

Downtime as a biosecurity measure: necessary for your farm?

Biosecurity forms the basis of a healthy farm and refers to all the measures taken to reduce the introduction of pathogens into a farm (external biosecurity) and the spread of pathogens within a farm (internal biosecurity). Different external biosecurity measures aim to reduce the risk linked to the entry of personnel and visitor who form a risk for indirectly introducing pathogens into a farm, especially when they come into contact regularly with other (wild) animals.

Downtime, also known as an animal avoidance period, is the practice of a farm restricting entry to personnel and visitors for a period of between 24-72 hours following their contact with other animals of the same species, or other species susceptible to the same pathogens, as those kept on the farm. Initially implemented to prevent the introduction into herds/flocks of pathogens found in the upper airways and nostrils of people contaminated by contact with infected animals, recent studies have found the risk of pathogen transmission through this route to be minimal. Nevertheless, people still form a risk for pathogen introduction through contaminated skin, hair and clothing. For all studied, mainly porcine, pathogens (PRRSV, FMD virus, PEDV, TGEV and *E.coli*), showering-in and changing into farm specific clothing was found to be effective in preventing indirect pathogen transmission through people. When hand-hygiene and changing into farm specific clothing and boots without showering-in was also tested, the effectiveness of the measure varied between pathogens and animal species. Hand hygiene and changing into farm-specific clothes and boots prevented pathogen transmission for most (PRRSV, FMD virus, TGEV and PEDV), but not all pathogens (*E.coli* and Influenza A virus) in pigs and did not prevent sheep from being infected with FMD. When downtime was compared to these measures for the prevention of PRRSV transmission, downtime did not have an added benefit in preventing indirect transmission.

Based off these studies, downtime, aside from deterring unwanted visitors, does not have a proven added benefit over other more evidence-based measures. Showering-in and changing into farm-specific clothing and boots is the most effective measure to protect a farm from pathogen introduction through people. Hand-hygiene and changing into farm-specific clothing also provides a level of protection, however less than that achieved by showering-in. In all cases, biosecurity measures must be implemented consistently and indiscriminately.



- Implement the evidence-based measures of hand hygiene, farm-specific clothing and boots, and preferably showering-in
- Implement other measures such as limiting visitors and separating your farm into a 'clean'- and 'dirty' area to increase external-biosecurity
- Implement all measures consistently without exceptions

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