

Curriculum Vitae for Prof. Dr. Ibrahim ORTAS

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LANGUAGES

- English: Advance
- Turkish: Native

CURRENT POSITION

- Full Professor, Soil Science and Plant Nutrition, Cukurova University, from 2010 to present, appointed in same institution since 1994

EDUCATION

Education	Degree	University
1994	Ph D	University of Reading
1987	McS	Çukurova University
1985	Bc	Çukurova University

Ph.D. Dissertation: The Effect of Different Forms and Rates of Nitrogen and Different Rates of Phosphorus Fertilizer on Rhizosphere pH and P Uptake in Mycorrhizal and non-Mycorrhizal Sorghum Plants. **1994, University of Reading, Reading, UK.**

MEMBERSHIP TO PROFESSIONAL ORGANIZATIONS

- International mycorizologist and International Soil Science membership
- Subtropical fruits central board member

OTHER SKILLS

- Expert in Agricultural Engineering, mycorrhizae; organic farming; Agricultural and soil history, Sustainable agriculture.

KEY QUALIFICATIONS

- The effect of mycorrhizae on mineral nutrient uptake and selections of mycorrhizal dependent citrus plants.
- Using mycorrhiza in sustainable agriculture systems: A micro pilot study for a large scale of mycorrhizae production and mycorrhiza infected citrus seedlings production
- The effect of organic manure, compost, mycorrhizal inoculum and inorganic fertilizer on citrus growth and nutrient uptake under long-term experiments
- The effect of several mycorrhizal species on mandarin, lemone growth and yiled under long term experiment
- The effect of organic fertilizers on citrusp plant growth and quality
- The role of mycorrhizae on carbon sequestration under citrus orchers
- Agricultural management, soil protection, carbon sequestration and climate change

PUBLICATIONS

Peer Reviewed Journals

1. Güzel, N., H. İbrikci and I. Ortaş. 1992. Determination of Number of Sub samples from a Sampling Unit for NO₃-N Measurement NO₃-N in Profiles of Various Soil Series in Southern Turkey. *Communication Soil Science and Plant Analysis*. 23. 2697-2709.
2. Ortaş, I. 1996. The influence of use of different rates of inoculum on root infection plant growth and phosphorus uptake. *Communication Soil Science and Plant Analysis*. 27/18-20. 2935-2946.
3. Ortaş, I., P. J. Harris and D. L. Rowell. 1996. Enhanced uptake of phosphorus by mycorrhizal sorghum plants as influenced by forms of nitrogen. *Plant and Soil*. 184: 255-264.
4. Ortaş, I. 1997. Determination of the Extent of Rhizosphere Soil. *Communication Soil Science and Plant Analysis*. 28 (19-20) 1767-1776.
5. Ortaş, I., N. Güzel, H. İbrikçi. 1999 Determination of Potassium and Magnesium Status of Soils Using Different Soil Extraction Procedures in The Upper Part of Mesopotamia (in the Harran Plain.) *Communication Soil Science and Plant Analysis*. 30 (19-20) 2607-2625.
6. Ortaş, I. and Rowell, D.L. 2000. The effect of pH on the amount of phosphate extractable by 10 mM CaCl₂ from three Rothamsted soils. *Communications in Soil Science and Plant Analysis* 31 (17&18) p 2917-2923.
7. Ortaş, I., Ortakçı, D. and Kaya, Z. 2002a. Various mycorrhizal fungi propagated on different hosts have different effect on citrus growth and nutrient uptake. *Communications in Soil Science and Plant Analysis* 33(1&2) 259-272.
8. Ortaş, I., Ortakçı, D. and Kaya, Z. Çınar, A., Önelge, N, 2002b. Mycorrhizal dependency of sour orange (*Citrus aurantium* L.) In term of phosphorus and zinc nutrition by different levels of phosphorus and zinc application. *Journal of Plant Nutrition*. 25, 6: 1263 – 1279.
9. Ortaş, I. 2003. Effect of Selected Mycorrhizal Inoculation on Phosphorus Sustainability in Sterile and Non-Sterile Soils in the Harran Plain in South Anatolia. *Journal of Plant Nutrition*. 26, 1: 1-17
10. Sari, N., Ortaş, I. and Yetişir, H. 2002. Effects of Mycorrhizae on Plant Growth, Yield and Phosphorus Uptake in Garlic Under Field Conditions. *Communications in Soil Science and Plant Analysis* 33 (13&14), 2189-2201
11. Ortaş, I., Sari, N. and Akpınar Ç. 2003. Effects of mycorrhizal inoculation and soil fumigation on the yield and nutrient uptake of some solanaceas crops (tomato, eggplant and pepper) under field conditions. *Agr. Med. Vol, 133*. 3-4. 249-258
12. Ortaş, I. and. Sari, N. 2003. Enhanced Yield and Nutrient Content of Sweet Corn with Mycorrhizal Inoculation Under Field Conditions. *Agr. Med. Vol, 133*. 3-4, 188-195.
13. Ortaş, I., D. L. Rowell and P. J. Harris 2004. Effect of Mycorrhizae and pH Change at the Root-Soil Interface on Phosphorus Uptake by Sorghum Using a Rhizocylinder Technique. *Communications in Soil Science and Plant Analysis* 35 (7&8) p 1061-1080.
14. Ortaş, I., D. L. Rowell 2004. Effect of Ammonium and Nitrate on Indigenous Mycorrhizal Infection, Rhizosphere pH Change and Phosphorus Uptake by Sorghum. *Communications in Soil Science and Plant Analysis* 35 (13&14) p 1923-1944.
15. Celik, I., Ortaş, I., Kilic, S. .2004. Effects of compost, mycorrhiza, manure and fertilizer on some physical properties of a Chromoxerert soil. *Soil & Tillage Research* 78 (2004) 59–67.

