



UNIVERSITY OF DEBRECEN

**FACULTY OF AGRICULTURAL AND FOOD SCIENCES
AND ENVIRONMENTAL MANAGEMENT**

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Research by the University of Debrecen in space – status report from the International Space Station

Emerging Cotyledons, Fresh Data — research measurements from the International Space Station are arriving continuously. In the scientific portfolio of Axiom Mission 4, UD participates with two projects: within the HUNOR Hungarian Astronaut Program, our researchers are studying cerebral blood flow dynamics, and they are also examining seed germination, microgreen production, and leaf development.



Researchers from the Faculty of Agricultural, Food Sciences and Environmental Management at the University of Debrecen discussed the progress and final adjustments of the experiments conducted on the International Space Station with the HUNOR team supporting Hungarian astronaut Tibor Kapu's mission, at the Payload Support Center - in an online meeting held in live connection with the ISS.

Further information:

<https://www.axiomspace.com/missions/ax4#blog>

<https://www.nasa.gov/>

The full article can be read at the following link:

<https://hirek.unideb.hu/debreceeni-egyetem-kutatasai-vilagurben-helyzetjelentes-nemzetkozi-urallomasrol>

Source: hirek.unideb.hu





Expanding agricultural relations in the Middle East



On Thursday, the Faculty of Agricultural and Food Sciences and Environmental Management at UD and the Faculty of Medicinal and Industrial Plants at the University of Kirkuk in Iraq signed a letter of intent on the development of student and researcher exchange programs and professional cooperation, as well as the implementation of joint research projects. As part of their educational and research cooperation, the institutions also plan to publish joint scientific publications and organize online and hybrid conferences.



At the meeting following the signing of the letter of intent, faculty leaders agreed on further consultations.

The full article is at the following link:

<https://hirek.unideb.hu/bovulo-kozel-keleti-agrar-kapcsolatok>

Source: hirek.unideb.hu



The University of Debrecen in the Hungarian space industry

In recent years, Hungary has made significant efforts and achieved outstanding results in the field of space research and space technology, all with the aim of playing a key role in the international ecosystem. In this process, as before, we continue to rely heavily on Hungarian universities, including the University of Debrecen, said Szabolcs Szolnoki, Deputy State Secretary for Technology, Space Industry and Defense Industry at the Ministry of National Economy, during his visit to the University of Debrecen to assess the city's space industry potential.



At the professional meeting, it was highlighted that the focus areas of the Hungarian space industry may include developments in electronics, radiation exposure studies, and technologies supporting human spaceflight. The Vice-Rector for Science of UD described the university's research conducted within the the HUNOR Hungarian Astronaut Program as part of the Axiom Mission 4 scientific portfolio as a success for the DE space research program. He added that these projects will continue and enter a new phase upon the return of astronaut Tibor Kapu.

During his visit, Szabolcs Szolnoki was introduced to the results of research in radiation physics, space physiology, space nutrition, space medicine and diagnostics, as well as studies related to climate change and isotopes applications.

Experts from the Ministry of National Economy also visited the Institute of Physiology at the Faculty of Medicine and they learned about the university's space physiology research laboratory.



The delegation visited the Manufacturing Telecommunications Technology Laboratory of the Department of Experimental Physics at the Faculty of Science and Technology, as well as the Biodrome of the Institute of Applied Plant Biology at the Faculty of Agricultural and Food Sciences and Environmental Management – home to highly successful plant germination, microgreen production, and leaf development experiments conducted within HUNOR Hungarian Astronaut Program.



The full article can be read at the following link:
<https://hirek.unideb.hu/debreceeni-egyetem-hazai-uriparban>

Source: hirek.unideb.hu



Innovations rooted in tradition, space plant cultivation at FAFSEM

The faculty's space research project has concluded successfully.

With the return of astronaut Tibor Kapu, the experiment came to an end in which our researchers investigated how plants can be germinated and plant-based food produced in space using a cultivation method developed at our Faculty.

The germination of radishes, wheat, and peppers proved successful.

Details of the experiment were discussed by Dr. Szilvia Veres, the program's coordinator, and Professor Emeritus Dr. Miklós Fári in the *Esti Közelkép* program of Debrecen Television.



Source: <https://dehir.hu/dtv/esti-kozelkep-2025-07-21/>

Source: mek.unideb.hu, facebook.com/DEMEK.fb

Professional lecture at the Garden Academy

Our faculty member, Prof. Erzsébet Karaffa, delivered a lecture at the second Garden Academy in Tabdi on August 9, 2025.

At the event, attracting more than 100 participants, her lecture entitled "Useful fungi that help our plants - the potential uses of Trichoderma" was a great success with the audience.

Source: facebook.com/DEMEK.fb





Free radicals from A to Z: new research from medicine to agriculture

Renowned experts presented the latest scientific findings in free radical research and their practical applications at the University of Debrecen.

The two-day conference, organized by three faculties of the institution, focused on topics such as medical, molecular and nutritional biology, plant stress biology, and current issues in agriculture.

The Life Sciences Center of the University of Debrecen hosted the 13th conference of the Hungarian Free Radical Research Society (MSZKT) on August 28 and 29. The conference was organized by the Faculty of Science and Technology (TTK BÖI Department of Botany – Csaba Máthé), the Faculty of Medicine (ÁOK Medical Imaging Institute – Teréz Nyesténé Nagy), and the Faculty of Agricultural and Food Sciences and Environmental Management (MÉK Center for Complex Systems and Microbiome Innovations – Judit Remenyik).

The organizing committee also included renowned Hungarian scientists in the field of free radical research: Anna Blázovics, Andrea Ferencz, Krisztina Hagymási, Tibor Janda, and Péter Poór, who also gave presentations at the event.



The program was organized around three main topics: the relationship between free radical production and neutralization and plant oxidative stress, the medical and molecular biological aspects, and the nutritional and agricultural aspects. Excellent presentations and poster presentations on all three topics showcased the latest results of Hungarian free radical research.

The full article can be read at the following link:

<https://hirek.unideb.hu/szabadgyokok-tol-z-ig-uj-kutatasok-gyogyszattol-mezogazdasagig>

Source: hirek.unideb.hu



XLII. National Assembly in Székesfehérvár



Lecturers and PhD students from our Faculty's Institute of Water and Environmental Management took part in the 42nd National Conference of the Hungarian Hydrological Society held in Székesfehérvár between July 2 and 4, 2025.

The conference provided an excellent opportunity to present scientific results and build professional connections. On the third day, participants joined a field trip, during visiting the wastewater treatment plant in Székesfehérvár and the sluice in Siófok.

The following presentations were given by our department at the conference:

- Imre Boczonádi - Sándor Kun - János Tamás - Attila Nagy: Changes in the physicochemical and microbiological properties of urban watercourses as a result of intense precipitation events
- Andrea Szabó - Erika Budayné Bódi - László Radócz - János Tamás - Attila Nagy: Thermal camera data analysis for comparing irrigated and non-irrigated areas
- Dávid Pásztor - Zsolt Fehér - Attila Nagy - János Tamás: Modern surveying and modeling.



Source: facebook.com/DEMEK.fb





University innovation at the forefront of Mediterranean plant pathology

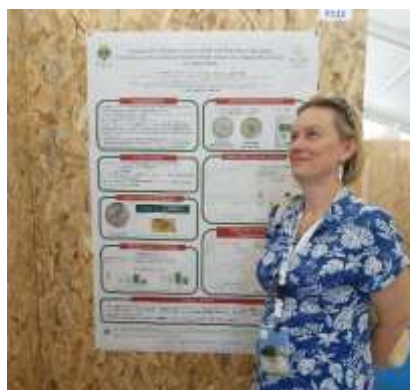
Our Faculty's lecturers, Prof. Dr. Erzsébet Karaffa, university professor, and Dr. András Csótó, assistant professor, presented the work of their research group at the 17th Congress of the Mediterranean Phytopathological Union in Italy, a prestigious international conference focusing on plant diseases affecting crops cultivated in the Mediterranean region. In addition, our lecturers promoted the patent resulting from their research, co-authored by Prof. Dr. Erzsébet Karaffa and Dr. Csilla Kovács.

