Monitoring Animal Health

Pigs

Highlights Report, Second half of 2016

Trends in monitoring pig health

In the second half of 2016, GD Animal Health received slightly fewer submissions of pigs for pathological examination than in the first half of the year. The six-monthly monitoring report shows that approximately half of all the necropsy cases concerns intestinal or bronchial diseases. The majority of necropsies were diagnosed with intestinal diseases, the most prevalent of which was *E. coli*-enterotoxicosis. The most common pathogen causing respiratory problems is *Actinobacillus pleuropneumoniae* (App).

The Veekijker (veterinary helpdesk) for pigs received slightly fewer questions than in the first half of 2016. The questions are classified into questions on specific illnesses and questions on farm health issues. With regard to pathogens, PRRS was top of the list, and the number of questions on PED increased at the end of 2016, following an initial decline. In terms of general farm health issues, the majority of questions once again concerned lameness. Also striking was the great number of questions regarding parturition problems (slow farrowing, many stillborn piglets) and related problems concerning poor start of milk production after farrowing. This may be related either to the social discussion regarding piglet mortality, or the fact that there has been an improvement in the diagnostic options for determining the cause of parturition problems. Autumn brought relatively many questions on fertility problems during the early gestation period, also when compared with autumn 2015.

Eastern European countries, and the Baltic states in particular, suffered from more than 1400 outbreaks of African Swine Fever in the second half of 2016, 96 percent of which in wild boar. This is a permanent cause of concern.

Short news

- In the EU, there were 1413 reports of outbreaks of African Swine Fever (ASF) among domestic pigs (52 outbreaks) and wild boar (1361 outbreaks), in the second half of 2016. Most of these occurred in the Baltic states, in Estonia and Latvia in particular.
- PED in the Netherlands. Most of the PED infected farms are located in the eastern Netherlands, though farms in the south of the country also suffered an infection with PED at the end of 2016. As there is no compulsory notification for cases of PED, it is impossible to determine precisely how many farms are actually infected.

Positive trend in antibiotic sensitivity of pathogens

The situation is encouraging regarding sensitivity to antibiotics, with the percentages of resistant isolates declining in recent years. 2016 was marked by significantly lower percentages of *Actinobacillus pleuropneumoniae* isolates resistant to tiamulin and tildipirosin/ tilmicosin/ tulathromycin. The increased percentage of *Bordetella bronchiseptica* isolates found to be resistant to trimethoprim-sulfonamides in 2015, has not continued in 2016. >>

This Pig Monitor newsletter provides a summary of a number of important and striking matters from the second half of 2016. The basic pig health monitoring is financed by the pig industry, the Ministry of Economic Affairs and contributions from farmers.

In this edition, topics include theOnline Monitor and the pilot studies for Erysipelas and sow mortality.

The percentage of enteropathogenic *Escherichia coli* resistant to amoxicillin-clavulanic acid continued to decline in 2016. Slightly less than 2 percent of the enteropathogenic *Escherichia coli* isolates was insensitive to colistin in 2016, which is comparable to 2015. The significant decline in the percentage *Pasteurella multocida* isolates resistant to sulfonamides and tildipirosin/ tilmicosin/ tulathromycin continued in 2016.
The percentage of multi-resistant isolates is significantly lower in 2016 compared to 2015 and 2014. This decline in the number of resistant bacterial isolates is probably partly the result of the decreased use of antibiotics in pig farming.

Online Pig Health Monitor latest news

As of 1 January 2016, the Online Monitor has become compulsory, within the scope of IQC (Integrated Quality Control) systems for farms and the certified veterinary quality scheme. Health issues were reported by the veterinarians at approximately 40 percent of the farms visited.
Most of the problems were reported for weaned piglets, especially disorders of the central nervous system and respiratory system (see table 1).
Analysis of the data from 2016 shows veterinarians have reported health issues related to *E. coli* infections (mostly diarrhoea) in weaned piglets during more than 5 percent of the farm visits, This percentage is 3 percent in suckling piglets (mainly neonatal diarrhoea). Analyses like these can be meaningful within the scope of the discussion on the use of antibiotics.

Pilot studies on Erysipelas and sow mortality

In the autumn of 2016, two pilot studies were conducted on subjects for which a striking number of questions have been received recently. The first concerned Erysipelas and the second sow mortality. The Erysipelas pilot compared 18 sow farms affected by a recent outbreak, with 29 control farms. Three risk factors were identified: failure to apply an all-in all-out system, poor ease of cleaning of pens and liquid feeding. Most cases of Erysipelas were found in lactating sows. This is the most sensitive group at a sow farm. Biosecurity was also shown to be an important factor. It is unclear why liquid feeding poses a risk. The Erysipelas bacteria is prolific in the environment, therefore possibly also in certain by-products.

