

Monitoring

Animal Health

Cattle

Highlights Report, First Quarter 2017

Cattle demographics

Non-dairy farms: In the first quarter of 2017, there were 18,069 non-dairy farms with cattle in the Netherlands. The non-dairy farms cover various types of farms. On average, small-scale farms had 5 cows, suckler farms 31 adult cows, young cattle rearing farms 66 animals, and beef cattle farms 449 animals.

Dairy farms: In the first quarter of 2017, there were 17,278 dairy farms with cattle in the Netherlands. Dutch dairy farms had on average 104 animals older than two years in the first quarter of 2017. The ratio of young stock rearing farms to dairy farms was 11.9 percent in this quarter (fourth quarter 2016: 11.6 percent).

Antimicrobial resistance of mastitis pathogens

If pathogenic bacteria are cultivated during bacteriological examination, a susceptibility test can be requested in order to determine the antibiotics to which these bacteria are resistant under laboratory conditions. This allows the veterinarian to make a motivated choice of a certain antibiotic to treat the infection in question. GD Animal Health

collects the results in order to monitor the development of resistance patterns of bacteria over a longer period of time. The examined isolates came from cattle with (sub-)clinical mastitis, for which the practitioner requested bacteriological testing by GD Animal Health. The resistance percentages shown in table 1 are therefore not necessarily representative for the Dutch dairy sector as a whole. It remains important to map out any resistance patterns at individual farms.

Information which 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 Ministry of Economic Affairs (EZ) and the livestock farming sector consisting of the Dutch inter-branch organisations DairyNL (ZuivelNL) and the Calf Industry Association (SBK) are co-financing the surveillance programme.

Short news

- **BVD:** 53 percent of dairy farms has BVD-virus free status or BVD-bulk milk antibody unsuspected status (2016: 49 percent) and 6 percent of the non-dairy farms has BVD-virus free status (2016: 5 percent).
- **IBR:** 64 percent of dairy farms has IBR-virus free status or IBR-bulk milk antibody unsuspected status (2016: 60 percent) and 13 percent of the non-dairy farms has IBR-virus free status (2016: 12 percent).
- **Salmonella:** The first round of bulk milk monitoring via Qlip showed 92 percent favourable results.
- **Liver fluke infection detected at 79 farms in the first quarter of 2017.** At two farms (a sheep farm and a mixed dairy and sheep farm), active monitoring via faeces and pathological examination showed liver fluke resistance to triclabendazol. See figure 1 for an overview of the number of infections detected during the 2016 infections season.

Liver fluke infection detected (2016)

Total number of farms = 315

■ 30-79 farms
■ 13-29 farms
■ 6-12 farms
■ 1-5 farms

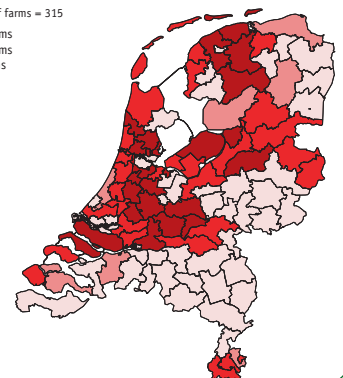


Figure 1
Number of farms where a liver fluke infection was detected, per two-figure postcode area, based on samples (faeces, blood and necropsy) submitted to GD Animal Health in the 2016 infection season (1 April 2016 to 1 April 2017)

(source: GD-LIMS)



Table 1 Percentage of mastitis pathogens cultured from milk, which are resistant to antibiotics (2013 through first quarter of 2017).

Percentage "intermediately sensitive" isolates has been added between brackets, if ≥ 5 percent (source: GD-LIMS)

Bacteria		2017 first quarter	2016	2015	2014	2013
<i>Staph. aureus</i>	<i>Number of isolates</i>	234	784	889	787	1126
	Amoxicillin+clavulanic acid/Cloxacillin/Nafcillin	0.4	1	1	2	2
	Ampicillin/(Benzyl)penicillin	8	7	9	9	10
	Cefalexin	0.4	1	1	2	2
	Cefoperazone/Cefquinome	0.4	1	1	2	2
	Dihydrostreptomycin	0 (5)	0.7	1	2	3
	Erythromycin/Tylosin	0	0.7	1 (10)	2 (18)	4 (28)
	Kanamycin	0	1	0	1	0.5
	Lincomycin/Pirlimycin	0	0.7	2	2	4
	Neomycin/Framycetin	0	0	0	0	1
Trimethoprim-sulfonamides	2	0.7	0.2	0.2	0	
<i>Coag.-neg. Staphylococcus</i>	<i>Number of isolates</i>	112	455	480	662	926
	Amoxicillin+clavulanic acid/Cloxacillin/Nafcillin	14	12	20	23	11
	Ampicillin/(Benzyl)penicillin	43	45	49	51	40
	Cefalexin	14	12	20	23	11
	Cefoperazone/Cefquinome	14	12	20	23	11
	Dihydrostreptomycin	4	4	4	5	5
	Erythromycin/Tylosin	9 (5)	7	7 (16)	10 (18)	14 (30)
	Kanamycin	1	2	1	1	2
	Lincomycin/Pirlimycin	15	13	14	15	14
	Neomycin/Framycetin	1	0	0	1	2
Trimethoprim-sulfonamides	4	2	1	2	1	
<i>Strept. agalactia</i>	<i>Number of isolates</i>	26	29	17	30	23
	Cloxacillin/Nafcillin	0	0	0	0	0
	Ampicillin/(Benzyl)penicillin/Amoxicillin+clavulanic acid	0	0	0	0	0
	Cefalexin	0	0	0	0	0
	Erythromycin/Tylosin	0	21	0	10	7
	Lincomycin/Pirlimycin	0	17	0	17	18
	Trimethoprim-sulfonamides	0	0	0	0	0
<i>Strept. dysgalactiae</i>	<i>Number of isolates</i>	115	325	374	397	541
	Cloxacillin/Nafcillin	0	2	0	0	2
	Ampicillin/(Benzyl)penicillin/Amoxicillin+clavulanic acid	0	1	0	0	0
	Cefalexin	0	1	0	0	2
	Erythromycin/Tylosin	10	5	5	7	10
	Lincomycin/Pirlimycin	15	10	13	13	17
	Trimethoprim-sulfonamides	0	0.3	0	1	0



