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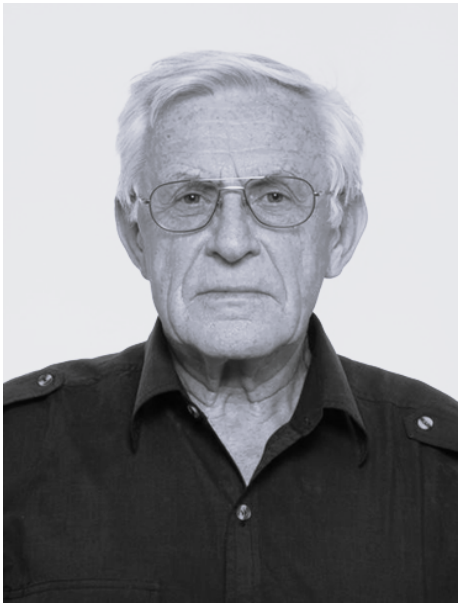
Biographical Notice

Obituary of Assoc. Prof. Ing. Jaroslav Polák, DrSc. (1942–2024)



With regret, we have to inform the community of plant pathologists, plant virologists, and plant protection scientists. Assoc. Prof. Jaroslav Polák, a former and long-time Plant Protection Science editorial board member, passed away on May 20, 2024.

EDUCATION, PROFESSIONAL AND SCIENTIFIC CAREER

Jaroslav Polák was born on January 25, 1942 in Hořice v Podkrkonoší. In the years 1961–1966, he studied agronomy. In 1966, he graduated from the University of Agriculture in Prague (today's Czech University of Life Sciences Prague), defending his diploma thesis on "Occurrence of virus diseases of fruit tree nurseries of the Jičín district". He graduated with honours and received the so-called "Red Diploma" that is reserved for the best students. After his graduation and a year of military service, he joined the Research Institute of Crop Production (RICP) Prague-Ruzyně, and he started his professional career as a plant virologist in the Division of Plant Protection (Polák 1988–2023). From 1969 to 1971, he continued his Ph.D. study (at that time, he was titled a CSc) as an external aspirant at the Institute of Experimental Botany of the Czechoslovak Academy of Sciences in Prague. His research was focused on plant virology, and his thesis was on the "Biological and serological differentiation of the five strains of *Beet yellows virus* (BYV) occurring in the territory of Czechoslovakia", which was defended in 1973. In 1992, at Mendel University of Agriculture and Forestry in Brno (recently Mendel University Brno), he defended the thesis "Purification of plant viruses, preparation of antisera and usage of antibodies in plant virology and plant protection" and obtained the DrSc. (Doctor of Science) scientific degree in agricultural and forestry plant pathology and plant protection. In 1999, he successfully defended his habilitation thesis "Occurrence, spread and diagnosis of *Plum pox virus*, determination of resistance of apricots and peaches to the sharka disease". He was established as an associate professor at the Czech University of Life Sciences in Prague.

Dr. J. Polák spent nearly his entire active life in RICP in Prague; in the beginning as a researcher (1966–1978), later as the head of the Department of Virology (1979–2007), and in 1993 he was appointed as the Director of the RICP's Division of Plant Health, the position in which he served until 2007.

RESEARCH OBJECTIVES AND PROJECTS

From the start of his scientific career, he has always focused on the various aspects of plant virology. He was primarily focused on the diagnostic methodology of plant viruses; later on, he moved on to studies on the effects and epidemiology of plant viruses and developments in purification procedures. He continuously improved the introduction and study of new serological methods for diagnosing economically important viruses. Together with his colleague Dr. L. Albrechtová he was the first in Czechoslovakia to introduce and optimise the immunoenzymatic determination of plant viruses (ELISA). In cooperation with the Research

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and Breeding Institute of Vegetable Crops in Olomouc, he initiated the production of diagnostic antisera vaccines against important plant viruses. From the 1990s onward, his research focused on the viruses of fruit trees and hops. From that time, his interests turned substantially toward the diagnosis and epidemiology of PPV and determinations of resistance in apricots and peaches. From the end of the 90^{th,} he was also involved in developments related to the health certification of planting materials (esp. fruit trees, grapevines and hops). This initiative and the development of this system led to the construction of technical isolators for primary sources, pre-basic and basic plant materials within some Czech institutions (RICP in Prague, Research and Breeding Institute of Pomology at Holovousy, Faculty of Horticulture at Lednice na Moravě, and the Hops Institute at Žatec). After 2002, at the end of his scientific career, he researched the resistance of the genetically modified (GMO) plum clone C5 (cv. HoneySweet) to PPV, PDV, and ACLSV. He was also involved in preparing a proposal for deregulating this GMO cultivar within Europe (Singh et al. 2021).

