileri Kullanılarak Tarımsal Yeşil Dokunun Parsel Bazında Tanımlanmaları Üzerine Çalışmalar. Ege Coğrafi Bilgi Sistemleri Sempozyumu. 27-29 - Nisan 2005, Bornova/İzmir.
9. KURUCU, Y., ALTINBAŞ, Ü., BOLCA, M., ESETLİLİ, M.T., ÖZDEN, N., ÖZEN, F., 2003. Pamuk Ekili Alanların Uydu Teknolojisi Kullanılarak Belirlenmesi. Pamukta Eğitim Semineri. E. Ü. Bilim Teknoloji Uygulama ve Araştırma Merkezi, 14-17 Ekim 2003, İzmir.
10. BOLCA, M., ALTINBAŞ, Ü., KURUCU, Y., EL-NAHRY, A.E., ESETLİLİ, M.T., ÖZDEN, N., ÖZEN, F., 2002. Küçük Menderes Deltası Kıyı Bölümü Değişimlerinin Uzaktan Algılama Tekniği İle Belirlenmesi. Türkiye Kıyıları 02. Türkiye'nin Kıyı ve Deniz Alanları IV. Ulusal Konferansı, 05-08 Kasım, Dokuz Eylül Üniversitesi, İzmir.



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▪ **OTHER PUBLICATIONS**

▪ **Ph.D. Thesis, Master Thesis, Reports, Books etc.**

1. N. ÖZDEN, N. CANDAN, V. KARAGÜL, Ö. SÖKMEN, S. ŞEN, A. ERTÜRK, 2019. Determination of Boron Nutrition Status of Vineyards in İzmir, Manisa, Denizli Provinces and Investigation of the Effect of Boron Fertilization on Yield in Vineyards (Project Result Report).
2. ÖZDEN, N., USLU, İ., SÖKMEN, Ö., ARAS, S., ALKAN, Ü., ŞEN, O. F., ŞEN, S., CANDAN, N., METİNOĞLU, F., RAHMANOĞLU, N., GÖÇMEZ, S., 2018. 5. Determination of Plant Nutrient and Potential Toxic Element Scopes of İzmir-Manisa-Aydın Provinces Agricultural Soils (Project Result Report).
3. N. ÖZDEN, N. RAHMANOĞLU, L. ARUĞASLAN, Y. KURUCU, M. BOLCA, M. T. ESETLİLİ, F. ÖZEN, E. ALTUNEL, S. ÖZEN, 2018. 6. Agricultural Land Use Planning by GIS Techniques for the West Part of Bakırçay Basin (Project Result Report).
4. YILMAZ, G., TAYSUN, K. Ş., ACAR, C. O., ÖZDEN, N., ARUĞASLAN, L., BİLİR, Z. L., TAYSUN, A., UYSAL, H., 2015. 12. Determining Potential Soil Erosion Using RUSLE Model in Kocadere Basin and Planning the Soil Conservation (Project Result Report).
5. KORKMAZ, N. GUNDUZ, M., ÖZDEN, N., ŞEN, S., BİLİR, L., ASIK, S., TEKİN, B., GÜZELSES, S. 2014. Evaluation of Temporal and Spatial Variation of the Water Table in Menemen Left Bank Irrigation Area Using Geostatistical Methods (Project Result Report).
6. ÖZDEN, N., GÖÇMEZ, S., BİLİR, Z. L., SÖKMEN, Ö., 2013. 8. Determination of Plant Nutrient and Potential Toxic Element Scopes of Turgutlu-Ahmetli-Salihli Plains Agricultural Soils (Project Result Report).
7. ŞAHİN TAYSUN K., ÖZDEN N., YILMAZ G., ACAR O. , NURLU E. VE TAYSUN A., 2011. 11. Monitoring and Evaluation of Temporal and Spatial Change of Land Degradation in the Sample Area of Torbali and Kemalpaşa Districts of İzmir City with the Help of Remote Sensing and Geographical Information System Techniques (Project Result Report).
8. ÖZDEN, N., 2010. Parcel Based Crop Pattern Planning of the Left Bank Irrigation Area of Menemen Plain By Remote Sensing Techniques, Ege University Graduate School of Natural and Applied Science, PhD Thesis, İzmir.
9. TAYSUN, A., ÖZDEN, N., ŞAHİN TAYSUN K., YILMAZ G., 2010. 9. Environmental Technologies and The Phenomenon of Desertification. TÜBİTAK ÇAYDAG, 105Y352 (Project Result Report).



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10. ÖZDEN, N., KAYAM, Y., BEYAZGÜL, M., KORKMAZ, N., ATIŞ, İ., ÜNER, K., GÜNDÜZ, M., MALLI, T., ERYİĞİT, N., 2009. Using of Updatable Land Information System for Soil and Water Management on Irrigation Scheme Level, TÜBİTAK Project Result Report).
11. ÖZDEN, N., 2004. Research on Determining of Reflection Characters of Different Soil Taxonomic Units By Utilizing Remote Sensing Technique, Ege University Graduate School of Natural and Applied Science, MSc Thesis, İzmir.
12. ALTINBAŞ, Ü., KURUCU, Y., BOLCA, M., ESETLİLİ, M.T., ÖZDEN, N., ÖZEN, F., TÜRK, T., 2003. Remote Sensing and Geographic Information System Applied Basic Course Lecture Notes. 09-14 June 2003, Ege University, Faculty of Agricultural, Department of Soil Science, Bornova/İZMİR.

▪ Membership, Training, Course, Meeting, Congress, Symposium and Other Activities

27-28 April 2017; South South and Triangular Cooperation in Implementing the 2030 Agenda, UN-SSTC-ADFS (United Nations-South South and Triangular Cooperation for Agricultural Development and Enhanced Food Security) / IARTC-Turkey

26-28 July 2011; ICP-OES Operations, THERMO SCIENTIFIC

14-17 February 2011; nk005a/ Land Consolidation and Drip Irrigation Training, NETCAD

18-22 October 2010; ARCGIS Basic Training, ESRI TURKEY

06-10 December 2010; ARCGIS 3D Analyst and Spatial Analyst Training, ESRI TURKEY

03-05 April 2006; ER Mapper Training, NIK SYSTEM