

RAPORT PRIVIND ACTIVITATEA DE CERCETARE

„Centrul de Cercetare în domeniul Științelor Horticole, Biologie și Chimie Aplicată „SHBCA” Sapienția” SAPIENTIA pe anul 2020-2023

Director Executiv: Adalbert Balog

Membrii:

1. Bíró-Janka Béla
2. Bandi Attila
3. Balla Géza
4. Bálint János
5. Benedek Klára
6. Cabuz Andrea
7. Csorba Artúr-Botond
8. Domokos Erzsébet
9. Fazakas Csaba
10. Fodorpataki László
11. Hegedűs Noémi Melitta
12. Henning Anna Imola
13. Kentelky Endre
14. Kovács Kázmér
15. Kovács Gábor
16. Lihai Ildikó
17. Moldován Csaba
18. Nyárádi Imre-István
19. Putnoki-Csicsó Barna
20. Székely Varga Zsolt
21. Ványolós Endre

Cercetarea științifică ale centrului de cercetare în domeniul Științelor Horticole, Biologie și Chimie Aplicată „SHBCA” Sapiientia”

SAPIENTIA s-a desfășurat în următoarele domenii pe perioada 2020-2023.

1. cercetare fundamentală care cuprinde domeniul chimiei și mediul (inclusiv mediul urban)
2. cercetare tehnologică care cuprinde domeniile în științele horticole
3. cercetare aplicativă care cuprinde domeniul protecției plantelor

Având în vedere domeniile prioritare de cercetare prevăzute în Planul Național de Cercetare, Dezvoltare și Inovare II (PNCDI-II), respective. Programul Comunitar (PC7) al Uniunii Europene, domeniile prioritare ale activității de cercetare pe perioada 2020-2023 au fost:

- agricultură
- horticultură
- mediu
- chimie aplicată
- protecția plantelor

S-a continuat de dezvoltarea infrastructuri de cercetare prin care a început echiparea a unui laborator de cercetare pe o suprafață de aproximativ 60m². Laboratorul are și va avea scopul de a asigura cercetarea în domeniul protecției plantelor, cu privire la dezvoltarea metode genetice pentru a înțelege bazele moleculare ale adaptării insectelor la plante gazde.

CENTRALIZATORUL DATELOR PRIVIND CERCETAREA ȘTIINȚIFICĂ DESFĂȘURATĂ ÎN CADRUL CENTRULUI DE CERCETARE

Nr. crt.	Teme de cercetare științifică (datele suport ale centralizatorului se prezintă în formatul electronic de raportare anuală la CNCSIS)	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării***		
			Valoare realizată		Lucrări, publicații, granturi, alte produse ale cercetării **
			An univ.	RON/EUR	

1.	Efectul mediului și a managementului asupra variația clonală și diversitatea microbiană simbiotică la păduchi de porumb (Rhopalosiphum maidis Fitch)	Bugetul de stat, UEFISCDI, 2022-2024., PN-III-P4-PCE-2021-0543.	2022-2024	Valoare 240 000 euro	în curs de implementare, 4 lucrări BDI
2.	Nature-based perennial grain cropping as a model to safeguard functional biodiversity towards future-proof agriculture	Uniunea Europeană,	2021-2023	Valoare totală: 1.393.000 euro.	finalizat
3.	Educație vocațională pentru transformare digitală în Horticultură	EU KA220-VET-DAA65E22 51000 EUR	2021-2024	51000 EUR pe Univ. Sapientia (valoarea totală: 353780 EUR)	În curs de finalizare

4.	Builder Method, action-oriented educational approaches in architecture	Erasmus+ nr. contract: 2020 – 1 – HU01 KA203 878828	2021-2023	317414 EUR	în curs de finalizare
5.	Dezvoltarea tehnologiei de cultivare la cânepa (<i>Cannabis sativa</i> L.) pentru semințe	Institutul Programelor de Cercetare	2021-2023	50000 RON	Finalizat 1 publicație ISI
6.	Evaluarea efectului unor noi preparate bacteriene asupra plantelor de soia în vase de vegetație	Institutul de Cercetare al Societății Muzeului Ardelean	2021-2022	4000 RON	finalizat

7.	Evaluarea, protecția și revitalizarea grădinilor și peisajelor istorice	Primăria Borsec, Fundăția Sfântul Francisc, Deva	2019-2024		În curs
8.	Evaluarea diferitelor tratamente asupra speciilor dendro - floricole ornamentale și ierburi ornamentale	Qualiplant, Beppler, Agrosel și din surse proprii	2019-2024		În curs
9.	Evaluarea stimulatoarelor de înrădăcinare la unele specii dendro-floricole	Qualiplant, Beppler, Agrosel Blondy și din surse proprii	2019-2024		În curs

10.	Evaluarea și renaturarea de zone reziduale urbane	Consiliul Județean Harghita și din surse proprii	2019-2024		În curs
11.	Cercetarea și valorificarea fondului dendrologic în spațiile urbane verzi și istorice	Primăria Târgu Mureș, Fundația Sfântul Francisc, Deva	2019-2024		În curs
12.	Cartarea și revitalizarea infrastructurii verzi-albastre urbane	Primăria Reghin, Asociația UnDa Verde	2019-2024		În curs
Rezultate – sintetic			54000 RON+ 2001414 EUR+ 3177453,043 HUF		

Publicații mai importante

2023

Kentelky Endre, Kiss Gabriella, Székely-Varga Zsolt, Iakab Martin, Lihát Ildikó, Tăslăvan Marius Róbert, Green Rehabilitation Concept For a Post Socialis Marketplace (Promoting the Local Farmers and Supporting the Green Infrastructure of the City of Târgu Mureș), *Scientific Papers. Series B*, Vol. Vol. LXVII, No. 2, No Scientific Papers. Series B, Horticulture. Vol. LXVII, No. 2, 2023, 2023, pp. 445–455.

