Member's update on FMD, PPR and LSD

Japan

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World Organisation for Animal Health

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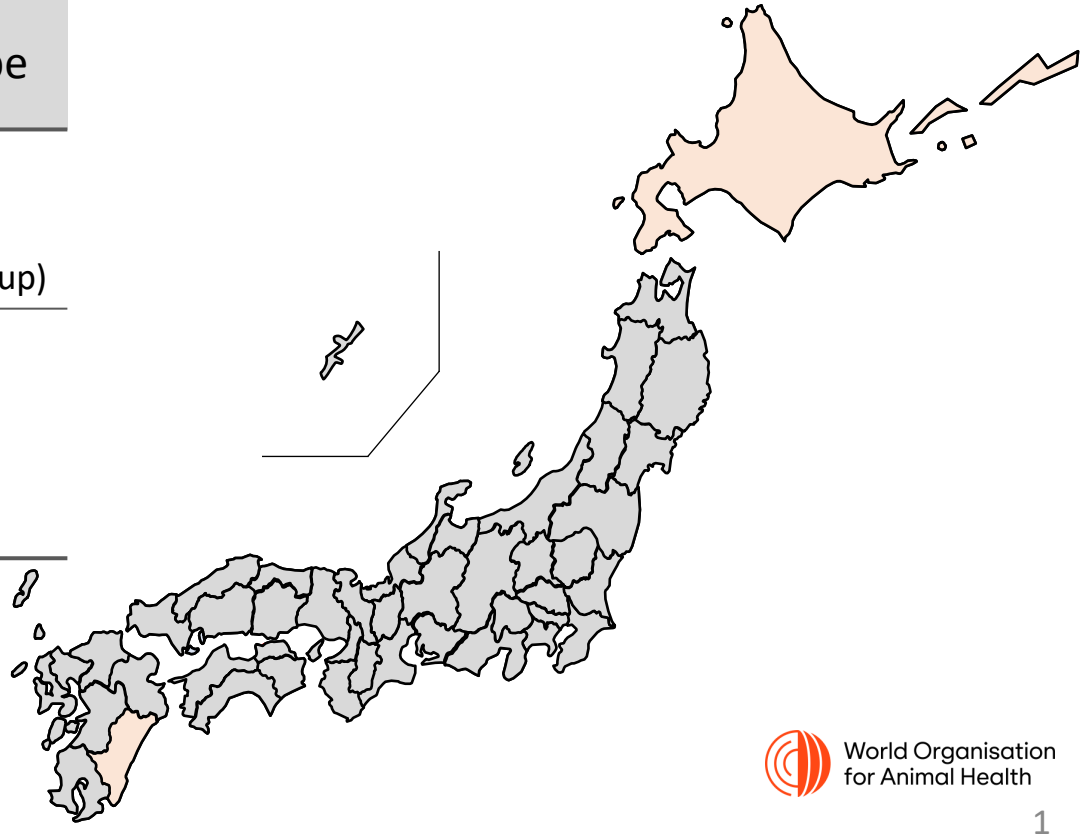
Ministry of Agriculture, Food and Rural Affairs

Disease situations: FMD

- Recent outbreaks occurred in **2000** and **2010**.
- Japan regained the free status from FMD without vaccination in **February 2011**.
- Japan has a stockpile of FMD vaccine for emergency use.

Year	Affected Prefectures	Affected Species	Number of culled animals	Virus Type
Mar-May 2000	Miyazaki Hokkaido	Cattle	740	Type O ME-SA (PanAsia group)
Apr-Jul 2010	Miyazaki	Cattle Pigs	More than 288 thousand animals incl. vaccinated animals	Type O SEA (Mya-98)