The following scientific materials were presented at the conference in the form of lectures and posters:

- András Csótó, Nóra Laurinyecz, Antal Nagy, Nándor Rakonczás, Krisztina Erzsébet Németh, Csaba Németh, Zóra Annamária Nagy, Anna Csikászné Krizsics, Erzsébet Sándor: Tolerance of cultivars and hybrid grapes against trunk diseases
- András Csótó, Péter Riczu, Andrea Zabiák, Levente Karaffa, Erzsébet Sándor: Integrating biostimulation and plant pathogen control: Endophytic Trichoderma strains boost yield and disease resistance in field crops

The conference publication will be available as a special issue of the *Phytopathologia Mediterranea* journal.

Source: facebook.com/DEMEK.fb





Participation in the 50th South African Association of Botanists Conference

Two lecturers from our department, Dr. Brigitta Tóth, associate professor, and Dr. Gábor Tarcali, senior research fellow, participated in the 50th anniversary conference organized by the South African Botanical Society with posters and oral presentations.

Brigitta Tóth: Analysis of the effects of non-composted and composted sewage sludge on a fodder corn variety (poster presentation – plant physiology section)

Brigitta Tóth: Assessing crop responses to stressors in a changing climate (oral presentation – plant physiology section)

Gábor Tarcali: Control options of chestnut blight disease caused by *Cryphonectria*

parasitica in Hungary (oral presentation – invasive species biology section)

The professional level of the presentations given at the conference was excellent. Most of the presentations touched on botany, plant physiology, plant protection, and the impact of climate change on plants was also a key topic. The event provided an excellent opportunity to cultivate existing professional relationships and establish new scientific connections and collaborations.

After the conference, our instructors had the opportunity to take a field trip to learn more about the unique flora and fauna of the famous Kruger National Park.

Source: facebook.com/DEMEK.fb



34th Bálványos Summer Free University and Student Camp

By 2050, the world's food economy will need to feed approximately 10 billion people. Population growth will primarily occur in developing countries, while the developed world—especially in Europe—a decline is expected. At the same time, consumer habits are also undergoing significant transformation.



How do Hungary and the neighboring countries' food economies fit into this global megatrend? What role will the agri-food sector play in the region, particularly considering aspects such as environmental and economic sustainability, long-term profitability, and financing?

These questions were explored during a roundtable discussion organized by MBH Bank at the 34th Bálványos Summer Free University and Student Camp. Participants included Prof. Dr. László Stündl, Dean of our Faculty; Prof. Dr. István Szűcs, university professor and Director of the Institute of Economics at the Faculty of Economics, University of Debrecen; Dávid Mezei, advisor to the European Parliament; and Dávid Hollósi, Managing Director of the Agricultural and Food Industry Division at MBH Bank.

Source: MBH Bank Agrárcentrum, facebook.com/DEMEK.fb

Huminisz technology: experiments at the University of Debrecen also confirmed its effectiveness

In the University of Debrecen's long-term maize experiment - ongoing for over 40 years - researchers are studying the effectiveness of plant conditioners and foliar fertilizers as part of field trials.

Representing our Faculty on the program *Új Mezőgazdasági Magazin*, Prof. Dr. János Nagy, professor emeritus, discussed the need to expand the scope of research criteria, while Dr. Csaba Bojtor, assistant professor, presented details of the latest field experiments.

According to last year's joint trials between the University of Debrecen and Huminisz Ltd., farmers who use plant conditioners in maize production can save on nitrogen fertilizer. The studies continued this year to confirm last year's findings.

However, there are additional benefits to using humic acid-based plant conditioners: they can help plants endure longer periods without rainfall. Nevertheless, in cases of prolonged drought, even these preparations have their limitations.



The video can be viewed at the following link:

<https://www.facebook.com/share/v/1AKpeKhmdY/>

Source: *Új Mezőgazdasági Magazin*,
facebook.com/DEMEK.fb



Our lecturers in the EUROSIL 2025 international conference

The EUROSIL 2025 international conference was held in Seville from 8 – 12 September 2025. The event is the official meeting of the European Confederation of Soil Science Societies (ECSSS) and is one of Europe's most significant soil science events.



Representing our faculty at the professional conference were Dr. Zsolt Zoltán Fehér, assistant professor, Dr. Tamás Magyar,

associate professor, Dr. Péter Tamás Nagy, associate professor, and Dr. Florence Tóth, research assistant.

Our lecturers presented their latest research findings to the scientific community in the form of four posters.

The primary aim of the conference was to showcase scientific and technical achievements in soil sciences and to strengthen the connection between science and society.

The event also featured several professional workshops and a product and service exhibition, providing excellent opportunities for exchanging ideas and information, as well as establishing new business and professional collaborations.

Source: facebook.com/DEMEK.fb

International Association for Irrigation and Drainage IV. World Conference on Irrigation

Between September 7 and 13, 2025, Prof. Dr. János Tamás, a professor at our faculty, participated in the 4th World Conference on Irrigation and Drainage of the International Association for Irrigation and Drainage, which was also the third high-level Advisory Meeting and the 76th International Executive Committee Meeting.

The main theme of the international conference was how irrigation can help address the challenges of climate change, food security, and sustainability.

Prof. Dr. János Tamás gave a plenary presentation at the conference on "Precision



irrigation solutions in the field of drought management in Central and Eastern Europe."

The conference covered topics such as:

- smart technologies (sensors, artificial intelligence),
- new financial and support models for farmers,
- nature-based solutions (e.g., agroforestry, urban green spaces, urban farming).

Source: facebook.com/DEMEK.fb

Agrár-Hangár

The latest episode of the renewed podcast by the National Chamber of Agriculture is out! Guest: Miklós Fári, professor emeritus at the University of Debrecen.

Astronaut Tibor Kapu took a thousand Hungarian radish, wheat, and pepper seeds

with him to the space station. The experiment also investigates how plants can be grown quickly with minimal water consumption (just 0.5 ml/seed). Miklós Fári talks about the background of the experiment and is also asked about its potential benefits for the future of agriculture.

Youtube: <https://youtu.be/W-soYMW4Co4>

SoundCloud: <https://on.soundcloud.com/C3gSZp1yQR3ZaXNRCy>

Spotify: <https://open.spotify.com/episode/4gbinc63XloF8TzUnCAFV8...>

Source: Nemzeti Agrárgazdasági Kamara – NAK, facebook.com/DEMEK.fb



Pavlov's tomato



Plant memory and associative learning, or does the Pavlovian reflex work in plants? Researchers at the Agricultural Genomics and Biotechnology Center of the Faculty of Agricultural and Food Sciences and Environmental Management at the University of Debrecen investigated the ability of plants to remember and learn through association. The article presenting the results was published in the internationally recognized scientific journal *Plant Signaling & Behavior*.

Plant memory is an adaptive mechanism that plants can use to improve their physical condition and cope with adverse environmental stresses. When a plant is exposed to an environmental stimulus, it responds by forming memories of the event, which can develop into short- or long-term somatic memory, or even hereditary memory. These memories enable the plant to cope more effectively with future, recurring stressful events, explained Judit Dobránszki, scientific advisor, to hirek.unideb.hu.

Since only one or two international experimental data predicted the possibility of associative learning in plants, researchers also examined this ability in plants.

The university's researchers published their scientific findings in the scientific journal *Plant Signaling & Behavior*.

The research was funded by the Ministry of Culture and Innovation's National Research, Development and Innovation Fund under project number TKP2021-EGA-20, funded by the TKP2021-EGA grant program, as well as professional support from the Ministry of Culture and Innovation's EKÖP-24-0 University Research Scholarship Program, funded by the National Research, Development and Innovation Fund.



The full article can be read at the following link:
<https://hirek.unideb.hu/node/25958>

Source: hirek.unideb.hu

Adaptive corn and sunflower cultivation



The current situation of the sunflower and corn markets, the interactive effects of soil cultivation and water under changing climatic conditions, and effective agrotechnical elements were discussed at the 28th Corn and Sunflower Production Conference organized by the Agricultural Research Institutes and Experimental Farm of the University of Debrecen and the Faculty of Agricultural and Food Sciences and Environmental Management.



The vice-rector for agricultural and food science development at the University of Debrecen, who is also the director general of the Agricultural Research Institutes and Experimental Farm, emphasized that the university's goal is to be a leader in domestic agricultural higher education and research, which is why they will soon be presenting the university's precision developments related to food engineering training in addition to crop production.



The professional conference of the DE Agricultural Research Institutes and Farm, as well as the Institute of Plant Sciences of the Faculty of Agricultural and Food Sciences and Environmental Management, concluded with a practical demonstration at the university's Látóképi Plant Production Experimental Station.

