International Collating Centre: Summary Report

(1 October to 31 December 2022)

The International Collating Centre (ICC), is overseen by Equine Infectious Disease Surveillance (EIDS) and is generously supported by contributions from Fédération Equestre Internationale (FEI), International Thoroughbred Breeders' Federation (ITBF) members, Japanese Racing Association and Lanwades Stud.

National and international equine disease outbreaks are reported on a daily basis by the ICC, through email alerts. Please contact equinesurveillance@gmail.com to receive these. There is also a website available that provides an interactive interface of these infectious disease reports and can also be used to view current outbreak reports, https://equinesurveillance.org/iccview/.

This article provides a summary of international disease outbreaks during the fourth quarter of 2022. It should also be noted that additional summary reports were kindly received that included further information on disease occurrence for that country, but which had not been reported in previous real-time ICC reports. This additional information is identified by *or # in the tables and text, where relevant, throughout this report.

The data presented in this report *must be interpreted with caution*, as there is likely to be some bias in the way that samples are submitted for laboratory testing and subsequently reported. Consequently these data do not necessarily reflect true infectious disease frequency within the international equine population. A country with no reported outbreaks of a disease does not necessarily equate to the disease not being present in that country. Each table below summarises the number of disease outbreaks reported by a country. Each reported outbreak may involve more than one animal.

Reproductive Diseases

Country	CEM	EHV-1	EHV-4	*Salmonella abortus equi*
France	-	1	2	-
Germany	4	-	-	-
Japan	-	#4	-	#2
South Africa	-	#1	-	-

#some cases reported by ICC after the quarter end

Contagious Equine Metritis (CEM)

Germany

Four outbreaks of CEM were reported. Three outbreaks involved single cases on premises in; Lower Saxony, North Rhine Westphalia and Schleswig-Holstein, and one outbreak involved two cases on a premises in North Rhine Westphalia. Positive diagnoses were confirmed by PCR on genital swabs.

Equine Herpes Virus-1 (EHV-1) Abortion

France

One case of EHV-1 abortion was reported in a Thoroughbred mare on a premises in Calvados. Positive diagnosis was confirmed by PCR on placental tissues.

Japan

#Four outbreaks of EHV-1 abortion, each involving single cases in Thoroughbreds, were reported after the quarter end. Two of the animals were vaccinated. Positive diagnoses were confirmed by Loop mediated isothermal amplification (LAMP).

South Africa

#One case of EHV-1 abortion in the Western Cape Province was reported after the quarter end.

Equine Herpes Virus-4 (EHV-4) Abortion

France

Two outbreaks of EHV-4 abortion were reported; one case in a 14-year-old French Trotter and one case in a 13-year-old Thoroughbred, on separate premises in Calvados. Positive diagnoses were confirmed by PCR on fetal organs and PCR on placental tissues.

Salmonella abortus equi

#Two outbreaks of *Salmonella abortus equi,* each involving a single case in a non-Thoroughbred, were reported after the quarter end. Positive diagnoses were confirmed by agent isolation.

Respiratory Conditions

Country	EHV-1	EHV-1/ -4	EHV-4	Flu	Flu/ EHV-4	R. equi	Strangles	Strangles /EHV-1	Strangles /EHV-4
Belgium	-	-	3	2	-	-	#3	-	-
France	-	-	1	#2	-	-	5	-	-
Germany	1	1	-	-	-	-	1	-	-
Netherlands	1	-	1	2	-	-	5	2	-
Switzerland	-	-	-	-	-	1	#7	-	-
UK	-	-	#20	#28	-	-	-	-	-
USA	-	-	2	11	1	-	#25	-	1

#some cases reported by ICC after the quarter end

Equine Herpes Virus-1 (EHV-1) Respiratory Infection

Germany

One case of EHV-1 respiratory infection was reported on a premises in Lower Saxony. Clinical signs included: dullness, inappetence, dyspnoea and recumbency. Positive diagnosis was confirmed by PCR on a nasal swab and by serology.

