

Monitoring

Animal Health

Cattle

Highlights, Third Quarter 2018

Data analysis up to end of second quarter 2018

Mortality rates gave a mixed picture. The most striking mortality rates were among dairy cattle older than 1 year, registered calves up to 15 days and 15 through 56 days. Mortality among non-registered

calves was lower than last quarter. On farms with suckler cows, the mortality rate of cattle older than 1 year and non-registered calves was stable.

Noteworthy findings from the surveillance

Abortion peak resulting from *Actinobacillus seminis* in dairy cattle

A practitioner called the Veekijker in late August about a farm suffering acute abortion problems. The aborting cows all had fever three days prior to the abortion and had metritis thereafter. Blood tests of the aborting cows showed no antibodies against BVD, IBR, Salmonella and Neospora.

In total, seven animals aborted, with the foetus and placenta of three cows being submitted for necropsy. All placentas indicated typical necrotic infection. From two of the aborted foetuses, *Actinobacillus seminis* was cultured. The literature states that an infection with this germ in sheep can lead to abortion, but there is no information about abortion in cattle. Given that the necropsy gives us a uniform picture in the three foetuses, and that two of the three foetuses indicate *A. seminis*, it is highly likely that *A. seminis* is the cause of the abortion problems.

The farm in question was asked whether there had been any contact with sheep. The only link was that sheep had been grazing adjacent to the lot where silage was made. The livestock farmer was feeding from the pit from one week before the first cow aborted. The literature indicates a possible link between the bacteria and fertility

problems in rams (epididymitis) and bucks. No cases have been detected in the Netherlands over the last ten years. In the United Kingdom, the germ is detected in sheep more frequently leading to problems. The germ is cited as the cause of mastitis and polyarthritis in sheep and has been isolated in cattle in New Zealand (1983). The veterinarian has agreed to contact the Veekijker if similar problems arise again.



Short news

- BVD: 75 percent of dairy farms had BVD-virus free or BVD-bulk milk antibody unsuspected status.
- IBR: 75 percent of dairy farms had IBR-virus free or IBR-bulk milk antibody unsuspected status.
- Respiratory diseases: Decline in number of diagnosed diseases of lungs and respiratory system (incl. *Mannheimia haemolytica*), probably due to prolonged warm weather.

The information used for the surveillance is collected from different sources. The initiative comes in part from veterinarians and farmers, and partly from GD Animal Health. The information is fully interpreted to achieve the objectives of the surveillance programme: the rapid identification of health problems on the one hand and the following of more general trends and developments on the other. The livestock farming sector consisting of the Dutch inter-branch organisations DairyNL (ZuivelNL) and the Calf Industry Association (SBK) and the Ministry for Agriculture, Nature and Food Quality are co-financing the surveillance programme.



***Wohlfahrtiimonas chitiniclastica* in breeding calf with diarrhoea**

The potential zoonotic germ *Wohlfahrtiimonas chitiniclastica* was cultured from a dung sample of a 6-week old calf. The breeding calf had diarrhoea and was the only animal in the age group with this symptom. The practitioner submitted the dung sample suspecting a

salmonella infection, but no salmonella was cultured. Despite treatment with antibiotics, the calf did not recover and was euthanised. Two weeks later, a new sample was submitted of a 2-week old calf with identical symptoms. This calf was presented for necropsy. The germ concerned was not isolated. This germ has previously been described in the literature

in a severe bovine claw infection and an infected wound in a deer. The risk of transmission from calf dung to humans is unknown. The livestock owner was advised to implement general hygiene measures. The finding was reported to the Monitoring Committee.

Follow-up to previously reported abnormalities

Atypical pneumonia

Pathological examination showed 'atypical pneumonia' in lung lesions of a couple of calves (and a lamb) without any clear cause. Bacteriological and virological testing did not show any pathogens. A wider screening on a large panel of viral diseases failed to detect any indication of a viral infection. Given the distribution in both time and geographical area, an infectious cause is unlikely. The hypothesis that a disinfectant played a role is not likely, but cannot be ruled out. A second hypothesis is a relationship with the feed management. At the two farms where the syndrome was first detected, no new cases were seen after modifications to the milk and water supply. A pilot has been set up to study this hypothesis further in new cases. There has been contact with the European Veterinary Surveillance Network (EVSU) about this phenomenon. The syndrome of 'atypical pneumonia' has also been observed in Belgium.





