

## LIST OF PEER REVIEWED PUBLICATIONS IN SCIENTIFIC JOURNALS

1. Rivier P-A., Jamniczky D., Nemes A., Makó A., Barna Gy., Uzinger N., Rékási M., Farkas Cs. 2022. Short-term effects of compost amendments to soil on soil structure, hydraulic properties, and water regime. *J. of Hydrology and Hydromechanics*, 70:74-88.
2. Lichner L., Hegedusova, K., Farkas, Cs., Tesar, M., Rajkai, K. 2020. Fifteen years of publishing the papers on the impact of biological factors on hydrological processes in *Biologia*. *Biologia*, 75:795-798.
3. Rékási M., Mazsu N., Draskovits E., Bernhardt B., Szabó A., Rivier P-A., Farkas Cs., Borsányi B., Pirkó B., Molnár S., Kátay Gy., and Uzinger N. 2019. Comparing the agrochemical properties of compost and vermicomposts produced from municipal sewage sludge digestate. *Bioresource Technology*, 291, 121-861.
4. Horel Á., Tóth E., Gelybó Gy., Dencső M. and Farkas Cs. 2019. Biochar amendment affects soil water and CO<sub>2</sub> regime during capsicum annum plant growth. *Agronomy*, 9(2), 58.
5. Makó A., Tóth B., Hernádi H., Farkas Cs. and Marth P. 2019. Introduction of the Hungarian Detailed Soil Hydrophysical Database (MARTHA) Citation: *Bulletin of Geography. Physical Geography Series*, 16.
6. Koestel, J., Dathe, A., Skaggs, T. H., Klakegg, O., Ahmad, M. A., Babko, M., Gimenez D., Farkas Cs., Nemes A. and Jarvis, N. 2018. Estimating the Permeability of Naturally Structured Soil From Percolation Theory and Pore Space Characteristics Imaged by X-Ray. *Water Resources Research*, 54(11), 9255-9263. <https://doi.org/10.1029/2018WR023609>
7. Gelybó Gy., Tóth E., Farkas Cs., Horel Á., Kása I. and Bakacsi Zs. 2018. Potential impacts of climate change on soil properties. *Agrokémia és Talajtan* 67(1):121-141.
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9. Horel A., Bakacsi Zs., Dencső M., Farkas Cs., Gelybó Gy., Kása I., Tóth E., Molnár S. and Koós S. 2017. Eső hatása a Csorsza-patak vízgyűjtőjének téli hidrológiai folyamataira. *Agrokémia és Talajtan*, Volume 66 (1):61-77. ISSN 0002-1873
10. Potyó I., Kása I., Farkas Cs., Gelybó Gy., Bakacsi Zs., Dencső M., Tóth E. and Horel Á. 2017. Lebegtetett hordalékmérési módszerek összehasonlító vizsgálata balatoni részvízgyűjtőkön. *Agrokémia és Talajtan*, Volume 66(2), <https://doi.org/10.1556/0088.2017.66.2.2>
11. Kása I., Gelybó Gy., Horel Á., Bakacsi Zs., Tóth E., Koós S., Dencső M., Deelstra J., Molnár S. and Farkas Cs. 2017. Evaluation of three semi-distributed hydrological models in simulating discharge from a small forest and arable dominated catchment. *Biologia*, Volume 72(9):1002-1009.
12. Doulgieris C., Georgiou P., Apostolakis A., Papadimos D., Zervas D., Petriki O., Bobori D., Papamichail D., Antonopoulos V., Farkas Cs., and Stalnacke P. 2017. Assessment of the environmentally minimum lake level based on morphological features. *European Water*, Volume 58:197-202.
13. Dencső M., Tóth E., Gelybó Gy., Kása I., Horel Á., Rékási M., Takács T., Farkas Cs., Potyó I., and Uzinger N. 2017. Changes in the moisture content and respiration of a calcareous sandy soil after combined treatment with biochar and compost or mineral fertiliser (in Hungarian; Komposzt illetve műtrágya bioszén kezeléssel mutatott együttes hatásának vizsgálata karbonátos homoktalaj nedvességtartalmára és talajlégzésére). *Agrokémia és Talajtan*, Volum 66(1) 79-93.

