

The Importance of the Cleaning Process in Optimizing Biosecurity

Enhanced biosecurity leads to healthier animal populations (A. H. Stygar, et al., 2020) and is instrumental in minimizing antimicrobial use in animal health care. Achieving this critical objective requires careful attention to every step in a complete biosecurity program.

Although cleaning and disinfection are well-known as key steps in biosecurity protocols, there is still a need for improvement in the strategies and methods employed. Cleaning processes are sometimes underrated in regular farm practices; however, they are essential to maintaining the appropriate level of hygiene within a farm environment.

Another important factor to consider in cleaning is the utilization of resources such as water, energy, and labor. Without strategies to optimize their use, these can become costly elements within farm operations.

Choosing the right cleaning agents can significantly impact the use of the resources mentioned earlier, without compromising effectiveness.

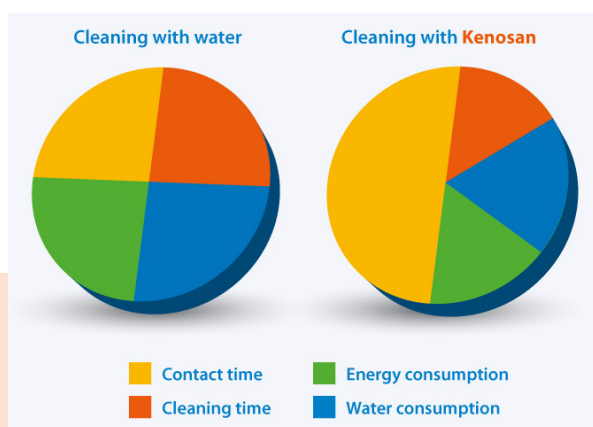
What's the Sinner's Circle?

Named after Dr. Sinner, the 'Sinner's Circle' outlines four fundamental factors that constitute the cleaning mechanism and play a vital role in the process:

- Time
- Mechanical force
- Chemistry
- Temperature

The 'Sinner's Circle' is a dynamic equilibrium: enhancing one or two of the four cleaning factors allows for the reduction of others. For instance, if the chemical action of a detergent is increased, it may allow for less mechanical force, lower temperature, or shorter cleaning times.

This principle is adaptable to cleaning in animal housing. For example, a powerful detergent can extend contact time, reducing the energy exerted by the cleaner, allowing for the use of colder water to save on heating, and potentially decreasing the overall time required for manual cleaning.



Investing in an effective detergent like Kenosan results in a 40% improvement in cleaning efficacy compared to plain water-based methods, while simultaneously reducing water consumption by up to 30% and labor time by up to 24% in pig and poultry farms.

In conclusion, employing a high-quality detergent such as Kenosan, with its superior foaming capabilities, optimizes water, energy, and labor usage. These savings do not compromise cleaning effectiveness; our trials have shown that Kenosan can remove over 90% of organic matter.

Investing in the right cleaning agent is vital for optimal cleaning and disinfection processes within biosecurity programs. It contributes to the health of animals and supports reduced reliance on antibiotics.