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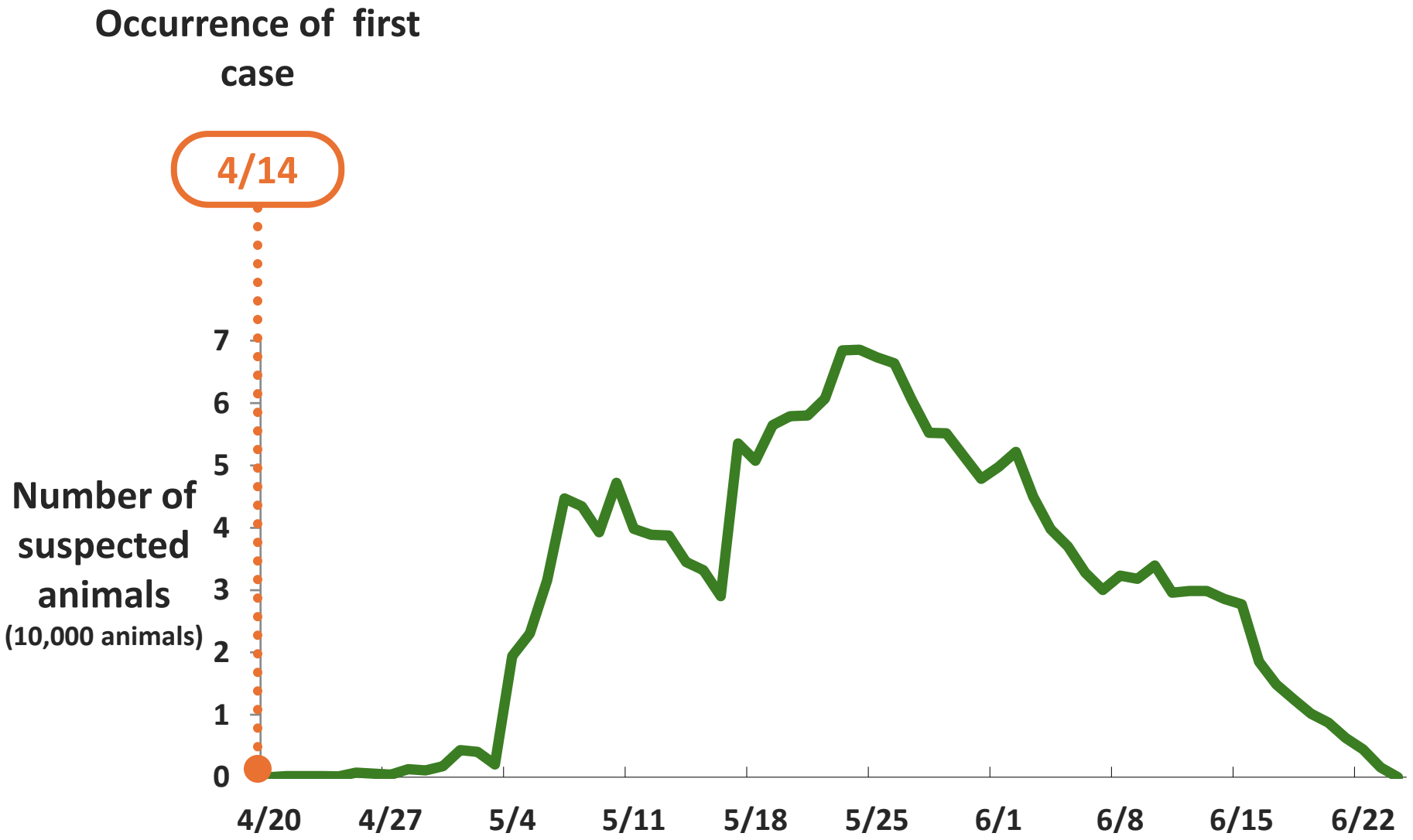
Disease prevention and control: FMD in 2010