16. Ortas, I and C. Akpınar, 2006. Response of kidney bean to arbuscular mycorrhizal inoculation and mycorrhizal dependency in P and Zn deficient soils. *Acta Agriculturae Scandinavica, Section B - Plant Soil Science*. 56;101 – 109.
17. Daşgan, Y., Kusvuran, S. and Ortas, I. 2008. Length Research Paper Responses of soilless grown tomato plants to arbuscular mycorrhizal fungal (*Glomus fasciculatum*) colonization in re-cycling and open systems. *African Journal of Biotechnology* Vol. 7 (20), pp. 3606-3613.
18. Kafkas, S., and Ortas. 2009. Various Mycorrhizal Fungi Enhance Dry Weights, P and Zn Uptake of Four Pistacia Species. *Journal of Plant Nutrition*, 32: 146–159
19. Comlekcioglu S, Akpınar C, Bayazit S, Ortas I, Kuden AB. 2008. Effect of Mycorrhizae Applications on the Mineral Uptake in 'Alkuden' (01-IN-06) Fig Genotype. Ed by Palmer JW. Proceedings of the international symposium on enhancing economic and environmental sustainability of fruit production in a global economy. Book Series: ACTA HORTICULTURAE, Issue: 772; 513-518.
20. İkiz, O., Abak, K., Daşgan, H.Y. and Ortaş, I. 2009. Effects of Mycorrhizal Inoculation in Soilless Culture On Pepper Plant Growth. *Acta Hort. (ISHS)* 807:533-540.
21. YÜCEL, C., ÖZKAN, H., ORTAS, I., YAĞBASANLARI, T. 2009. Screening of wild emmer wheat accessions (*Triticum turgidum* subsp. *dicoccoides*) for mycorrhizal dependency. *Turk J Agric For*. 33 902-47.
22. Kafkas, S. And Ortas, I. 2009. Various Mycorrhizal Fungi Enhance Dry Weights, P and Zn Uptake of Four Pistacia Species. *JOURNAL OF PLANT NUTRITION*. 32, 146-159.
23. Ortas, I. 2010. Effect of mycorrhiza application on plant growth and nutrient uptake in cucumber production under field conditions. *Spanish Journal of Agricultural Research*. Vol. 8, 116-122
24. Almaca, A., Ortaş, I. 2010. Growth response of maize plants (*Zea mays* L.) to wheat and lentil pre-cropping and to indigenous mycorrhizae in field soil. *SPANISH JOURNAL OF AGRICULTURAL RESEARCH*. Vol. 8, 131-136.
25. Aka-Kacar Y, Akpınar C, Agar A, Yalcin-Mendi, Y. Serce, S, Ortas, I. 2010. The effect of mycorrhiza in nutrient uptake and biomass of cherry rootstocks during acclimatization. *ROMANIAN BIOTECHNOLOGICAL LETTERS*. 15 (3): 5246-5252.
26. Ozdemir, G., Akpınar, C., Sabir A., Bilir H., Tangolar S., Ortas I. 2010. Effect of Inoculation with Mycorrhizal Fungi on Growth and Nutrient Uptake of Grapevine Genotypes (*Vitis* spp.). *EUROPEAN JOURNAL OF HORTICULTURAL SCIENCE*. 75 (3),103-110.
27. Abak, K., Daşgan, HY., Rehber, Y., Ortas, I. 2010. Effect of Vesicular Arbuscular Mycorrhizas on Plant Growth of Soilless Grown Muskmelon. *IV INTERNATIONAL SYMPOSIUM ON CUCURBITS*. Ed by, Sun, SX. *Acta Horticulturae*, 871:301-306.
28. Ortas, I and C. Akpınar, 2011. Response of maize genotypes to several mycorrhizal inoculums in terms of plant growth, nutrient uptake. And spore production. *Journal of Plant Nutrition*, 34:970–987.
29. Ortas, I., Sari, N., Akpınara, C., Yetisir, H. 2011. Screening mycorrhiza species for plant growth, P and Zn uptake in pepper seedling grown under greenhouse conditions. *Scientia Horticulturae* 128; 92–98.
30. Celik, I., Z.B. Barut, I. Ortas, M. Gok, A. Demirbas, Y. Tulun, C. Akpınar, 2011. Microbiological properties and crop yield under semi-arid Mediterranean conditions. *International Journal of Plant Production* 5 (3), 237-254.