Netherlands

One case of EHV-1 respiratory infection was reported in a vaccinated animal on a premises in North Brabant. Clinical signs included: pyrexia, lethargy and nasal discharge. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

Equine Herpes Virus-1/-4 (EHV-1/-4) Respiratory Infection

Germany

One case of EHV-1/-4 respiratory infection was reported in a nine-year-old animal on a premises in North Rhine Westphalia. Clinical signs included pyrexia. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab

Equine Herpes Virus-4 (EHV-4) Respiratory Infection

Belgium

Three outbreaks of EHV-4 respiratory infection were reported. One outbreak involved several cases with co-infections of EHV-2 and EHV-5 on a premises in East Flanders. The other outbreaks involved single cases: one with a co-infection of EHV-2 and EHV-5 on a premsies in Limburg, and one with a co-infection of EHV-2 on a premises in East Flanders. Clinical signs included pyrexia. Positive diagnoses were confirmed by PCR on nasal swabs.

France

One outbreak of EHV-4 respiratory infection was reported in two vaccinated yearling French Trotter fillies on a premises in Manche. Clinical signs included: pyrexia, coughing, nasal discharge and lymphadenopathy. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Netherlands

One case of EHV-4 respiratory infection was reported on a rearing premises in Friesland. Clinical signs included: pyrexia, nasal discharge and lymphadenopathy. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

UK

Twenty outbreaks of EHV-4 respiratory infection were reported. Seventeen outbreaks involved single cases on premises in; Ayrshire, Berkshire, Buckinghamshire, Essex, Gloucestershire, Hampshire, Hertfordshire, Herefordshire, Kent, Lincolnshire, Northumberland, North Yorksire, Pembrokeshire, Shropshire and West Yorkshire. One outbreak involved two cases on premises in Gloucestershire. Three of the outbreaks had co-infections with *Streptococcus zooepidemicus*. Clinical signs included: pyrexia, coughing, inappetence, lethargy, limb oedema, lymphadenopathy, nasal discharge and ocular discharge. Positive diagnoses were confirmed by PCR or LAMP (Loop-mediated Isothermal Amplification) on either: nasopharyngeal swabs, nasal swabs or trachael washes. Two additional outbreaks were reported after the quarter end; one involving two cases and the other a single case with a co-infection of *Streptococcus zooepidemicus,* on separate premises in the Scottish Borders.

USA

Two outbreaks of EHV-4 respiratory infection were reported. One outbreak consisted of a single case on a premises in Wisconsin, and one outbreak with six cases on a premises in Washington.

<u>Equine Influenza (EI)</u>

Belgium

Two outbreaks of EI were reported; one outbreak consisting of a single case on a premises in Antwerp and one outbreak with two cases on a premises in Flemish Brabant. Clinical signs included: coughing, nasal discharge and pyrexia. Positive diagnoses were confirmed by PCR on nasal swabs.

France

Two outbreaks of EI were reported. One outbreak involved two cases on a premises in Vienne and the other was a single case in a three-year-old Saddlebred filly on a premises in Loiret which was reported after the quarter end[#]. Clinical signs included: coughing, nasal discharge, ataxia and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyneal swabs.

Netherlands

Two outbreaks of EI were reported, consisting of single cases on premises in; Friesland and North Holland. Clinical signs included: lethargy, nasal discharge and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