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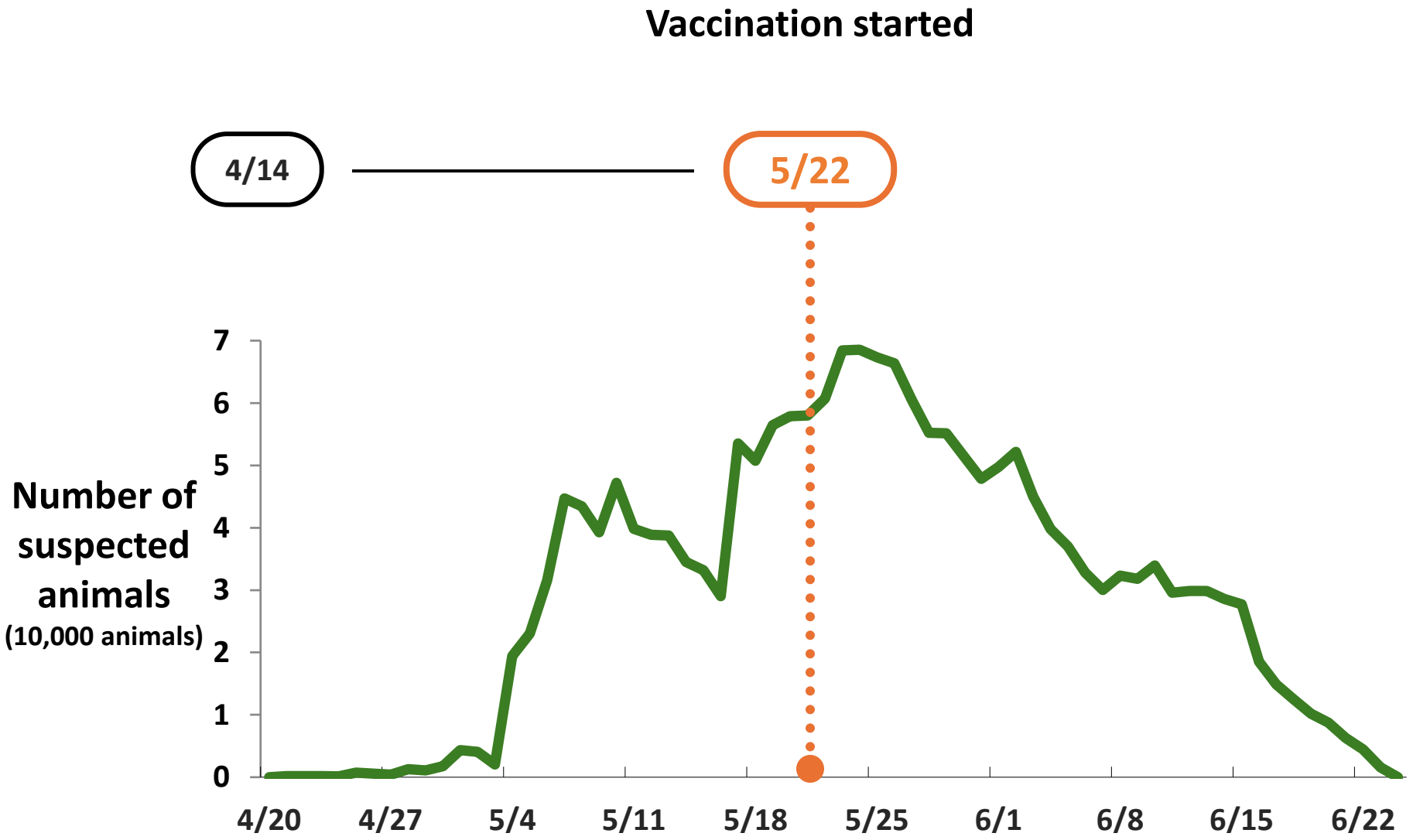