31. Ortas, I. 2012. The effect of mycorrhizal fungal inoculation on plant yield, nutrient uptake and inoculation effectiveness under long-term field conditions. *Field Crops Research* 125 (2012) 35–48.
32. Ortas, I., Sari, N., Akpinar, C., Yetisir, H. 2012. Screening Mycorrhizae Species for Increased Growth and P and Zn Uptake in Eggplant (*Solanum melongena* L.) Grown under Greenhouse Conditions. *Europ. J. Hort. Sci.* 76 (3) 116-123.
33. Ortas, I. 2012. Do Maize and Pepper Plants Depend On Mycorrhizae in Terms of Phosphorus and Zinc Uptake? *Journal of Plant Nutrition.* 35. 1639-1656.
34. Ortas, I., Lal, R., 2012. Long-Term Phosphorus Application Impacts on Aggregate-Associated Carbon and Nitrogen Sequestration in a Vertisol in the Mediterranean Turkey. *Soil Science* 177, 241-250.
35. Cekic, F.; Unyayar, S.; Ortas, I. 2012. Effects of arbuscular mycorrhizal inoculation on biochemical parameters in *Capsicum annuum* grown under long term salt stress. *TURKISH JOURNAL OF BOTANY.* 36 (1): 63-72.
36. Ortas, I and C. Akpinar, Lal, R. 2013. Long-Term Impacts of Organic and Inorganic Fertilizers on Carbon Sequestration in Aggregates of an Entisol in Mediterranean Turkey. *Soil Science.* 178, 1, 12-23
37. AYTOK, Ö., YILMAZ, T., ORTAŞ, I., ÇAKAN, H. 2013. Changes in mycorrhizal spore and root colonization of coastal dune vegetation of the Seyhan Delta in the post cultivation phase. *Turk J Agric For.* 37, 1, 52-61.
38. Ortas, I.; Sari, N.; Akpinar, C.; Yetisir, H. 2013. Selection of Arbuscular Mycorrhizal Fungi Species for Tomato Seedling Growth, Mycorrhizal Dependency and Nutrient Uptake. *EUROPEAN JOURNAL OF HORTICULTURAL SCIENCE,* 78 (5): 209-218.
39. Ortas, I. 2013. Influences of nitrogen and potassium fertilizer rates on pepper and tomato yield and nutrient uptake under field conditions. *Scientific Research and Essays.* Vol. 8(23), pp. 1048-1055, DOI 10.5897/SRE11. 579.
40. Almaca, A., Almaca, N. D., Söylemez, S. and Ortaş, İ. 2013. The effects of mycorrhizal species and different doses of phosphorus on pepper (*Capsicum annuum* L.) yield and development under field conditions. *Journal of Food, Agriculture & Environment* Vol.11 (3&4): 647-651.
41. Ortas, I. Ustuner, O. 2014. Determination of different growth media and various mycorrhizae species on citrus growth and nutrient uptake. *Scientia Horticulturae.* 166, 84-90.
42. Ortas, I. Ustuner, O. 2014. The effects of single species, dual species and indigenous mycorrhizal inoculation on citrus growth and nutrient uptake. *European Journal of Soil Biology.* 1-6.
43. Ünlü, M., Kanber, R., Koç, D. L., Özekici, B., Kekeç, U., Yeşiloğlu, T., Ortaş, I., Ünlü, F., Kapur, B., Tekin, S., Käthner, J., Gebbers, R., Zude, M., Peeters, A., and Ben-Gal, A. 2014. Irrigation scheduling of grapefruit trees in a Mediterranean environment throughout evaluation of plant water status and evapotranspiration. *Turkish Journal of Agriculture and Forestry* *Turk J Agric For.* 38: 908-915. doi:10.3906/tar-1403-58.
44. Turgay, OC., Buchan, D., Moeskops, B., De Gusseme, B., Ortaş, I. and De Neve, S. 2015. Changes in soil ergosterol content, glomalin-related soil protein, and phospholipid fatty acid profile as affected by long-term organic and chemical fertilization practices in Mediterranean Turkey. *ARID LAND RESEARCH AND MANAGEMENT.* 29(2). p.180-198
45. Incesu, M; Yesiloglu, T; Cimen, B; Yilmaz, B; Akpinar, C; Ortas, I. 2015.. Effects on growth of persimmon (*Diospyros virginiana*) rootstock of arbuscular mycorrhizal

