

Dear Rector, Dear Ladies and Gentleman,

I feel very honoured to be awarded today with the position of Professor Honoris Causa at the University of Environmental and Life Science here in Wroclaw. I want to thank the Senate of the University and the dean and faculty council of the Faculty of Biology and Animal Science for their kind decision in this regard. Special thanks to the Rector of the University, Prof. Dr. Roman Kolacz for his proposal to the Senate. I consider this award as an accreditation of my contribution to the developments in the field of Animal Hygiene.

I have already a long established relationship with the scientific world in animal hygiene in Poland and especially with Wroclaw. I visited Poland for the first time in 1974 to attend an “in between” congress of the International Society for Animal Hygiene , organised by the late Prof. Thomaz Janowsky in Krakow. Since that time I attended congresses in Warsaw, Krakow, Balice and several times in Wroclaw. I went to the University of Olstyn for an evaluation visit in the scope of the European Association on Establishments of Veterinary Education to evaluate the Faculty of Veterinary medicine. I presented four times a lecture in an International Conference organised by the Agricultural Faculties in Wroclaw. The subjects varied from integrated quality control in pigs to lung and liver affections in fattening pigs, and to optimal farm conditions for animal health and to last but not least feed and food safety. All subjects in the field of Animal Hygiene.

I am proud to be invited by the University of Environment and Life Science so often. The name of your University expresses already your open mind to developments in the society. Environment, animal health and welfare and human health are growing issues of concern for the citizens. People are convinced that livestock production has to take place on a sustainable way.

Sustainability is widely defined as meeting the needs of today without jeopardising the ability to future generations to meet their needs.

In the Millenium Development Goals (MDG's), agreed at the UN-Millenium Summit in 2000, concrete targets are set to avoid to continue to tax the earth ecological systems in favour of food, feed and energy demands of the global population. The principle of sustainability is to return the basic elements of the earth : air, water and soil after the production, without damages.

Sustainability is very often linked to the 3 P's: People, Planet and Profit, expressing, that in the social corporate responsibility we have to take care for a balance between the interest of the environment, the social aspects and the economy.

Since 2000 Governmental and Non Governmental Organisations, like Greenpeace, Solidaridad, WWF, are more and more focusing on the sustainability aspects in the production of feed and food.

In livestock production sustainability means producing products of animal origin in operations who: take care of the health and welfare of animals, realise good working conditions and minimise risks for the workers and take care of a high food safety standard of the products. All this has to be realised without standing environmental damage.

Today responsibility in livestock production is a task for all stakeholders in the production chain. This means from field to fork, from stable to table.

It starts with the feed industry. A crucial part of livestock production. Not only because the safety of feed has a clear impact on the safety of food. , but for sure too , because feed has to be produced from ingredients cultivated at worlds arable land.

Today we have a competition between the use of this arable land for feed production or for food production. Food to avoid hunger in the world has always to have the prevalence. This discussion is extended , due to the use of agricultural products for fuel production.

The opinions in this regard differs very strong between experts. It depends of course very much from the use of the arable land in the world. Due to crop damage by diseases and vermins, lack of knowledge by the land users, lack of water, and lack of fertilizers, millions of acres of land are not used in an optimal way. Applying new technics in crop production like genetic modification and nano-technology can further improve the production. It has to be sure, that this new developments will not harm the feed and food safety or the environment. But as soon as the European Food Safety Authority based on research results has approved the GMO's on this aspects, the European Government should authorise the use as soon as possible and Member States should apply this in their national legislations in an harmonised way.

The feed industry in Europe has taken his responsibility in livestock production by controlling and certifying the ingredients for compound feed production all over the world and using billions of tons of by-products from the food and biofuel industry in their feed. The manufacturing of the compound feed today is based on an European Feed Manufacturers Code with clear instruction about safe feed production. Many attention is given in this regard to the sustainability of the feed material production, like for instance for soybeans. Research in the feed industry is focused on the optimal composition of the compound feed to realise a low feed conversion rate with an increased production performance. On this way use of feed per kg. growth in broilers decreased in 50 years from 3.0 kg to 1.7 kg . The same happened in fattening pigs with a decrease from 3.3 to 2.6 kg between 1975 and 2008.