Balla Geza, Kentelky Endre, Moldován Csaba, Csorba Artúr-Botond, Székely-Varga Zsolt, Lunka Tekla Amália, Joó József, Impact of Fermentation Temperature and Duration on Anthocyanin Concentration and on Quality of Cabernet Sauvignon Wine, *Scientific Papers. Series B*, Vol. 2, No Scientific Papers. Series B, Horticulture. Vol. LXVII, No. 2, 2023, 2023, pp. 201–208.

Balla Geza, Kentelky Endre, Moldován Csaba, Putnok Csicsó Barna, Székely-Varga Zsolt, Lunka Tekla Amália, Joó József, Fermentation Temperature and Duration Effect on the Quality and Anthocyanin Content of Kadarka Wine Produced in the Mins Wine Region, *Scientific Papers. Series B*, Vol. 1, No Vol. LXVII, No. 1, 2023, 2023, pp. 227–232.

Kentelky Endre, Domokos Erzsébet, Székely-Varga Zsolt, Monica Boscaiu, Influence of Rooting Media and Hormones on Mandevilla Vegetative Propagation, *Scientific Papers. Series B*, Vol. 1, No Vol. LXVII, No. 1, 2023, 2023, pp. 413–420.

Kentelky Endre, Ványolós Endre, Székely-Varga Zsolt, Lihát Ildikó, Hegedűs Noémi, Henning Anna Imola, Szabó Gergely Lóránd, Ecological Educational Trail, *Scientific Papers. Series B*, Vol. 1, No Vol. LXVII, No. 1, 2023, 2023, pp. 421–430.

Balog Adalbert, Benedek Klára, Bíró Béla, Kentelky Endre, Molnár Katalin, Székely-Varga Zsolt, Simpf Raimond, Comparing Different Grass Species, *Scientific Papers. Series B*, Vol. 1, No Vol. LXVII, No. 1, 2023, 2023, pp. 487–494.

Bálint János, Kentelky Endre, Szabó Mária, Csorba Artúr-Botond, Iakab Martin, Controlling grey mold (*Botrytis cinerea*) in flowering cyclamen production, *Eur. J. Hortic. Sci.*, Vol. 88 (1), No 88 (1) 1-8, 2023, pp. 1–8.

Bálint János, Balog Adalbert, Benedek Klára, Fazakas Csaba, Felföldi Tamás, Molnár Atila, Oswald Joseph Schmitz, Buchkowski Robert, Plant chemical variation mediates soil bacterial community composition, *Scientific Reports*, Vol. 13, No 1, 2023, pp. 1–9.

Nyárádi Imre István, János Bálint, Csorba Artúr-Botond, Iakab Martin, Szabó Márta Emilia. Controlling grey mold (*Botrytis cinerea*) in flowering cyclamen production, *EUROPEAN JOURNAL OF HORTICULTURAL SCIENCE*, Vol. 88, No 1, 2023, pp. 1–8.

Molnár Katalin, Erzsébet Domokos, Imre-István Nyárádi, Matei Marcel Duda, László Fodorpataki, Andrei Stoie, Effects of seed priming, and Foliar Treatment with Ascorbate, Cysteine and Triacntanol on Canola (*Brassica napus* L.) under Field Conditions, *Horticulturae*, Vol. 9(2), 207, 2023, pp. 1–21.

Fodorpataki László, Adela Halmagyí, Anca Butiuc-Keul, Martin Keul, Cristina Dobrota, Adela Pintea, Aurel Mocan, Valeria Pop, Ana Coste, Impact of Aries River contaminants on algae and plants, *Toxics*, Vol. 11, No 817, 2023, pp. 1–30.

Fodorpataki László, Kulcsar Petra, Allelopathic interactions of brown mustard (*Brassica juncea* L.) with other aromatic plants during germination and seedling development, *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, Vol. 51, No 13382, 2023, pp. 1–18.

Gábor Kovács, Baia Lucian, Hernadi Klara, Zsejke-Réka Tóth, Zsolt Pap, Controlled formation of Ag-AgxO nanoparticles on the surface of commercial TiO₂ based composites for enhanced photocatalytic degradation of oxalic acid and phenol, *CATALYSIS TODAY*, Vol. 2023, No 424, 2023, pp. 112969–112970.

2022

Kentelky Endre, János Bálint, Klára Benedek, Imre-István Nyárádi, Adalbert Balog, Barna Putnok-Csisó, Ferenc Tóth, Ciprian George Forá, Entomopathogenic fungus *Metarhizium anisopliae* (strain NCAIM 362) effects on soil inhabiting *Melolontha melolontha* (Coleoptera) and *Duponchelia fovealis* (Lepidoptera) larvae in sweet potato (*Ipomoea batatas* L.), *Czech Academy of Agriculture Sciences: Plant Protection Science*, Vol. 58, 2022 (3), 2022, pp. 264–268.

Kentelky Endre, Székely-Varga Zsolt, Mihaela Cornea-Cipcigan, Irian Morar, Morphological Responses of Viola Accessions to Nutrient Solution Application and Electrical Conductivity, *MDPI Plants*, Vol. Plants 2022, 11(11), 1433, 2022, pp. 1–13.

Iakab Martin, Domokos Erzsébet Benedek Klára, Kentelky Endre, Buta Erzsébet, Molnár Katalin, Dulf Francisc Vasile, The Importance of Mycorrhizal Fungi in the Development and Secondary Metabolite Production of *Echinacea purpurea* and Relatives (*Asteraceae*): Current Research Status and Perspectives, *MDPI Horticulturae*, Vol. Horticulturae 2022, 8(12), 1106, 2022, pp. 1–19.

