Big Data in broiler farming

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It seems simple to use routinely recorded data *(Big Data)* to gain more insight into how factors in the various links of the broiler chain influence each other. This not only concerns available information on the broiler farm, but also information from other links in the production and consumption chain. With ICT and complex data analysis, Wageningen University & Research sees opportunities and challenges for the sector in connecting this knowledge and information.

Big Data: not that simple yet

With the developments in the Big Data, asking the right questions is important. Where is relevant data available? And whose is it? Ultimately, this should lead to new knowledge products for the poultry farmer or his immediate environment.

Three factors are important for the use and analysis of data, namely the amount of data (Big Data indicates a lot of data), the speed with which it can be retrieved, and the diversity (structured and / or not structured in a single database). In addition, the quality and complexity also play an important role in getting the right information out of it.

'A healthy broiler chain'

In the project 'Healthy broiler chain', a number of chain partners (Aviagen, 2Sisters Storteboom, Broederij Munsterhuis, Broederij Elshuis, De Hoop, de Heus, Avined) and Wageningen Livestock Research explored ways to link routinely collected data in the broiler chain. In this way we wanted to answer the question whether, and if so, hów factors in the pre-linkages (rearing and production of broiler breeders, and hatchery) can influence the health, well-being and technical performance of the broiler farm.

Data sources

Immediately it became apparent that at many places in the broiler chain data is recorded. But linking these data was not easy. This is due, for example, to the fact that unique features, through which data can be connected, are not recorded in every database. These experiences led to an advice about the uniform organization of data files in the broiler chain.

Influence of pre-linkages

An analysis has been carried out with the available data from the project partners. In addition to the management on the broiler farm, this showed that the process of legg laying and storage on the breeder farm up to the placement of the day-old chicks to the broiler farm is of great influence on the ultimate health and performance of the broiler flock. On the basis of this analysis, new data has been collected and we further investigated which factors influence the health and technical performance of a broiler. But also which characteristics are important to record (additionally).