UK

Twenty-eight outbreaks of EI were reported, with 21 of these involving single cases on premises in; Cheshire, Conwy, Devon, Dumfries & Galloway, East Yorkshire, Essex, Fife, Gloucestershire, Herefordshire, Hertfordshire, Kent, Lancashire, Leicestershire, Monmouthshire, Northamptonshire, Oxfordshire, Somerset, South Yorkshire and Staffordshire. Four outbreaks consisted of two cases on premises in: Gloucestershire, Lancashire, Oxfordshire, and South Yorkshire. One outbreak involved three cases and one a group of horses, on a premises in Lincolnshire and Derbyshire respectively. [#]One further case was reported after the quarter end in an unvaccinated three-year-old cob gelding on a premises in Lancashire. The majority of cases were unvaccinated non-Thoroughbreds. Six cases were in imported animals and seven cases were new arrivals onto the affected premises. Clinical signs included: conjunctivitis, coughing, inapptence, lethargy, lymphadenopathy, nasal discharge and

ocular discharge. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

USA

Eleven outbreaks of EI were reported, eight of which involved single cases on premises in: Alabama, Rhode Island, Washington and Wisconsin. Two outbreaks consisted of two cases on separate premises in Washington and Wisconsin, and one outbreak involved three cases on a premises in Washington. One of the animals on the Wisconsin premises also tested positive for EHV-1. Clinical signs included: coughing and bilateral nasal discharge.

Rhodococcus equi

Switzerland

One case of Rhodococcus equi was reported on a premises in the Canton of Vaud. Positive diagnosis was confirmed by culture.

Strangles

Belgium

Three outbreaks of strangles, each consisting of single cases in unvaccinated animals, were reported on premises in; East Flanders, Hainaut and Limburg. #The case in Limburg was reported after the quarter end and one case additionally had a co-infection of EHV-2. Clinical signs included: coughing, nasal discharge, lymph node abscessation and pyrexia. Positive diagnoses were confirmed by PCR on nasal/nasopharyngeal swabs.

France

Five outbreaks of strangles were reported, each consisting of single cases on premises in; Aude, Bouches-du-Rhone, Dordogne, Gironde and Pas-de-Calais. Clinical signs included: coughing, nasal discharge, lethargy, lymphadenopathy and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Germany

One outbreak of strangles was reported on the German/Swiss border. Clinical signs included pyrexia and petechiae. Positive diagnoses were confirmed by PCR.

Netherlands

Five outbreaks of strangles were reported, all involving single cases in mainly unvaccinated animals on premises in: Drenthe, Limburg, North Holland and South Holland. Clinical signs included: abscessation, enlarged submandibular lymph nodes, inappetence, nasal discharge, respiratory stridor after exercise and pyrexia. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Switzerland

Seven outbreaks of strangles were reported, five relating to single cases on premises in the Cantons of; Aargau, Bern, Solothurn, Vaud and Zurich and one outbreak involving more than one case on a premises in the Canton of Lucerne. #An additonal single case on a premises in the Canton of Aargau was reported after the quarter end. Clinical signs included: pyrexia and respiratory tract signs. Positive diagnoses were confirmed by PCR.

USA

Twenty-five outbreaks of strangles were reported, 22 of which involved single cases on premises in; Colorado, Florida, Indiana, Michigan, Washington and Wisconsin. One outbreak involved five cases on a premises in Wyoming. Clinical signs included: choke, draining abscesses, ruptured submandibular lymph nodes, lymphadenopathy, nasal discharge, pyrexia and respiratory signs. #Two additional outbreaks were reported after the quarter end, both of which involved single cases on premises in Florida and Michigan

Strangles and EHV-1 co-infection

Netherlands

Two outbreaks of strangles, with a co-infection of EHV-1, were reported; one outbreak involved a single case on a premsies in North Brabant, and the other involved several cases on a premises in Gelderland. Clinical signs included: anorexia, coughing, dyspnoea, nasal discharge, pyrexia and ruptured lymph node abscesses. Positive diagnoses were confirmed by PCR on nasopharyngeal swabs.

Strangles with a EHV-4 co-infection

USA

One case of strangles was reported, with a co-infection of EHV-4, in a weanling on a premises in Washington. Positive diagnosis was confirmed by PCR.

Gastrointestinal Diseases

Country	Coronavirus	Rotavirus A
Switzerland	1	-
Argentina	-	#2

#some cases reported by ICC after the quarter end

Coronavirus

Switzerland

One outbreak of coronavirus was reported on a premises in the Canton of St Gallen. Clinical signs included diarrhoea and pyrexia. Positive diagnosis was confirmed by PCR on faecal material.

