



PROFESSOR DOCTOR JAN BORKOWSKI (1923–2011)

Professor Jan Borkowski was born July 12, 1923 in Hawryłowce (near Braclaw, now in Belarus), from where he emigrated after WWII to western Poland. He completed his higher education in the years 1947–1951 at the Faculty of Agriculture, University of Wroclaw. His professional career at the university, in the Department of Soil Science led by Prof. Dr. Jan Tomaszewski, started on March 1, 1950. In the same department, over time transformed into the institute, he obtained all professional degrees. He earned a PhD in agricultural and forest sciences in 1960 based on the thesis „Studies on the silt materials and soils in the Silesia“, and his Habilitation in 1967 based on the dissertation „Brown earths of the Sudeten Mountains“. In 1979, he was awarded the title of associate professor and in 1993 he was appointed full professor. Between 1972 and 1982 he served as head of the Department of Soil Science at the Institute of Agricultural Chemistry, Soil Science and Microbiology. After the separation of the Institute of Soil Science and Agricultural Environment Protection, he served as head of the Department of Sod and Mountain Soils (in the years 1987–1996).

Main research topics of Prof. Borkowski always focused around the current problems of modern soil science and agriculture, in particular those in mountain areas. The scientific achievements of Prof. Borkowski can be classified into four subjects: the origin and genetic classification and evaluation of soils, soil cartography, degradation of soils, the specifics of grassland soils and the factors influencing their fertility and productivity, as well as the specifics of mountain soils in the Sudeten Mountains.

Professor Borkowski was an expert in the soils of the Lower Silesia region. His experience and knowledge resulted primarily from the work on the soil map of Poland at a scale of 1:300 000 and on the general evaluation of agricultural land in Poland. One of his first papers, published in 1959, concerned the reasons for the different productivity of arable soils in the mountains and the need for the division of agricultural space in the Sudeten Mts. on altitude zones. This distinction was soon introduced to the classification practice in all mountainous areas and Borkowski was invited to contribute to the writing of a regional guideline for soil evaluation - valid and used to this day.

Loess and loess-like soils have a great importance for the Lower Silesian agriculture. Problems connected with analysis and classification of the particle-size distribution in these soils have become a canvas for a doctoral thesis and publications of Prof. Borkowski. He revealed serious shortcomings of this classification and repeatedly advocated for necessary changes on various scientific fora of the Polish Society of Soil Science (PTG). However, his demands were taken into account only in 1998.

Properties of mountain soils and their management in the Sudeten Mountains were in the focus of his scientific interests almost from the beginning of scientific work. One of the most important works of Prof. Borkowski was a monograph book on the morphology, physical and chemical properties, and productivity of brown earths in the Sudeten Mountains as affected by parent rocks variability and the zonality of environmental conditions (altitude, climate and vegetation). This work even today is the starting point for new studies on the soil cover of the Sudeten Mts. and the factors affecting its variability, as well as for the consideration of soil genesis in the mountainous areas. In the 1970's and 1980's Borkowski, in cooperation with other soil and crop scientists, led the studies on the content, dynamics and availability of micronutrients in mountain meadow soils, microelement turn-over in the „soil - plant – animals” chain, the occurrence of crop field – forest border, the interdisciplinary criteria for land use in the Sudeten Mountains, and the grassland management under soil and climate conditions of the mid-mountain depressions.

The large-scale “ecological disaster” in mountain forests turned his attention to the effects of industrial emissions on properties of mountain soils, especially in the Karkonosze Mountains. Based on the comparisons with a survey made in the 1960's, Borkowski was one of the first to write about the increasing content of sulfur and some trace elements in the soils of the higher mountain zones, but also questioned the acidification of mountain soils allegedly resulting from the acid rain.

Professor Borkowski was the author or co-author of over 100 original research papers. Among his works, the contributions in scientific monographs of the Karkonosze Mountains are highlighted. Notable is also his co-editorship of the soil map of Poland at the scale of 1:300 000, maps of soil districts of the

Lower Silesia in the scale of 1:100 000, soil map of the Karkonosze Mountains at the scale 1:10 000, as well as the new soil map of the Lower Silesia region at a scale of 1:100 000.

Professor Jan Borkowski was a member of the Scientific Board of the Karkonosze Mountains National Park and co-founder of the Society for Development of the Mountain Regions. He belonged to the Polish Geographical Society, the Polish Agronomic Society, and the Polish Society of Soil Science, where he was a member of the main board and the president of the Wrocław branch. He was also a member of the Mountains Areas Management Committee at the Polish Academy of Sciences, where he served as Vice-Chairman and Chairman of the Sudeten branch. He was awarded by the Rector of Agricultural University in Wrocław, Ministry of Science and Higher Education and the Polish Academy of Sciences for his achievements in scientific work and teaching. Borkowski was also decorated with the Gold Cross of Merit, the Polonia Restituta Medal, and the Medal of the National Education Commission.

Professor John Borkowski approached teaching with great passion. He supervised four PhD theses, including a student from Syria. He conducted lectures, tutorials, seminars and field practice for various specialties at the Faculty of Agriculture (Agricultural University) and the Faculty of Natural Sciences (University of Wrocław). In class, he strived to use all available audio-visual methods to facilitate the perception of knowledge. Students liked his calm and logically organized lectures and seminars conducted with sensitivity and great culture. His examination methods became the stuff of legend: he believed that it was a feat to give a student a failing grade upon the first stumble. The trick was to force the student to pass the exam with a grade of 4 (on a scale of 2 to 5; 5 being the highest grade)! Sometimes the student achieved this on the third, sometimes only on the sixth attempt.

In the memory of his colleagues and students, Professor Borkowski remains an experienced soil scientist, balanced and fair in judgment, and a man of great knowledge.

*Leszek Szerszeń
Tadeusz Chodak
Cezary Kabala*