Bálint János, Balog Adalbert, Benedek Klára, Kentelky Endre, Nyárádi Imre-István, Tóth Ferenc, Putnoki-Ciceo Barna, Forá Ciprian, Entomopathogenic fungus *Metarhizium anisopliae* (strain NCAIM 362) effects on soil inhabiting *Melolontha melolontha* (Coleoptera) and

Duponchella fovealis (Lepidoptera) larvae in sweet potato (Ipomoea batatas L.). *PLANT PROTECTION SCIENCE*, Vol. 58, No 3, 2022, pp. 264–268.

Bálint János, Nyárádi Imre István, Hugh David Loxdale, Bolog Adalbert, Csorba Artúr-Botond, Endre Kentelky, Ciprian George Forá, Tamás Felföldi, Attila Szabó. Endosymbiotic Bacterial Diversity of Corn Leaf Aphid, *Microorganisms*, Vol. 10, No 939, 2022, pp. 1–12.

Bálint János, Fodorpataki László, Tompa Bernát, Enhancement of biomass production, salinity tolerance and nutritional content of spinach (*Spinacia oleracea* L.) with the cuticular wax constituent triacontanol, *JOURNAL OF APPLIED BOTANY AND FOOD QUALITY*, Vol. 95, 2022, pp. 121–128.

Bálint János, Bolog Adalbert, Molnár Attila, Hugh Loxdale, Szabó Károly-Attila, Forá Ciprian, Aszalos Szilvia, Associational susceptibility of crop plants caused by the invasive weed Canadian goldenrod, *Frontiers in Ecology and Ev*, Vol. 10, No 1080599, 2022, pp. 1–12.

Ványolós Endre, The time (and place) of ephemeral architecture, *studies in History and Theory of Architecture*, Vol. X, No 10, 2022, ISSN 2344-6544, pp. 43–53.

Kovács Gábor, Tonk Szende, Rápó Eszter, László Előd Aradi, Alexandru Turza, Effectiveness and Characterization of Novel Mineral Clay in Cd2+ Adsorption Process: Linear and Non-Linear Isotherm Regression Analysis, *Water*, Vol. 14(3), No 279, 2022, pp. 1–25.

Kovács Gábor, Zsolt Pap, Lucian Baia, Klara Magyari, Monica Focsan, Milica Todea, István Székely, Tamás Gyulavári, Diána Debrezeni, Zsejke-Réka Tóth, Klára Hernádi, Rapid Synthesis Method of Ag3PO4 as Reusable Photocatalytically Active Semiconductor, *Nanomaterials*, Vol. 2022, No 13(1), 2022, pp. 89–89.

Kovács Gábor, Dan Vodnar, Giorgiana Negrea, Alina Sesarman, Lucian Baia, Klara Magyari, Milica Todea, Tamás Gyulavári, Zsejke-Réka Tóth, Anna Székely, Anna Szabó, Bioactive Properties of Composites Based on Silicate Glasses and Different Silver and Gold Structures, *Materials*, Vol. 2022, No 16(5), 2022, pp. 1655–1655.

2021

Bálint János, Bolog Adalbert, Kentelky Endre, Székely-Varga Zsolt, Effect of Plant Growth Retardants on Three Commercial Varieties of *Chrysanthemum Indicum* L., *MDPI Horticulturae*, Vol. Horticulturae 2021, 7, 532., No Horticulturae 2021, 7, 532., 2021, pp. 1–15.

- Kentelky Endre, Székely-Varga Zsolt, Denisa Jucan, Maria Cantor,** Efficacy of Different Concentrations of NAA on Ornamental Woody Shrubs Cuttings, *MDPI Horticulturae*, Vol. Horticulturae 2021, 7, 464, 2021, pp. 1–14.
- Kentelky Endre, Székely-Varga Zsolt,** Impact of foliar fertilization on growth, flowering and corns production on five gladious varieties, *MDPI Plants*, Vol. Plants 2021, 10, 1963., 2021, pp. 1–11.
- Bálint János, Balog Adalbert,** Enhance Growth and Flower Quality of *Chrysanthemum indicum* L. with Application of Plant Growth Retardants, *Horticulturae*, Vol. 9, No 7(12), 2021, pp. 532–540.
- Hugh Loxdale, János Bálint, Imre-István NYÁRÁDI, István MÁTHÉ, Adalbert Balog, Artúr Botond Csorba, Ciprian George Fora, Tamás Felföldi, Atila Szabó,** Endosymbiotic bacterial diversity associated with corn leaf aphid, *North-Western Journal of Zoology*, Vol. 17, No 2, 2021, pp. 155–159.
- Balog Adalbert, Károly Lajos, Demeter Imre, Mák Róbert, Sárospataki Miklós,** Preliminary assessment of cavity-nesting Hymenopterans in a low-intensity agricultural landscape in Transylvania, *Ecology and Evolution*, Vol. 11, No 17, 2021, pp. 11903–11914.
- Balog Adalbert, Forra Ciprian,** The effects of the management strategies on spruce bark beetles populations (Ips typographus and Pityogenes chalcographus), *Forests*, Vol. 12, No 6, 2021, pp. 1–11.
- Balog Adalbert, Demeter Imre, Sárospataki Miklós, Józson Zsolt,** Comparison of wild bee communities of three semi-natural meadow habitats at Harghita–Covasna Region, *ACTA ZOOLOGICA ACADEMIAE SCIENTIARUM HUNGARICAE*, Vol. 67, No 2, 2021, pp. 161–175.
- Balog Adalbert, Demeter Imre, Sárospataki Miklós,** Variation of Small and Large Wild Bee Communities Under Honeybee Pressure in Highly Diverse Natural Habitats, *Frontiers in Ecology and Evolution*, Vol. 12, 2021, pp. 1–11.
- Biró-Janka Béla, Roxana Vidican, Dan Ioan Vârbă, Alexandru Ghețe, Voichița Haș, Ana Copândeau, Loredana Suciu, Sorin Muntean, Marcel Matei Duda,** Influence of plant densities on seed production in some parental inbred lines of Turda mayze hybrids, *Romanian Agricultural Research*, Vol. 36, 2021, pp. —.
- Fodorpatáki László, Tompa Bernát, Iakab Martin,** Influence of high salinity and S-methylmethionine on some health-promoting metabolic properties of garden rocket leaves, *STUDIA UBB CHEMIA*, Vol. 66, No 4, 2021, pp. 383–396.