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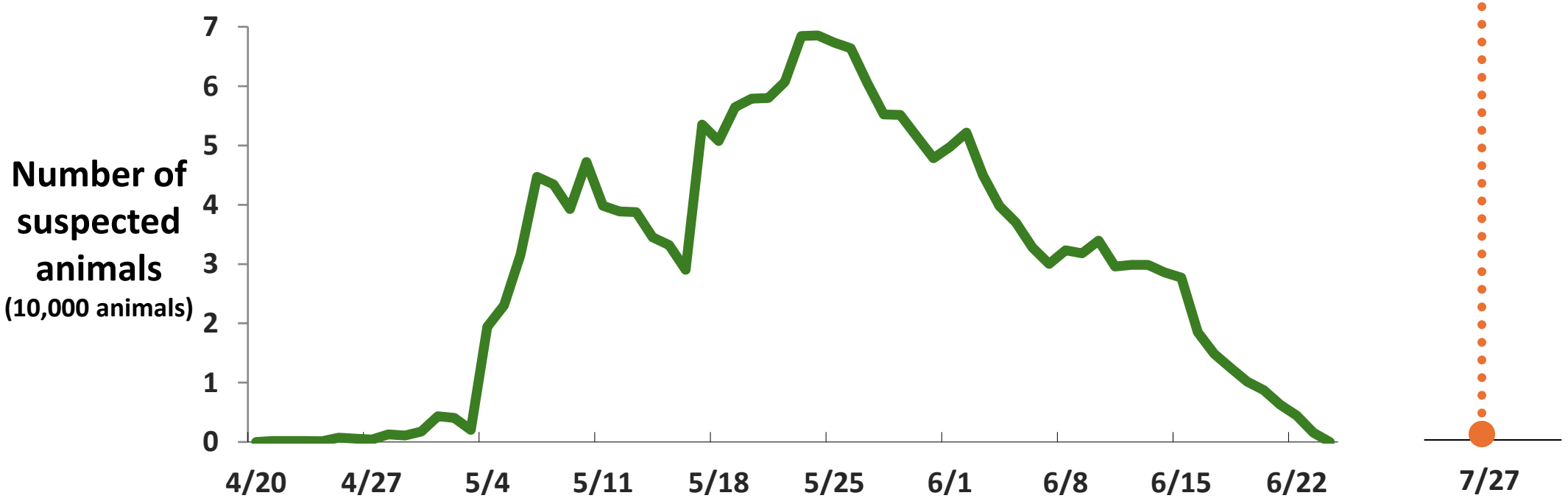
Disease prevention and control: FMD in 2010

All movement restrictions were lifted