Rotavirus A

Argentina

#Two outbreaks of rotavirus A, on separate premises, were reported in Thoroughbreds after the quarter end. In both outbreaks affected foals presented with mild diarrhoea but the age groups affected differed; being a group of 2-3 month old foals on one presmises, compared to a group of 1-2 month old foals on the other premises. Positive diagnoses were confirmed by ELISA and PCR.

Neurological Diseases

Country	Botulism	EEE	EEV	EHV	EHV-1	EHV-1/-4	EHV-4	Tick-Borne Encephalitis	WNV
Canada	-	-	-	-	1	-	-	-	-
France	-	-	-	-	-	-	-	-	7
Germany	-	-	-	-	1	-	-	-	-
Greece	-	-	-	-	-	-	-	-	4
Italy	-	-	-	-	-	-	-	-	9
Mexico	-	1	-	-	-	-	-	-	-
South Africa	-	-	#1						
Switzerland	-	-	-	-	#1	1	-	1	-
UK	-	-	-	-	-	-	-	-	1
USA	1	3	-	2	6	-	1	-	20

#some cases reported by ICC after the quarter end

Botulism

USA

One outbreak of botulism was reported, involving 15 animals on a Quarter Horse breeding farm in Louisiana. Two animals died within 48 hours of the onset of clinical signs, and a further 10 were

euthanased due to rapid deterioration. Clinical signs included: regional, progressing to whole body, muscle tremors, signs of agitation, repeatedly getting up and down, lateral recumbency, decreased tongue tone, hypoesthesia of the distal limbs, and limb paddling whilst recumbent. Investigations identified the source to be contamination of alfalfa hay cubes with *Clostridium botulinum type c* toxin.

Eastern Equine Encephalitis (EEE)

Mexico

One outbreak of EEE was reported in three working animals on communal farming land in the municipality of Aldama. All animals died and positive diagnoses were confirmed by viral isolation.

USA

Three outbreaks of EEE were reported, each consisting of single cases on premises in: Indiana and Ohio. Clinical signs included: ataxia, pyrexia and recumbency.

Equine Encephalosis Virus (EEV)

South Africa

#Equine Encephalosis Virus (EEV) is regarded as endemic in South Africa and individual cases were reported from the provinces of Gauteng and Kwa Zulu Natal, after the quarter end.

Equine Herpes Virus (EHV) Neurological Disease

United States of America

Two outbreaks of EHV neurological disease were reported, each consisting of single cases on premises in Virginia and Washington. Clinical signs included: ataxia, depression, colic signs and recumbency. Both animals were euthanased.

Equine Herpes Virus-1 (EHV-1) Neurological Disease

Canada

One case of EHV-1 neurological disease was reported on a premises in Quebec. The animal developed severe neurological signs and was euthanased.

Germany

One case of EHV-1 neurological disease was reported on a premises in North Rhine, Westphalia. Clinical signs included pyrexia and ataxia. Positive diagnosis was confirmed by PCR on a nasopharyngeal swab.

Switzerland

#One case of EHV-1 neurological disease was reported after the quarter end on a premises in the Canton of Basel-Landschaft. Clinical signs included pyrexia and central nervous system signs. Positive diagnosis was confirmed by PCR.

USA

Six outbreaks of EHV-1 neurological disease were reported. Five outbreaks consisted of single cases on premises in; California, Indiana, North Dakota, and Virginia and one outbreak involved seven cases at Churchill Downs, a racetrack premises in Kentucky. Clinical signs included: hindlimb ataxia, neurological signs and urine dribbling. Two of the affected animals in the outbreaks involving single cases have been euthanased.

Equine Herpes Virus-1/-4 (EHV-1/-4) Neurological Disease

Switzerland

One case of EHV-1/-4 neurological disease was reported on a premises in the Canton of Basel-Landschaft. Clinical signs included: central nervous system signs. Positive diagnosis was confirmed by PCR.