Toth Zsejke-Reka, Kovacs Gabor, Magyar Klara, Todea Milica, Czekes Zsolt, Gyulavari Tamas, Baia Lucian, Kiss Janos, Pap Zsolt, Hernadi Klara, Shape tailoring of AgBr microstructures: effect of the cations of different bromide sources and applied surfactants, *RSC Advances*, Vol. 11, No 16, 2021, pp. 9709–9720.

Toth Zsejke-Reka, Maity Saurav Kumar, Gyulavari Tamas, Bardos Eniko, Baia Lucian, Kovacs Gabor, Garg Seema, Pap Zsolt, Hernadi Klara, Solvothermal Crystallization of Ag/AgxO-AgCl Composites: Effect of Different Chloride Sources/Shape-Tailoring Agents, *CATALYSTS*, Vol. 11, No 3, 2021, pp. 379–379.

Fodor Szilvia, Baia Lucian, Baan Kornelia, Kovacs Gabor, Pap Zsolt, Hernadi Klara, The Effect of the Reducing Sugars in the Synthesis of Visible-Light-Active Copper(I) Oxide Photocatalyst, *MOLECULES*, Vol. 26, No 4, 2021, pp. 1149–1149.

Conferințe internaționale

1.	Zsolt Szekely-Varga , Reimond Simpf, Endre Kentelky, Klára Benedek, Katalin Molnár, Béla Biró-Janka, Adalbert Balog , Comparing different grass species, varieties and grass mixtures in the environmental conditions of Târgu Mureș. <i>International Conference "Agriculture for Life, Life for Agriculture"</i> , <i>USAMV București / International Conference "Agriculture for Life, Life for Agriculture"</i> , <i>USAMV București / International Conference "Agriculture for Life, Life for Agriculture"</i> , 2023/06/08–2023/06/10, BUKAREST, RO
2.	Géza Balla , Tekla Amália Lunka, József Joó, Csaba Moldován, Zsolt Szekely-Varga, Artúr-Botond Csorba, Endre Kentelky , IMPACT OF FERMENTATION TEMPERATURE AND DURATION ON ANTHOCYANIN CONCENTRATION AND ON QUALITY OF CABERNET SAUVIGNON WINE. <i>International Conference "Agriculture for Life, Life for Agriculture"</i> , <i>USAMV București / International Conference "Agriculture for Life, Life for Agriculture"</i> , <i>USAMV București / International Conference "Agriculture for Life, Life for Agriculture"</i> , 2023/06/08–2023/06/10, BUKAREST, RO
3.	Lihát Ildikó, Endre Kentelky, Endre Ványolós , Landscape wound - for which a bandage is not enough case study from transylvania, romania: the suseni quarry. <i>7th Conference on Horticulture and Landscape Architecture in Transylvania, Mai 11-13 / 7th Conference on Horticulture and Landscape Architecture in Transylvania, Mai 11-13</i> , Sapientia Egyetem, Kertész-mérnöki Tanszék / Universitatea Sapientia, Departamentul de Horticultură, Târgu-Mureș, 2023/05/11–2023/05/13, Târgu Mureș, RO
4.	Nyarádi Imre-István , Kertész-mérnöki szak 20+ Tájépítész-mérnöki szak 10+, <i>VII. Erdélyi Kertész és Tájépítész Konferencia / VII. Conference on Horticulture and Landscape Architecture in Transylvania / VII. Conferința de Horticultură și Peisagistică din Transilvania</i> , 2023/05/11–2023/05/13, Marovásárhely, România
5.	Nyarádi Imre-István, Biró-Janka Béla , Molnár Katalin, Fodorpataki László , Nagy Lehel, Vajda Szende, Természetes eredetű talajtakaró anyagok gyomszabályozó hatásának összehasonlító vizsgálata bazsalikom (Ocimum basilicum L.) állományban. 28. Tiszántúli Növényvédelmi Fórum / 28. TNF (= The 10th International Plant Protection Symposium at University of Debrecen / 28. Conferința de Protecție a Plantelor din Debrecin, 2023/10/24–2023/10/26, Debrecen, Magyarország

