

Monitoring

ANIMAL HEALTH



Leptospirosis infections in the Netherlands

In the first quarter of 2022, there was once again a large number of incoming cattle with a status lower than leptospirosis-free. The risk of infections with *Leptospira Hardjo* therefore increased at dairy farms, with major consequences for business operations (see figure).



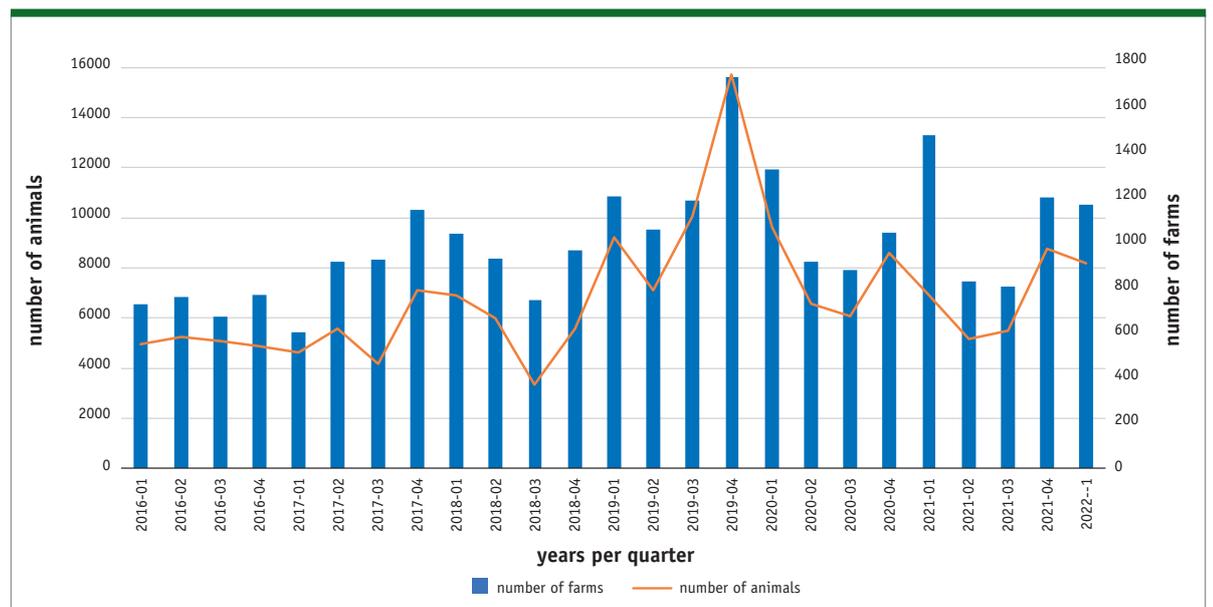
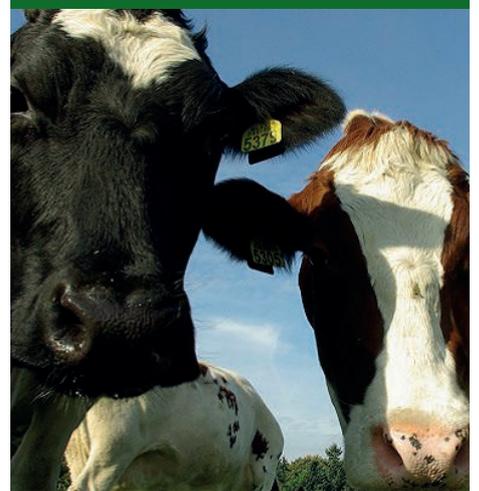
Linda van Wuijckhuise

Veekijker veterinarian Linda van Wuijckhuise: “*Leptospira Hardjo* is a disease that can be transferred from cattle to people. This was reason enough for the dairy sector to initiate a control programme back in 1994. This resulted in an extremely rapid decline in the number of infected farms (2021: a mere 0.7 percent of infected dairy farms and 0.8 percent of infected non-dairy farms). For many years, an active infection was detected at only one farm every two years. Unfortunately, we have seen an increase in re-infections in recent years (2020: 12 farms and 2021: 8 farms). The main cause is still the import of cattle. The (financial) consequences are severe for these farms. All the more reason to monitor the combating of this disease.”