- fungi species. *TURKISH JOURNAL OF AGRICULTURE AND FORESTRY* Volume: 39 Issue: 1 Pages: 117-122.
46. Ortas, I, Kaya, Z., and Ercan, S. 2015. Effect Of Pyrite Application On Wheat-Maize Growth Nutrient Uptake Under Diverse Soil Conditions. *Journal of Plant Nutrition*, 38:295–309.
 47. Turgay, O.C. Buchan, D., Moeskops, B., De Gussemé, B., Ortas, I., De Neve, S.. 2015.Changes in Soil Ergosterol Content, Glomalin-Related Soil Protein, and Phospholipid Fatty Acid Profile as Affected by Long-Term Organic and Chemical Fertilization Practices in Mediterranean Turkey. *ARID LAND RESEARCH AND MANAGEMENT* Volume: 29 Issue: 2 Pages: 180-198.
 48. Ortas, I. 2015. Comparative analyses of Turkey agricultural soils: Potential communities of indigenous and exotic mycorrhiza species' effect on maize (*Zea mays* L.) growth and nutrient uptakes. *European Journal of Soil Biology* 69 (2015) 79-87.
 49. Ortas, I., C. Akpınar, D. Ahmet. 2015. Effect of mycorrhizal species on growth and nutrient uptake by seedlings of Citrus (*Citrus sinensis*) under three soil growth conditions. *Current Horticulture* 3 (2): 61–64, July–December 2015.
 50. Saeed, F. H., Alwan, U. A., Jasim, A., Jasim, H.K. Ortaş, I. 2016. The efficiency of bio-fertilization in the growth and yield of Sweet corn (*Zea mays* var. *regosa*). *EUROPEAN ACADEMIC RESEARCH*. Vol. IV, Issue 4. www.euacademic.org.
 51. Buto, Takuya; Suzuki, Kazuki; Kaidzu, Tomoyuki; et al. 2016. Arbuscular mycorrhizal fungal community of wheat under long-term mineral and organic amendments in semi-arid Mediterranean Turkey. *ARID LAND RESEARCH AND MANAGEMENT*. Volume: 30 Issue: 4 Pages: 479-489.
 52. Ortas, I., C. Akpınar, D. Ahmet. 2016. Sour Orange (*Citrus Aurantium* L.) Growth is Strongly Mycorrhizal Dependent in Terms of Phosphorus (P) Nutrition Rather than Zinc (Zn). *Communications in Soil Science and Plant Analysis*, 47:22, 2514-2527.
 53. Ortas, I., Coskan, A. 2016. Precipitation as the most affecting factor on soil-plant environment conditions affects the mycorrhizal spore numbers in three different ecological zones in Turkey. *ACTA Agriculturae Scandinavica Section B-Soil and Plant Science*. 66 (4), 369-378.
 54. Satir, N., Ortas, I., and Satir, O. 2016. The influence of mycorrhizal species on sour orange (*Citrus aurantium* L.) Growth Under Saline Soil Conditions. *Pakistan Journal of Agricultural Sciences* Volume: 53 (2) P: 399-406.
 55. Ortas, I.; Refique, M., Akpınar, C. and Aka Kacar, Y. 2017. Growth media and mycorrhizal species effect on acclimatization and nutrient uptake of banana plantlets. *Scientia Horticulturae*, Volume: 217 Pages: 55-60.
 56. Ortas, I. 2018. Influence of potassium and magnesium fertilizer application on the yield and nutrient accumulation of maize genotypes under field conditions. *Journal of Plant Nutrition*. 41 (3) 330-3308.
 57. Yucel, C, MJ Farhan, AM Khairo, G Ozer, M Cetin, I Ortas, and KR Islam. 2017. Evaluating *Salicornia* as a Potential Forage Crop to Remediate High Groundwater-Table Saline Soil under Continental Climates.
 58. Rafique, M., Sultan, T., Ortas, I., Chaudhary, H.J., 2017. Enhancement of maize plant growth with inoculation of phosphate-solubilizing bacteria and biochar amendment in soil. *Soil Science and Plant Nutrition* 63, 460-469.
 59. Ortas, I. 2018. Influence of potassium and magnesium fertilizer application on the yield and nutrient accumulation of maize genotypes under field conditions. *Journal of Plant Nutrition* 41 (3):330-339.