14. Farkas Cs., Kværnø S., Engebretsen A.M., Barneveld R. and Deelstra J. 2016. Applying profile- and catchment-based mathematical models for evaluating the run-off from a Nordic catchment. *Journal of Hydrology and Hydromechanics*, Volume 64(3):218-225
15. Karamoutsou L., Psilovikos A., Stalnacke P. and Farkas Cs. 2016. Lake Vegoritida's water level and catchment area alterations as a result of natural processes and human interventions. *European Water*, Volume 56:3-12.
16. Horel Á., Tóth E., Gelybó Gy., Kása I., Bakacsi Zs. and Farkas Cs. 2015. Effects of Land Use and Management on Soil Hydraulic Properties. *Open Geoscience/Central European Journal of Geosciences*, Volume: 7(1): 742-754.
17. Csorba Sz., Raveloson A., Tóth E., Nagy V. and Farkas Cs. 2014. Modelling soil water content variations under drought stress on soil column cropped with winter wheat. *Journal of Hydrology and Hydromechanics*, 62:269-276.
18. Farkas Cs., Gelybó Gy., Bakacsi Zs., Horel Á., Hagyó A., Kása I. and Tóth E. 2014. Impact of expected climate change on soil water regime under different vegetation conditions. *Biologia*, 69: 1510–1519.
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21. Tóth E., Gelybó Gy., Kása I. and Farkas Cs. 2013. A művelés hatása a talaj szén-dioxid kibocsátására: II. A talaj vízpotenciál értéke és CO<sub>2</sub> emissziója közötti összefüggések vizsgálata laboratóriumi módszertani tesztelés során. *Agrokémia és Talajtan*, 62(2):299-310.
22. Tóth B., Makó A., Tóth G., Farkas Cs., Rajkai K. 2013. Comparison of pedotransfer functions to estimate the van Genuchten parameters from soil survey information. *Agrokémia és Talajtan*, 62(1):5-22.
23. Tóth E, Gelybó Gy, Bakacsi Zs, Molnár S, Farkas Cs. 2012. A bükki barna erdőtalajok klímaérzékenységének vizsgálata matematikai modell alkalmazásával. *Talajvédelem*
24. Tóth B, Makó A, Farkas Cs, Rajkai K. 2012. A talaj víztartóképeség-függvényének becslése eltérő részletességű és különböző talajtulajdonságokból. *Talajvédelem* 2012;
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27. Farkas Cs., Hernádi H., Makó A., Máté F. 2011. Estimating climate change effects on soil water balance elements of Hungarian Calcic Chernozem soils. *Agrokémia és Talajtan*, Volume 60:4-56.
28. Tóth E, and Farkas Cs. 2010. Effects of regular soil disturbance on soil respiration in a peach plantation. „Klíma-21” Füzetek, 62:29-38. (in Hungarian)
29. Farkas Cs, and Hagyó A. 2010. Applicability of profile and catchment scale simulation models for estimating the effects of climate change on water regime. „Klíma-21” Füzetek, 62:59-74. (in Hungarian)
30. Makó A, Tóth B, Hernádi H, Farkas Cs, and Marth P. 2010. Introduction of the Hungarian Detailed Soil Hydrophysical Database (MARTHA) and its use to test external pedotransfer functions. *Agrokémia és Talajtan*, 59:29-38.
31. Tóth E, and Farkas Cs. 2010. Effect of inter-row cultivation on soil carbon dioxide emission in a peach plantation. *Agrokémia és Talajtan*, 59:157-164.
32. Tóth E, Dragon D, and Farkas Cs. 2010. Soil management systems influencing soil carbon dioxide emission in a peach plantation. *Növénytermelés*, 59:141-144.