INTERNATIONAL EXPERIENCE

He also had very broad international experience. During the 1970s, he established fruitful contacts and cooperation with the Phytopathological Institute in Aschersleben, Germany (then the German Democratic Republic). At that time, it was a prominent institution of plant pathology and virology because of the activities of Prof. Maximillian Klinkowski (Proeseller et al. 2004), spending four months there in 1974 focused on diagnosing plant viruses. In 1983, he obtained a scholarship from the British Council to work at the National Vegetable Research Station (NVRS) at Wellesbourne (UK). In 1988, the government of the Netherlands granted him a one-year stay at the Research Institute of Plant Protection (IPO) in Wageningen (the Netherlands), where he was working on problems related to the diagnosis of the *Strawberry mottle virus.* The author of this biographical notice also spent time at Wageningen for the period February 1988 to January 1989 as a research fellow of two institutes: at the Horticulture Plant Breeding Institute (IVT), as well as in the IPO (Lebeda 2011; Ondřej et al. 2021), where he met Dr. J. Polák. It was an exciting period for both of us, with exceptionally great freedom and the possibility of being in an open and inventive environment for our scientific work. It was also a time of great expectations for the future recovery of freedoms and democracy in our home country. Nevertheless, during this period, we were still under some control of the Czech communist establishment and its representatives, as we later realised. During this time, our ideas also arose on how to change and improve agricultural research organisation in our home country in November 1989 (Lebeda 1990; Lebeda & Polák 1990).

MEMBERSHIP IN SCIENTIFIC SOCIETIES AND ON BOARDS, COMMISSIONS, AND EDITORIAL BOARDS OF JOURNALS

He was a member of various domestic and international scientific societies, boards, and commissions. His international activities were linked with the International Society for Horticultural Science (ISHS), as a member of several working groups (for fruit viruses, *Plum pox virus*, vegetable and legume viruses, phytoplasmas), as well as with his engagement in the European Foundation of Plant Pathology (EFPP) as a Czech Republic representative, and vice-president of EFPP from 2002–2004. He was also an advisor of the International Foundation for Science (IFS) and a member of U.S. International Research Team for plum pox cv. HoneySweet. Together with Prof. V. Táborský [President of Czech Society for Plant Pathology (CSPP), 1996–2007] (Ryšánek & Chrpová 2020; Lebeda & Komínek 2023) plus some other colleagues (Prof. V. Kůdela, Prof. A. Lebeda) from CSPP he organised the 6th Conference of the European Foundation for Plant Pathology (EFPP) in Prague (2002) (Táborský et al. 2002a, 2002b).

At the domestic and national level, he was also very active. In the Czech Republic, he was one of the primary founders of the "National Programme of Conservation of Genetic Resources of Microorganisms and Small Animals of Economic Importance" (Komínek et al. 2021), and from 1993 to 2009, he was the leader of this programme. He was engaged in many special committees and advisory boards of the Ministry of Agriculture and the Ministry of Environment of the Czech Republic. He was one of the founders of CSPP, and for a long time, he served as the scientific secretary of this society (Lebeda & Komínek 2023). He was also

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a long-time member (1990–2024) of the Czech Academy of Agricultural Sciences and an effective part of the editorial board of the journal Plant Protection Science (Lebeda et al. 2024). His other duties and activities have been summarised elsewhere (Chod 2002; Kundu & Chod 2012).

RESEARCH GRANTS AND PROJECTS

He was involved in and the leader of many national and international research projects. Perhaps the most important would be the projects of the EU's 6th and 7th Framework Programmes (RESISTVIR, SHARCO, and INTEREST), which focused on various aspects of plant virology.

PUBLICATIONS, THEIR IMPACTS, AND HONOURS

His extensive and productive work has been summarised in many scientific and professional papers published in national and international journals. This is represented by ca. 250 scientific (on WOS, all databases are available: 72 records, 585 citations, H-Index = 12), professional papers, and newspaper contributions. He also made many presentations at various national and international scientific meetings.

As an appreciation of Dr. J. Polák's contributions, his bibliography has appeared in, among others, the books Who's Who in Science and Engineering and Who's Who in the World.

OTHER ACTIVITIES

After the political changes in the former Czechoslovakia in November 1989, he was also involved in political activities in the place where he was living (Horoměřice u Prahy), supporting democratic developments at the local scale as a village board member. He was an active member of the Christian Democratic Union – Czech Peoples Party (in Czech: KDU-ČSL). In 2013, he was also a candidate for this political party in the parliamentary elections for the Chamber of Deputies of the Czech Republic.

CONCLUSION

Dr. J. Polák was very dynamic, strong, open, active, systematic, and hard-working. His life credo was old Latin *"Per aspera ad astra"*. From the beginning of his scientific career, he was precise in his work. He had visions and could select and focus on crucial scientific topics. He also established broad international scientific contacts when Czechoslovakia was still behind the "Iron Curtain" (1970 – until November 1989), contacts that were not very kindly accepted by the communist establishment. He was a leading personality within his institute (RICP) and the national and international scientific community. After the political changes in 1989, he was also active in the life of his village community (Horoměřice). Unfortunately, at the end of his life, he initiated and took part in some activities in RICP Praha-Ruzyně related to the institute's management, which cannot be considered progressive, nor have they contributed to the proper development of this institution or its credibility. Nevertheless, our community will remember him as a colleague who contributed substantially to the developments of plant virology in former Czechoslovakia and after 1992 in the Czech Republic.

Aleš Lebeda, Olomouc, Czech Republic

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