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61. Ortas, I., A. Demirbas, and C. Akpınar. 2018. Time period and nutrient contents alter the mycorrhizal responsiveness of citrus seedlings. *European Journal of Horticultural Science* 83 (2):72-80.
62. Ortas, I., A. Demirbas, and C. Akpınar. 2018. Under sterilized and non-sterilized soil conditions, mycorrhizal dependency in citrus plants depends on phosphorus fertilization rather than zinc application. *European Journal of Horticultural Science* 83 (2):81-87.
63. Rafique, M., and I. Ortas. 2018. Nutrient uptake-modification of different plant species in Mediterranean climate by arbuscular mycorrhizal fungi. *European Journal of Horticultural Science* 83 (2):65-71.
64. Akpınar Ç., Ortaş, I., Demirbaş A., 2018. Exotic mycorrhizae species Inoculated plant species groups have differed effects on root colonization and sporulation. *Fresenius Environmental Bulletin*. V. 27. No 5A. P. 3462-3468.
65. Akpınar Ç., Ortaş, I., Demirbaş A., 2018. The Effects of Different Zn Doses and Mycorrhizae Application On Horse Bean Growth and Nutrient Uptake Under Sterile and Non Sterile Soil Conditions. *Scientific Papers. Series A. Agronomy*, Vol. LXI, No. 1, 2018, p 21-26.
66. BOUABDELLI, Z., BELHADJ, S. SMAİL-SAADOUN, N., MÉVY, JP., NOTONNIER, R., TONETTO, A., ORTAS, I. and GAUQUELIN, T. 2018. Influence De L'aridité Sur La Variation De La Colonisation Mycorrhizienne Arbusculaire Chez Cinq Populations Naturelles Algériennes Du Pistachier De L'atlas (*Pistacia Atlantica* Desf.). *Revue d'Ecologie (Terre et Vie)*, Vol. 73 (3), 2018 : 330-344.
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72. Rafique, M., Ortas, I., 2018. Nutrient uptake-modification of different plant species in Mediterranean climate by arbuscular mycorrhizal fungi. *European Journal of Horticultural Science* 83: 65-71.
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- deficient soils", EUROPEAN JOURNAL OF HORTICULTURAL SCIENCE, vol.84, pp.218-255, 2019 (Link)
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81. Iqbal, M.T., Ahmed, I.A.M., Isik, M., Sultana, F., Ortas, I., 2021. Role of mycorrhizae inoculations on nutrient uptake in rice grown under aerobic and anaerobic water management. Journal of Plant Nutrition 44: 550-568.
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87. Ortas, I., Rafique, M., Çekiç, F., 2021. Do Mycorrhizal Fungi Enable Plants to Cope with Abiotic Stresses by Overcoming the Detrimental Effects of Salinity and Improving Drought Tolerance? , Symbiotic Soil Microorganisms. Springer, pp. 391-428.
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Book Chapters

