STABILITY OF COVID-19 IN THE ENVIRONMENT

Terminology

Coronaviruses have been known for a long time but were not of great concern until the outbreak of sudden acute respiratory syndrome (SARS) that started in China in 2003. About 10 years later there was an outbreak of another serious coronavirus disease, middle-east respiratory syndrome (MERS). Then, at the end of 2019 we had another serious coronavirus disease coming from China that is commonly called COVID or COVID-19.

The disease that is commonly called SARS is known to virologists as SARS-Cov-1 and the one known as COVID-19 is known to virologists as SARS-Cov-2.

Stability data

I have not found any stability data on COVID-19 but there is published data for SARS (http://downloads.hindawi.com/journals/av/2011/734690.pdf). This study showed that the virus retained its viability for over 5 days at temperatures of 20-22°C and relative humidity of 40-50% which corresponds to air-conditioned environments. The virus die-off increases as the temperature and humidity rise. The virus will survive longer as the temperature drops which is the reason that governments are worrying that there will be a second spike in cases as winter approaches.

According to the World Health Organization (https://www.who.int/csr/sars/survival_2003_05_04/en/) SARS is stable in faeces and urine with only a tenfold decrease in viability after 1-2 days at room temperature and 4 days in stools from patients with diarrhoea.

Implications for Foamstream

You can tell clients that there is good evidence that COVID-19 persists in the environment and as autumn/winter approaches and temperatures fall the persistence will be longer.

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