Animal Health Situation in the Netherlands

ANIMAL DISEASE	DUTCH SITUATION	Surveillance – Highlights Third Quarter 2018
Article 15 GWWD (Health & Welfare Act) diseases (diseases named in articles 2-9 of the 'Rules for prevention, control and monitoring of infectious animal diseases and zoonoses and TSEs')		
Aujeszky's disease	Officially free since 2004.	No infections detected.
Bluetongue	Officially free since 2012 (all serotypes). Annual screening.	No infections detected.
Brucellosis	Officially free since 1999. Monitoring via blood samples from aborting cows.	No infections detected.
Bovine Spongiform Encephalopathy (BSE)	No more cases detected upon monitoring since 2010 (total 88 cases from 1997-2009). OIE-status: 'negligible risk'.	No infections detected.
Leucosis (EBL)	Officially free since 1999. Monitoring via bulk milk and blood samples from slaughtered cattle.	No infections detected.
Lumpy skin disease (LSD)	Officially free.	No infections detected.
Anthrax	Not detected since 1994. Monitoring via blood smears from fallen stock.	No infections detected.
Foot and Mouth Disease (FMD)	Officially free since 2001, last regional outbreaks in 1986 and 2001.	No infections detected.
Rabies	Officially free since 2012.	No infections detected.
Bovine tuberculosis (TBC)	Officially free since 1999.	No infections detected.
Article 100 GWWD (Health & Welfare Act) diseases (diseases named in article 10 of the 'Rules for prevention, control and monitoring of infectious animal diseases and zoonoses and TSEs')		
<i>Campylobacter fetus ssp. venerealis</i> and <i>Tritrichomonas foetus</i>	Last infection with <i>Campylobacter fetus ssp. venerealis</i> detected by surveillance in 2009.	No infections detected.
Leptospirosis	0.8 percent of non-dairy farms had animals with antibodies*.	98 percent of dairy farms had the <i>L. hardjo</i> -free status.
Listeriosis	Occasionally detected as pathogen.	One infection detected at necropsy.
Salmonellosis	9.5 percent of non-dairy farms had animals with antibodies*.	97 percent of dairy farms had favourable bulk milk results in the second quarter of 2018 (national programme).
Yersiniosis	Detected occasionally in cattle, mostly in aborted fetuses.	No infections detected.



Table continuation

ANIMAL DISEASE	DUTCH SITUATION	Surveillance – Highlights Third Quarter 2018
Other OIE-list diseases in the Netherlands subject to compulsory reporting		
Bovine Viral Diarrhoea (BVD)	8.7 percent of dairy farms had an indication of recent BVD-virus circulation**. 14.5 percent of non-dairy farms had a recent BVD-virus circulation**.	Among dairy farms, 75 percent had BVD-virus free or BVD-bulk milk antibody unsuspected status.
Infectious Bovine Rhinotracheitis (IBR)	15.6 percent of dairy farms had IBR antibodies in bulk milk**. The estimated prevalence at non-dairy farms is 9.6 percent**.	Among dairy farms, 75 percent had IBR-virus free or IBR-unsuspected status. The field strain was detected in 8 percent of the 38 farms that submitted nasal swabs.
Paratuberculosis	100 percent of dairy farms have PPN (Paratuberculosis Programme Netherlands) status.	76 percent of dairy farms had A status (unsuspected).
Tick borne diseases	Ticks infected with <i>Babesia divergens</i> , <i>Anaplasma phagocytophilia</i> and <i>Mycoplasma wenyonii</i> are present in the Netherlands.	<i>Babesia divergens</i> infections were detected at two farms.
Other infectious diseases in cattle		
Malignant Catarrhal Fever (MCF)	Infections with Ovine herpes virus type 2 occur occasionally.	Three infections detected at necropsy.
Liver fluke	Liver fluke is present in the Netherlands, particularly in wetland areas.	Infections detected in samples from 9 cattle farms. Liver fluke prognosis: no serious infections expected, due to lengthy dry period.
Neosporosis	Important infectious cause of abortions.	Infection detected eight times in submitted aborted foetuses.
Q-fever	73 percent of dairy farms had antibodies in bulk milk**.	One infection detected in aborted foetus.

* Final Report Specific Surveillance 2013-2014; prevalence studies

* Final Report Specific Surveillance 2015-2016; prevalence studies

