

Kyoto Prefecture

The safe transportation of slaughtered livestock to prevent spread of disease



Situation

- Foot-and-mouth disease, a viral infectious disease that affects animals such as cattle, swine, and sheep, is regarded as high risk and requiring maximum international attention.
- Outbreaks of the disease can cause enormous economic damage in the livestock and other industries (In Japan, Miyazaki prefecture suffered damage of 235 billion yen in 2010).
- The only practical response to an outbreak is to prevent the spread of the virus by slaughtering all animals at any affected farm.
- When an outbreak happens in urban areas, affected animals need to be transported to remote area to secure land for burial. It was an urgent issue to establish a safe method that prevents the spread of the virus during transport.

Intervention

- Kyoto prefecture developed an airtight container for animal carcass transportation collaborating with a manufacturing company and a local university.
- The developed airtight container has high ability to seal in ultra small viruses and is strong enough to contain and transport a cow weighing as much as one ton. And even if the cow is incinerated whilst inside the container, no harmful substances are released.
- In the development process, technological capabilities of the manufacturing company and the gene level analytical skill of the university were utilised. And this technical know-how was practically applied with the Kyoto prefecture's experiences of other disease control.

Impact

- The three partners created a system enabling the supply of the equipment as a product and other several local governments have used the equipment in disease control drills or started stockpiling it in case of an outbreak.
- The team also jointly filed an international patent application under the Patent Cooperation Treaty.