The full article can be read at the following link:

<https://hirek.unideb.hu/alkalmazkodo-kukorica-es-napraforgotermesztes>

Source: hirek.unideb.hu



Discussions on dual degree agricultural

A delegation from Zhejiang Wanli University discussed the possibility of launching double degree programs at the University of Debrecen. In addition to management discussions, the Chinese delegation also familiarized themselves with the research infrastructure of the Faculty of Agriculture.



Cooperation between the University of Debrecen and Zhejiang Wanli University began in June 2025, when Károly Pető, Vice-Rector General, and László Stündl, Dean of the Faculty of Agricultural and Food Sciences and Environmental Management (FAFSEM), visited the Ningbo-based institution.

In order to move forward, the management of the Chinese institution arrived in Debrecen, where Vice-Rector Károly Pető and Oksana Kiszil, Director of Coordination and Strategy, welcomed Vice-President GE Chutian and his colleagues in the Main Building of the university.

Following the meeting, the delegation visited several facilities of FAFSEM, including the Center for Complex Systems and Microbiome Innovations, the Fish Biology Laboratory, and the Food Innovation Center.



After learning about the research directions, infrastructure, and educational conditions, the Chinese guests discussed with Dean László Stündl the possibility of launching a bachelor's and two master's degree programs (BSc in Food Engineering, MSc in Environmental Management, MSc in Food Safety and Quality Engineering) and discussed the possibility of launching dual degree programs.



The parties agreed to hold further discussions, and Vice President GE Chutian invited the university's management to Zhejiang Wanli University's major event in November, where he hopes that an agreement on dual degree programs may even be reached.

The full article can be read at the following link: <https://hirek.unideb.hu/node/25827>

Source: hirek.unideb.hu

School desk and practice

Organized by our Faculty's Institute of Plant Production, Breeding and Plant Technology, our BSc agricultural engineers and agricultural engineering students took part in a professional visit to Bayer Hungária Kft.'s portfolio farm in Debrecen-Látókép.

During the field trip, our students learned about developments in corn production technology, from breeding, sowing, and plant protection to harvesting.



Source: facebook.com/DEMEK.fb

Field practice for our international students

On September 16, 2025, our international students majoring in Agricultural Engineering BSc; Rural Development Engineering MSc; Animal Husbandry Engineering MSc; and Crop Production MSc took part in field practice at the AKIT Experimental Farm of the University of Debrecen.

At the experimental station, Prof. Dr. József Csajbók and Dr. Éva Babett Ábrahám, assistant professor, introduced the students to the main features and most important research projects of the experimental station, and then presented the most important machines, tools,

equipment, and raw materials necessary for agricultural production and experimental work.

In addition to the crop plots, the research work being carried out at the experimental farm was also presented, including the Pepó-Ruzsányi long-term experiment. During the practical training, students were able to study the cultivated crops and see the pests, pathogens, damage and disease patterns found on them, as well as learn about the most significant weeds and the effects of the summer drought on crops.

Source: facebook.com/DEMEK.fb



Discussions on American training opportunities



Zoltán Szilvássy, Rector of the University of Debrecen, and Bernard Engel, Dean of the College of Agricultural Sciences at Purdue University, discussed the establishment of a joint food industry engineering program. The meeting was also attended by Béla Kocsy, agricultural and food industry diplomat at the Hungarian Embassy in Washington, and Endre Harsányi, vice-rector for agricultural and food science development.

The professional consultation also discussed several opportunities for scientific cooperation, including in the fields of food science, agricultural science, and pharmaceutical science, as well as the development of functional foods as a point of connection between these fields. At the meeting, Rector Zoltán Szilvássy reported on the complex, multidisciplinary development program of Lake Tisza, the latest food industry research results, and infrastructure developments.

Bernard Engel emphasized that Purdue University offers a wide range of training programs in the fields of food, agriculture, veterinary medicine, and natural sciences. However, in the field of agricultural training, and within that, in the food industry, the topic of "One Health" offers many untapped areas for cooperation between the two institutions.

The University of Debrecen has maintained a close partnership with Purdue University to date. Several of the institution's lecturers and researchers have traveled to the Indiana-based university for professional and practical training. In 2022, the University of Debrecen awarded an honorary doctorate to Purdue professor Zoltán Macháty.



Founded in 1869, Purdue University's College of Agriculture is among the world's best, ranking third in the United States and sixth globally in the QS World Subject Rankings 2025.

The full article is at the following link: <https://hirek.unideb.hu/node/25948>

Source: hirek.unideb.hu

Seed Drill University – Professional Training at the Faculty

At the Faculty of Agricultural, Food Sciences and Environmental Management of the University of Debrecen, participants of the professional program titled *Seed Drill University* had the opportunity to learn about the operation of modern seed drill constructions, methods of field adjustment, as well as the evaluation and calibration of seed drills.

The new training, organized within the faculty's adult education system, focused on the practical adjustment of precision seed drills and the development of precision sowing.

The aim of the training was to enable farmers and professionals to master more accurate sowing practices, optimize the operation of seed drills, and thereby achieve higher yields – said Adrienn Kakuszi-Széles to hirek.unideb.hu.

The head of the Institute of Land Use, Technical and Precision Technologies emphasized that the new program offers farmers the opportunity to gain a comprehensive understanding of sowing technology and apply customized settings tailored to their own systems.

Due to the high level of interest, the Institute of Land Use, Technical and Precision Technologies plans to launch the program again later this year.

Further details:

<https://mek.unideb.hu/felnottkepzes >

The full article can be read at the following link:

<https://hirek.unideb.hu/vetogep-egyetem-az- agrarkaron>

Source: hirek.unideb.hu



Do I Really Need Summer Stubble Cultivation? Stubble Management in Practice I.



After harvest, every farmer faces the same question: *Is stubble cultivation necessary, or can it be skipped?*

In our professional video, filmed at the University of Debrecen's AKIT Látókép Experimental Station, Dr. István Sojnóczy, assistant professor at the Faculty of Agricultural, Food Sciences and Environmental Management, presents different approaches and examines what we can gain – and what we risk – by applying them.

- Learn how stubble cultivation impacts moisture retention, weed control, and soil structure.
- See the differences between various practices
- Understand why your decision can be crucial for the success of your next crop.
- And if you're curious about results that can also be proven in numbers, join our instructor and explore the experiment together!

The video can be viewed at the following link: https://www.youtube.com/watch?v=YZUzmjne-GA&list=PL81Cxr4bvDeKm0zRy1LA9T62V3V3m1_Ww&index=4

Source: facebook.com/DEMEK.fb



Do I Really Need Summer Stubble Cultivation? Stubble Management in Practice II.

Right after harvest, we are immediately faced with the actual condition of the stubble – and this is where the real decision begins. In this episode, filmed at the University of Debrecen's AKIT Látókép Experimental Station, Dr. István Sojnóczki, assistant professor at the Faculty of Agricultural and Food Sciences and Environmental Management, not only talks about different stubble cultivation methods but also demonstrates them in practice, showing what we can gain – or risk – with each approach.



- See how soil moisture retention, weed control, and soil structure change directly after harvest.
- Explore how different stubble management practices influence preparation for drought periods.
- Understand why your decision can again be crucial for next year's yield – now backed up with concrete, field-based examples.

The video can be viewed at the following link: <https://www.youtube.com/watch?v=yf06tdD2Kks>

Drought... Do I Really Need Summer Stubble Cultivation? Stubble Management in Practice III.

In times of drought, every decision matters: does summer stubble cultivation actually help retain soil moisture, or is it just an unnecessary expense? In the third part of the "Stubble Management in Practice" series, Dr. István Sojnóczki, assistant professor at the University of Debrecen, Faculty of Agricultural, Food Sciences and Environmental Management, presents the results of the University's field experiments.



Topics covered include:

- the impact of stubble management on soil moisture retention,
- the economic implications of different technologies,
- and how soil health evolves under various practices.

The video can be viewed at the following link: <https://www.youtube.com/watch?v=bwtFZJLs7e8>

Source: facebook.com/DEMEK.fb



Award-Winning Mentors and Students

Three students from the University of Debrecen (UD) have been awarded the prestigious Pro Scientia Gold Medal in recognition of their first-place achievements at this year's National Scientific Students' Associations Conference (OTDK), as well as their outstanding academic and professional accomplishments. In addition, four of their supervisors will receive the Master Teacher Gold Medal distinction.

