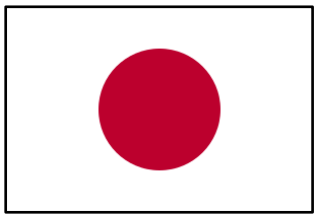
An installation of warming & deicing of disinfection pipeline in Cowshed (Barn) of dairy-farming located in Hokkaido – Japan



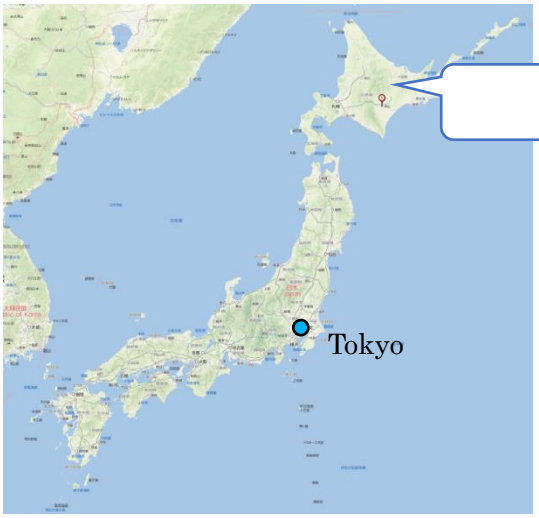
株式会社 カメダデンキ KAMEDA

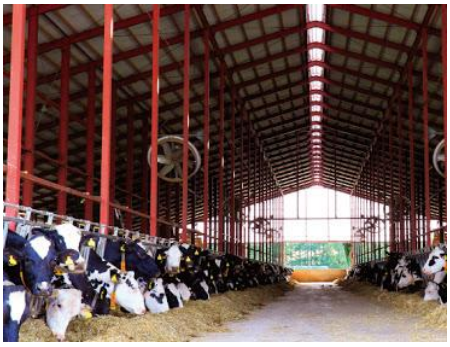
Kameda Denki Co., Ltd.

We are proudly reporting on significant contribution to the effort of preventing cattle disease known as Foot and Mouth Disease by installing the AHT's heating Ribbons in a cowshed located at the northern island (Hokkaido) of Japan.

The installation implements a concept of Amorphous Ribbons attached to cowshed disinfection system made of pipelines terminated with air mist nozzle to spray Hypochlorous acid water. The Amorphous Ribbons keeps warm & deice the pipes and nozzles during winter harsh weather.

The cowshed is located in Hokkaido (see map herein below) which is the coldest farming land in Japan, exhibiting sub-zero temperatures and windchill for as long as 6 months during winter time during which animal type virus tend to infect cattle





The "Foot and Mouth-Disease Virus" (FMDV) is huge problem for dairy farms. It is highly contagious virus that cause cows, pigs, goats, hogs and other animals absolutely useless leaving no choice other than to slaughtered the infected cattle – causing terrible financial crisis to the farmers. Unfortunately, FMDV repeats on 10 years cycle, and becomes a serious issue given the susceptibility of the disinfection pipeline system to cold weather since the Hypochlorous acid water tends to freeze and damage the pipes as well as the nozzles!

Hypochlorous acid water pipeline is so narrow that we couldn’t attach and outdoor ribbons heaters since the ribbon is too stiff and thick for the pipes and nozzles.
Instead, we used the indoor type Amorphous Ribbon (green coating) to produce heating source that could be easily attached to the acid water pipes as depicted herein after.

Prior to the installation, small scale experiment was conducted inside laboratory in order to examine the ribbon's heating & deicing performance on the narrow pipes and nozzles at a laboratory.

A small sample of pipeline and several ribbon types were put inside a powerful freezer (depicted below) that could imitate sub-zero temperatures as well as cold winds that in order to challenge the ribbon's performance.

We found that the Green coated heating Ribbon "saved" the thin stainless pipeline of getting frozen and right after installed AHT's Green Coated Ribbons all across the cowshed.

The outcome performance was satisfactory and AHT's Amorphous Ribbons were the **winner of the winter** to help keeping the disinfection system running flawlessly and protect the cattle off of the Foot & Mouth Disease Virus!!!

Setup of the experiment details is depicted herein after:


27.2℃
27.8℃


OPERATION----CONSTANT
TEMP HUMI
SET : -23.0°C 0%RH
MONITOR : -23.0°C 0%RH
EY-101
TABAI ESPEC CORP.
グループ1
リアルトレンド
30sec
2019/09/13
16:47:57
-22.6
0
16:00:00