The next step in the livestock production chain are the farmers. The responsibility from the farmer for the sustainability of his product is from the door of stables to the delivery of the animals or products of the animals to the processing plants. He is the one who has to take care of animal health and welfare and food safety. This means today that the farmer need sufficient education to realise optimal conditions for the animals and to get enough knowledge to avoid entrance of diseases and undesirable substances in his farm. But he has to avoid risks for the environment in regard to human health and environmental pollution as well. This brings him to modern housing systems where he takes care that nobody (that means animals as well as men) can enter the farm without an allowance, where he can realise optimal hygienic and climatic conditions for the animals in the different stages of production and where he can control the outlet of the air by artificial ventilation and can use an outlet air filtering if necessary. He has to prove a sustainable production by participating in certification systems like Integrated Quality Control for Pigs , or Chain Quality Milk for Dairy and Integrated Quality Control for Poultry. All requirements start with meeting the national law. There are a lot of regulations set by the governmental law to lower the risks of spread of diseases, to increase animal welfare and to assure the safety of the animal products. But there are often additional requirements put by the retailers to satisfy the need of the consumers. Certification systems are the prove that the farmer meets this requirements. This certification is becoming more and more a “license to produce”.

At the end of the livestock production chain we have the processing plants who take care to process the animal products for the consumers market. They receive the raw products from the farmers and have to take care to process this certified products on a responsible way to continue the high quality and safety during the processing to respect the effort of the farmer and other stakeholders in this regard. This means at least that he has to apply HACCP, the Hazard Analysing Control Point system, in his operation as well. HACCP means that the plant knows where his products are coming from, what is happening with this product in his plant , where the Critical Points in regard to risks for quality and safety are and how to control them, and where he delivers his products. The traceability from feed to food is an important part of responsible and sustainable food production.

Fortunately the stakeholders in livestock production are not isolated in the realisation of their responsibility. Veterinarians, Zootechniciens and Biologists are available to support them in this task. This support is at different levels. Agronomist were already for several years involved in the research and the application of the compound feed composition and the optimum feed ratio's for the animals on the farm. Zootechniciens were focused on the research on

breeding, housing and management at the farms. Biologists were especially interested in the coping behaviour of the animals to define their needs. Veterinarians were more focused on the diseases in the farms and to treat the diseased animals. Drug use was the solution for most of the diseases. It was more common to treat the whole group than individual animals. In the last decades combined research in multiple research programs showed, that most of the diseases in the farms were multi-factorial diseases, where disease germs only got the opportunity to affect the animals under suboptimal farm conditions. The incidence of lung – and liver diseases varied very strongly between individual farms. The housing – and management conditions influenced the incidence of these diseases very much. The results of this combined research defined at the end the optimal conditions for the animal to realise good health and welfare. It worked out, that this way of animal production improved the performance at the farms very clearly.

The education for the veterinary practitioners today changed from a curative to a preventive approach. No longer only the individual animal is taken into account but more and more the conditions at the whole farm determine the health and welfare status of the animals. Group treatments are more and more replaced by treatments of individual animals. This trend is supported by the increase in antibiotic resistance from many bacteria. A clear example in this regard is the Multi Resistant Staphylococcus Aureus. An increasing problem in livestock production and human hospitals. In some animal species in the Netherlands over more than 80% of the farms and more than 60% of the farmers are already positive for MRSA.

Preventive veterinary medicine means a multi-disciplinary approach with a close cooperation between different experts in research and in the field. Herd health monitoring programs support this approach. The information of the health status of the animals can often be registered at central points, like slaughterhouses, milk factories and egg-stations. This makes it possible to carry out epidemiologic research with field data and to concentrate on the preventive measures to the problems of farms to improve the health situation.