Equine Herpes Virus-4 (EHV-4) Neurological Disease

USA

One case of EHV-4 neurological disease was reported on a premises in Florida. Clinical signs included ataxia.

Tick-Borne Encephalitis Virus (TBEV)

Switzerland

One case of TBEV was reported on a premises in the Canton of Graubünden. Clinical signs included central nervous system signs. Positive diagnosis was confirmed by serology.

West Nile Virus (WNV)

France

Seven outbreaks of WNV, each involving a single case, were reported on premises in; Gironde, Haute-Corse and Var. Clinical signs included ataxia and pyrexia. In one case, positive diagnosis was confirmed by ELISA.

Greece

Four outbreaks of WNV were reported. Two outbreaks involved single cases on premises in Central Macedonia and Polygyros, and the other two outbreaks consisted of two cases each on separate premises in Central Macedonia. Positive diagnoses were confirmed by IgG ELISA.

Italy

Nine outbreaks of WNV were reported, each consisting of single cases on premises in the; Province of Caserta, Province of Catania, Province of Palermo and Province of Trapani. Two of the reported cases were in donkeys.

UK

One case of WNV was reported in an unvaccinated animal, that had been attending a competition in southern Spain for several weeks, and developed clinical signs during its return journey to the UK. Clinical signs included: abnormal posture, gait abnormalities, muscle fasciculations, reluctance to lower the neck, progressing to ataxia and hindlimb weakness. Positive diagnosis was confirmed by IgM antibody detection ELISA on a serum sample.

United States of America

Twenty outbreaks of WNV were reported, each consisting of single cases on premises in; California, Florida, Georgia, Kansas, Kentucky, Michigan, Minnesota, Missouri, Oklahoma, Texas and Utah. A spectrum of neurological signs were reported.

Miscellaneous Diseases

Country	AHS	EIA	Pigeon Fever	Piroplasmosis	Potomac Horse Fever
Canada	-	2	-	-	-
Italy	-	4	-	-	-
Nigeria	1	-	-	-	-
South Africa	#2	-	-	#4	-
USA	-	7	24	-	1

#some cases reported by ICC after the quarter end

African Horse Sickness (AHS)

Nigeria

One outbreak of AHS was reported on a premises in Lagos State, Nigeria. The outbreak involved 10 animals among a group of 44 domestic horses, of which 33 were reported to be vaccinated. There were six fatalities and positive diagnoses were confirmed by RT-PCR on samples obtained at necropsy

of clinically affected, fatal cases.

South Africa

#It was noted that AHS is endemic in South Africa, except for within the AHS controlled area in the Western Cape Province. Sporadic cases were reported after the quarter end from the following provinces: Gauteng (3 cases), and Kwa-Zulu Natal (2 cases).

Equine Infectious Anaemia (EIA)

Canada

Two outbreaks of EIA, each involving a single case, were reported on premises in Alberta. Both cases were asymptomatic and were identified following routine testing for export.

Italy

Four outbreaks of EIA were reported, each involving a single case, on premises in; Province of Caserta, Province of Cuneo, Province of Roma and Province of Salemo. Three of these cases were in mules.

USA

Seven outbreaks of EIA were reported. Six outbreaks involved single cases on premises in; Kentucky, North Carolina and Texas, and one outbreak consisted of two cases on a premises in Washington.

Pigeon Fever

USA

Twenty-four outbreaks of Pigeon Fever were reported, one of which was a single case on a premises in Washington. The other 23 outbreaks were reported in Nevada; highlighting the normal spike in cases seen in the autumn.

Piroplasmosis

South Africa

#Piroplasmosis is regarded as endemic in South Africa and after the quarter end cases were reported from the following provinces: Gauteng (8 cases), Western Cape (6 cases), Mpumalanga (2 cases), and North West Province (1 case).

Potomac Horse Fever (PHF)

United States of America

One case of PHF was reported on a premises in Washington.