Table continuation

Bacteria		2017 first quarter	2016	2015	2014	2013
<i>Strept. uberis</i>	<i>Number of isolates</i>	152	653	731	758	1075
	Cloxacillin/Nafcillin	0	0.8	0.4	1	1
	Ampicillin/(Benzyl)penicillin/Amoxicillin+clavulanic acid	1 (9)	0 (5)	0	0	0.1
	Cefalexin	1 (9)	0 (5)	0	1	1
	Erythromycin/Tylosin	12	12	10	12	17
	Lincomycin/Pirlimycin	32	31	34	34	39
	Trimethoprim-sulfonamides	2	0.6	0	1	0
<i>Escherichia coli</i>	<i>Number of isolates</i>	181	1064	1118	1054	1407
	Amoxicillin+clavulanic acid	0.6	0.6	0	1	5 (9)
	Ampicillin	7	13	10	12	16
	Cefalexin	7	13	10	12	16
	Cefoperazone/Cefquinome	0.6	0.6	0	1	1
	Danofloxacin/Marbofloxacin	1	0.5	0	1	1
	Dihydrostreptomycin	7	12	10	14	17
	Kanamycin	4	6	4	6	8
	Neomycin/Framycetin	3	5	4	4	8
	Trimethoprim-sulfonamides	7	10	9	11	12

Animal Health Situation in the Netherlands

ANIMAL DISEASE	DUTCH SITUATION	Surveillance – Highlights First Quarter 2017
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.
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 blood samples from slaughtered cattle and bulk milk.	No infections detected.
Lumpy skin disease (LSD)	Officially free.	No infections detected.
Anthrax	Not detected since 1994.	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	Officially free since 1999.	No infections detected.



Table continuation

ANIMAL DISEASE	DUTCH SITUATION	Surveillance – Highlights First Quarter 2017
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</i> ssp. <i>venerealis</i> and <i>Trichomonas foetus</i>	Last infection with <i>Campylobacter foetus</i> ssp. <i>venerealis</i> detected by surveillance in 2009.	No infections detected.
Leptospirosis	0.8 percent of non-dairy farms had animals with antibodies.*	99 percent of dairy farms has L. hardjo free status.
Listeriosis	Main source is poorly preserved grass silage.	One infection detected at necropsy.
Salmonellosis	9.5 percent of non-dairy farms had animals with antibodies.*	Infection detected at 795 farms by GD Animal Health (culture, antibodies in blood/milk). 92 percent favourable bulk milk results via national bulk milk monitoring by Qlip.
Yersiniosis	Detected occasionally in cattle, mostly in aborted fetuses.	No infections detected.
Other OIE-list diseases in the Netherlands subject to compulsory reporting		
BVD	8.7 percent of dairy farms had an indication of recent BVD-virus circulation**. 14.5 percent of non-dairy farms had an indication of recent BVD-virus circulation**.	Among dairy farms, 53 percent has BVD-virus free status or BVD-bulk milk antibody unsuspected status.
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, 64 percent has IBR-virus free status or IBR-bulk milk antibody unsuspected status. The field strain was detected in 21 percent of the 73 farms which submitted nasal swabs.
Paratuberculosis	99 percent of dairy farms has PPN (Paratuberculosis Programme Netherlands) status.	76 percent of which had status A (unsuspected).
Tick borne diseases	Ticks infected with <i>Babesia divergens</i> , <i>Anaplasma phagocytophylum</i> and <i>Mycoplasma wenyonii</i> are present in the Netherlands.	No infections detected.
Other infectious diseases in cattle		
MCF	Infections with <i>Ovine herpes virus type 2</i> occur occasionally.	No infections detected at necropsy.
Neosporosis	Important infectious cause of abortions.	Infections detected in 3 percent of submitted aborted fetuses.
Q fever	73 percent of dairy farms had antibodies in bulk milk**.	Three infections detected in aborted fetuses.

* Final Report Specific Monitoring 2013-2014; prevalence studies

** Final Report Specific Surveillance 2015-2016; prevalence studies