6.	Kovács Kázmér , Broadening the perspective. <i>La Lezione della Gamberaia / Learning from the Gamberaia / A Gamberaia tanulása / Lecția Gamberaia</i> , 2023/03/30–2023/03/30, Firenze, Olaszország
7.	Nyárádi Imre-Istvan , Márton Gyöngyvér, Papp Sándor, Túrós László Zsolt, Molnár Katalin, Biró-Janka Béla , Bálint János , HORTICULTURE 4.0 Vocational Education for Digital Transformation in Horticulture. <i>VII. Erdélyi Kertész és Tájépítész Konferencia / 7th Conference on Horticulture and Landscape Architecture in Transylvania / A VII-a Conferința de Horticultură și Peisagistică din Transilvania</i> , 2023/05/12–2023/05/12, Marosvásárhely, Románia
8.	Balog Adalbert , Csorba Artúr Botond , Sorina Dinescu, Gratiela Pircalabioru, Corn leaf aphids symbionts- first results and further challenges. <i>7th Conference on Horticulture and Landscape Architecture in Transylvania / 7-ik Erdélyi Kertész és Tájépítész Konferencia / VII. Conferința de Horticultură și Peisagistică din Transilvania</i> , 2023/05/12–2023/05/12, Târgu-Mureș, Romania
9.	Balla Geza , Lunka Tekla Amália, Joó József, Moldován Csaba , Székely-Varga Zsolt , Csorba Artúr Botond , Kentelky Endre , Effect of the fermentation temperature and duration on the anthocyanin and quality content of Cabernet Sauvignon wine produced in the Miniș (Ménés) wine region. <i>Agriculture for life, life for Agriculture / Mezőgazdaság az életért, élet a mezőgazdaságért / Agricultură pentru viață, Viață pentru agricultură</i> , 2023/06/08–2023/06/10, București, Romania
10.	Balog Adalbert , Szabó Károly Attila, Aszalos Szilvia, Csorba Artúr Botond , Relations between invasive weeds and aphids, its role as virus reservoirs. 28. TNF (= The 10th International Plant Protection Symposium at University of Debrecen, 10th IPPS), Debrecen / 28. Tiszántúli Növényvédelmi Fórum / Forumul de Protecție a Plantelor. <i>Ediția a 28-a</i> , 2023/10/24–2023/10/26, Debrecen, Magyarország
11.	Ványolós Endre , Nicolas Cantoni, Recovering fragments of the historical Transylvanian landscape. <i>7th Conference on Horticulture and Landscape Architecture in Transylvania / 7.Erdélyi Kertész és Tájépítész Konferencia / Conferința de Horticultură și Peisagistică din Transilvania</i> , <i>Ediția a 7-a</i> , 2023/05/11–2023/05/13, Marosvásárhely, Románia
12.	Ványolós Endre , Lihát Ildikó , Landscape wound- for which a bandage is not enough. <i>7th Conference on Horticulture and Landscape Architecture in Transylvania / 7. Erdélyi Kertész és Tájépítész Konferencia / Conferința de Horticultură și Peisagistică din Transilvania</i> , <i>Ediția a 7-a</i> , 2023/05/11–2023/05/13, Marosvásárhely, Románia
13.	Ványolós Endre , Kovács Loránt , Green city puncture: building is not only for humans- learning by doing. <i>Conference on Horticulture and Landscape Architecture in Transylvania / 7. Erdélyi Kertész és Tájépítész Konferencia / Conferința de Horticultură și Peisagistică din Transilvania</i> , <i>Ediția a 7-a</i> , 2023/05/11–2023/05/13, Marosvásárhely, Románia
14.	Ványolós Endre , Out of the Transylvanian woods. <i>ECLAS 2023 Conference / ECLAS 2023 Konferencia / Conferința ECLAS 2023</i> , 2023/09/11–2023/09/13, Brno, Csehország
15.	Fodorpataki László , Nyárádi Imre-Istvan , Biró-Janka Béla , Lunka Tekla Amália , Molnár Katalin , Influence of nitrate and phosphate concentrations combined with different water supplies on growth and production characteristics of seed hemp (<i>Cannabis sativa</i> L.). <i>7th Conference on Horticulture and Landscape Architecture in Transylvania / 7. Erdélyi Kertészeti és Tájépítészeti Konferencia / A 7-a Conferința de Horticultură și Peisagistică din Transilvania</i> , 2023/05/12–2023/05/12, Sapientia EMTE Marosvásárhely, Románia
16.	Orbán Kincső-Katalin, Fodorpataki László , Kovács Gábor , Ökotoxikológiai vizsgálatok TiO ₂ -alapú kereskedelmi fotokatalizátorra. <i>XXIX. Nemzetközi Vegyszerekkonferencia / 29th International Conference on Chemistry / 29-a Conferința Internațională de Chimie</i> , 2023/10/25–2023/10/28, Marosvásárhely, Románia

17.	Székelly-Varga Zsolt, Endre Kentelky, Erzsébet Domokos, Monica Boscaiu, Influence of rooting media and hormones on Mandevilla vegetative propagation. <i>International Conference "Agriculture for Life, Life for Agriculture"</i> / Nemzetközi Konferencia „Mezőgazdaság az életért, élet a mezőgazdaságért” / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, 2023/06/01–2023/06/03, Bukarest, Romania
18.	Székelly-Varga Zsolt, Endre Kentelky, Gergely Loránd Szabó, Ildikó Lihát, Noémi Melitta Hegedűs, Anna Imola Henning, Endre Ványolos, Ecological educational trail, as linkage between natural areas and historical heritage, presented by the case study of pãnet village. <i>International Conference "Agriculture for Life, Life for Agriculture"</i> / Nemzetközi Konferencia „Mezőgazdaság az életért, élet a mezőgazdaságért” / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, 2023/06/01–2023/06/03, Bukarest, Romania
19.	Székelly-Varga Zsolt, Endre Kentelky, Gabriella Kiss, Ildikó Lihát, Róbert Marius Tăslăvan, Martin Jakab, Green rehabilitation concept for a post socialis marketplace (promoting the local farmers and supporting the green infrastructure of the city of Târgu Mureș). <i>International Conference "Agriculture for Life, Life for Agriculture"</i> / Nemzetközi Konferencia „Mezőgazdaság az életért, élet a mezőgazdaságért” / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, 2023/06/01–2023/06/03, Bukarest, Romania
20.	Székelly-Varga Zsolt, Géza Balla, Tekla Amália Lunka, József Joó, Csaba Moldován, Artúr-Botond Csorba, Endre Kentelky, Fermentation temperature and duration effect on the quality and anthocyanin content of Cabernet sauvignon wine produced in the Minis (Ménés) wine region. <i>International Conference "Agriculture for Life, Life for Agriculture"</i> / Nemzetközi Konferencia „Mezőgazdaság az életért, élet a mezőgazdaságért” / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, 2023/06/01–2023/06/03, Bukarest, Romania
21.	Székelly-Varga Zsolt, Géza Balla, Tekla Amália Lunka, József Joó, Csaba Moldován, Barna Putnok-Csisz, Endre Kentelky, Fermentation temperature and duration effect on the quality and anthocyanin content of Kadarka wine produced in the Minis (Ménés) wine region. <i>International Conference "Agriculture for Life, Life for Agriculture"</i> / Nemzetközi Konferencia „Mezőgazdaság az életért, élet a mezőgazdaságért” / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, 2023/06/01–2023/06/03, Bukarest, Romania
22.	Székelly-Varga Zsolt, Géza Balla, Csaba Moldován, Tekla Amália Lunka, Endre Kentelky, Examination of the qualitative and quantitative parameters of the white wine grape variety Királyleányka (Felească regală) in the case of different bud loads. <i>Current Trends In Natural Sciences – International Symposium / A természettudományok aktuális trendjei – Nemzetközi Szimpózium / Tendințe actuale în științe naturale – Simpozion internațional</i> , 2023/05/04–2023/05/04, Pitești, Romania
23.	Székelly-Varga Zsolt, Réka Both, Ildikó Lihát, Géza Balla, Endre Ványolos, Endre Kentelky, Landscape architecture renovation concept of homorodlok – the sound of nature as value of the landscape. <i>Current Trends In Natural Sciences – International Symposium / A természettudományok aktuális trendjei – Nemzetközi Szimpózium / Tendințe actuale în științe naturale – Simpozion internațional</i> , 2023/05/04–2023/05/04, Pitești, Romania
24.	Székelly-Varga Zsolt, Géza Balla, Csaba Moldován, Tekla Amália Lunka, Endre Kentelky, Effect of different phytotechnological factors on the qualitative and quantitative parameters of the Italian riesling grape variety. <i>Current Trends In Natural Sciences – International Symposium / A természettudományok aktuális trendjei – Nemzetközi Szimpózium / Tendințe actuale în științe naturale – Simpozion internațional</i> , 2023/05/04–2023/05/04, Pitești, Romania
25.	Székelly-Varga Zsolt, Ildikó Lihát, Anna-Mária Csergő, Géza Balla, Endre Kentelky, Propagation of transylvanian endemic and endangered plant species. <i>Current Trends In Natural Sciences – International Symposium / A természettudományok aktuális trendjei – Nemzetközi Szimpózium / Tendințe actuale în științe naturale – Simpozion internațional</i> , 2023/05/04–2023/05/04, Pitești, Romania