A serological and qPCR survey in Korea in 2022

A serological survey of horses raised in South Korea, was performed to identify the possible presence of the following diseases: African Horse Sickness (AHS), Vesicular Stomatitis(VS), Equine Infectious Anemia (EIA), Equine Viral Arteritis (EVA), Japanese Encephalitis (JE), West Nile Fever (WNF) and Equine Influenza (EI).

Serum samples were collected from 1,348 horses including, Thoroughbred stallions, broodmares, racehorses, ponies, and riding Horses. Sample collections were performed by the Korea Racing Authority (KRA) and the tests were conducted by the Animal & Plant Quarantine Agency (APQA) of South Korea.

African Horse Sickness (AHS)

All samples tested negative with commercially available ELISA test kits (INGENASA, Spain) and VN test. All Culicoides spp. collected from five locations of KRA, tested negative for antigen.

Vesicular Stomatitis (VS)

All samples tested negative with commercially available ELISA test kits and VN test.

Equine Infectious Anemia (EIA)
All samples tested negative with commercially available ELISA test kits and AGID test.

West Nile Fever (WNF)
All samples tested negative with commercially available IgM Antibody Capture ELISA test kits and VN test.

Equine Viral Arteritis (EVA)
All samples tested negative with commercially available ELISA (IDVET; Spain) and VN test.

Japanese Encephalitis (JE)
Viral Neutralisation tests were performed and 86.1% (1159/1346) of samples tested positive for antibody. All seropositive results were due to vaccination.

Equine Influenza (EI)
Haemagglutination Inhibition tests were performed and 94.7% (1275/1346) of samples tested positive for the presence of antibodies. All seropositive results were due to vaccination.

A serological survey for Piroplasmosis in 2022
A serological survey for Piroplasmosis was conducted on serum samples (n=339) from various Thoroughbred stallions, broodmares, racehorses, ponies, riding horses, etc. stabled at KRA racetracks and both KRA and private farms, in the first and second half of year. Testing was performed by Korea Racing Authority (KRA) of Republic of Korea.

Piroplasmosis *(B. Caballi, T. equi)*
A commercially available cELISA (Antibody test kit; VMRD USA; OIE authorized method) was performed and all samples (339/339, 100%) tested negative for *B. Caballi* and *T. equi*.

A serological survey for Surra in 2022
A serological survey for Surra was conducted on serum samples (n=339) from various Thoroughbred stallions, broodmares, racehorses, ponies, riding horses, etc. stabled at KRA racetracks and farms. Testing was performed by Korea Racing Authority (KRA) of Republic of Korea.

Surra *(T. evansi)*
All samples tested negative with commercially available CATT/T.evansi kit.

2022 PCR survey for Contagious Equine Metritis (CEM)
KRA conducted and examination for CEM on 2,102 samples from Thoroughbred stallions and broodmares, registered in the Korean studbook (http://studbook.kra.co.kr).

Contagious Equine Metritis
All 2102 samples tested negative by qPCR on venereal swabs.This is in comparison to the 0.05% (1/2193) of samples which tested positive for CEM in 2021. This testing and results follows the first outbreak of CEM in Korea, in 2015. The CEM survey will be continued until the confirmation of a disease-free status for Korea.

Surveillance of contagious equine metritis in Japan

Chihiro Fujisawa, Administration of Japanese council of equine health

The first outbreak of Contagious Equine Metritis (CEM) in Japan occurred in 1980 within the Hidaka-Iburi district of Hokkaido, which is a major Thoroughbred breeding area. During that year, 321 mares and stallions were diagnosed as positive for CEM by the isolation of *Taylorella equigenitalis.* A CEM eradication program started in 2001 with the onset of PCR testing; all registered Thoroughbred stallions and mares, including teasers and those not used for breeding, were investigated by PCR prior to the start of the breeding season each year. The results of the program are summarised in Table 1. Stallions and mares returning PCR positive test results were treated and re-tested until three consecutive sets of negative results on PCR were obtained, or, were euthanased if the infection could not be cleared with treatment. In 2011, following evaluation of the collected epidemiological data by experts at the Liaison Council for Prevention and Control of Equine Infectious Diseases in Japan, it was concluded that CEM had been eradicated from Japan by 2010.

