

Precision Livestock Farming: A Data and Knowledge Based Approach for Sustainable Animal Nutrition

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There is a basic need for sustainable healthy food chain solutions fueled by global trends such as population growth, increasing scarcity of natural resources and new requirements of end consumer with respect to health, quality, sustainability and animal welfare. For the increasing demand of proteins, poultry meat will be important particularly, since global consumption of chicken will exceed that of pork in 2020. In commercial poultry production, antibiotic growth promoters (AGPs) are frequently used outside Europe to increase the production performance. Nowadays, we are facing a consumer driven debate to stop the use of AGPs, due to the increasing emergence of antibiotic resistant bacteria.

The current talk will highlight a novel holistic approach called "Precision Livestock Farming" (PLF). The term stands for employing knowledge and data, using digital technologies, to recommend effective operation instructions and solutions which enable improved livestock production without any unnecessary drugs. For PLF we combine different core elements: i. Monitoring and evaluation of all parameters influencing the condition of the animals in a flock building up a digital control center called "FloXControl®"; ii. Screening test systems, which will allow the assessment of the health of poultry livestock called "ScreenFloX®"; iii. Modern nutritional concepts combined with sustainable and effective gut health products like probiotics to ensure improved livestock production in a post AGP era.