4/14 — 5/22 — 7/27



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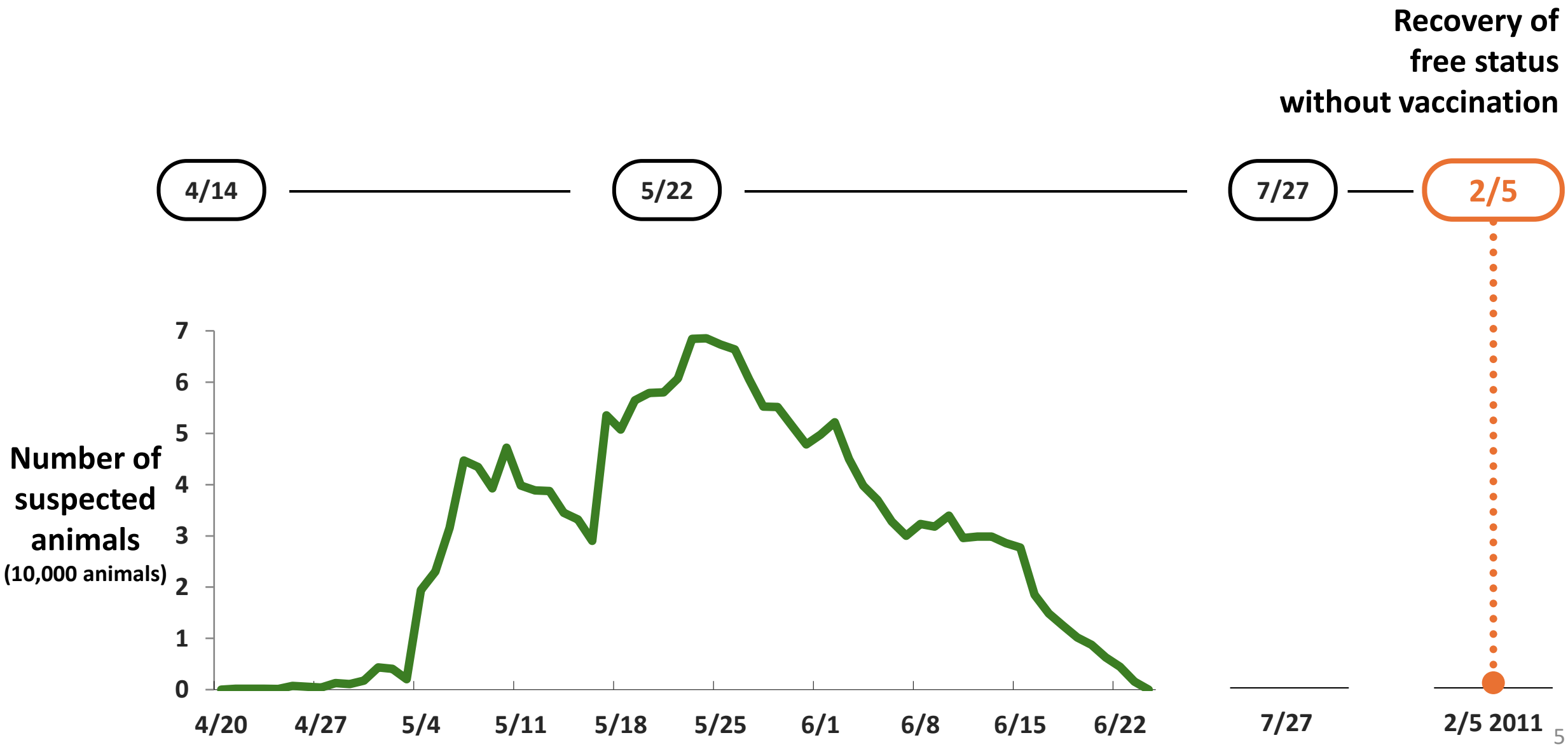
Disease prevention and control: FMD in 2010