26.	Székelly-Varga Zsolt, Endre Kentelky, Géza Balla , Propagation of rose varieties by cuttings under effect of different rooting hormones. 7th Conference on Horticulture and Landscape Architecture in Transylvania / 7. Kertészeti és Tájépítészeti Konferencia Erdélyben / A VII-a Conferință despre Horticultură și Arhitectură Peisagistică în Transilvania, 2023/05/05–2023/05/05, Târgu-Mureș, Romania
27.	Noemi Hegedus, FORGOTTEN HISTORICAL LANDSCAPE HERITAGE IN THE BANAT AREA . 7th Transylvanian Horticulture and Landscape / A 7dik erdelyi Tájépítészeti konferencia / A saptea conferinta de Peisagistica in Ardeal, 2023/01/11–2023/05/13, Sapientia EMTE Marosvásárhelyi Kar, Romania
28.	Noemi Hegedus, FORGOTTEN HISTORICAL GARDENS-CASE STUDIES . 7th Transylvanian Horticulture and Landscape / A 7dik erdelyi Tájépítész konferencia / A saptea conferinta de Peisagistica in Ardeal, 2023/05/11–2023/05/13, Sapientia EMTE Marosvásárhelyi Kar, Romania
29.	Köllő Miklós , Ökoregionális székelly építész a Larix Stúdió munkái tükrében. Építészklub, Magyar Művészeti Akadémia / Architects' Club, Hungarian Academy of Arts / Clubul Arhitecților, Academia Maghiară de Arte, 2023/12/09–2023/12/09, Budapest, Ungaria
30.	Köllő Miklós , Ökoregionális székelly építész a Larix Stúdió munkái tükrében. Mesteriskola, Magyar Építész Szövetség / Master School, Association of Hungarian Architects / Școala de Master, Asociația Arhitecților din Ungaria, 2023/12/10–2023/12/10, Budapest, Ungaria
31.	Iakab Martin, Domokos Erzsébet, Benedek Klára, Molnár Katalin, Bíró Janka Béla, Incze Dávid, Dulf Francisc Vasile / Effect of Growth Hormones and Cold Treatment on Echinacea purpurea Seed Germination. 21st International Conference "Life Sciences for Sustainable Development / "Élettudományok a Fenttartható Fejlődésért" 21.-dik Nemzetközi Konferencia / Conferința Internațională ed. 21. "Științele Vieții pentru Dezvoltarea Durabilă" / 2022/09/15–2022/09/17 (Cluj Napoca, Romania)
32.	Iakab Martin, Benedek Klára, János Kincső Stefánia, Domokos Erzsébet, Dulf Francisc Vasile / Effect of Plant Growth Regulators and Cold Treatment on the Germination and Plantlets Development of Echinacea purpurea. XIII International Agriculture Symposium "AGROSYM 2022" / "AGROSYM 2022" XIII. dik Nemzetközi Mezőgazdasági Szimpózium / XIII Simpozionul International de Agricultură "AGROSYM 2022" / 2022/10/06–2022/10/09 (Jahorina, Bosnia and Herzegovina)
33.	Bíró-Janka Béla, Nyárádi Imre-Istvan, Molnár Katalin, Bartos Levente, Voloncs Alpár / Szemelvények a Kovászna megyei szántóterületek aktív gyommagtartálékára vonatkozóan. 27. Tiszántúli Növényvédelmi Fórum / 27th Plant Protection Forum of Tiszántúl / Al 27-lea Forum de Protecția Plantelor din Tiszántúl/ 2022/10/19–2022/10/20 (Debrecen, Magyarország)
34.	Jakab Marton, Erzsébet Domokos, Klára Benedek, Katalin Molnár, Béla Bíró-Janka, Dávid Incze, Francisc Vasile Dulf / EFFECT OF GROWTH HORMONES AND COLD TREATMENT ON ECHINACEA PURPUREA SEED GERMINATION. 21st International Conference "Life Sciences for Sustainable Development" / 21-ik "Élettudományok egy Fenttartható Fejlődésért" Nemzetközi Konferencia / A 21-a Conferință Internațională "Științele vieții pentru o dezvoltare sustenabilă" / 2022/09/15–2022/09/17 (Kolozsvár, România)
35.	Székelly-Varga Zsolt, Csorba Artúr Botond, Molnár Katalin, Iakab Martin, Bíró-Janka Béla, Kentelky Endre / Could cactuses endure winters in Romanian climatic conditions?. Agriculture for Life, Life for Agriculture / Mezőgazdaság az életért, élet a mezőgazdaságért / Agricultură pentru viață, Viața pentru agricultură/ 2022/06/02–2022/06/04 (Bukarest, România)
36.	Ványolós Endre, Pănescu Eugen, Duma-Coman Ruth / Transylvanian Art Nouveau Urban References and Transposition in the Urban Planning Code for Central Oradea. European city planning at the turn of the 19th and 20th century / Az európai várostervezés

