

news from Member Countries

Self-declarations

Other than for African horse sickness, bovine spongiform encephalopathy, classical swine fever, contagious bovine pleuropneumonia, foot and mouth disease and peste des petits ruminants, for which the OIE currently has a procedure of official recognition of status, the self-declaration of freedom of a country or a territory from a given OIE-listed disease is under the responsibility of the Member concerned. The OIE is not responsible for inaccuracies in the publication of self-declarations concerning the status of a country or zone with regard to a disease.

Self-declaration of a temporary equine-disease-free zone (EDFZ) by Brazil for the Rio 2016 Olympic and Paralympic Games

Self-declaration sent to the OIE on 26 November 2015 by Dr Guilherme Henrique Figueiredo Marques, Delegate of Brazil to the OIE, Director, Animal Health Department (DSA), Ministry of Agriculture, Livestock and Supply (MAPA), Brasilia

Background

The city of Rio de Janeiro will host the Rio 2016 Olympic and Paralympic Games from 5 to 21 August and from 7 to 18 September 2016, respectively.

To facilitate the international participation of competition horses in equestrian events, the OIE, during its November 2014 visit to Brazil, advised Brazil's official Veterinary Services to apply the principles of the concept of a high-health equine subpopulation, as set out in Chapter 4.16., 'High health status horse subpopulation', of the *Terrestrial Animal Health Code* (the *Terrestrial Code*). Brazil was also advised to apply the equine-disease-free zone (EDFZ) principles to the Olympic Equestrian Centre (EQC), where the equestrian competitions will be held, to establish a temporary equine disease-free zone.

In 2015, Brazil set out its health requirements for temporary imports of horses to compete in the Olympic Games. These official standards comply with the concept of high-health, high-performance (HHP) horses. Brazil also established a temporary EDFZ in the EQC, delineating a high-surveillance zone around the EDFZ, including all adjoining establishments that hold horses or have any epidemiological link with the EDFZ, and a biosecurity corridor that extends from the EQC to the Antônio Carlos Jobim International Airport (Galeão) (AIRJ), including the road connecting them.

This temporary EDFZ adheres to the OIE recommendations for EDFZs, in addition to the zoning and compartmentalisation principles described in Chapters 4.3. and 4.4. of the *Terrestrial Code*.

EDFZ – Aims, boundaries, health and biosecurity conditions

Brazil's self-declaration of the EDFZ to the OIE aims to demonstrate the biosecurity features and conditions of the EQC and its surroundings to OIE Member Countries and competing countries sending horses to the Games. It also describes the veterinary services provided in these centres, and Rio de Janeiro State's current sanitary status for notifiable diseases. The EDFZ self-declaration, which safeguards the health of all animals (imported or domestic), is backed up by the official legal framework that forms the basis of Brazil's commitment to guaranteeing the fulfilment of

health and biosecurity measures, including those related to horses competing in the Games.

The equestrian events will be held inside the EDFZ, indicated with a red label in Figure 1. The EDFZ is inside the Deodoro Military Complex and has been identified as the EQC by the Games' Organisers. Its roads, structures and geographical features are identified and delineated in Figure 2.

On 8 April 2015, under the supervision of the Veterinary Services, all 139 animals housed in the EQC were transferred to other premises in the Deodoro Military Complex known as 'Sector 4'. The depopulation operation prescribed by the Veterinary Services was implemented in the EDFZ on 8 April



Fig. 1
EDFZ boundaries
(see red label)



Fig. 2

Urban thoroughfares enclosing the EDFZ

1. Rua Salustiano Silva; 2. Via Trans Olímpica; 3. Military Police Academy of Rio de Janeiro State; 4. Aeronautics (Campo dos Afonsos); 5. Parachute Brigade; 6. Escola de Aperfeiçoamento de Oficiais (EsAO); 7. Vila Militar Barracks; 8. Avenida Duque de Caxias; 9. Rio Maranga



Fig. 3
Demarcation of biosecurity corridor between the Olympic Equestrian Centre and Antônio Carlos Jobim International Airport

2015 and will remain in force until the end of the Paralympics in September 2016. Thus a 16-month depopulation period will last until the Olympic Games start in August 2016. Before the resident horses were evacuated from the EDFZ, they were regularly subjected to laboratory tests for glanders and equine infectious anaemia (EIA) in line with Brazil's official equine transit regulations. These animals, under strict military control and constant veterinary supervision and clinical inspection by Army technical staff, were also subject to a strict vaccination protocol, on a half-yearly or annual basis, depending on the immunogen, and were vaccinated against equine influenza, tetanus, rabies, encephalomyelitis, leptospirosis and strangles (*Streptococcus equi*). A routine preventive internal and external parasite treatment was also in place.

