Dr. László Nyíri Professor Emeritus is a professor at the Institute of Land Use, Regional Development and Technology of the Faculty of Agricultural Sciences, a founding member of the Kálmán Kerpely Doctoral School. He headed the research and then management activities of the Institute as Deputy Scientific Director between 1974 and 1982 and as a Director between 1982 and 1992. Dr. László Nyíri's career started in different fields in several respects. In Gödöllő, he started his career at the Department of Soil Science headed by Károly Páter, then in Mosonmagyaróvár and Nagykanizsa he took part in the research foundation of complex amelioration works in Western Transdanubia. He successfully transferred his experience in these areas to the conditions of the Great Plain. His managerial work marked the best years of applied soil research.

As the leader of the nationwide target program entitled “Complex research of modern tillage methods”, he made the Karcag Research Institute the leading institution of land reclamation research. He has inexhaustible merits in the establishment of the research infrastructure (long-term experiments, laboratory, modern cultivation equipment) of the Research Institute.

**CURRICULUM VITAE OF EMERITUS LÁSZLÓ NYIRI**

Dr. László Nyíri, Doctor of Agricultural Sciences, Professor Emeritus was born on November 23, 1932 in Pestszentlőrinc.

He completed his secondary school studies at the Vác Agricultural Technical School. After graduating, he was admitted to the Gödöllő University of Agricultural Sciences. As a university student in Gödöllő, at the Department of Soil Science headed by Károly Páter, he joined the scientific student work with the topic of soil erosion. After completing his university studies, he began his research career at the Northern Transdanubian Agricultural Experimental Institute in Mosonmagyaróvár. After the merger of the Research Institute with the Academy of Agriculture, he continued his teaching and research work at the Department of Plant Breeding. His research interest turned to the improvement of the acidic brown forest soils with shallow fertile layers in the foot of the Alps (Ják) and Cser-Kemeneshát (Kenyeri). In his methods, he sought to study the chemical, physical and biological properties of the soil-plant system together, taking equal account of root growth, changes in chemical (acidity, humus quality) and physical (soil porosity, water permeability) and biological (CO2 production) properties, and their variability with different procedures.

His first contact with the Karcag Research Institute dates back to his time as a teacher and researcher at the Nagykanizsa Higher Technical School. At that time he joined the work of the target program entitled “Complex research of modern tillage systems, methods and soil improvement procedures” coordinated by Sándor Sípos and Gyula Kurucz at the Karcag Research Institute. This relationship became closer and closer, and from 1974 he continued to work as a senior researcher in Karcag. In the same year, he was also commissioned to lead a target program to manage tillage research.

With László Nyíri, not only the soils of Western Transdanubia were included in the soils examined in Karcag, but also the approach developed there.

The stagnant wetlands of Western Transdanubia and the meadow soils of the Trans-Tisza region are different in many respects, but they have a very important common feature; In addition to improving the chemical properties, there is - sometimes even a more intense - need to improve the physical and water management properties.

László Nyíri has always paid special attention to physical soil properties, porosity conditions, water permeability and changes in humus quality. One of his first tasks in Karcag was to expand the soil physics laboratory and make it suitable for the study of the physical properties of large-volume soil columns with undisturbed structures.

He always carried out his research work with the need to put the results into practice. The results of the soil improvement experiments were directly incorporated into the MÉM-NAK Fertilization Guide and the soil improvement advisory booklets prepared by László Nyíri.

The recognition of the key importance of soil water management led to the establishment of the Karcagpuszta complex land reclamation model site, which combines previous saline soil improvement methods and results (digging, calcareous and gypsum improvement, subsoiling), combining them with soil moisture regulation procedures (above-ground and underground drainage). With the Karcagpuszta model site, a complex lowland complex reclamation model farm was established in Hungary, which served as a model for the complex reclamation research that unfolded in the 1980s.

The recognition of the importance of water management also inspired the construction of the lysimeter plants in Karcag, which were also initiated by László Nyíri. The compensation and weight lysimeter bases implemented jointly with Antal Karuczka still provide numerical data on the effects of groundwater level and soil surface properties on water and salt circulation.

The acquisition of the German KAELBLE TLG-12 with OMFB support, which enables intensive, 1 m deep subsoiling, was the result of László Nyiri's convincing argument and successful tender.

He also carried out successful tendering activity for the purchase of soil-friendly, soil-protective tillage equipment. The fact that today these tools are owned by the Karcag Research Institute and the research work can thus be carried out with its own tools is largely due to László Nyiri's activity, as well as the openness of those working with tendering at the OMFB and FVM.

The renewal and expansion of the system of cooperation between researchers and lecturers is equal to the results achieved in the development of the objectified tools and results of the research, which is due to the work of László Nyíri, the organizer of science. As a result of László Nyíri's networking and organizing skills, the research in Karcag expanded with the methods and tools of László Hargitai's humus quality study, György Várallyay's soil physics study, Ferenc Máté's results related to the improvement of acidic soil and the genetics of meadow soils, research related to the causes of magnesium accumulation and consequences, as well as Béla Tóth's forestry and forestation research. The complex land reclamation results from VITUKI reached Karcag through György Kovács, Ferenc Fehér and Klára Csaplár. Lajos Hegedős first helped the construction of the complex land reclamation model sites with the construction works of the Soil Improvement Company, and then as the head of MÉM-NAK responsible for land reclamation.

As a result of his activities as a science organizer, the management of the Agricultural Development Project of the “Great Plain Program” was transferred to Karcag in the early 1990s. The co-ordination work successfully integrated all areas of agriculture and as a synthesis of the work, with the support of the Ministry of Agriculture, books on arable crop production and horticulture were compiled to help agriculture adapt to ecological and economic conditions. Close cooperation was established with the Regional Research Center of the Hungarian Academy of Sciences. He plays a significant role in the fact that the cause of the Great Plain Program was successfully accepted by the majority of decision-makers.

As a result of his supervision activities, the cooperation between the departments and institutes of the University of Agricultural Sciences in Debrecen strengthened with the aim to improve acidic soils, research the possibilities of Ca and Mg fertilization and reclamation with the Department of Agricultural Chemistry headed by Jakab Loch and with the Department of Soil Science and Microbiology led by Balázs Helmeczi and the Nyíregyháza Research Institute of the Seed Company managed by Imre Klenczner and his staff. Close co-operation was established with Gusztáv Sziki, Béla Hornyik and Szilárd Thyll for the development of reclamation model sites, as a result of which a network of experimental reclamation model sites covering the whole Trans-Tisza region was established. The main educational result of the close cooperation with the University of Agricultural Sciences in Debrecen was that László Nyiri was directly involved in the work of the Plant Breeding Institute headed by László Ruzsányi. This made it possible to incorporate the latest research findings into the teaching material, implementing the model of education through research that is still considered desirable today.

In 1993, László Nyiri published a textbook entitled “Tillage”, in which he synthesized the results of his rich research and teaching career. This book is still one of the cornerstones of agricultural education and research. The book series “Mitigation of Drought Damage” edited by László Nyiri provides indispensable help for the development of crop production, horticulture and forestry strategies that adapt to climate change.

As part of his teaching activities, he places great emphasis on educating the future generation of researchers. For the past 25 years, he has helped with the preparation of all university doctoral, candidate and PhD theses on tillage and soil protection at the Research Institute with his useful advice.

As a founding core member of the Kerpely Kálmán Doctoral School, he still plays a role in educating new generations of scientists.