Disease prevention and control: FMD in 2010

Stamping-out policy

- All cases and all susceptible animals kept on the same and epidemiologically related farms were **destroyed and buried**.

Emergency vaccination

- Emergency vaccinations targeted at all susceptible domestic animals kept **on unaffected farms in the Movement Restriction Zone (MRZ)** were started on 22 May 2010.
- Vaccination of more than 99 % of the targets was completed on 26 May 2010.
- All the vaccinated animals were **destroyed and buried** by 30 June 2010.

Serological surveillance

- **Serological surveillance** was conducted on all susceptible animals kept in the MRZ, as well as **clinical inspection**.
- The final FMD freedom surveillance was conducted to prove the absence of FMD virus in Japan after all MRZ were lifted.
- Wildlife samples were collected and showed negative results by serological surveillance.

All 2,124 samples tested negative.

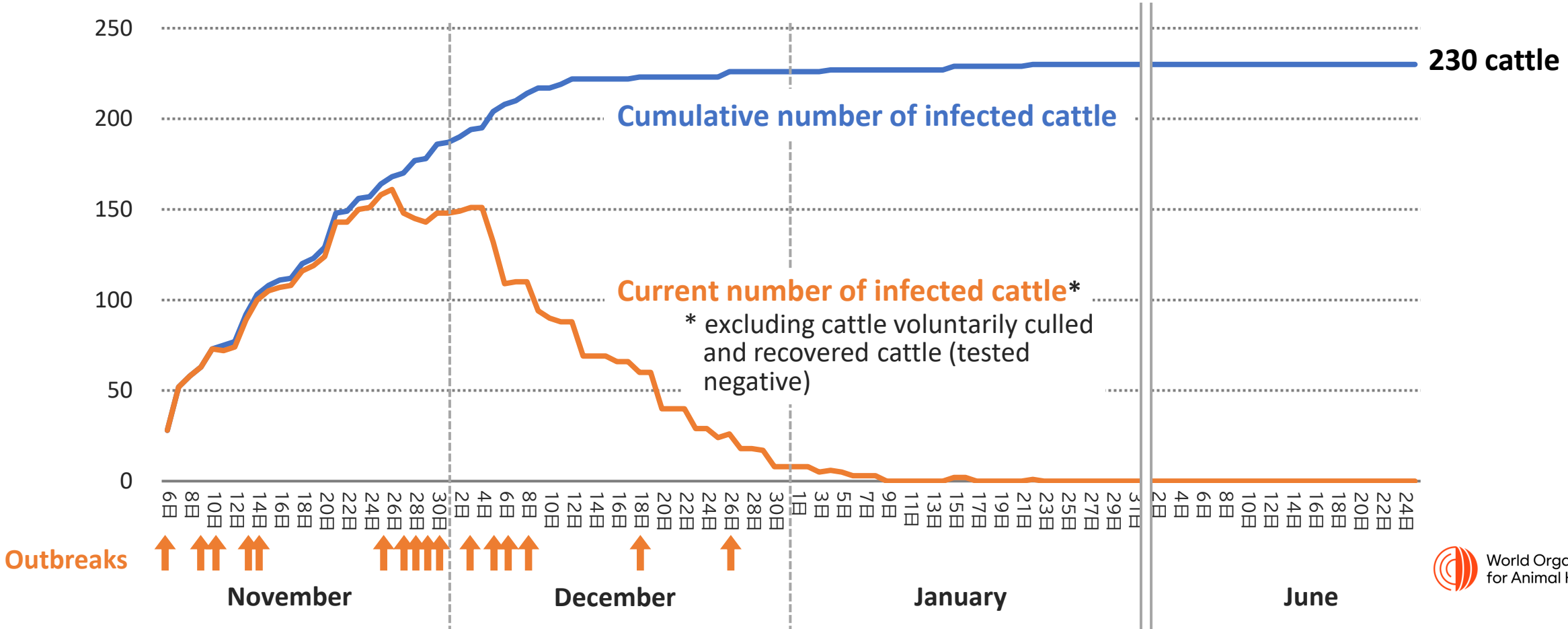
All 145 samples tested negative.
- deer, 46
- wild boars, 99

Disease situations: PPR

PPR has never been reported in Japan.

Disease situations: LSD

- The first outbreak of lumpy skin disease occurred on 2 farms on 6 November 2024.
- In total, **22 outbreaks** were confirmed and **230 cattle** were infected.
- As of 10 July, there is no infected cattle in Japan.