Mona van Spijk

Mona van Spijk, Dutch Dairy Association: “The approach to leptospirosis is one of the old school approaches. It is therefore not the first thing that comes to mind among dairy farmers and their traders. Research has shown that incoming animals are an important source of introduction. It can be useful to check the incoming animals’ status. Such statuses are available to all dairy farmers and can be checked via VeeOnline (in the public register). It is more difficult to trace animals coming in from abroad, and you are then at greater risk as a dairy farmer. However, the consequences can be severe for affected farms. In the event of leptospirosis, infected animals must be disposed of and a large part of the herd will often require treatment (and the milk cannot be sold). The dairy farmer must draw up a plan of approach and provide an annual update in order to return to the leptospirosis-free status.”



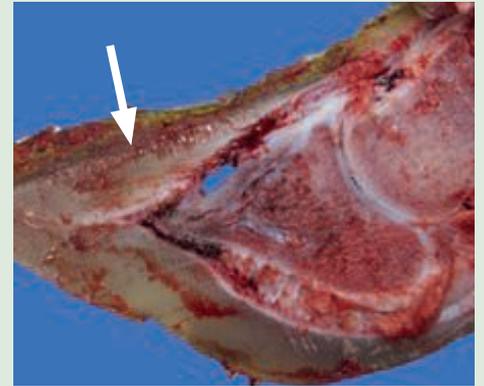
Incoming animals at dairy farms with a status lower than leptospirosis-free, per quarter from 2016-1 through 2022-1

As attention increases for diseases that can be passed from animals to people, it is essential that dairy farmers, traders and dairy organisations remain alert to the prevention of disease introduction. This can be achieved by implementing a number of measures: checking the status of incoming animals, keeping incoming animals separated until the results are known of the incoming animal test, and disposing of infected animals as quickly as possible.

Severe lameness of veal calves due to laminitis and necrotic coffin bone

In early February 2022, six veal calves suffering from severe lameness in more than one leg were submitted for pathological examination. The calves were aged between 12 and 15 weeks, and came from two different farms. Numerous veal calves suffering from this issue were detected at the farms. Laminitis was also discovered in all six calves. In one of the calves, the point of the coffin bone was also necrotic (see photo). As various factors

play a role in the development of laminitis, the cause of these issues could not be easily discovered. There were however signs of them being related to previous cases of rumen acidosis. This form of severe lameness had not previously been detected in (veal) calves. The literature refers to necrotic coffin bones in 'feed lot cattle', but then in relation to wear and tear to the sole.



Necrosis in the point of the coffin bone

Risk of intoxication with rat poison at a dairy farm

During a farm visit by the Veekijker-veterinarian, it was noticed that rat poison had been placed at the open concentrated feed station of the dairy cattle. Rats could drag the poison from the bait station, with the risk of it falling into the concentrated feed of the cattle. The literature describes the following clinical signs in case of oral ingestion of the poison: anaemia with varying

abnormal counts of red blood cells, blood in the faeces, pinpoint haemorrhaging on the mucosa, nosebleeds, internal haematomas and haemorrhaging in joints or claws, which can cause lameness. Based on the level of bromadiolone in the submitted poison and extrapolation of the data from laboratory animals, the GD toxicologist could determine that ingestion of 10 to 15 grams per adult cow

can already result in a longer coagulation time. The pest control operator was unaware of this. Action was taken at the farm to immediately move the rat poison to a less risky location. GD has been in contact with the umbrella organisation for pest control in order to alert this sector to the findings and the risks.