The Pro Scientia Gold Medal is awarded to those young researchers who, in addition to



winning first place at the OTDK, have demonstrated exceptional academic performance throughout their studies. Their excellence is evidenced through professional papers, presentations, or literary, artistic, and scientific works.

This year, the Pro Scientia Gold Medal Awarding Committee selected three UD students for the honor:

- Zsombor Botkó, Faculty of Agricultural, Food Sciences and Environmental Management (Agricultural Sciences Section),
- Anna Katalin Kádár, Faculty of Humanities (Human Sciences Section),
- Kitti Kurtán, Faculty of Medicine (Medical and Health Sciences Section).

The award ceremony will take place in November, during the Celebration of Hungarian Science, in the Ceremonial Hall of the Hungarian Academy of Sciences, where the recipients will officially receive their gold medals.

The full article can be read at the following link:

<https://hirek.unideb.hu/dijazott-mesterek-es-tanitvanyok>

Source: hirek.unideb.hu

World's Top 2% Scientists

We are proud to announce that Prof. Dr. Judit Dobránszki, Scientific Advisor and Head of our Agricultural Genomics and Biotechnology Center, has been included in the latest "World's Top 2% Scientists" list. Compiled by Stanford University and Elsevier based on Scopus data, this ranking measures outstanding scientific visibility and citation impact.

The list and methodology are available here:

<https://elsevier.digitalcommonsdata.com/data.../btchxktzyw/8>

Source: facebook.com/DEMEK.fb





Recognition for Service to Hungarian Agriculture

At a jubilee graduation ceremony, the Faculty of Agriculture, Food Science and Environmental Management of the University of Debrecen honored agricultural engineers who graduated 50, 60, and 65 years ago. At the event, 55 recipients received a gold diploma, 35 a diamond diploma, and 23 an iron diploma. The ceremony celebrated 113 former students from the predecessor institutions: the Debrecen Agricultural Academy, the Debrecen Department of the Faculty of Agricultural Sciences at the Hungarian University of Agricultural Sciences, and the Debrecen Hungarian Royal Economic Academy.

On behalf of the awardees, János Nagy, a gold diploma holder, recalled his university years. Following nearly two decades of tradition, the alma mater compiled and published the professional biographies of the former students in a special volume, which the jubilarians received alongside their diplomas. In recognition of his work, Prof. Dr. József Csajbók, Head of the Institute of Crop Production, Breeding and Plant Technology, was awarded the Surányi János Memorial Medal by the Soil, Water Management and Crop Science Committee of the Hungarian Academy of Sciences and the Surányi János Foundation.

The full article can be read at the following link:

<https://hirek.unideb.hu/elismeres-magyar-agrarium-szolgalataert>

Source: hirek.unideb.hu





Jubilee Graduation – In photos





State Awards on the Occasion of the National Holiday

Two staff members of the Faculty of Agriculture, Food Science and Environmental Management at the University of Debrecen received state honors on the occasion of the National Holiday of Saint Stephen, August 20.

Dr. habil Attila Kiss, Head of the Agrarian and Food Industry Knowledge Utilization Center at the University of Debrecen, who is employed by our institution, was greatly honored. On the

occasion of our National Holiday, on August 19, 2025, he received the Knight's Cross of the Hungarian Order of Merit from Minister Dr. Balázs Hankó upon the proposal of the President of the Republic. The award recognizes his research in domestic food and nutrition science, as well as his work connecting innovative product development with consumer protection.



Dr. István Nagy, Minister of Agriculture, awarded the Tolnay Sándor Prize to Dr. József Rátky, university professor and head of department at the University of Veterinary Medicine, and lecturer at the Faculty of Agriculture, Food Science and Environmental

Management at the University of Debrecen, in recognition of his decades-long outstanding domestic and international teaching, research, and scientific organizational work in reproductive biology and the preservation of indigenous animal breeds.



Source: mek.unideb.hu





OTDK'70 Certificate of Recognition

In 2025, the National Scientific Students' Associations Conference (OTDK) celebrates its 70th anniversary.

On this occasion, the National Scientific Students' Associations Council established a silver commemorative badge, awarded to those who have supported the career development of talented, ambitious young people through their dedicated and outstanding contributions to the Scientific Students' Associations over the long course of

its history, particularly during the past quarter-century.

The awards were presented on September 29, 2025, at a ceremonial event held in the Assembly Hall of the Theoretical Block at Semmelweis University, Nagyvárad Square.

From the Faculty of Agriculture, Food Science and Environmental Management at the University of Debrecen, Prof. Dr. István Komlósi, university professor, was the recipient of this distinction.

Source: facebook.com/DEMEK.fb



Awarding of the Title of Professor Emeritus to Prof. Dr. Péter Pepó

The Senate of the University of Debrecen has conferred the honorary title of Professor Emeritus on Prof. Dr. Péter Pepó, a faculty member of our School.

This title recognizes the outstanding achievements of the University's most distinguished professors and their dedicated service to the institution, while also granting rights and conditions to support their continued professional activities.

Prof. Pepó received the honorary title at a ceremony held in the Aula of the University's Main Building.



Source: facebook.com/DEMEK.fb



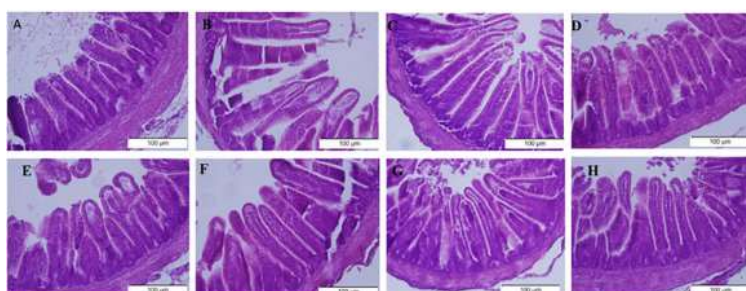
Nutrient Supplementation During Incubation



How can the immune system and development of poultry be supported even more effectively at the embryonic stage? Research conducted by experts at the University of Debrecen offers new possibilities for feed supplementation, with their findings published in the prestigious scientific journal *Animal Nutrition*. The article was awarded both the Count István Tisza Foundation for the University of Debrecen and the University of Debrecen Publication Prize.

Embryonic development and the formation of the digestive system play a critical role in the post-hatch growth of poultry. The development of bird embryos is determined by the amount of nutrients present in the egg. Chicks with weaker viability grow more slowly and have a higher mortality rate.

The research focused on the in ovo supplementation of methionine in poultry embryos.



The study confirmed that methionine supplementation has positive effects even in laying hen genotypes and highlighted that native breeds carry valuable traits, making their genetic preservation an important task.

The full article can be read at the following link:

<https://hirek.unideb.hu/taplaloanyag-kiegeszites-keltetes-soran>

Source: hirek.unideb.hu



Scientific Scholarships for the Best

The Faculty of Agricultural and Food Sciences and Environmental Management at the University of Debrecen has achieved great success in the University Researcher Scholarship Program (EKÖP) as well as in the EKÖP Cooperative Doctoral Program (KDP) applications.

A total of 15 of our faculty members, researchers, and students received funding to continue their scientific work.

The successful applicants – including bachelor's and master's students, doctoral candidates, PhD aspirants, lecturers, and researchers – will receive varying amounts of monthly support of HUF 125,000, 150,000, 200,000, or 250,000 over one or two semesters during the upcoming academic year.

Our PhD student who won the Cooperative Doctoral Program under EKÖP will receive a monthly scholarship of HUF 400,000.