	<i>a 19. és 20. század fordulóján / Planificarea urbană în Europa la turnura secolelor 19 și 20. / 2022/06/06–2022/06/07 (Pozsony, Szlovákia)</i>
37.	Ványolós Endre, Kohl Benjamin, Miclea Iulia, Tirt Georgiana/ The house of the Hintz pharmacy, a scene from the photographs of Mrs. Ella Hintz. <i>Conference on Built Heritage Theory and Practice – Tusnad / Az épített örökség felújításának elméleti és gyakorlati kérdései / Conferința internațională științifică de teoria și practica redobliării patrimoniului construit – TUSNAD/ 2022/11/17–2022/11/18 (Koložsvár, România)</i>
38.	Zsejke-Réka Tóth, Zsolt Pap, Klára Hernádi, Gábor Kovács/ Synthesis, characterization and stability issues of Ag-based photoactive materials. <i>1st International Conference (Online) Trends & Research In Chemistry (TRIC 2022) / 1. Nemzetközi Konferencia - Trendek és Kutatás a Kémiában / Prima Conferința Internaționala (Online) - Trenduri și Cercetare în Chimie/ 2022/01/18–2022/01/19 (ONLINE, Pakistan)</i>
39.	Farkas Attila, Tari Tamás, Fodor József Tamás, Náhlik András/ Evaluation of management of Northern chamois (<i>Rupicapra rupicapra carpatica</i>) population based on population estimates and hunting bag data from Romania. <i>8th World Conference on Mountain Ungulates / Hegyvidéki Patás Állatok 8. Világkonferenciája / A 8.-a Conferință Mondială a Ungulatelor Montane/ 2022/09/27–2022/09/30 (Cogne (Ao), Olaszország)</i>
40.	Náhlik András, Farkas Attila, Korn Ignác, Pölöskei Balázs, Papp Gyula, Kovács Ferenc, Tari Tamás/ First Hungarian GPS telemetry results on mouflon home-range evaluation and habitat use. <i>8th World Conference on Mountain Ungulates / Hegyvidéki Patás Állatok 8. Világkonferenciája / A 8.-a Conferință Mondială a Ungulatelor Montane/ 2022/09/27–2022/09/30 (Cogne (Ao), Olaszország)</i>
41.	Banea Ovidiu Constantin, Farkas Attila, Târu Cosmin Andrei/ Changes in Golden jackal (<i>Canis aureus</i> , L. 1758) and red fox (<i>Vulpes vulpes</i> , L. 1758) population size in Romania with new records of local density in hunting terrains from Timiș County, Dobruja, and maritime levees from the Danube Delta. <i>3rd International Jackal Symposium / 3. Nemzetközi Sakál Szimpózium / Simpozionul Internațional al Șacalilor Ediția 3. / 2022/11/02–2022/11/04 (Gödöllő, Magyarország)</i>
42.	Fehér Péter, Frank Krisztián, Kemenszky Péter, Farkas Attila, Jánoska Ferenc, Bedő Péter, Barta Endre, Varga László, Szemethy László, Stéger Viktor/ A population genetics-based study of the recolonization of the golden jackal (<i>Canis aureus</i>) in two core areas in southern Hungary and southern Romania. <i>3rd International Jackal Symposium / 3. Nemzetközi Sakál Szimpózium / Simpozionul Internațional pe Șacal ediția 3. / 2022/11/02–2022/11/04 (Gödöllő, Magyarország)</i>
43.	Székely-Varga Zsolt/ Could cactuses endure winter in romanian climatic conditions?. <i>International Conference "Agriculture for Life, Life for Agriculture", USAMV București / Nemzetközi Konferencia „Agriculture for Life, Life for Agriculture”, USAMV București. / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, USAMV București. / 2022/06/02–2022/06/04 (BUKAREST, România)</i>
44.	Kentelky Endre/ Mycorrhization of <i>Corylus avellana</i> L. and <i>Quercus robur</i> L. seedlings with <i>Tuber aestivum</i> Vittad. <i>International Conference "Agriculture for Life, Life for Agriculture", USAMV București. / Nemzetközi Konferencia „Agriculture for Life, Life for</i>