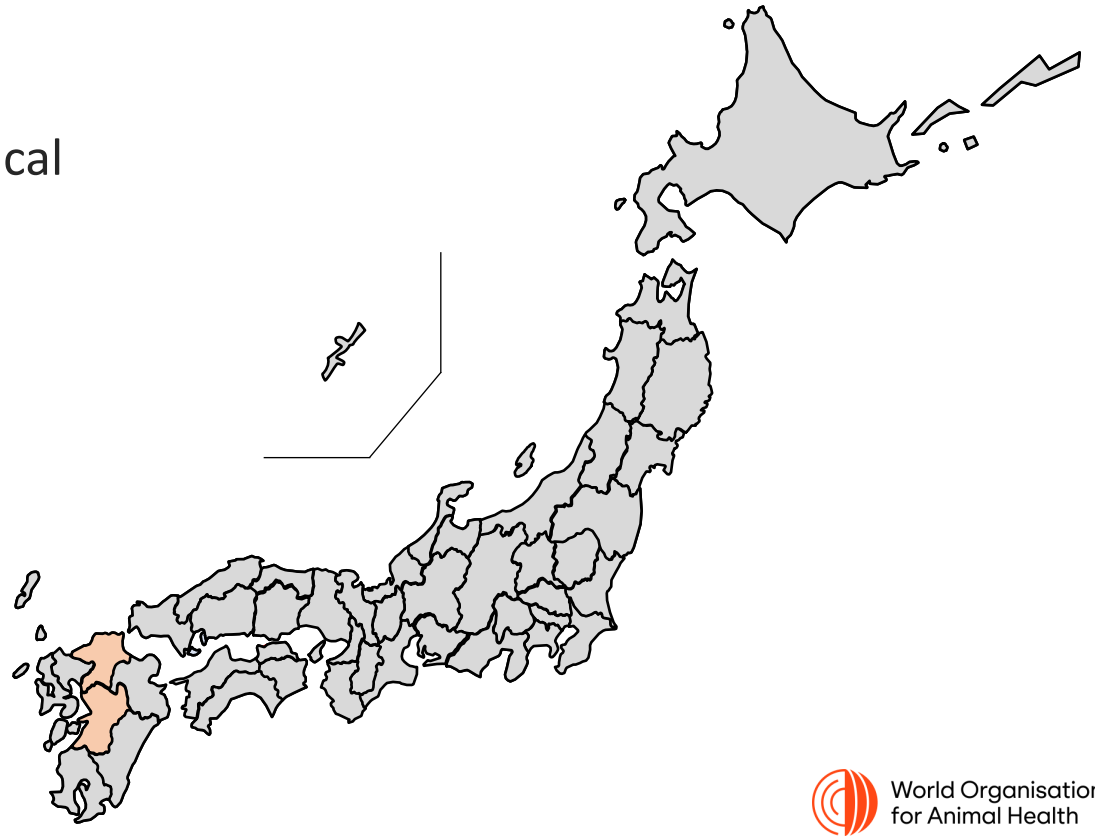
Results of epidemiology studies : LSD

How did LSD virus enter Japan?

- **Blood-sucking arthropods** carrying LSDV could be transported from neighbouring countries and regions to Japan :
  - by wind
  - by means of transport (e.g. vessel)
- Genomic analysis revealed that the virus was 100% identical to Asian epidemic strains.

How did LSD virus spread in Japan?

- LSDV is likely to have been transmitted mainly by blood-sucking arthropods.
  LSD outbreak occurred even on a farm at a distance of 35 km from the main affected area.
- Cattle moved from the affected farm is likely to have been a cause of transmission of LSDV in one case.



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Disease prevention and control: LSD

In response to the incursion of LSD into neighboring countries, MAFF established the "Guidelines for the Prevention and Control of Lumpy Skin Disease" in **January 2024**.

In accordance with the guidelines, the following measures were taken.

In affected farms

- Refraining from shipment of milk and semen
- Refraining from movement of live cattle to other farms
- Isolation of infected cattle
- Collection of information on movement of shipped cattle
- Voluntarily culling of infected cattle

Farms close to the affected farms

- Confirmation on the absence of suspected cattle (within a 10 km radius)
- Control of vector (within a 20 km radius)
- Vaccination conducted within a 20 km radius of the affected farms in one prefecture from November 21, 2024.

