It is important to constantly monitor for infectious diseases in high density farms.

Pigs are known to excrete large amounts of FMD virus, even before clinical signs are noticed, making it important to detect the virus rapidly.

Rope sampling is a non-invasive method of oral fluid collection which allows samples to be tested for various infectious agents and assist with disease surveillance.

Ropes were used to collect oral fluids from pigs infected with FMD virus and subsequently tested for FMD virus RNA.
Rope sampling to collect oral fluids

A) Pigs chewing on rope

B) Squeezing oral fluids from rope into plastic bag

C) Oral fluids collected in plastic bag and transferred to a vial containing virus transportation media.
Comparison of results between rope oral fluid sampling and saliva swab

Rope sampling is an easy and effective method for surveillance of FMD.

Rope sampling was able to detect FMDV 6 days prior to visual clinical observations in unvaccinated and infected pigs. However, saliva swabs were positive 3 days before the rope samples.

Compared to saliva swabbing, rope sampling is less laborious to perform and causes less stress to animals.

Further validation is necessary to improve the sensitivity and survival rates of FMD virus in rope samples.