The Veterinary Services assessed and approved the Biosecurity Plan presented by the Organising Committee of the Games as complying with the International Equestrian Federation's (FEI) Biosecurity Manual, which stipulates measures to minimise the risk of diseases in horses. The Plan includes a detailed description of the entire perimeter enclosure; control of animal and human entry, exit and transit; the availability of trained personnel; access and movements of personnel; stable and installation cleaning and disinfecting procedures; horse-box cleaning procedures; surveillance for arthropod vectors, pests and invasive animals (such as dogs,

cats and pigeons); the animal isolation unit; veterinary care; stable safety and management; veterinary care in the stables and restrictions on the entry of other animals, with the exception of guide dogs and tracker dogs.

The enclosure conditions are regularly checked to enforce strict controls on roaming dogs and other invasive animals from neighbouring localities that could pose a risk of disseminating disease.

Biosecurity corridor – Biosecurity boundaries and conditions

A biosecurity corridor of approximately 28km in length has been set up between the EQC and AIRJ to bolster official controls of the EDFZ, as illustrated in Figure 3.

There are no registered clusters of horses near the roads along the route designated for animal movements between the AIRJ and EDFZ, as the area is residential and entirely built up.

Biosecurity measures have been set up for animal disembarkation and admission into the EDFZ, to be applied in the AIRJ and also during transit, such as clinical check-ups of the animals on board the aircraft, clinical inspection of the animals on disembarkation, disinfection of the landing ramp and horse boxes and a Games Committee biosecurity team accompanying the animals, with an ambulance and public security escort team throughout the journey.

High-surveillance zone –

Boundaries and active surveillance study

All installations with clusters of horses and records of horse movements in the Deodoro Military Complex have been identified and subjected to active surveillance (clinical inspection, diagnostic tests) for the main notifiable equine diseases, as shown in Figure 4.

The study was terminated when at least two negative results had been obtained in the diagnostic tests for glanders for each animal. In addition, all the animals were guaranteed clinically healthy through daily clinical inspections.

In July 2015 the Veterinary Services applied the above protocols to conduct an active surveillance study of the main notifiable equine

The following protocol and guidelines were developed for the surveillance system in force:

- a)** a total ban on the entry and exit of animals for any reason whatsoever, from all units that hold horses, into and from the Deodoro Military Complex until total completion of the clean-up and seroepidemiological process;
- b)** characterisation of the region; daily clinical surveillance inspections for the main notifiable infectious and contagious equine diseases, including equine infectious anaemia, Eastern and Western equine encephalomyelitis, vesicular stomatitis, glanders, equine piroplasmosis, rabies and equine influenza; and identification of all animals in all facilities involved;
- c)** use of three sequential tests, including a complement fixation test and a Western Blot, in Sector 4 animals (affected establishment), and an agar gel immunodiffusion (AGID) test for EIA. The Western Blot test was carried out by the OIE Reference Laboratory for Glanders, the Friedrich-Loeffler Institute, Germany;
- d)** in the other facilities involved in the study, a complement fixation test and a Western Blot test were sequentially adopted for diagnosing glanders and the entire population was submitted to an AGID test for EIA.

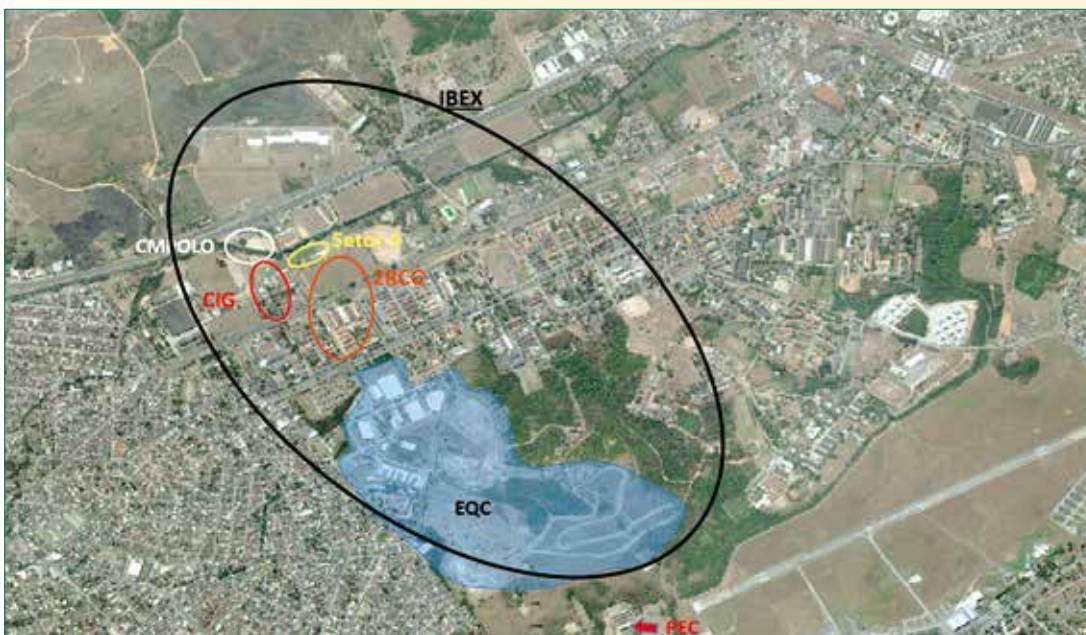


Fig. 4

Horse clusters in the Deodoro Military Complex

EQC/EDFZ (depopulated); Sector 4 (139 animals); 2RCG/2nd Cavalry Regiment School (170 animals); CIG/Gericinó Training Centre (73 animals); and CMPOLO/Military Circle of Polo (67 animals)