Uterine flushing using a substance registered for oral use

Following examination of poorly starting heifers, a practitioner discovered various sizes of adhesions and abscesses on the uterine wall. Upon questioning, it became

apparent that the farmer had been treating the heifers intra-uterine with a substance indicated for oral application for the treatment of metritis, on the advice of the

inseminator responsible for supervising fertility treatment.

Stall bedding and udder infections

A practitioner requested advice from the GD udder health team regarding a dairy farm with many cases of clinical mastitis without mastitis pathogens in the milk samples. After GD detected the presence of *Streptococcus lutetiensis* in one of the milk samples from this farm (ambient streptococci), it was time

for a closer look at the stall bedding. This was the thick fraction of the manure (dry matter percentage 35 percent) with straw pellets. The mixture was first ensiled (with minimum oxygen) under a tarpaulin. This may form a breeding ground for all kinds of anaerobic bacteria and ambient streptococci.

A veterinary practice will not always be able to identify them due to the limited options for examination. The stall bedding was adjusted and an antibacterial (limescale) product was applied.

Animal health of cattle in the Netherlands in the first quarter of 2022

VETERINARY DISEASES	SITUATION IN THE NETHERLANDS	Category (AHR)	Surveillance Highlights First Quarter 2022
Execution decree (EU) 2018/1882 of Animal Health Regulation (AHR) 2016/429 (Category A disease)			
Lumpy Skin Disease (LSD)	Viral infection. The Netherlands is officially disease-free.	A, D, E	Infections have never been detected.
Foot and Mouth Disease (FMD)	Viral infection. The Netherlands has been officially disease-free since 2001.	A, D, E	No infections detected.
Execution decree (EU) 2018/1882 of Animal Health Regulation (AHR) 2016/429 (Categories B through E)			
Bluetongue (BT)	Viral infection. The Netherlands has been officially disease-free since 2012 (all serotypes). Annual screening.	C, D, E	The Netherlands BTV-free.
Bovine genital campylobacteriosis	Bacterial infection. The Netherlands has been disease-free since 2009. Monitoring of AI and embryo stations, and in animals for export.	D, E	<i>Campylobacter fetus spp. venerealis</i> not detected.
Bovine Viral Diarrhoea (BVD)	Viral infection. Control programme compulsory for dairy farms, voluntary for beef cattle farms.	C, D, E	86 percent of dairy farms have BVD-free or BVD-unsuspected status.* This is 18 percent among voluntarily participating non-dairy farms. *BVD status determined on the basis of the GD programme.
Brucellosis (zoonosis, infection via animal contact or inadequately prepared food)	Bacterial infection. The Netherlands has been officially disease-free since 1999. Monitoring via antibody testing of blood samples from aborting cows.	B, D, E	No infections detected.
Enzootic Bovine Leucosis (EBL)	Viral infection. The Netherlands has been officially disease-free since 1999. Monitoring via antibody testing of bulk milk and blood samples of slaughtered cattle.	C, D, E	No infections detected.
Infectious Bovine Rhinotracheitis (IBR)	Viral infection. Control programme compulsory for dairy farms, voluntary for beef cattle farms.	C, D, E	78 percent of dairy farms have IBR-free or IBR-unsuspected status*. This is 20 percent among voluntarily participating non-dairy farms*. *IBR status determined on the basis of the GD programme.
Anthrax (zoonosis, infection via animal contact)	Bacterial infection. Not detected in the Netherlands since 1994. Monitoring via blood smears from fallen stock.	D, E	No infections detected.
Paratuberculosis	Bacterial infection. Control programme compulsory for Dutch dairy farms. 98 percent of dairy farms participate.	E	80 percent of dairy farms have Paratuberculosis Programme Netherlands (PPN) status A (unsuspected). More incoming animals with a lower status.

