

Piet van der Aar retires from Schothorst Feed Research (SFR)

## Transition with precision

**With the international conference "Nutrition in transition" in November, Schothorst Feed Research marks the institute's 85th anniversary. Moreover, the meeting offers a platform for the farewell of researcher, director and research director Piet van der Aar. He officially ends his long career at SFR.**

With the idea of having ample time to delegate duties and responsibilities, research director Piet van der Aar announced his retirement at Schothorst Feed Research internally two years ago. The reality appears to be a little more harsher. In the weeks prior to the international conference "Nutrition in transition", a heated debate started in the Netherlands about the nitrogen cycle in agriculture. And although it appears in the media that it is a recently discovered phenomenon, the knowledge of an experienced researcher like Van der Aar becomes extremely relevant in this case.

### **"Nutrition in transition" congress**

On the occasion of the retirement of Piet van der Aar and the 85th anniversary of Schothorst Feed Research, the "Nutrition in transition" congress will be held in Nijkerk, the Netherlands on November 26 and 27. Both days focus on the precision feeding of the three most important livestock species: pigs, poultry and cattle. On the final day, the congress will be concluded with a farewell reception for Van der Aar. More information: [www.schothorst.nl](http://www.schothorst.nl).

He knows better than anyone what facts are already known, what studies have already been done and how to translate these findings into the current problems for the purpose of interpretation and perspective. And so attention is focused on current issues and of course the upcoming congress, rather than preparing the handover.

### **Proactive**

"In the media in particular, there is a discussion going on about the relationship between ammonia, emissions, animal numbers and deposition. Previous research can be of great value in this discussion," says Van der Aar. That does not mean that the researcher opts for a defensive attitude. On the contrary. Van der Aar believes that the agricultural sector should just leave that attitude and opt for a proactive approach. And according to him that is also possible, research from past and present proves: "Every animal production system has a form of inefficiency in it. The better we understand the system, the more we can improve the efficiency. Take the pig. That animal used to have a nitrogen efficiency of around 35 percent, nowadays it is already 50 percent. This progress has been achieved by

reducing the nitrogen in the feed, genetics and the use of synthetic amino acids. We may be able to become even more efficient with precious resources, but it does take time. "

### **Leading country**

However, the researcher also realizes that consumers are not willing to wait for just the technical solutions that the sector can offer. Also he questions the wishful thinking of the consumer. "It is not so much the consumers who determine, but the opinion makers who decide. Public opinion is strongly influenced by the media which also influences the opinion and decisions of politicians rather than that the represent public opinion by itself. You may find that unfortunate or unfair, but in urbanized Netherlands it is a fact that you have to take into account. The rural area is the backyard of the cities and that has consequences for our agricultural sector," says Van der Aar. He expects that part of Dutch agricultural production will be relocated elsewhere. "That doesn't necessarily have to be bad. The Netherlands is seen internationally as a leading country and we can continue to be that under new circumstances. "Van der Aar expects that the Dutch agricultural sector can play a pioneering role internationally when it comes to circularity. "In livestock farming we are moving from a product to a knowledge providing economy."

### **Drivers**

To make that transition, innovation is required from farmers in the Netherlands. "And that is what Dutch farmers are good at. Give them a challenge and they will



**"Precision nutrition can be of great significance for various transitions in livestock farming," said Piet van der Aar.**

come up with a solution." The research director expects that the solution will lead to changes in the countryside. "In ten, fifteen years we have a number of large farms and many regionally oriented farms," he predicts. The main drivers behind the changes are environmental issues and CO2 emissions. The challenge will be to find a mode that responds to what the consumer accepts. Efficiency, and therefore increasing animal production per unit, leads to a lower emission. "With circularity - the movement that the government is now making under public pressure - you depart from the production optimum. This can mean that the price society has to pay for circularity is that it has to accept more emissions. "Van der Aar also points to the significance of food safety if circularity becomes the guiding principle. "So far our society has focussed on reducing risks. We try to exclude all feed associated risks, but if we allow residual flows or co-products in the process, this has consequences. Are we willing to make concessions on food safety in order to make circularity feasible and affordable?"

It is precisely from the point of view of CO2 emissions that moving production

abroad is actually a disadvantage. "The consumption of animal protein in the Netherlands is fairly stable. This could argue in favour of moving the "surplus" production abroad. This is an advantage from the Dutch manure problem perspective. However, it is a disadvantage globally, because the production of CO2 for the same amount of meat is many times higher. The question is also whether animal welfare benefits from that relocation. "

### **Congress**

All of today's challenges fascinate Van der Aar enormously. With pleasure he delves into the books, plucks investigations and checks data. He connects the old knowledge with the new insights and concepts in science. The research director finds that we still lack knowledge and that new research will be needed to increase knowledge and understanding in order to find solutions for the problems of today. This fact has also laid the foundation for the international congress on 26 and 27 November (see box), for which Van der Aar and his colleagues have put together the program. According to him, "Nutrition in transition" emphasizes the various changes that are imminent and have an impact on animal nutrition, nationally and internationally.

### **Transitions**

Transitions between life phases play a role at animal level. "It is precisely in those transition phases that animals have completely different nutritional needs. We are increasingly gaining insight into how we can meet this, but we still do not know

everything. That requires more research, among other things when it comes to the effects on life time production and disease susceptibility. "As is clear from the current nitrogen debate, livestock farming as a whole is also in a transition phase. "What was good until a few years ago no longer meets today's requirements. The sector will have to adapt to the changing perception of Western consumers in particular. That transition also influences the way in which animal feed is viewed. "The final transition is the protein transition and the CO2 footprint of animal husbandry. "For all three transitions, I conclude that precision nutrition can be of great significance. The more precisely we feed, the better the utilisation and the efficiency. "

### **Future**

Having access to and making data available, providing feedback and directing it, means that in the eyes of the SFR research director, enormously fascinating times are coming for livestock farming in general and the nutritionist in particular. "The development of artificial intelligence offers so many opportunities, also for livestock farming. In this way, you can potentially use all the knowledge that is available in the world to find the best solution. "He himself will no longer contribute to it, it seems. Or yet ...? "Well, I am still a bit involved in some projects," he admits reluctantly. But after more than forty years active in animal nutrition research, he will devote time to other things in the coming year. The congress marks its own moment of transition for Van der Aar.