Successful Applicants

University Researcher Scholarship Program (Bachelor's Category)

- Bernát Máté (Effects of different wavelength light sources on aquatic and water-associated beetles)
- Hosszú Ádám József (Investigation of climate sensitivity and fruit quality of cherry varieties)

University Researcher Scholarship Program (Master's Category)

- Rácz Tamás (Comparative variety trials of prospective pickling cucumber cultivars integrating production, processing, and economic indicators)
- Tar István Dávid (Comparative agronomic and economic analysis of conventional and precision sowing technologies in forage maize)

University Researcher Scholarship Program (Doctoral Category)

- Barsi Brigitta (Evaluation of conformation assessment results of the Hucul mare population in Hungary)
- Farkas Dóra (Development of an efficient micropropagation protocol for sand everlasting (*Helichrysum arenarium* L.) using TCL technology)
- Héjja Melinda (Investigation of the nutritional and physiological effects of sea buckthorn (*Hippophae rhamnoides* L.) products)
- Juhos Roland (Deep learning-based conformation assessment and body weight estimation model for pigeons)
- Kovács Csenge Lelle (Study of pest moth (Lepidoptera: Macroheterocera) adaptation along an urban gradient)
- Mikolás Maja (Geographically determined differences in gut microbiota and antimicrobial resistance in healthy young adults)
- Seresné Törös Gréta (Exploring the relationship between β -glucan and carbon nanoparticles in heat-treated medicinal mushrooms: a methodological development approach)
- Varga Melinda (Evaluation of a biostimulant in sunflower cultivation under different nutrient levels)





University Researcher Scholarship Program (PhD Candidate Category)

- Péter Zagyi (Effect of sowing time on leaf area index and yield of maize hybrids (Zea mays L.) with different maturity groups)

University Researcher Scholarship Program (Postdoctoral Category)

- Dr. Éva Horváth (Application of artificial intelligence in maize cultivation)

Cooperative Doctoral Program

- Zsombor Botkó (Development opportunities and comprehensive quality assessment of mineral-fortified soft drinks)





GINOP_PLUSZ-2.1.1-21-2022-00241

A development project was implemented at the Faculty of Agricultural and Food Sciences and Environmental Management of the University of Debrecen under the title: Development of age-specific, reduced-fat, fiber- and protein-rich meat products.

Within the framework of the project, the consortium partner Gulyás János és Társa Kft., in collaboration with the University of Debrecen, developed healthy, age-specific, reduced-fat meat products enriched with fiber and protein components. Under the framework of the Economic Development and Innovation Operational Program “Encouragement of corporate research, development and innovation activities” (GINOP_PLUSZ-2.1.1-21-2022-00241), products were created whose active ingredient composition was designed based on the results of extensive scientific research, making them

unique in both the domestic and international food markets. The product line containing unique bioactive compounds includes meat products tailored to support the most appropriate target function for every age group. The total budget of the project was HUF 765.38 million, of which the non-refundable grant amounted to HUF 526.7 million. The non-refundable European Union support was HUF 463.5 million.

The developed products include: immune-boosting Bavarian sausage, Debreceni sausage enriched with antioxidants and protein, reduced-fat, protein-enriched baking sausage with prebiotic effects, prebiotic chicken and turkey breast ham, Debreceni deli sausage fortified with trace elements and prebiotics, frankfurter enriched with protein extract and prebiotics, and functional Black Forest ham.

Beneficiary: University of Debrecen

Consortium leader: Gulyás János és Társa Kereskedelmi Korlátolt Felelősségű Társaság

Project physical completion date: 31 May 2025

Project ID: GINOP_PLUSZ-2.1.1-21-2022-00241

Contracted support for the University of Debrecen: HUF 180,364,600

European Union support within this: HUF 158,720,847

University of Debrecen support rate: 100%

Subject and goal of the development: Creation of health-promoting meat products using a unique method.

The project was implemented with the support of the European Union and co-financing by the Hungarian State.

Further information can be found on the project website: <https://palyazatok.unideb.hu/node/642>

Source: facebook.com/DEMEK.fb



University Opening Ceremony

On September 7, 2025, our University held its opening ceremony for the academic year, during which first-year students of our Faculty also took their oath.

Source: facebook.com/DEMEK.fb



Tibor Kapu: When the Last Become the First



What does the Hungarian Government's Ügyfélkapu have to do with Tibor Kapu becoming an astronaut? What caused Shux and Kapu to fall silent for six minutes aboard Grace, when they are usually talkative? What does it mean for a space mission if a file upload gets stuck? These questions, along with insights into the process of becoming an astronaut and their unique professional relationship, were discussed by researcher-astronaut Tibor Kapu and trained astronaut Gyula Cserényi at the University of Debrecen's theater, in a conversation

moderated by László Csernoch, the University's Vice-Rector for Science.

From the announcement of the application process to its closing and ultimately the landing, Kapu and his backup, Cserényi, spoke about the selection process of the HUNOR Hungarian Astronaut Program and the challenges of training, addressing high school and university students at the oDEon Theater of the University of Debrecen.

Kapu detailed his training in Houston and Los Angeles, as well as the crew of the Axiom-4 mission, which included commander Peggy Whitson, Indian Air Force pilot Shubhanshu Shukla, and Polish researcher-astronaut Slawosz Uznanski-Wisniewski.



The second Hungarian national researcher-astronaut also spoke in the university theater about the physiological adaptation processes that begin in microgravity. During their visit to the University of Debrecen, the astronauts also visited the Biodrome, where experiments conducted during the Axiom-4 mission on plant germination, microgreen production, and leaf development, as well as the university's "space paprika," are being carried out.

As Hungary's second national researcher-astronaut, Tibor Kapu spent 20 days aboard the International Space Station (ISS) as part of the Axiom-4 mission. The Crew Dragon capsule named Grace was launched into space by SpaceX's Falcon 9 rocket from the Kennedy Space Center in Florida on June 25, 2025, at 8:31 AM Hungarian time. Kapu and his team docked with the ISS on June 26, joining its seven-member crew. The SpaceX Dragon capsule returned to Earth on July 15, successfully landing in the Pacific Ocean at 11:33 AM Hungarian time.



The entire presentation can be viewed at the following link: <https://youtu.be/E-MIA4bEM70>



A professional consultation was held with the leaders and experts of the University of Debrecen's research conducted as part of the HUNOR Hungarian Astronaut Program, included in the scientific portfolio of the AX-4 mission. The meeting was attended by László Csernoch, Vice-Rector for Science and professional leader of the HUNOR project at the University of Debrecen; László Csiba, university professor at the Department of

Neurology, Faculty of General Medicine, and scientific leader of the VISPRO program; researchers and specialists Eszter Balogh and Tamás Árokszállási; Szilvia Veres, Vice-Dean for Science at the Faculty of Agricultural and Food Sciences and Environmental Management and professional leader of the VITAPRIC program; Professor Emeritus Miklós Fári, scientific advisor; and Éva Domokosné Szabolcsy, associate professor.



The full article can be read at the following link:

<https://hirek.unideb.hu/node/25852>

Source: hirek.unideb.hu; facebook.com/DEMEK.fb

Tibor Kapu in the Biodrome

It was a great honor for us that astronaut Tibor Kapu and trained astronaut Gyula Cserényi visited the BIODROME research unit of our Faculty during their Wednesday visit to the University of Debrecen, the site of the complex plant biology experiments conducted as part of the NASA Axiom-4 mission.



Thousands Attend Researchers' Night

This year, Researchers' Night once again attracted a large audience. On Friday, September 26, more than 250 events welcomed visitors at the University of Debrecen. The nationwide event, which aims to popularize scientific knowledge and research, saw the University join for the 18th time.

All faculties of the University took part in the event, with programs held across the University of Debrecen campuses as well as in Nyíregyháza, Hajdúböszörmény, and Szolnok, offering science enthusiasts a wide range of activities.



At the Faculty of Agricultural, Food Science and Environmental Management, visitors were captivated not only by colorful professional demonstrations and spectacular experiments but also by the fascinating wonders of the plant world. As a surprise, they even had the chance to go on a "blind date" with a mole rat.

Nearly one hundred volunteers, including university students, staff, and faculty members, assisted in ensuring the successful running of the programs.

The full article can be read at the following link:
<https://hirek.unideb.hu/tobb-ezren-kutatok-ejszakajan>

Source: hirek.unideb.hu



CampusTalk: The Message of the Past for the Future – Alumni Festival at the University of Debrecen

On Saturday, September 20, the University of Debrecen welcomed its former students, as well as past and present staff, to the Alumni Festival for the second time. Nearly 1,300 visitors attended the alma mater on this occasion. What was the purpose of the event? This was the main question explored in the latest episode of the University's magazine program, CampusTalk, broadcast by Debrecen Television.

A good university is not just about studying and exams; it is also about communities with a positive spirit and friendships that can propel individuals forward and influence their entire lives positively. The rich programs of the University of Debrecen (DE) Alumni Festival aim to strengthen this sense of belonging, as highlighted in the latest episode of CampusTalk.