33. Farkas Cs, Birkás M, Várallyay Gy. 2009. Soil tillage systems to reduce the harmful effect of extreme weather and hydrological situations. *Biologia*, 64(3):496-501.
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35. Tóth E, Koós S, Farkas Cs. 2009. Soil carbon dioxide efflux determined from large undisturbed soil cores collected in different soil management systems. *Biologia*, 64(3):643-647.
36. Ristolainen A, Farkas Cs, Tóth T. 2009. Prediction of Soil Properties with Field Geo-electrical Probes. *Communications in Soil Science and Plant Analysis*, 40:555-565.
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38. Farkas Cs, Hernádi H, Makó A, Máté F. 2009. Climate sensitivity of different Calcic Chernozem soil subtypes. „Klíma-21” füzetek, 57:15-30. (in Hungarian)
39. Birkás M, Stingli A, Farkas Cs, and Bottlik L. 2009. Relationship between tillage induced soil compaction and soil degradation under unfavourable climate conditions. *Növénytermelés*, 58:5-26. (in Hungarian)
40. Tóth E, Farkas Cs, Koós S, and Németh T. 2009. Effects of soil tillage on soil carbon dioxide efflux A művelés hatása a talaj szén-dioxid kibocsátására I. Laboratóriumi módszertan tesztelése bolygatatlan talajoszlopokon. *Agrokémia és Talajtan* 58(2):215-226. (in Hungarian)
41. Farkas Cs, Hernádi H, Makó A, Máté F. 2009. A talajvízmérleg klímaérzékenysé gének vizsgálata mészlepedékes csernozjom talajokon. (Climate sensitivity of the soil water regime on pseudomycelial chernozem soils). *Agrokémia és Talajtan*, 58(2):197-214. (in Hungarian)
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43. Hernádi H., Farkas Cs., Makó A. and Máté F. 2008. Evaluating the climate sensitivity of Hungarian Chernozem soils using the MARTHA data base and the SWAP simulation model. *Talajvédelem. Special referred issue of the Hungarian Society for Soil Protection* pp. 105-114. (in Hungarian)
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45. Tóth E., Koós S. and Farkas Cs. 2008. Studying the relationship between the carbon-dioxide emission and water content of a Mollisol in different soil management systems. *Talajvédelem. Special referred issue of the Hungarian Society for Protection* pp. 175-184. (in Hungarian)
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47. Lukács A., Pártay G. and Farkas Cs. 2008. Studying the soil-water-plant relationships on winter wheat grown in undisturbed soil columns. *Cer. Res. Com. Vol.36. S479-S482.*
48. Tóth E., Farkas Cs., Hagyó A., Nagy V. and Stekauerová, V., 2008: Assessment of spatial variation of the soil water regime in the soil-plant system. *Cer. Res. Com. Vol.36. S307-S310.*
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58. Tóth T., Ristolainen A., Nagy V., Kovács D. and Farkas Cs., 2006: Measurement of soil electrical properties for the characterization of the conditions of food chain element transport in soils. Part I. Instrumental comparison. *Cereal Research Communications*, Vol. 34. No. 1. pp. 163-166.
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## LIST OF PEER REVIEWED PUBLICATIONS AS BOOK CHAPTERS

1. Greipsland I., Borch H., Engebretsen A.M., Farkas Cs., Eggestad H. and Krogstad T. 2013. Testing mathematical models for simulating nutrients in the Skuterud catchment. (in Norwegian). Aas Bioforsk Publications, Volume 8(57), 36p. ISBN 978-82-17-01079-1.

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3. Deelstra J., Farkas Cs., Engebretsen A., Kværnø S., Beldring S., Olszewska, A. and Nesheim L. 2010. Can we simulate runoff from agriculture-dominated watershed? Comparison of the DrainMod, SWAT, HBV, COUP and INCA models applied for the Skuterud catchment. In: Grzybek A. (ed.), "Modelling of biomass utilisation for energy purpose". Bioforsk FOKUS 5(6): 119-128.
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7. Farkas Cs. 2009. Stochastic assessment of climate change effects on soil water regime in the Hungarian Bodrog Interfluve Region. In: Halasi-Kun G. Ed. Scientific and Social-Institutional Aspects of Central Europe and USA. Pollution and Water Recourses Columbia University Seminar Proceedings; New York-Bratislava: Columbia University, 2008-2009; Vol. XXXVIII-XXXIX:348-366.
8. Várallyay Gy, and Farkas Cs. 2008. Expected effects of climate change on Hungarian soils. Csete L. & Harnos Zs. (editors): Climate Change: Environment – Risk - Society. Szaktudás kiadó, Budapest. pp. 89-127. (in Hungarian)
9. Farkas Cs, Rajkai K., Kertész M., Bakacsi Zs., and van Meirvenne M. 2008. Spatial variability of soil hydro-physical properties. A case-study in Herceghalom, Hungary. In: P.V. Krasilnikov, F. Carré and L. Montanarella (Eds.): Soil geography and geostatistics– Concepts and applications. JRC Scientific and Technical Reports, 2008. pp. 107-129.  
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10. Farkas Cs, and Flachner Zs. 2008. Characterising the soil water regime in the Bodrogtócsa Region using large-scale soil physical data base. In: Tuba Z. (ed.) Bodrogtócsa: The Landscape Monograph of the Hungarian part of the Bodrogtócsa Region. Gödöllő-Sárospatak: Lorántffy Zsuzsanna Szellemében Alapítvány, 147-158. (in Hungarian)
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