

Monitoring

Animal Health

Cattle

Highlights Report, First Quarter 2016

Cattle demographics

Dairy farms: In the first quarter of 2016, there were 17,515 dairy farms populated with dairy cattle in the Netherlands. The total number of dairy cattle and the number of dairy cattle older than two years has been increasing since the second quarter of 2012. In the first quarter of 2016, a dairy farm in the Netherlands counted on average 102 animals older than two years. 11.5 percent of the dairy farms formed an epidemiological unit with a breeder of young stock.

Non-dairy farms: In the first quarter of 2016, there were 17,946 non-dairy farms with cattle in the Netherlands. The non-dairy farms cover various types of farms. When divided into type of farm, small-scale farms had an average of five cows, suckler farms had an average of 31 adult cows, young cattle rearing farms an average of 67 cows, and beef cattle farms an average of 433 cows.

Short news

- **BVD:** 45 percent of dairy farms had a BVD-virus free or BVD-bulk milk antibody unsuspected status. 4 percent of non-dairy farms had a BVD-virus free status.
- **IBR:** 54 percent of dairy farms had a IBR-free or IBR-bulk milk antibody unsuspected status. 12 percent of non-dairy farms had a IBR-free status. IBR outbreaks were detected at thirteen farms via nasal swabs (three were IBR-free and one had IBR-bulk milk antibody unsuspected status).
- **Bluetongue (BT):** BT-8 is still circulating in France. Across the border in Belgium and Germany, the governments have decided to switch to voluntary vaccination against bluetongue. See Figure 1 for the situation in Europe.

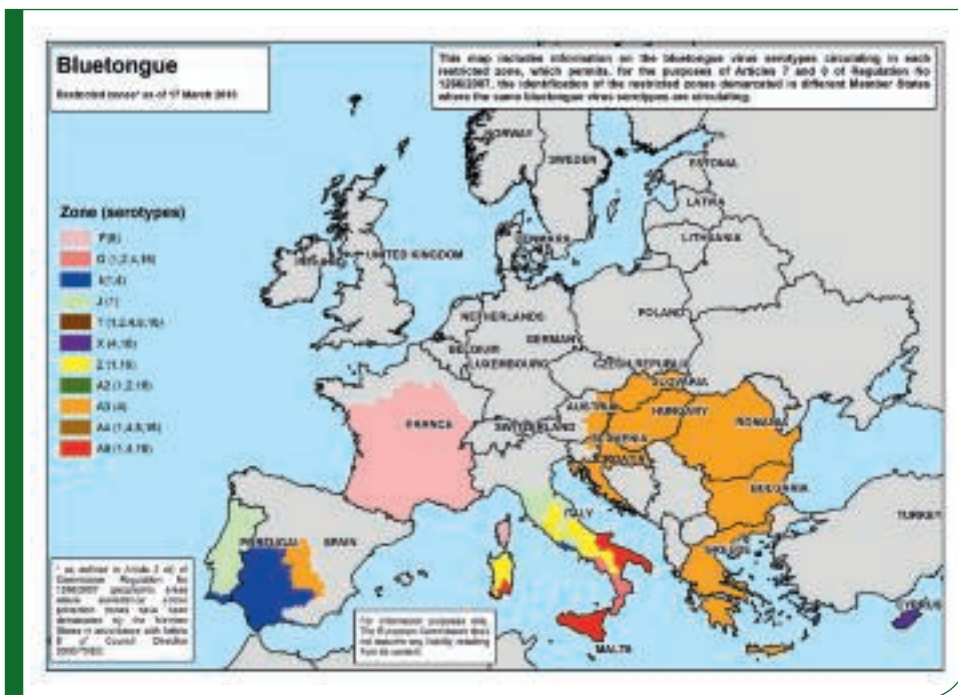


Figure 1 The restricted zones that have been in force as of 17-3-2016 and the division per bluetongue serotype (source: http://ec.europa.eu/food/animals/docs/ad_control-measures_bt_restrictedzones-map.jpg)

Information that is 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 quick identification of animal health problems on the one hand and monitoring of more general trends and developments on the other hand. The livestock farming sector consisting of the Dutch inter-branch organisations DairyNL (ZuivelNL), the Calf Industry Association (SBK) and the Ministry for Economic Affairs (EZ) is co-financing the surveillance programme.