The conversation can be viewed at the following link:

<https://youtu.be/03eecsHtPq8>



Raluca Popa's Visit to Our Community Garden

Raluca Popa, a Romanian artist and guest of the MODEM Centre for Modern and Contemporary Arts in Debrecen, lives and works in Berlin and Bucharest, and actively participates in the initiative "The Experimental Station for Research on Art and Life."

Central motifs in Raluca's art include learning, the dissemination of knowledge, as well as the processes of remembering and forgetting. She explores these themes through various media, including animation, drawing, video, and installation.

Next year, MODEM will implement the project "Cultivators of Life" in collaboration with the research center ro.tranzit.org/en/project/bucuresti, which examines issues related to gardens, sustainability, and community cooperation.

For the purpose of gaining experience, the artist visited the community garden established in 2015 on the Böszörményi Campus of the University of Debrecen. The

garden was created with the support of the University of Debrecen's Faculty of Agricultural and Food Sciences and Environmental Management (FAFSEM) and the Agricultural Research Institutes and Experimental Farms (AKIT), and it is managed by the DEHÖK Environmental Committee. During the visit, Veronika Szentpéteri-Nagy, a student at DE-MÉK and representative of the University's Environmental Committee, provided the artist with information about the garden's operation.

The garden spans 1,000 square meters and, considering ecological aspects, university students and staff cultivate various crops in plots of 15–30 square meters.

In 2018, the garden won the Ozone Green Award and served as a model for the establishment of several other community gardens in Debrecen. Raluca invited Veronika Szentpéteri-Nagy to the Experimental Station for Research on Art and Life near Bucharest (<https://www.instagram.com/statia.de.cercetare/>).

Source: mek.unideb.hu



Farmer Expo Opened Its Doors Expo



The 34th Farmer Expo International Agricultural and Food Industry Exhibition, one of the country's largest events in agriculture and food, has begun at the University of Debrecen's Böszörményi Campus.



The program, features nearly 200 exhibitors connected to the agricultural sector, including agricultural machinery, equipment, crop variety demonstrations, food products, scientific conferences, and equestrian competitions for visitors.



At the opening, Zoltán Szilvássy, Rector of the University of Debrecen (DE), highlighted that the institution has achieved significant results in agricultural disciplines, maintaining a high-standard Faculty of Agricultural Sciences and an agricultural research center. The university's Agricultural Cabinet is already implementing international projects extending both eastward and westward.



Uniquely in Hungary, DE also offers a joint degree program in agriculture in collaboration with American universities of a similar profile.

The full article is at the following link:

<https://hirek.unideb.hu/megnyitotta-kapuit-farmer-expo>

Source: hirek.unideb.hu

Farmer Expo: Seeking Solutions and Scientific Answers

Epidemic protection, climate change, a revitalized sheep sector, and accessible expertise—these were among the central topics at the professional and scientific conferences of the 34th Farmer Expo. The event, held from August 28 to 30, took place once again at the University of Debrecen's Böszörményi Campus.

"Today, the Farmer Expo is not merely a trade fair and exhibition, but a central event in Hungary's agricultural life, representing almost every sector of agriculture. In addition to agricultural machinery dealers, food industry companies, and animal health and feed businesses, the event features service providers in soil management, irrigation, precision farming, agricultural architecture, and alternative energy sources," said László Vaszkó, exhibition director, at the press conference for the 34th Farmer Expo International Agricultural and Food Industry Exhibition.



This year, the University of Debrecen not only hosts the event but also provides the professional and scientific framework for the international agricultural exhibition.

Approximately 200 exhibitors are presenting at the event. A special feature of this year's Farmer Expo is that only in Debrecen will a breeding animal showcase take place. Visitors can enjoy impressive animal and product demonstrations, sample artisan foods, and attend a variety of equestrian programs. Following tradition, the Debrecen City Grand Prix, a national show-jumping competition, is also held as part of the Farmer Expo.

The full article is at the following link:
<https://hirek.unideb.hu/farmer-expo-utkereses-es-tudomanyos-valaszok>

Source: hirek.unideb.hu



Professional Policy Issues at Farmer Expo

“The sheep sector has the greatest future potential in agriculture,” stated István Nagy, Hungary’s Minister of Agriculture, at the 34th Farmer Expo International Agricultural and Food Industry Exhibition. According to the minister, with cooperation among market participants and support from the government, the currently shrinking sector can embark on a path of development and success. During the expo, the conference on climate change also presented the latest irrigation development support programs.



Minister Nagy emphasized that demand for lamb meat is growing across Europe, and the changing climatic conditions create opportunities for sector growth. Although multiple support options are available for sheep and goat breeders, relatively few submit applications.



The central theme of the professional events at the Farmer Expo was climate change. At the conference jointly organized by the University of Debrecen’s Faculty of Economics (GTK) and Faculty of Agricultural and Food Sciences and Environmental Management (FAFSEM), discussions focused on agro-climatic conditions, opportunities for irrigated farming in Hungary, challenges in regional water management, and the achievements of the Drought Protection Operational Staff to date.

The conference highlighted that compared to the 1970s, the number of heatwave days—days exceeding 30 degrees Celsius—has quadrupled,

now exceeding 50 per year. Today, Hungary receives a similar amount of precipitation as in the 1970s, around 500–600 millimeters annually. The issue is not the quantity of rainfall but its temporal and spatial distribution, which is what makes climate change feel so extreme.

At the closing roundtable discussion, participants agreed that climate change and drought protection are of critical importance and will require increasing attention in the future to ensure sustainable agriculture.

The full article can be read at the following link:

<https://hirek.unideb.hu/szakmapolitikai-kerdesek-farmer-expon>

Source: hirek.unideb.hu



Farmer Expo – In photos



Farmer Expo – In photos



Eco Expo: Shifting Gears in Efficiency and Quality

At the opening of the 6th Eco Expo, it was noted that nearly 90 percent of products from organic farms leave the country as raw materials and return to domestic store shelves processed and at high prices. This year, the two-day professional event organized by the National Chamber of Agriculture was hosted at the University of Debrecen Innovation Center. Topics included soil quality, regenerative farming, and career orientation, among others.

During the two-day event, more than 40 exhibitors showcased their products, while domestic and international experts in the sector discussed current issues and development directions. This year, special emphasis was placed on implementing short supply chains, as well as efficient, intensive, and competitive organic production.

The full article can be read at the following link:

<https://hirek.unideb.hu/oko-expo-fokozatvaltas-hatekonysag-es-minoseg-teruleten>



Source: hirek.unideb.hu



Attention-Grabbing, Informative, and Interactive Exhibition

On September 18, 2025, the 82nd National Agricultural and Food Industry Exhibition and Fair (OMÉK) opened its doors, welcoming the public interested in agriculture for four days.



Students from the University of Debrecen's Faculty of Agricultural and Food Sciences and Environmental Management, both Hungarian and international, participated in large numbers at this year's grand exhibition. According to reports from our students and instructors, everyone had the opportunity to find areas matching their interests at the fair, which is no surprise given that this is one of the country's largest agricultural and food industry events, offering a wide range of programs for visitors.



In addition to the diverse professional conferences, the organizers also prepared numerous educational programs.

Our students emphasized that the exhibition provided valuable experiences not only for those already active in the agricultural sector but also for young, aspiring farmers who are still considering which path to take. The event featured several awareness-raising and career-orientation programs, allowing young visitors to engage with the world of agriculture in an entertaining way.



From the travel reports, our students noted that the 82nd OMÉK simultaneously showcased the past and future of Hungarian agriculture. Visitors could meet traditional livestock breeds—such as Hungarian Grey cattle, Racka sheep, and Mangalica pigs—while also exploring the latest technological developments. Precision farming tools, smart irrigation systems, and sensors monitoring animal health all support more sustainable and efficient farming, knowledge of which has become essential today. Particularly noteworthy at the exhibition were the drones, vertical farms, and AI-based solutions presented by startups.

The full article can be read at the following link:

<https://mek.unideb.hu/hirek/figyelemfelketo-tartalmas-es-interaktiv-kiallitas> Source: mek.unideb.hu

CAMPUS FESTIVAL - Scenes from life

Our "Farm Smart" wooden booth at the festival was characterized by a large number of visitors and a cheerful atmosphere.