diseases in the facilities identified in Figure 4, based on daily clinical inspections of the animals, backed up by laboratory examinations for EIA and glanders.

The study also extended to the platoon of the RJ Military Police Cavalry School (PEC), because of its geographical proximity to the equine event area (adjoining the Complex perimeter) and because it has 89 horses, in addition to an establishment in another RJ district, the São Cristóvão Equestrian Centre, which has 46 animals, because of the recurring transit link between this establishment and the 2nd Cavalry Regiment School. The study initially covered a total of 584 horses.

The study was conducted as the result of an epidemiological link investigation with an outbreak of glanders in another Brazilian state, Espírito Santo, whose outcome proved that one of the animals considered as a confirmed case of the disease had

been stabled in the Deodoro Military Complex from February to November 2014 while it was affected. This link triggered immediate investigations in the Sector 4 establishment of the Deodoro Military Complex, including clinical and epidemiological assessment and sampling, and complement fixation tests were conducted in the whole horse population housed in that sector. Following this, a positive result was achieved on 30 June 2015 from additional Immunoblotting – Western Blotting tests.

It was decided that other guideline measures would be enforced, such as prohibiting the entry of all animals to any of the Deodoro Military Complex installations that hold horses, and daily clinical inspection of all animals, and that the study would only be terminated when at least two consecutive negative results had been obtained in

Table I
Equine diseases present in Rio de Janeiro State

Number of cases in Rio de Janeiro State, by disease and year							
Disease	2010	2011	2012	2013	2014	2015	2016 *
Equine infectious anaemia	261	221	279	178	158	119	26
Eastern equine encephalomyelitis	0	0	3	0	0	0	0
Vesicular stomatitis	0	0	0	6	0	0	0
Glanders	0	0	2	0	0	2	0
Equine piroplasmiasis	1	1	0	35	2	8	1
Rabies	15	12	12	7	6	2	0
Equine influenza	Disease present in the country, no quantitative data available, with vaccination						

* January to April 2016

Table II
Equine diseases absent or never reported in Brazil

Equine diseases absent or never reported in Brazil	
Disease	Last case
Equine viral arteritis	Absent
Dourine	Absent
Western equine encephalomyelitis	07/2007 ¹
Venezuelan equine encephalomyelitis	Absent
Contagious equine metritis	Absent
African horse sickness	Absent
Surra	03/2012 ²

1. case in Paraná State

2. case in Pará State



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the diagnostic tests for glanders and the test for EIA for all of the animals in the Complex.

During the course of the study, a second animal was identified in the first sampling batch of Sector 4, which showed no signs of glanders but tested positive to Western Blot. This animal was immediately culled and autopsied to enhance the investigation. All the animals tested negative to the AGID test for EIA, with official results released by the MAPA, LANAGRO/MG Federal Laboratory on 3 August 2015.

No animals were observed with clinical signs compatible with notifiable infectious or contagious diseases.

The last area was cleared in October 2015, as it only housed animals that had tested negative consecutively in the two serological tests for glanders and complied with the various strict nationwide transit regulations. A total of 1,216 laboratory examinations were conducted for glanders.

Since then, the entire horse population in the area considered free of equine diseases has been continuously under veterinary supervision, for the purpose of early identification of any clinical sign of any notifiable equine disease. So far no animal has presented such clinical signs. The notifiable diseases and the notification protocol are described in MAPA Normative Instruction No. 50 of 24 September 2013.

Health status of Rio de Janeiro State with regard to equine diseases

Tables I and II illustrate the health status of Rio de Janeiro (RJ) State for the main notifiable equine diseases during the last six years, as well as for absent and never-reported diseases in Brazil.

Conclusion

In view of the epidemiological surveillance described above, the results and maintenance of biosecurity conditions in the Olympic Equestrian Centre (central zone of the EDFZ) and the high-surveillance zone, combined with the strict equine movement rules in the Deodoro Military Complex and the current depopulation of the Olympic Equestrian Centre, the Federative Republic of Brazil declares the area comprising the Olympic Equestrian Centre and its adjacent areas as a temporary Equine Disease-Free Zone, for hosting all the equestrian events of the Rio 2016 Olympic and Paralympic Games.

BRAZIL