Dear Ladies and Gentlemen,

All the before mentioned issues are part of the field of Animal Hygiene. Animal Hygiene deals with the balance between the infection pressure with disease germs in the farms on the one side, and the resistance of the animals on the other side, to realise good health and welfare. But Animal Hygiene also deals with the impact of the farms on human health risks and environmental pollution as well. The field of animal hygiene covers all different farm animals and gives even room for small animal problems. A lot of knowledge of animal hygiene in one species can be used or projected to the other species as well. This makes the Animal Hygienist in fact a generalist in preventive veterinary medicine in livestock production.

I am therefore proud to have been member of the Executive Board of the International Society for Animal Hygiene for more than 15 years, of which 3 years as president. The establishment of this society was an initiative of some scientists from the former East European Countries and the West European Countries. The East European Countries were at that moment far in front of the western in exploring and developing the field of animal hygiene. We from the western countries could learn a lot from their approach. The Society is now indeed open for veterinarians, agronomists, zootechnicians and biologist in the field of animal hygiene. The society has members in over 50 countries all over the world. It organises each 2 years an international congress on animal hygiene, giving this experts from the different countries the floor to present their research results and to exchange knowledge and experiences.

Ladies and Gentlemen,

Today many graduates in Biology or in Animal Husbandry received their diploma in this ceremony. Congratulations with this result. I hope that you will be able to build up a fruitful cooperation with veterinarian in your job in the future. You have reached now an academic level. That gives you a position in the society , but it gives you a responsibility in this society as well. Responsible for the health and welfare of animals. Responsible for the sustainable use of the environment. And responsible for human health in your country. Livestock production has become an image of bad for the environment and bad for the human health. You can change that image. That needs a correct attitude and a pro-active approach. Look for the opportunities to improve the sustainability in animal production. Start multi-disciplinary research in animal hygiene. Start discussions with citizens and consumers to explain the developments in that field. The welfare standard in Europe gives you this opportunity.

But you do not only have a responsibility for the people in Europe. Your knowledge should contribute to improve the situation in the world as well. I was very happy with the decision of the organising committee of the Xth International Congress on Animal Hygiene in Maastricht in 2000 to establish the “Prof. Tielen Fund” Foundation to give young scientists from developing countries the opportunity to attend international congresses in Europe. That gives them the chance to present a paper on an international congress and to build up scientific relationships with colleagues in other countries. Until now we awarded on that way 85 young scientist. Some of them, like Anna Rudnickova from Wroclaw or Robert Wrezien from Warsaw, were from Poland as well in the time that Poland was developing. I believe that we not only contributed to the development of the young scientists themselves, but to the further development of the animal production in their countries as well.

Ladies and Gentlemen,

At the end of my speech I want to thank first at all Prof. Roman Kolacz again. He invited me the first time in 2002 to your University. He introduced me in your scientific world and offered together with his wife Marysia a lot of hospitality to me and my wife. He proposed me for the title of Honorary Professor to the Senate. Thanks Roman for this kind actions.

I would like to thank Prof. Zbigniew Dobrzansky for the laudation, Prof. Zbigniew Paluszak, for a review of my scientific achievements and Prof. Abdrzej Filistowicz, the Dean of the Faculty of Biology and Animal Science for the Act of Promotion at today's ceremony. The positive judgments of my activities made me a little bit shide.

Thanks to my colleagues in the Animal Health Service in the Netherlands and in the University in Utrecht who stimulated me to take positions who made it possible for me to develop myself in the scientific field of animal hygiene.

Thanks to my parents and especially Moeke. She brought me up and sended me to education at middle school and university. She will proud look down now.

Thanks to my children, my family and my friends who gave always a haven to relax after hard work.

Last but not least thanks to my late wife Rianne, who gave me the space to develop myself in a hectic period of our household. Finally I want to express my special thanks to my current wife and partner, Mieke. She is the always sober beacon who puts me back to reality when I start to hover.

Thank you very much for your attention.