Source: facebook.com/DEMEK.fb



An Odessa Delegation at the Faculty of Informatics

The Faculty of Informatics at the University of Debrecen and the Odessa National University of Technology (ONTU) are planning to collaborate in areas such as online courses, joint research, and publications. Recently, four staff members from one of the largest universities in Ukraine visited the University of Debrecen, where they learned about the activities of the Faculty of Informatics and the Faculty of Agricultural and Food Sciences and Environmental Management, and discussed further professional collaboration opportunities.



The ONTU staff arrived at the University of Debrecen under an international credit mobility program. The delegation was led by Olga Olshevska, Vice-Rector for International Affairs, and Nadiia Dets, Vice-Rector for Education. The representatives of the Odessa partner university gained insight into teaching and research activities at both the Faculty of Agricultural and Food Sciences and Environmental Management and the Faculty of Informatics. They also visited the University of Debrecen's Food Industry Innovation Center.

The full article can be read at the following link:

<https://hirek.unideb.hu/odesszai-delegacio-az-informatikai-karon>

Source: hirek.unideb.hu

Successful Research Collaboration with Mendel University



Dana Homolová, a PhD student from Mendel University in Brno, participated in a short study visit at the Faculty of Agricultural and Food Sciences and Environmental Management at the University of Debrecen.

During her visit, Dana Homolová gave a lecture on the research of grapevine varieties' resistance to the pathogen *Cadophora luteo-olivacea*, sparking lively professional discussions. In addition, she took part in the survey of a long-term experimental field in Tarcal alongside our faculty members, Prof. Dr. Erzsébet Karaffa and Dr. András Csótó.



The successful meeting further strengthened the collaboration between the two institutions and laid the groundwork for future joint projects.

Source: facebook.com/DEMEK.fb

Professional Trip to Dubai



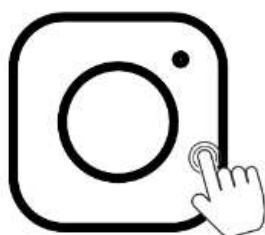
Two lecturers from our Institute of Water and Environmental Management, Dr. Györgyi Kovács and Dr. Nikolett Éva Kiss, participated in the 6th Global Vertical Farming Show and Conference in Dubai, where they familiarized themselves with the latest trends, technologies, and research results in vertical farming.

In addition to the professional program, there was also time for a short city tour, allowing them to return home enriched with both professional insights and unforgettable experiences.

Source: facebook.com/DEMEK.fb



Follow us, follow FAFSEM!



Our Lecturers at Lucian Blaga University in Sibiu

Lecturers from our Institute of Nutrition Science, Dr. Endre Máthé (associate professor), Dr. Tünde Pacza (assistant lecturer), and Dr. Róbert Nagy (assistant lecturer) participated in the latest meeting of the ERASMUS+ E-Food international project, held at Lucian Blaga University in Sibiu.

During their stay, our lecturers actively worked on the current tasks of the E-Food project, which focuses on developing interactive teaching materials in the field of food technology. They also had the opportunity to gain insight into the research and educational infrastructure of the university in Sibiu.

The trip provided an excellent opportunity to maintain and expand international collaborations with partners from Bulgaria, France, Romania, and Spain.

Source: facebook.com/DEMEK.fb



TechCare Research Project Closing Conference

Dr. Renáta Klein, assistant lecturer and a member of our faculty, participated as an invited expert in the closing conference of the TechCare research project in Brussels, which was funded by the European Union's Horizon 2020 research and innovation program and is based on a thematic network.

At the event, consortium members presented their innovative developments aimed at improving animal welfare, prototypes of the tools, and reported on the experiments carried out over the five years of the project.

Source: facebook.com/DEMEK.fb



Professional Visit – Nitra University



On July 10, 2025, Prof. Ing. Ján Jobbágy, university professor at the Faculty of Engineering, Institute of Agricultural Engineering, Transport and Bioenergy at Nitra University, along with colleagues from the Hungarian University of Agriculture and Life Sciences, visited our Faculty.

The guests were welcomed by Prof. Dr. Csaba Juhász, university professor, and Dr. Péter Ragán, assistant professor.

During the visit, our instructors primarily presented the latest equipment and research results of our Faculty's Institute of Land Use, Mechanical and Precision Technologies, and discussed further opportunities for collaboration.

Source: facebook.com/DEMEK.fb

Professional Visit and Collaboration with the University of the Free State

Our Faculty has maintained a successful collaboration for several years with the academic staff of the University of the Free State in South Africa.

During her recent visit, our lecturer, Dr. Brigitta Tóth, associate professor, had the opportunity to learn new measurement techniques closely related to her past and current research activities, specifically in plant stress physiology. She also

observed ongoing experiments on campus and participated in durum wheat quality assessments.

During her stay, our lecturer visited the University of the Free State's Qwaqwa campus, where she presented the research activities conducted at our Faculty to faculty members, researchers, and students. Following the presentation, there was an opportunity to discuss potential future joint research projects.

Source: facebook.com/DEMEK.fb





Teaching, Staff, and Student Mobilities

July – September 2025 (Source: UD International Office)

Outgoing teachers and staff					
Participant's name	Program	Duration		Host Institution	Place of mobility
Kocsisné Papp Mariett	Pannónia STT	2025.08.18	2025.08.22	Sveučilište u Zagrebu	Croatia
Prof. Dr. Kovács Béla	Pannónia STT	2025.08.24	2025.08.30	UNIVERSITATEA SAPIENTIA DIN MUNICIPIUL CLUJ-NAPOCA	Romania
Dr Ayaz Mukarram SHAIKH	Pannónia STT	2025.08.24	2025.08.30	UNIVERSITATEA SAPIENTIA DIN MUNICIPIUL CLUJ-NAPOCA	Romania
Kövér László	Pannónia STT	2025.08.25	2025.08.28	Association of Transylvanian Agricultural Enterprises	Romania
Stündl László	Pannónia STT	2025.08.25	2025.08.28	Association of Transylvanian Agricultural Enterprises	Romania
Szabó András	Pannónia STT	2025.08.25	2025.08.28	Association of Transylvanian Agricultural Enterprises	Romania
Tarcali Gábor	Pannónia conference	2025.06.30	2025.07.04	University of the Witwatersrand	South Africa
Tarcali Gábor	Pannónia conference	2025.09.13	2025.09.18	University of Agricultural Sciences and Technology of Jammu	India
Posta János	Pannónia conference	2025.09.23	2025.09.26	Slovak University of Agriculture in Nitra / XXXIII. Animal Science Days	Slovakia
Szabó Csaba	Pannónia conference	2025.09.23	2025.09.26	Slovak University of Agriculture in Nitra / XXXIII. Animal Science Days	Slovakia





Incoming teachers and staff

Paula Ioana Moraru	Erasmus STT+	2025.07.08	2025.07.12	USAMV CN	Romania
Andreea Daniela Ona	Erasmus STT+	2025.07.08	2025.07.12	USAMV CN	Romania
Ioana Crisan	Erasmus STT+	2025.07.08	2025.07.12	USAMV CN	Romania
Zdenko Rengel	Erasmus+ KA171	2025.07.16	2025.07.25	University of Western Australia	Australia
Michael Gonda	Fulbright	2025.08.28	2025.12.31	South Dakota State University	USA
Dorota Gumul	CEEPUS	2025.09.21	2025.09.27	University of Agriculture in Krakow	Poland
Malek KRUCZEK	CEEPUS	2025.09.21	2025.09.27	University of Agriculture in Krakow	Poland

Outgoing students

Study

Participant's name	Program	Duration		Host Institution	Place of mobility
Márton Sára	Pannónia SMS	2025.07.07	2025.08.01	Università Politecnica delle Marche	Italy
Radócz Dóra Judit	Pannónia SMS	2025.07.07	2025.08.01	Università Politecnica delle Marche	Italy
Patonay Virág	Pannónia SMS	2025.07.07	2025.08.01	Università Politecnica delle Marche	Italy
Pásztor Ádám	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Bige Kitti	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Bor László	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Burai Szabolcs	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania

Outgoing students

Study

Participant's name	Program	Duration		Host Institution	Place of mobility
Czeplédi László	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Dévényi-Dabrowsky Dániel Géza	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Gáspár Kristóf	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Gresku Regina	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania





Halász Franciska	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Ilóczy István	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Juhász Enéh	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Kapus Balázs	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Karacs Janka	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Kiss Ferenc	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Kiss László Dániel	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Krizsán Márton Péter	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Lengyel Csaba	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Lengyel Lehel	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Martyin Ruben	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Morvai Péter	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Szabó Norbert	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Pálszabó Napsugár	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Puskás Fanni	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania

Outgoing students

Study

Participant's name	Program	Duration		Host Institution	Place of mobility
Rideg Zsófi	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Sándor Bence	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Simon Panna Borbála	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Szabó József	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania





Szilágyi Áron	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Szloboda Márton	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Szőke Eszter	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Tomori Kitti	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Tóth Csongor	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Varga Róbert	Pannónia group study trip	2025.08.25	2025.08.28	National Tour	Romania
Szőke Eszter	Pannónia study mobility	2025.09.01	2026.01.06	National Dong Hwa University	Tajvan
Joab Malanda Osotsi	CEEPUS	2025.08.01	2025.08.29	Wroclaw University	Poland
Doha Khalifeh	Pannónia SMS (conference)	2025.09.23	2025.09.26	Slovenská Polnohospodárska Univerzita v Nitre	Slovakia
Nazly Yolieth Martin Culma	Pannónia SMS (conference)	2025.09.23	2025.09.26	Slovenská Polnohospodárska Univerzita v Nitre	Slovakia
Mequanint Gashew Achenef	Pannónia SMS	2025.09.23	2025.09.26	Slovenská Polnohospodárska Univerzita v Nitre	Slovakia
Professional practice					
Diane Bartolome	Pannónia SMT	2025.07.14	2025.11.14		Austria
Csikós Gabriella Bianka	Pannónia SMT	2024.07.01	2024.09.01		Poland
Kormos Klaudia	Pannónia SMT	2025.07.14	2025.10.03		Spain
Rozsos Kinga Lara	Pannónia SMT	2024.06.24	2024.10.11		Italy
Steib Eszter	Pannónia SMT	2024.07.08	2024.09.27		Romania
Szabó Maja	Pannónia SMT	2025.07.18	2025.10.20		Spain
Vig Boglárka	Pannónia SMT	2025.07.18	2025.10.20		Spain
Zun Panna	Pannónia SMT	2025.07.18	2025.10.20		Spain

Incoming students

Aida Duzelbay	Bilateral Agreement	Autumn Semester 2025/26	Autumn Semester 2025/26	Almaty Technological University	Kazakhstan
Tomiris Orymbayeva	Bilateral Agreement	Autumn Semester 2025/26	Autumn Semester 2025/26	Almaty Technological University	Kazakhstan





Bashiratu Saliu Jayeola	Erasmus+ SMS	Autumn Semester 2025/26	Autumn Semester 2025/26	Università della Calabria	Italy
Irina Novac	Erasmus+ SMT Open Location	2025.07.18	2025.09.28	Universitatea de Stiinte Agricole si Medicina Veterinara din Cluj-Napoca	Romania
María Victoria Motato Garzón	Erasmus+ SMT Open Location	Autumn Semester 2025/26	Autumn Semester 2025/26		Colombia



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(source: fitered from IDEA Tudóstér)

1. Mohammed, S., Arshad, S., **Ocwa, A.**, Al-Dalahmeh, M., Aldabbas, A. K. A. E., Alzoubi, M. M., Vad, A., **Harsányi, E.**: [Advanced attention-driven deep learning architectures for multi-depth soil temperature prediction.](#)

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2. **Neji, C.**, Muthu, A., Ungai, D., Seres, E., Domokos-Szabolcsy, É., Prokisch, J., Máthé, E., Sipos, P.: [Assessing Deep Eutectic Solvent Efficiency by Optimizing Soybean Protein Extraction.](#)

Food Bioprocess Technol. [Epub ahead of print], 1-15, 2025.

3. **Nxumalo, G.**, Chauke, H.: [Challenges and opportunities in smallholder agriculture digitization in South Africa.](#)

Front. Sustain. Food Syst. (article identifier: 1583224), 2025.

4. **Kun-Nemes, A.**, Farkas, D., Szilágyi-Tolnai, E., Fazekas, M., Paholcsek, M., Stündl, L., Bíró Molnár, P., Cziáky,

- Z., **Dobránszki, J.**, Gálné Remenyik, J.: [Effect of Exogenous Melatonin Supply on Potato Plants Grown In Vitro.](#)

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5. **Nguyen, H. H. D.**, El-Ramady, H., **Seresné Törös, G.**, Muthu, A., Elsakhawy, T., Abdalla, N., Alibrahem, W., Kharrat Helu, N., **Prokisch, J.**: [Food-Derived Carbon Dots: Formation, Detection, and Impact on Gut Microbiota.](#)

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6. Hajzer, Z. E., Alibrahem, W., Kharrat Helu, N., Oláh, C., **Prokisch, J.**: [Functional Foods in Clinical Trials and Future Research Directions.](#)

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7. **Seresné Törös, G.**, **Prokisch, J.**: [Maillard Reaction-Derived Carbon Nanodots: Food-Origin Nanomaterials with Emerging Functional and Biomedical Potential.](#)



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8. **Muthu, A., Nguyen, H. H. D., Neji, C., Seresné Törös, G., Ferroudj, A., Atieh, R., Prokisch, J., El-Ramady, H., Béni, Á.:** [Nanomaterials for Smart and Sustainable Food Packaging: Nano-Sensing Mechanisms, and Regulatory Perspectives.](#)

Foods. 14 (15), 2-29, (article identifier: 2657), 2025.

9. **Kiss, A., Elhawat, N. A., Kovács, Z., Kaszás, L., Béni, Á., Domokos-Szabolcsy, É., Alshaal, T. A. A. I.:** [Optimizing mung bean and soybean hydrolysis for the generation of bioactive peptides of potential functional food applications.](#)

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10. **Dobránszki, J., Agius, D. R., Berger, M. M. J., Moschou, P. N., Gallusci, P., Martinelli, F.:** [Plant memory and communication of encounters.](#)

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11. **Mohammed, E. A. H., Kovács, B., Pál, K.:** [Recent Knowledge in the Application of Saccharomyces in Aquaculture: A Bibliometric and Narrative Review.](#)

Antibiotics. 14 (8), 1-26, (article identifier: 736), 2025.

(Work described: Elshafia Ali Hamid Mohammed, Béla Kovács, and Károly Pál. - Recent Knowledge in the Application of Saccharomyces in Aquaculture: A Bibliometric and Narrative Review /In: Antibiotics. - 14 : 8 (2025), p. 736. -)

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1. **Tóth, B.:** [The interactive effects of biological factors and agrotechnical elements in rapeseed cultivation.](#)

Értéktálló aranykorona. 25 (7), 7-9, 2025.

2. **Kalina, H., Nagy, J.:** [Evaluation of corn \(*Zea mays* L.\) parameters in phenophases – as a function of heat sums – in irrigated cultivation.](#)

Növénytermelés. 74 (1), 85-103, 2025.

3. **Csihon, Á.:** [A nation for whom the apricot is an iconic symbol.](#)

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4. **Elek, H., Sipos, M., Kiss, N., Csihon, Á.:** [Development opportunities in apple rootstock use.](#)

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5. **Babic, S., Sipos, M.:** [Fruit tree shoot selection and green pruning.](#)

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6. **Kovács, G., Nagy, A.:** [The rise of smart technologies in greenhouse maintenance.](#)

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7. **Kecskés, I., Csótó, A., Nagy, J.:** [Determining the extent of corn stalk disease in different soil cultivation systems.](#)

Növénytermelés. Accepted for publication, [1-14], 2025.



8. Szőke, Á., Csihon, Á.: [Black chokeberry bears fruit in its first year.](#)
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9. Sipos, M., Babicz, S.: [Autumn nutrient replenishment: the key to next year's harvest.](#)
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10. Babicz, S., Sipos, M.: [Strategy and tactics – the specifics of 2025 in pruning.](#)
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11. Tóth, F. A.: [Treasure from manure.](#)
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12. Sipos, M.: [Defense options against the codling moth.](#)
MezőHír. 29 (4), 66-69, 2025.
13. Rácz, T., Kaszás, L.: [Use of seed pre-treatment methods on farms.](#)
MezőHír. 29 (7), 66-68, 2025.
14. Aszalósné Balogh, R., Sivák, B., Matus, G.: [Lichens in the orchard: harmful or harmless?](#)
MezőHír. 29 (8), 54-55, 2025.



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