

Monitoring

ANIMAL HEALTH

Trends in the monitor: Online Monitor results

As part of the Online Monitor, every month swine veterinarians report whether there are any health issues at 2,800 farms on average. Since 2018, around 200 veterinarians from 90 different practices have reported each month. The number of reports remains fairly stable over time. According to the veterinarians, there are no health issues at 70 percent of the farms visited. If there are any complaints, these generally concern weaned piglets (51%) and relatively few reports relate to sows (14%).

The interactive Online Monitor dashboard became available to veterinarians from July 2020. It enables the practitioners to make their own analysis of the health issues and probability diagnoses which have been reported at farms within their own practice, versus the region and the rest of the Netherlands. Individual farmers receive a monthly overview of the situation at their farm versus the region and the rest of the Netherlands.



Trend in sow losses

The number of questions put to the Veekijker telephone helpdesk regarding increased losses of sows was higher in the past months than in previous periods. The questions came not only from veterinarians but also from farmers and (feed) advisers. Of course this does not necessarily mean that 'increased losses' is a major health issue.

The number of reports of increased losses by veterinarians in the Online Monitor as a health issue in sows has, however, also shown a rising trend over the past three years. It has gradually increased from 2 percent to around 8 percent of the total health issues reported for sows. However, we must take into account that there are generally relatively few health issues reported for sows. Most of the issues

reported for sows are reproduction problems. Analysis of the diagnoses made in pathological examination of dead sows submitted in the first quarter of 2021 shows that the most commonly identified causes are issues with the gastrointestinal tract, such as stomach, intestinal, liver or spleen torsion (see table) on the one hand and issues resulting from stomach ulcers on the other. Such issues are

partly related to the feed or to the feeding system.

Increased losses in sows as a health issue deserves attention. Not only because it is the subject of many phone calls, but also based on further analysis of the data collected in the Online Monitor and by the pathology department.

Table. Diagnoses made during pathological examination of dead sows (GD pathology, 2021)

Diagnosis during pathology	Percentage
Stomach torsion	5%
Spleen torsion/rupture	9%
Liver lobe torsion/rupture	5%
Intestinal torsion	2%
Intestinal perforation/invagination	5%
Stomach ulcer/stomach perforation/gastroesophageal stricture/bleeding due to stomach ulcer	7%
Cardiac arrest/shock/stress	15%

Abnormal findings

Actinobacillus suis

Occasionally necropsy results in bacteria being cultured from tissue, of which the veterinary significance is (as yet) unknown to us. *Actinobacillus suis* (*A. suis*) is one such bacteria. In this case, it was cultured from the lungs of animals suffering from pneumonia and clinical symptoms very suggestive of an infection with *Actinobacillus pleuropneumoniae* (App).

A. suis is a ubiquitous, opportunistic pathogen. *A. suis* can cause sepsis in suckling and weaned piglets. The clinical signs in finishers are mainly sudden losses, though coughing and fever are also found. Pathological examination can show a necrotic (pleuro) pneumonia as well as bleeding on the serosa. The clinical signs can therefore strongly resemble App in finishers. In the Netherlands, *A. suis* is not (yet) prevalent in swine farming, and is instead a chance finding. In some countries, *A. suis* is, however, considered to be an important pathogen in swine farming.

The *A. suis* isolated in this case was found to be multiresistant. The acute issue was solved by treating the diseased animals individually with an antibiotic to which the bacteria was not resistant. The biosafety and hygiene was then structurally improved at the farm in question, and vaccinations were given against viruses which might act as a catalyst.

Pilot study: vitamin D3 in finishers

The Veekijker telephone helpdesk receives many questions about lameness, particularly in finishers and gilts. The assumption is often made that pigs have sub-optimal vitamin D3 levels. Vitamin D3 is important for the calcium and phosphorus balance, but it also has functions within the immune system. There is a statutory maximum limit for vitamin D3 in swine feed (2000 IU/kg of feed) and the question regularly arises whether this is still sufficient for modern-day, highly productive pigs. GD conducted a pilot study in order to gain a general impression. Blood samples were taken from pigs at slaughter from 49 conventional and 7 organic finishing farms.

The average vitamin D3 level in the serum of the swine was 88 nmol/L at the conventional farms and 133 nmol/L at the organic farms. Nine of the conventional farms returned a concentration lower than 75 nmol/L. On the other hand, there were also nine farms with an average vitamin D3 level above 100 nmol/L. This difference was related to the use of a specific vitamin D3 premix (containing calcidiol). Free ranging swine can generate their own vitamin D3 in the skin under the influence of UV light.

A concentration lower than 75 nmol/L results in hypo-vitaminosis, and levels lower than 50 nmol/L give an increased risk of a pathological condition. Levels higher than 250 nmol/L carry the risk of intoxication.

The current standard for vitamin D3 in pig feed theoretically provides sufficiently high concentrations of vitamin D3 in the serum of finishers ready for slaughter, but this is apparently not always the case in practice. Further investigation is required in order to gain insight into other age categories.

Animal health barometer (first quarter of 2021)

Disease/disorder/health characteristic	Situation in the Netherlands/Europe
Article 15 diseases (compulsory notification and eradication)	
Foot and Mouth Disease (FMD)	The Netherlands has been disease-free since 2001. No outbreaks in Europe in the 1 st quarter of 2021.
Classic swine fever (CSF)	The Netherlands has been disease-free since 1997. No outbreaks in Europe in the 1 st quarter of 2021.
African swine fever (ASF)	The Netherlands has been disease-free since 1986. Notifications in the 1 st quarter of 2021 in Eastern Europe and Germany, mainly concerning wild swine.
Swine vesicular disease (SVD)	The Netherlands has been disease-free since 1994. No outbreaks in Europe in the 1 st quarter of 2021.
Brucellosis	The Netherlands has been disease-free since 1973. No outbreaks in Europe in the 1 st quarter of 2021.
Aujeszky's disease	The Netherlands has been disease-free since 2007. (vaccination is prohibited).
Article 100 diseases (compulsory notification)	
Salmonella	Shown sporadically upon pathological examination and in faeces samples submitted.
Monitoring: Veekijker	
PRRS	Many questions, and regularly detected by GD in lab samples submitted.
App	Many questions put to the Veekijker.
Lameness	Very regularly diagnosed, particularly in growers and finishers; attention for osteochondrosis.
Losses	Many questions, regarding sows among others.
Monitoring: pathological examination	
Gastrointestinal issues	Including gastrointestinal torsion in sows.
Online Monitoring	
PRRS	Not often reported as the cause of problems.
Streptococcus	Most commonly reported cause of health issues.



Animal health monitoring

Since 2002, Royal GD has been responsible for animal health monitoring in the Netherlands, in close collaboration with the veterinary sectors, the business community, the Ministry of Agriculture, Nature and Food Quality, vets and farmers. The information used for the surveillance programme is gathered in various ways, whereby the initiative comes in part from vets and farmers, and partly from GD Animal Health. This information is fully interpreted to achieve the objectives of the surveillance programme – rapid identification of health issues on the one hand and monitoring trends and developments on the other. Together, we team up for animal health, in the interests of animals, their owners and society at large.