

Professor Stanislaw W. Gawronski was honored with a prestigious **Milton Gordon Award 2015** for his excellence in Phytotechnology Research. So far, eminent scientists as Dr. Rufus Chaney (USA), Dr. Jerry Schnoor (USA), Prof. Larry Erickson (USA), Prof. Alan Baker (UK), Prof. Nelson Marmirioli (IT), Professor Jaco Vangronsveld (BE), Dr. Michel Mench (FR) were honored with Gordon Award.



Prof. Stanislaw W. Gawronski was awarded with this award during the annual, 12th Conference of the International Society Phytotechnologies held in Manhattan, Kansas, USA, at the end of *September 2015*. During the conference prof. Gawronski delivered the inaugural lecture entitled: “Air phytoremediation as a toolbox for green infrastructure services in urban areas”. This award is the highest international distinction in the field of phytotechnologies, granted to one person per year. In the case of prof. S.W. Gawronski it is recognition for outstanding scientific research, educational work with students and involvement in development of this new discipline i.e. phytoremediation.



Prof. Stanislaw W. Gawronski graduated from the Warsaw Agricultural University and his scientific career is connected with this University (at present renamed as Warsaw University of Life Sciences), during which he had several scientific internships including long-term like for example 3.5 years to USA and 2.5 years to Japan. His research interests refer to plants. In the early years his studies were devoted to the weeds and specifically the negative effects of improper, often excessive use of herbicides as a consequence of microevolution led to emerging of resistant to herbicides biotypes of weeds. The mechanism of weeds resistant due to excessive use of chemicals, is currently confirming at the molecular level at the Laboratory of Basic Research in Horticulture (LBRH) and every new resistant to herbicides biotype found in Poland are tested in this unit for analysis at the molecular level.

Improved, in recent years, humans standard of life, in many cases is achieved at the expense of the environment. When assessing human generated threats, it was found that the only group of higher organisms that are able to survive in often toxic environment are plants. One of the more interesting results of research of those years was the discovery that the same mechanisms by which plants degrade pesticides are also used to degrade other pollutants

including those that occur as a result of human activity, e.g. soil pollution with oil or vehicle emissions to the air. In the second half of the nineties in several scientific centers in the US and Europe research were undertaken for the use of plants' ability to degrade contaminants. In the next few years, results of these studies led to the development of new scientific discipline - environmental biotechnology called phytoremediation.

During 4th International Conference of Phytotechnologies in Denver, Colorado the International Society for Phytotechnologies was established and to honor the contribution of science to the development of this new discipline award laid down named Professor Milton Gordon award granted to one person per year. Prof. Milton P. Gordon was a professor of biochemistry at the University of Washington, who large part of scientific career devoted to mechanisms of degradation by plants of various organic compounds. He became the undisputed pioneer in the field of biochemistry, on which phytoremediation is based.

The International Society for Phytotechnologies has more than 350 members, the Americans still account for almost half, while the other half are members of all other countries of the world. The Society organizes annual conference; every other year it takes place in the United States while and between on other continents.

Prof. S.W. Gawronski, as a representative of Poland, took part in both **COST Action programs**. He was also a founding member of the International Society of Phytotechnologies and for four years served as a member of its Management Board.

Almost twenty years ago, in LBRH, being good enough equipped, research conducted under the direction of Prof. Gawronski on the use of plants to repair degraded environment in urban areas were undertaken. They related to contaminated soils, in particular with lead and polycyclic aromatic hydrocarbons (PAHs). At a time when environmental pollution began to threaten further economic development, humanity has taken corrective action, which led to a major improvement in soil and water. Much harder it was to clean up the air, pollution of which costs humans about 4 million deaths per year. About 10 years ago in LBRH studies on the use of plants for phytoremediation of air in urban areas were also undertaken. Removal of pollutants from the air is much more difficult, not only because they are easy to move, but also because we really do not have tools for it. The only option which we have is to use phytoremediation technology in which properly designed and exploited plants are a key working element of, in the process of air purifying.

Prof. S.W. Gawronski with his research team is among world pioneering in the field of air phytoremediation and his achievements were the basis for the awarding him with, so highly valued among professionals, prize.