1. Ortaş, I. 2006. Soil Biological Degradation. In: Encyclopedia Of Soil Science. Marcel Dekker. USA, pp. 264-267.
2. Ortaş I and Varma A (2007) Field Trials of Bioinoculants. Chapter 26. In: Modern Tools and Techniques. (eds. Oelmüller R and Varma A) Springer-Verlag, Germany 11: 397-413.
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4. Celik, K.T. Yilmaz, H. Eswaran, A. Mermut, M. Dingil, Z. Kaya, A. Demirbas., I. Aksit, I. Ortaş., M. Gok, C. Akpınar, T. Nagano, N. Ae, Y.K. Koca, and S. Kapur. Reconstructing the Past by Regenerating Biodiversity: A Treatise on Weed Contribution to Soil Quality at a Post-cultivation Succession In. Sustainable Land Management, Learning from the past for the future. Eds. Kapur, S., Eswaran, H., Blum, W. E. H., Springer. 2011. (ISBN 978-3-642-14781-4)..
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8. Ortaş, I. 2016. Role of Mycorrhizae and Biochar on Plant Growth and Soil Quality. In: Biochar, A Regional Supply Chain Approach In View Of Climate Change Mitigation. Edit by Bruckman, V.J. Varol, E.A. Uzun, B.B. and Liu, J. Cambridge University press. Cambridge. UK.
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Summary of Publications

ISI index paper	88
h-index	19
Times Cited	1302
Other index papers	52
Book chapters	24
Conference papers and Turkish written	331
TOTAL	495

COMMUNITY SERVICE AND SOCIAL RESPONSIBILITY

- I have written over 1090 articles on several journals related with environment, education, philosophy of education, university problem, and soil and food quality. Talk on TV and radio about general society and environments problems.
- Given several seminars in national and international level. I have been over 40 counties for scientific proposes. Given several seminars and conferences on soil and society related to our health.