The pilot study on sow mortality was conducted by means of an online questionnaire. Reactions were received from 105 farms, of which 87 were suitable for analysis purposes. Average loss due to mortality was 6 percent, with mortality rates exceeding 10 percent at 10 percent of the farms. The analysis showed no relationship between the type of sow, productivity (expressed as the average litter size, see figure 1) or the type of group housing system. The risk of sow mortality was, however, reduced at farms where gilts were housed separately from the older parity sows in the group housing.

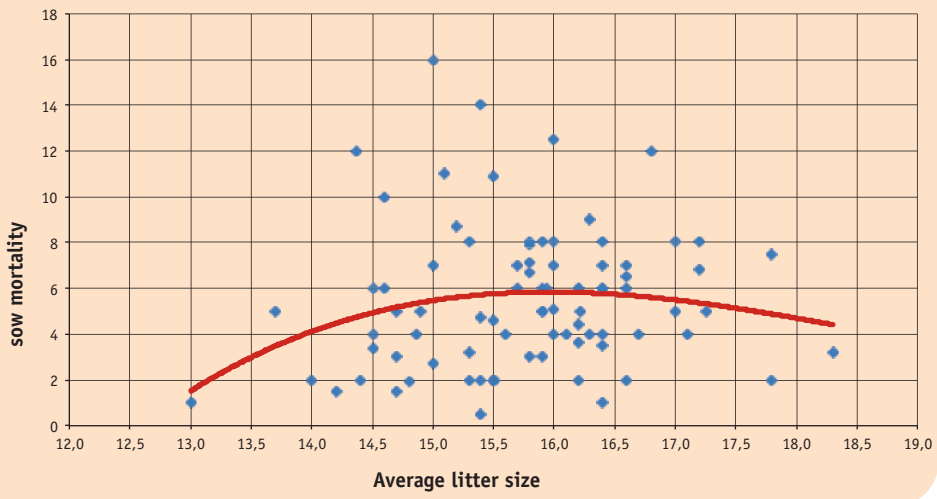

Figure 1. Relationship between average litter sizes at sow farms and the percentage of sow mortality

age category	organ system	%	age category	organ system	%
suckling piglets	digestion	10	finishers / breeding gilts	respiration	19
	locomotion	4		digestion	7
weaned piglets	nervous system	17		locomotion	4
	respiration	17	sows	fertility	5
	digestion	7			
	locomotion	3			
	skin	2			

Table 1. Online Monitor: main organ systems for which a disorder has been reported, per age category (July - Dec. 2016)

Animal health barometer (second half of 2016)

The animal health barometer provides instant insight into the actual Dutch pig health status.

Disease/ health issue	Brief description	Quiet[1]	Increased attention[2]	Further investigation[3]
Article 15 diseases (notifiable diseases)				
Foot and mouth disease (FMD)	The Netherlands has been disease-free since 2001. No outbreaks in Europe in 2nd half of 2016, but outbreaks in Russia and Turkey.	*		
Classical Swine Fever (CSF)	The Netherlands has been disease-free since 1997. No outbreaks in Europe in 2nd half of 2016.	*		
African Swine Fever (ASF)	The Netherlands has been disease-free since 1986. Outbreaks reported in the 2nd half of 2016 in the Baltic states and Poland (especially wild boar); outbreaks also reported in Russia, Ukraine and Moldavia. ASF is endemic in Sardinia.		*	
Swine Vesicular Disease (SVD)	The Netherlands has been disease-free since 1994. No outbreaks in Europe in 2nd half of 2016.	*		
Brucellosis	The Netherlands has been disease-free since 1969. No outbreaks in Europe in 2nd half of 2016. *B. suis* found in a dog in December	*		
Aujeszky's disease	The Netherlands has been disease-free since 2007 (vaccination is prohibited); In the 2nd half of 2016, no outbreaks in EU member states with art. 10 status[4].	*		
Article 100 diseases (notifiable diseases)				
Salmonellosis	Few questions.	*		
From monitoring				
Lameness	Once again many questions.	*		
PED	Increased number of questions at the end of 2016.		*	
PRRS	Once again many questions.	*		
Mortality of piglets and sows	Many questions. Pilot study conducted into sow mortality.	*		*
Farrowing problems	Many questions.	*		
App	Further increase in number of questions.	*		
Erysipelas	Pilot study conducted.			*

[1] Quiet: no action required or action is not expected to result in a clear improvement
[2] Increased attention: alert to a deviation
[3] Further investigation: further investigation is ongoing or required
[4] Article 10 status: free from Aujeszky's disease and vaccination is prohibited

GD Animal Health, P.O. Box 9, 7400 AA Deventer,
The Netherlands, T. +31 (0)570-63 33 91, F. +31 (0)570-63 41 04
www.gdanimalhealth.com, info@gdanimalhealth.com

GDOV1139/07-17