Abnormalities

Distribution of *Salmonella* serotypes B and D at dairy and veal calf farms

There was a suspicion that the number of infections with *Salmonella* serogroup B (incl. *Salmonella* Typhimurium) has increased on beef cattle farms in recent years. This was further investigated in a pilot study. Use was made of the results from salmonella isolates cultured at GD and originating from faeces and autopsy samples from the period 2001 through 2015.

From 2012, GD detected an increase in the number of salmonella isolates at dairy farms. In particular the increase in serogroup B isolates was visible. This increase was detected in both faeces and autopsy samples (Figure 2). The geographical distribution of serogroup D (incl. *Salmonella* Dublin) remained more or less constant, and these infections were seen mainly in the provinces of

Noord- and Zuid-Holland, Friesland and Groningen. However, the number of provinces with a high percentage of dairy farms with serogroup B increased over the period of the study. At the beginning of the study period, serogroup B infections were primarily found at dairy farms in Zeeland, Brabant and Gelderland. From 2013, the percentage of dairy farms with serogroup B infections increased in all provinces except in Noord-Holland.

The number of salmonella isolates from veal calf farms increased strongly from 2012; in almost all provinces, serogroup B infections were detected on veal calf farms. The distribution of serogroup D infections over the provinces also increased over the same period. However, in 2015, there was a decrease in the percentage of veal calf farms with serogroup D in Groningen, Drenthe, Overijssel and Utrecht.

Mortality due to pneumonia and pleuritis from *Mannheimia haemolytica*

More reports were received via the telephone helpdesk 'Veekijker' regarding respiratory problems and/or coughing in the first quarter of 2016 compared to 2014 and 2015. Many of these reports mentioned a (suspected) *Mannheimia haemolytica* outbreak. A part of the outbreaks reported were confirmed by pathological examinations. The 'Veekijker' has been receiving reports for a number of years already of such outbreaks of pneumonia and pleuritis through *Mannheimia haemolytica*, especially in autumn and winter. A previous pilot study at GD revealed stress factors to be a possible initiator of these problems. In a few of these recent cases, *Mycoplasma bovis* was suggested as the primary pathogen. GD has confirmed this combination of pathogens in veal calves with pathological examination. In light of these new findings and insights, the 'Veekijker' has started a pilot study to gain a greater understanding of the presence and role of possible primary pathogens, in addition to *Mannheimia haemolytica*.

Active monitoring of liver fluke resistance

In the winter and spring of 2016, 23 beef-cattle farms were investigated in cooperation with veterinary clinics for possible liver-fluke resistance due to triclabendazol. One of these farms was situated outside the known area for liver-fluke resistance. Of the 23 farms registered, one had been registered before. Based on further inventory, there will be determined which farms, over the coming winter, require a Faecal Egg Count Reduction Test (FECRT) to discover whether there is any real evidence of resistance to liver-fluke substances.