	<i>Agriculture", USAMV București. / Conferința internațională „Agricultură pentru viață, viață pentru agricultură”, USAMV București./ 2022/06/02–2022/06/04 (BUKAREST, România)</i>
45	Székely-Varga Zsolt/ Could affect the rooting of two <i>Taxus baccata</i> varieties stem cutting length and propagation period?. <i>Current Trends In Natural Sciences – International Symposium, Pitești. / Current Trends in Natural Sciences – International Symposium, Pitești. / Current Trends In Natural Sciences – International Symposium, Pitești./ 2022/05/19–2022/05/21 (Pitești, România)</i>
46	Székely-Varga Zsolt/ Effect of the cutting length and propagation period on three <i>Thuja occidentalis</i> varieties. <i>Current Trends In Natural Sciences – International Symposium, Pitești. / Current Trends in Natural Sciences – International Symposium, Pitești. / Current Trends In Natural Sciences – International Symposium, Pitești./ 2022/05/19–2022/05/21 (Pitești, România)</i>
47	Molnár Katalin, Bíró Janka Béla, Nyárádi Imre-István, Bálint János, Fodorpataki László, Bartha Csaba, Duda Marcel, Effects of Accelerated Aging and Priming with Ascorbic Acid, L-Cystein and Triacontanol on Germination of Rapeseed (<i>Brassica napus</i> L.). 6. <i>Kertészeti és Tájépítészeti Konferencia / 6. Transilvanian Horticulture and Landscape Studies Conference / 6. Transilvanian Horticulture and Landscape Studies Conference, 2021/05/28–2021/05/29, Marosvásárhely, România</i>
48	Bálint János, Lakab Martin, Szabó Dorotyá, Csorba Artúr-Botond, Molnár Katalin, Evaluation Of Common Nutrient Deficiencies in Primrose (<i>Primula acaulis</i>). 6. <i>Kertészeti és Tájépítészeti Konferencia / 6. Transilvanian Horticulture and Landscape Studies Conference / 6. Transilvanian Horticulture and Landscape Studies Conference, 2021/05/28–2021/05/29, Marosvásárhely, România</i>
49	Ványolós Endre, „Mourn also for all butterflies” - thinking of a (Transilvanian) landscape not only for man. <i>European Council of Landscape Architecture Schools Conference "Stop and think" / A Tájépítész Egyetemi Képzések Európai Tanácsa Konferenciája "Stop, gondolkodj" / Conferința Consiliului European al Școlilor de Peisagistică "Stop și gândeste!", 2021/09/13–2021/09/15, Uppsala, Svédország</i>
50	Kovács Kázmér, Les conditions d'une reconstruction authentique. <i>La ricostruzione della chiesa di Santa Maria della Neve a Cascia / The reconstruction of the Santa Maria della Neve church in Cascia / A Cascia-i Santa Maria della Neve templom visszaépítése / Reconstrucția bisericii Santa Maria della Neve, Cascia, 2020/01/25–2020/01/25, Pescara, Olaszország</i>
51	Kovács Kázmér, Beyond vernacular architecture. <i>International Conference on Vernacular Architecture in World Heritage Sites. Risks and New Technologies. HERITAGE2020 / Nemzetközi konferencia a világörökségi helyszínek népi építészetének kérdéséről. Kockázatok és technológiák. HERITAGE2020 / Conferință internațională despre arhitectura vernaculară din siturile patrimoniale mondiale. Riscuri și tehnologii. HERITAGE2020, 2020/09/09–2020/09/11, Valencia, Spanyolország</i>
52	Kovács Kázmér, Restauration et (en) contexte. <i>Restauro corso monodisciplinare d'ambito / Monodisciplinary environment restoration course / Környezet-helyreállítási monodiszciplináris tanfolyam / Curs monodisciplinar de reabilitare a mediului, 2020/09/21–2020/10/02, Pescara, Olaszország</i>

53	Bíró-Janka Béla, Marcel Matei Duda, Nyárádi Imre-István, Molnár Katalin, Alexandru Ghețe, Influences of sowing dates on generative and vegetative properties of different sweet basil (<i>Ocimum basilicum</i> L.) varieties. <i>Agriculture for Life Life for Agriculture / Mezőgazdaság az életért élei a mezőgazdaságért / Agricultură pentru viață viață pentru agricultură</i> , 2020/06/04–2020/06/06, Bukarest, România
54	Bíró-Janka Béla, Molnár Katalin, Nyárádi Imre-István, Marcel Matei Duda, Comparative study of seven basil (<i>Ocimum basilicum</i> L.) cultivars herb and volatile oil production sown on different dates. <i>19th International Conference Life Sciences for Sustainable Development / 19-dik Nemzetközi Konferencia: Élettudományok egy Fenntartható Fejlődésért / A 19-a Conferință Internațională: Științele vieții pentru o Dezvoltare Sustenabilă</i> , 2020/09/24–2020/09/25, Kolozsvár, România
55	Putnoky-Csicsó Barna, A <i>Metarhizium anisopliae</i> entomopatogen gomba hatása az édesburgonya [<i>Ipomoea batatas</i> (L.) Lam.] talajlakó kártevőire, valamint termésmennyiségi paramétereire ellenőrzött termesztési körülmények között – előzetes eredmények. <i>66. növényvédelmi Tudományos Napok / 66. Plant protection science days / 66. Zilele științei protecției plantelor</i> , 2020/02/18–2020/02/19, Budapest Magyarország, Magyarország

cărți, articole publicate în reviste de specialitate, brevete

	Cărți publicate		Articole publicate			
	<i>La edituri recunoscute CNCSIS</i>	<i>în străinătate</i>	<i>în reviste ISI</i>	<i>în reviste BDI</i>	<i>în reviste CNCSIS</i>	<i>în volumele de conferințe internaț.</i>
Centrul de cercetare SHBCA						
<i>Agricultură</i>	1	-	2	1	6	13
<i>Mediu</i>	-	-	2	3	1	1
<i>Chimie aplicată</i>	-	-	3	-	-	-
<i>Protecția plantelor</i>	2	-	12	2	1	-
TOTAL	3	0	19	6	8	14

Datele privind lucrările științifice publicate, conferințele organizate, granturile câștigate și punctajul obținut sunt prezentate în anexele 1-6.

*Pe baza evaluării interne ale Senatul Universității Sapienția ale activității de cercetare pe perioada 2019-2021 Centrul de Cercetare SHBCA ale
Departamentului de Horticultură a obținut un punctaj total de 1111.*

Tîngu-Mureș, 11. Oct. 2023.

Dr. Balog Adalbert

Semnătura directorului de departament

Dr. Benedek Klára