Table 1. Results of the eradication program for CEM with PCR test in Japan.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Registered stallions	411	412	389	351	331	305	281	282	311	269
Registered mares	12411	12276	11499	11130	10670	10297	10253	10263	9872	10765
PCR-tested horses	12356	12762	12124	12152	11769	12650	12738	12261	12305	11796
Positive stallions	1	0	0	0	0	0	0	0	0	0
Positive mares	10	4	2	1	1	0	0	0	0	0

Some of the stallions and mares had multiple PCR testing each year. Two in 2001, one in 2002, 2004, and 2005 PCR-positive mares were culled and the other mares and the stallions were treated. Numbers of registered stallions and mares are total true head counts of Thoroughbreds registered for breeding for racing in Japan.

Since 2011 extraction surveillance has been implemented. Under this scheme all stallions have to be tested by PCR, and return negative results, at least once before the onset of the breeding season each year and most are also re-tested at the end of the season. All mares have to be tested at least once before their first mating, and on every occasion that they present with clinical signs of endometritis. Since the onset of this scheme no positive test results had been recorded, until 2021 (Table 2). Japanese breeding and racing authorities will continue to carry out this surveillance programme and report the results to the ICC.

Table 2. Results of the extraction CEM surveillance by PCR test.

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Registered stallions		253	240	263	230	223	232	248	236	241	267	280
PCR-tested stallions		425	479	459	465	509	467	475	465	449	480	484
Tested mares	Before first mating of life	906	1024	1170	1067	1072	1133	1204	1196	1292	1258	1183
	Presenting endometritis	23	1	277	328	287	303	285	267	256	318	309
Positive stallions		0	0	0	0	0	0	0	0	0	0	0
Positive mares		0	0	0	0	0	0	0	0	0	0	0

Active surveillance of equine infectious anemia among racehorses in Japan

Chihiro Fujisawa, DVM. Administrator of Japanese Counsel of Equine Health

Since the Japanese Ministry of Agriculture, Forestry and Fisheries (JMAFF) concluded that Japan had eradicated Equine Infectious Anemia (EIA) in 2017, the Japanese horseracing industry (consisting of the Japan Racing Association (JRA) and all racecourses held by governments), have been implementing voluntary sampling surveillance for EIA since 2020. In 2022, a sample of greater than 58 horses was randomly selected from each training centre or racecourse with a population size ranging from approx. 300 to 2000 horses. Serum samples were taken in the autumn of 2022 and tested for EIA by agar gel immunodiffusion (AGID),

with a 95% confidence level (Cannon and Roe, 1982. Livestock disease surveys, a field manual for veterinarians).

Table 1 shows the results of this surveillance. No EIA positive horses were detected, suggesting that the prevalence of EIA in the Japanese racehorse population is less than 5 %, with a 95% confidence level.

Table 1 shows the results of EIA surveillance using AGID testing in 2022.

Training center (TC) /Racecourse (RC)	JRA/municipal government	Sampling size	Positive horses
Miho TC	JRA	60	0
Ritto TC	JRA	60	0
Obihiro RC	Hokkaido	60	0
Monbetsu RC	Hokkaido	60	0
Morioka RC	Iwate	60	0
Mizusawa RC	Iwate	60	0
Oi RC	Tokyo	60	0
Urawa RC	Saitama	59	0
Funabashi RC	Chiba	60	0
Kawasaki RC	Kanagawa	60	0
Kanazawa RC	Ishikawa	60	0
Kasamatsu RC	Gifu	60	0
Nagoya RC	Aichi	60	0
Sonoda RC	Hyogo	60	0
Kochi RC	Kochi	60	0