

Keeping poultry in the future

Wherever in the world, keeping poultry has always been a practice of producing meat or eggs as effectively as possible. This is still a motto within the industry, but times are changing. In the decades to come, many more factors will play an increasingly important role, such as animal welfare, environmental matters, and energy consumption. What can we expect in the next 25 years?

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In these challenging times, one could say that it is difficult to predict what may happen next month, never mind next year. So, speaking about 2034 does not make it any easier. Of course, it is not possible to make any serious statements, for example which product will be successful in the year 2034, or what the price of an egg will be. Nevertheless, it's interesting to try to look ahead and predict what might be coming.

A prognosis that is based on technical feasibility studies might lead us to spectacular science fiction scenarios, but, based on experience in the past decades, the future - once we are there - will simply be a normal place where we live, love, work, drive our cars and raise our children.

Continuous developments

It is doubtful that we will be flying cars 25 years from now, but rather still on paved roads. The poultry industry can also be viewed in a somewhat similar light. We are not going to experience any spectacular new methods of poultry husbandry, but will undoubtedly see

continuous further developments and improvements on the basis of existing systems that, in the end, are certainly going to surprise us as well. Perhaps this is more comparable to the development of modern computer systems. In the 1980s a computer with 10 MB memory was the absolute optimum. Today, however, most USB flash drives have this capacity a hundred-fold. What a quantum leap! Control technology in animal husbandry experienced similar rapid developments.

It took approximately the same amount of time to bring laying hen management in alternative multi-level systems to the market, and bring these systems to perfection. In the beginning, hardly anybody could imagine how to manage egg production in this type of husbandry system. Today, in very well thought-out systems, mislaid eggs are almost a thing of the past.

Monitoring diseases closely

Looking ahead into the future, we are confronted with the question if, due to open husbandry systems, we might be faced with different diseases again, which are currently believed to have been exterminated. This will have to be monitored closely and countermeasures will need to be taken as quickly as possible, if need be.

If we risk a view into the future, it is probably quite a good idea to base any prognosis on requirement analyses, meaning we need to ask ourselves some question, like: how are we going to live and work a quarter of a century from now; what radical changes do we see in the future, and; what changes lie ahead but cannot be predicted as yet?

For many years to come, the increasing growth of the world population will remain a major concern - the population will need space, and the population will need to eat nourishing food. We will obviously need to provide this food for the world's population, and even though there are various factors involved, one of the major factors certainly is the cost factor. Never before has it been more important to operate as economically



Alternative housing systems for layers will gain importance in the decades to come.

and efficiently as possible because the need for foodstuffs and animal feed is ever increasing.

Reduce human error

Future farmers are confronted with more complex challenges than ever before; they have to produce increasingly more per acre and per livestock unit in order to satisfy increasing demand. We will see sophisticated, intelligent computer systems to reduce human error and save labour, which will enable us to increase production units without losing management abilities.

The cost for poultry and eggs, which are an excellent source of protein, has always been low. These protein sources will remain important and will thus be the driving factor of a growing poultry industry for the years to come. It is also predicted that the production of animal protein will be more concentrated in regions where production is cheap, such as Latin America, the US, and several other countries in south-eastern Europe or Asia.

Looking ahead, there will be challenges but also ample opportunities for the poultry industry worldwide. Let us be optimistic that the global economy will work together and will try to keep their doors open to each other, and also learn from the mistakes made in the past.



In addition to numerous animal welfare aspects, consumer protection, egg quality and environmental and labour-related concerns are important factors for the evaluation of egg production systems.



Animal welfare concerns

At present, laying hen management is subject to enormous change in many parts of the world. This is due to new requirements with regard to quality, environmental, consumer and animal protection of consumers, environmentalists and politics alike.

In Europe, particularly Germany, heated discussions partly diffuse regulations and tedious litigations have continuously set the ground for much uncertainty in the entire industry. This has resulted in high legal minimum standards for floor and free-range production, the abolishment of traditional cage production and the introduction of new housing systems. In Germany, for example, this is bound to lead to a significant decrease in egg production, thus reducing the degree of self-sufficiency, which cannot be the aim of consumers and producers. Over the next 25 years this controversy and a re-orientation of livestock management will be a much discussed topic in many regions of the world, even in places where we don't see it quite yet.

Naturally, this brings about several questions. To what extent will this development influence national egg production and the import and export of eggs? How should producers respond to the increasing awareness of animal welfare issues as well as the increasing awareness of environmental matters and quality issues?

Enriched colony systems

One of the most important strategies for dealing with the road that lies ahead would be to recognise the respective trends as early as possible, and compile and analyse facts of the current situation of the egg industry in order to set the course for a successful future.

It is expected that enriched colony systems are going to be implemented in many other countries outside of the EU over the next 25 years. There is a good reason for this: production results are comparable to those of conventional cage management, and are sometimes even better, even in large production units, at the same time allowing for optimum animal welfare conditions.

Nonetheless, we probably have to expect an abundance of different regulations and requirements for each region. This is a special challenge for equipment manufacturers whose goal it should be to produce large numbers at an affordable price.

Food safety and environment

Food safety is becoming increasingly important. We are more and more concerned about the future of our planet and of our children and we will have to invest in food safety for future generations. Sophisticated, user-friendly hard and software systems will allow for traceable production cycles. Even though we might not necessarily know which individual hen laid our breakfast egg, we will be able to investigate the feed ingredients she ate on a given day.

Another big challenge that face the poultry industry is to improve existing or find new air cleaning solutions to reduce pollution and to minimise the environmental impact of livestock production units. We also want to find better ways of utilising poultry manure. Perhaps 25 years from now, gasification of manure to produce green energy will become a standard method of energy generation.

Complex combination remains

In 25 years, laying hen management will still be a complex combination of different aspects of animal welfare, animal behaviour, environmental issues, management qualities and economic efficiency. This includes optimum feed and water supply and house climate, daily monitoring, veterinary inspections as well as routine cleaning of the barn and all equipment parts. In addition to animal welfare aspects, consumer protection, egg quality and environmental and labour-related concerns are very important factors for the evaluation of egg production systems. A free



Advanced computerised systems, such as the egg cam, are a means to improve food safety and traceability.

market requires the competitive production of market-ready eggs.

Finding feasible solutions

We must not forget, however, that even though the awareness for animal welfare matters and the search for environmentally-sound production methods have their place and have to have their share in the future development of a livestock-oriented industry, we still have to find ways to produce quality foodstuffs at an affordable price to be able to supply the growing world population and ensure food security anywhere in the world.

To find feasible solutions that combine all of the above-mentioned aspects will be one of the biggest challenges that the egg industry will have to face in the next 25 years but we have already taken steps in the right direction and with dedication and commitment from everyone in the industry alike I am positive that we will overcome these challenges.

I hope to still be part of the industry in 2034 and I hope that we will have formed an industry that provides us with every option available to minimise the stress on the animals and on the environment and maximise food safety and security for all of us. ■