VETERINARY DISEASES	SITUATION IN THE NETHERLANDS	Category (AHR)	Surveillance Highlights First Quarter 2022
Rabies (zoonosis, infection via bites or scratch wounds)	Viral infection. The Netherlands has been officially disease-free since 2012 (illegally imported dog).	B, D, E	No infections detected.
Bovine tuberculosis (TBC) (zoonosis, infection via animal contact or inadequately prepared food)	Bacterial infection. The Netherlands has been officially disease-free since 1999. Monitoring via slaughtered cattle.	B, D, E	One infection detected.
Trichomonas	Bacterial infection. The Netherlands has been disease-free since 2009. Monitoring of AI and embryo stations, and in animals for export.	C, D, E	<i>Tritichomonas foetus</i> not detected.
Q fever (zoonosis, infection via dust or inadequately prepared food)	Bacterial infection. In the Netherlands, a different strain in cattle to that found on goat farms, with no established relationship to human illness.	E	One infection detected in submitted aborted foetuses.
Article 3a.1 Reporting of zoonoses and clinical signs 'Rules for Animal Husbandry' of the Dutch Animal Act			
Leptospirosis (zoonosis, infection via animal contact or inadequately prepared food)	Bacterial infection. Control programme compulsory for dairy farms, voluntary for beef cattle farms.	-	Two farms with antibodies in bulk milk. Again, more incoming animals with a status lower than leptospirosis-free. 97 percent of dairy farms have leptospirosis-free status.
Listeriosis (zoonosis, infection via inadequately prepared food)	Bacterial infection. Occasional infection detected in cattle.	-	Infections detected in two cattle submitted for necropsy and detected three times in aborted foetuses.
Salmonellosis (zoonosis, infection via animal contact or inadequately prepared food)	Bacterial infection. Control programme compulsory for dairy farms, voluntary for beef cattle farms.	-	98.1 percent of dairy farms had favourable bulk milk results (national programme).
Yersiniosis (zoonosis, infection via animal contact or inadequately prepared food)	Bacterial infection. Detected occasionally in cattle, mostly in aborted foetuses.	-	One infection detected. Cultivated once at necropsy.
Regulation (EC) No 999/2001			
Bovine Spongiform Encephalopathy (BSE)	Prion infection. The Netherlands has OIE status 'negligible risk'. No cases detected upon monitoring since 2010 (total 88 cases between 1997-2009).	-	No infections detected.
Other infectious diseases in cattle			
Malignant Catarrhal Fever (MCF)	Viral infection. Infections with Ovine herpes virus type 2 occur occasionally in the Netherlands.	-	Two infections detected at necropsy.
Liver fluke	Parasite. Liver fluke is present in the Netherlands, particularly in wetland areas.	-	Infections detected at 29 farms and in none in cattle submitted for necropsy
Neosporosis	Parasite. An important infectious cause of abortion in the Netherlands.	-	Infections detected in five submitted aborted foetuses.
Tick borne diseases	Vector borne diseases. Ticks infected with <i>Babesia divergens</i> , <i>Anaplasma phagocytophilia</i> and <i>Mycoplasma wenyonii</i> are present in the Netherlands.	-	No infections detected.

Table continuation

VETERINARY DISEASES	SITUATION IN THE NETHERLANDS
From monitoring	
Data analysis up to and including the fourth quarter of 2021	<p>Internal steatosis is still high and increasing in cattle older than 1 year submitted for pathology.</p> <p>Cattle mortality (older than 1 year) at dairy farms has stabilised but is still higher than expected at suckler cow farms.</p> <p>The pathology of calves at dairy farms was reasonably stable for infectious lung and intestinal problems.</p> <p>The percentage of veal calves submitted for pathological examination that tested positive for <i>C. parvum</i> decreased, while the percentage of calves submitted with pleuritis increased.</p>
Resistance to antibiotics at dairy farms	<p>Percentage of gentamycin-resistant <i>Escherichia coli</i>-isolates increased in the first quarter of 2022 and increased over the past three years.</p>
Resistance to antibiotics at non-dairy farms	<p>No abnormalities.</p>



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 Royal GD. 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.