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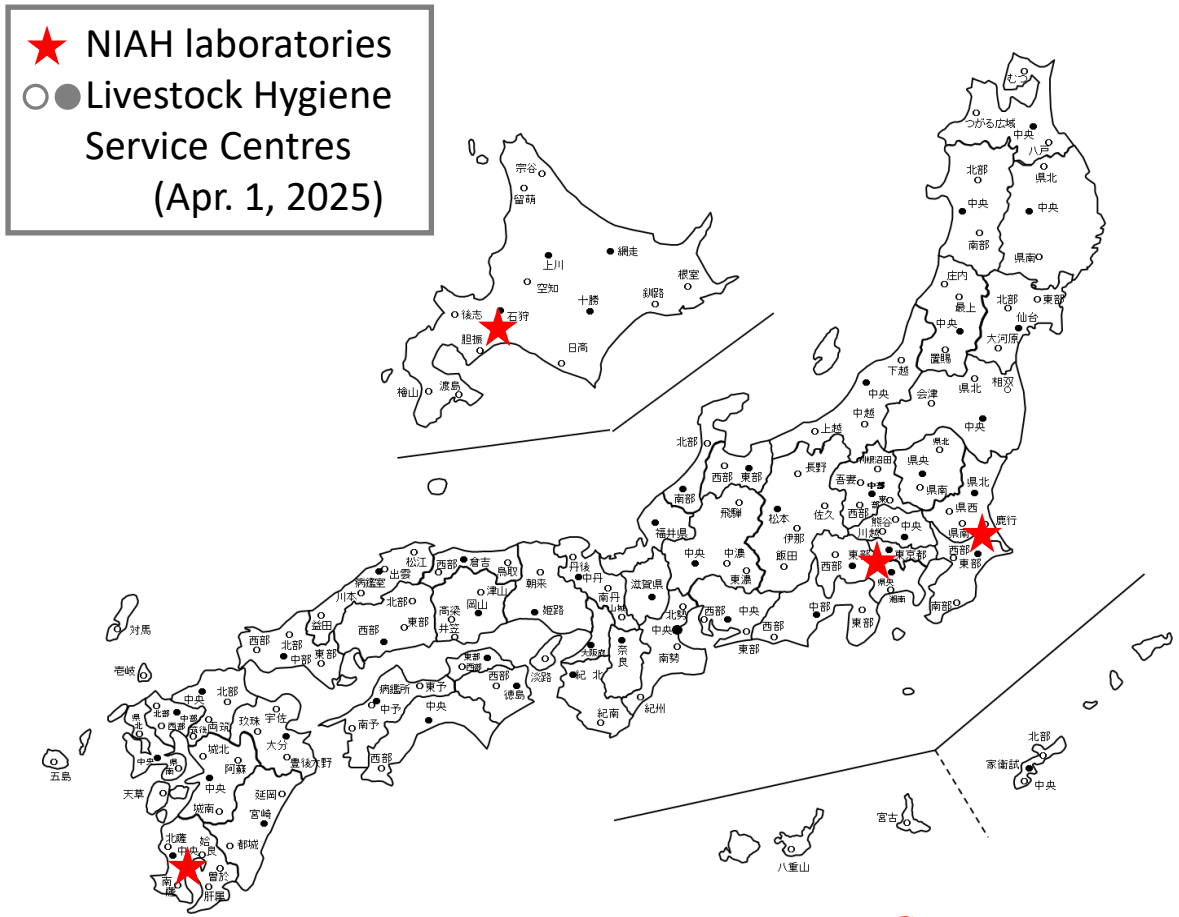
Laboratory capacity

- **National Institute of Animal Health (NIAH)** is the national reference laboratory for animal health that provides ‘confirmatory diagnosis’.
- NIAH, together with NVAL, is recognised as a WOAH Collaborating Centre for the ‘Diagnosis and Control of Animal Diseases and Veterinary Product Assessment in Asia’.
- Each of 117 **Livestock Hygiene Service Centres** has a laboratory; 50 of these laboratories are designated for advanced diagnosis.
- Livestock Hygiene Service Centres send samples to NIAH for confirmation if necessary.

  In the **first case of LSD** in each prefecture, the advanced diagnosis laboratories conduct confirmatory diagnosis and at the same time send samples to NIAH for confirmation.

Location of Livestock Hygiene Service Centres and National Institute of Animal Health



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Challenge and possible solutions: LSD

- Since LSD is “Notifiable Infectious Diseases” in Japan, **compulsory measures** are not taken.
- Given the continued risk of LSD outbreaks and spread within Japan, without sufficient control measures in the event of re-emergence, the disease could spread nationwide.
- A government ordinance will be established to permit the implementation of **compulsory measures**, equivalent to those for “Domestic Animal Infectious Diseases” in response to LSD outbreaks.

Before	After
Voluntarily culling of infected cattle	Culling of infected and suspected cattle when necessary to prevent the spread of LSD
Refraining from movement of live cattle	Restriction of movement of live cattle etc. when necessary to prevent the spread of LSD

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Proposal for future activities

- Report disease events and provide complete and timely data to WOAH through WAHIS
- Enhance laboratory diagnostic capabilities to rapidly detect circulating viruses and share virological information for the prevention and rapid control of infections
- Share knowledge and experiences in LSD control and eradication (e.g. side effects of LSD vaccine)

Thank you

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