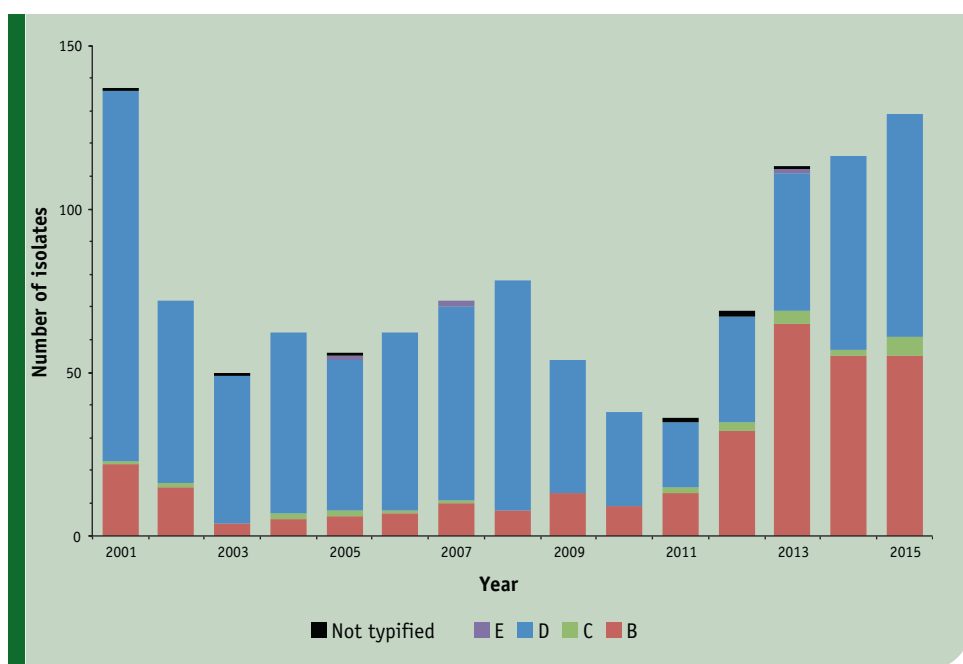


Figure 2 Number of *Salmonella* isolates per serogroup from GD autopsy material from dairy farms in the period 2001–2015 (source: GD-LIMS)



Animal Health Situation in the Netherlands

ANIMAL DISEASE	DUTCH SITUATION	Surveillance – Highlights First Quarter 2016
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 abnormalities.
Bluetongue	Officially free since 2012 (all serotypes).	Alertness due to BTV-8 in France and BTV-4 in South-East Europe.
Brucellosis	Officially free since 1999.	No abnormalities detected upon monitoring of blood samples from aborting cows.
BSE	No more cases detected upon monitoring since 2010 (total 88 cases from 1997–2009). OIE status: 'negligible risk'.	No abnormalities.
Leucosis (EBL)	Officially free since 1999.	No abnormalities detected upon monitoring of blood samples from slaughtered cattle and bulk milk.
Anthrax	Not detected since 1994.	No abnormalities.
Foot and Mouth Disease (FMD)	Officially free since 2001, last regional outbreaks in 1986 and 2001.	No abnormalities.
Rabies	Officially free since 2012.	No abnormalities.
Bovine tuberculosis	Officially free since 1999.	TBC cases were detected in neighbouring countries.
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>Trichomonas fetus</i>	Since 2010, surveillance has not detected any infections.	No infections detected.
Leptospirosis	0.8 percent of non-dairy farms had cattle with antibodies.*	98 percent of dairy farms had <i>L. hardjo</i> -free status. Two infections detected upon bulk milk monitoring.
Listeriosis	Main source is poorly preserved grass silage.	Three infections detected by pathology.
Salmonellosis	9.5 percent of non-dairy farms had cattle with antibodies.*	Infection detected at 741 farms (GD Animal Health diagnostics).
Yersiniosis	Detected incidentally in cattle, more specifically in aborted fetuses.	No infections detected.
Other OIE list diseases in the Netherlands subject to compulsory reporting		
MCF	Infections with Ovine herpes virus type 2 occur incidentally.	One infection detected upon necropsy.
IBR	21 percent of the dairy farms tested bulk milk antibody positive for IBR.** 18 percent of the non-dairy farms had cattle with IBR antibodies.**	54 percent of the dairy farms had IBR-virus free status or IBR bulk milk antibody unsuspected status. New infections were detected in 0.1 percent of the IBR-free farms; new infections were detected in 1.6 percent of the IBR bulk milk antibody unsuspected farms. The field strain was detected at 16 percent of the 84 farms that submitted nasal swabs.
Paratuberculosis	99.6 percent of dairy farms has a PPN status, of which 75 percent status A.	The percentage of farms with status A is stable.
Tick born diseases	Ticks infected with <i>Babesia divergens</i> , <i>Anaplasma phagocytophilia</i> and <i>Mycoplasma wenyonii</i> are found in the Netherlands.	No infections detected.



Table continuation

ANIMAL DISEASE	DUTCH SITUATION	Surveillance – Highlights First Quarter 2016
Other infectious diseases in cattle		
BVD	14 percent of the dairy farms had an indication of recent BVD-virus circulation.* 19 percent of non-dairy farms had recent BVD-virus circulation.*	45 percent of the dairy farms had BVD-virus free status or bulk milk antibody unsuspected status.
Liver fluke	Additional prognosis: more infected liver-fluke snails due to mild winter.	Infection detected in samples from 89 cattle farms.
Neosporosis	Important infectious cause of abortions.	Infections detected in 10 percent of submitted aborted fetuses.
Q fever	68 percent of dairy farms had antibodies in bulk milk.*	Detected as the cause of abortion in three cases.

* Final Report Specific Surveillance 2013-2014; prevalence studies

** Final Report Specific Surveillance 2011-2012; prevalence studies

