

## Curriculum vitae/Professional career/Key activities

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See PUBLICATIONS

### Why I wanted to become a soil scientist:

I experienced after the World War Two hunger and hunger illness. So my dream as boy and young man was to nourish the world.

### EDUCATION and PROFESSIONAL CAREER

**1960/62** Farm apprenticeship.

**1962/66** Studies of agricultural engineering at the University Kiel, Germany. Specialisation on crop production and soil amelioration. Diploma thesis: Amelioration of saline and alkaline soils. Graduation engineer of agriculture.

**1970** PhD with Prof. Dr. Schönhals at the Institute of Soil Science at the University Gießen, Germany, about 'Investigations by the double ring infiltrometer method about the infiltration characteristics of the soils of the southern Highland of Jordan'.

**1994** Habilitation in Soil Science about 'Waterhousehold of peat soils' at the University Essen.

### PROFESSIONAL EMPLOYMENT and KEY ACTIVITIES

**1967/1970** Investigations on saline soils and desert soil quality for irrigation with the Federal Institute for Geosciences and Natural Resources (Bundesanstalt für Bodenforschung, today Bundesanstalt für Geowissenschaften und Rohstoffe/BGR), Hannover, Germany.

**1970/1983** At the Institute of Soil Technology, Bremen/Germany, of the State Office for Geology of Lower Saxonia (Niedersächsisches Landesamt für Bodenforschung/NLFB/Hannover, Germany) applied research inclusive field trials and stations on problems of soil physics, soil water household, soil structure, soil amelioration (deep loosening, deep plowing, drainage, liming) of marsh, sandy and peat soils; and drainage pipe filter function and clogging, flower pot earth, effects of groundwater table lowering, landfill soil cover, lagoon deposits of harbor, river and lake sludge. Member of the Drainage Committee of the German Association of Water and Soil Amelioration Techniques (DVWK). Member of the working group soil science (Arbeitsgruppe Bodenkunde) of Geological State Offices and Federal Institute for Geosciences and Natural Resources of the Federal Republic of Germany.

**1978/1983** Lectureship in soil science and soil use for students of biology at the University of Bremen.

**1983/2005** Professor for Soil Science and Soil Technology at the Institute of Ecology of the University of Essen (today University Duisburg-Essen), Germany, lectures in courses of ecology and landscape architecture.

Change of main research objectives to problems of soils of urban, industrial, traffic and mining areas, according the location of the University Essen in one of world largest heavy industrial areas.

Objectives of soil research on urban areas are soil morphology and soil formation; pollution and balances of heavy metals, nutrient content, C-, N-, P-accumulation and balances; storm water infiltration in urban soils; soils as sources of fine dust (PM<sub>10</sub>); effects of different ground uses (such as vegetable garden, street border strip and street tree patches, park, railway siding, play and sport ground, street and sidewalk, abandoned industrial and mining areas, burial ground) on soils; sealing of soils; man-made materials such as sewage sludge, ashes, rubble, slag; reclamation of mining soils (hard coal performance and mining), remediation of soils from coke plants; soil pollution investigation for housing planning; soils of archeological sites.

On agrarian and forestry areas investigation of heavy metal, C-, N-, P- balances, acidification, soil compaction and structure, water erosion. Objectives of studies of nature heritage areas were C-, N-, and water balances, and quality of abandoned industrial and mining areas and quarries as nature reserve areas.

## 2005 Retirement

**From 2005** Still at the University Duisburg-Essen; performance and analysis of research projects; organization of national and international conferences and symposia.

**Activities abroad** i.a. in Spain, France, Greece, Turkey, Jordan, Syria, Iran, China, Malawi.

## ACTIVITIES IN NATIONAL and INTERNATIONAL SOCIETIES/ORGANZATIONS

**1976/1988** Member of the Drainage Committee of the German Association of Water and Soil Amelioration Techniques (DVWK); responsible for drainage pipe filter envelops.

**1977/1982** Member of the working group soil science (Arbeitsgruppe Bodenkunde) of Geological State Offices and Federal Institute for Geosciences and Natural Resources of the Federal Republic of Germany. Preparation of the Soil Survey Instruction, 3<sup>rd</sup> edition (1982); responsible for peat and half bog soils.

**1987/2007** Establishment and chair of the Working Group 'Urban Soils (AKS)' of the German Soil Science Society.

**1991/1995** Member of the Alfred Wegner Society for Geosciences; delegated by German Soil Science Society; member of organization committee of Geotechnica fair and congress 1993 und 1995.

**1995** Founder member of German Federal Soil Association (BVB).

**1996/2000** Chairperson of professional group 'Soil Techniques' of the German Federal Soil Association (BVB).

**1998/2007** Establishment and chair of the International Working Group SUTMA (Soils of Urban, Industrial, Traffic and Mining Areas (SU)' of the International Union of Soil Science (IUSS).

**2000** Organization of the First International Conference on Soils of Urban, Industrial, Traffic and Mining Areas (First SUTMA conference), Essen, July 12-18, 2000.

**2002/2010** Chair of Division 3 - Soil Use and Management of the International Union of Soil Science (IUSS), for two election periods.

**2003/4** Member of the Advisory Group and Working Group Research of the European Soil Thematic Strategy of the European Commission. Responsible for the chapters 'Sealing Soil, Soils of Urban Areas, Land Use and Land Use Planning' and 'Soil Conservation Service'.

**2010** Organization of the international Conference of IUSS on "Soil Fertility and Soil Productivity" at the Humboldt University zu Berlin, Germany.

**1987/2016** Organization of numerous national conferences on urban soils, and symposia about urban soils, soil fertility and soil heat on international congresses.

Essen, August 20, 2024