

# Why We Have to Start Taking Biosecurity Seriously...

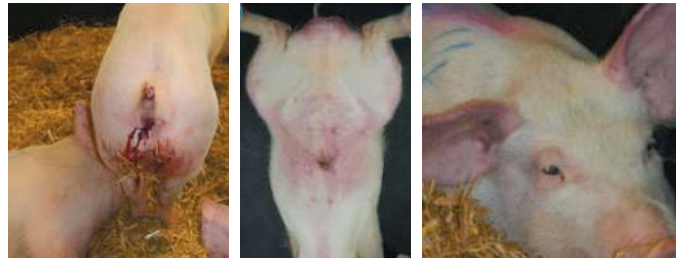
Biosecurity could arguably be known as the Voldemort of the agricultural world. Mention it on a meeting invitation and you can almost guarantee an empty room; raise it as part of a talk and you can feel people's attention diverting to any possible distraction. Everyone involved with livestock is aware of the need for biosecurity, all sectors have detailed standard operating procedures drawn from extensive research, yet the level of engagement is at an all-time low.

Many in the industry remember the horrors of the foot and mouth outbreak of 2001; lessons were learned and policies updated to try and protect the industry from another tragedy of such scale. However, 18 years down the line, the pig sector faces a new threat, African Swine Fever, a viral haemorrhagic disease of pigs that results in almost 100% mortality. Over 1 million pigs to date have been culled across China, responsible for 60% of the world's pork production, where many pigs are kept in backyard small holdings where it is more difficult to track movements and standardise biosecurity procedures. ASF has spread across much of Eastern Europe and more recently into wild boar in Belgium. Fortunately, the fast response of the government meant the outbreak was contained in the wild boar population, thus so far managing to protect the commercial pig industry. The biggest threat to the UK pig herd is of ASF entering through contaminated meat products that may be brought into the country illegally by tourists and travellers. The UK government has invested in posters and advertising campaigns targeting airport travellers and specifically those from countries where ASF is present.

Research conducted by the Centre for Epidemiology, Population Health and Infectious Disease Control (ePIC) looked at other likely routes of an ASF incursion into the UK and how it would likely spread based on real-time movement data taken from the electronic Animal Movements Licensing database, eAML2. The results were alarming, particularly as the strain of ASF currently circulating in Eastern Europe has seen poor detection rates and therefore a long infectious period. Based on existing outbreaks, pig deaths are occurring between 13–17 days after coming into contact with the virus, with animals being contagious for half of this time.

Modelling suggests that when ASF enters the country, even with active surveillance measures in place, it could take 32 days on average for an outbreak to be detected, with the index case taking longer at around 40 days. Mapping of real eAML2 pig movement data showed how the virus could spread across the country in weeks if it got into the key pig-producing areas.

This information, combined with the high number of movements made within the country, mean that by the time the first case of ASF was confirmed, it is highly likely that we could be facing an epidemic. The research also looked at the role of livestock haulage vehicles in the spread of disease. The data shows that contaminated vehicles could increase the impact of any potential disease outbreak by



Images of ASF- courtesy of the Pirbright Institute

a magnitude of seven. When haulage companies were not factored in, the predicted ASF epidemic size was between nine and 193 infected premises. However, when potential vehicle contamination was added in, this rose to between 118 and 775 premises.

Protecting the UK herd from ASF is highly dependent on the speed of detecting the first outbreak; however, biosecurity is our best defence in preventing spread. It is imperative that this applies at all parts of the supply chain – suppliers, farm gate, visitors and vehicles, each of which has a role to play.

#MuckFreeTruck is a joint industry led campaign supported by government. It was designed to spread the word about the importance of thorough cleaning and disinfection and to encourage hauliers and drivers to do everything possible to keep their vehicles clean. This messaging doesn't just apply to ASF. The longer that vehicles are left contaminated, the quicker any potential disease will spread. This has been seen already with the recent spike in cases of swine dysentery experienced on pig farms around the country. Simple commitment to a robust biosecurity plan and reviewing it regularly is a basic practice that can prevent contamination. Challenging dirty vehicles and turning them away if they are not up to standard is also key.

When just 1g of infected material is enough to cause an outbreak of ASF, it is crucial that as an industry we pull together to put biosecurity at the top of everyone's agenda.



## Lauren Dimmack

Lauren joined the Pork Health and Welfare Team in April 2018 and works on disease surveillance projects and contingency planning for disease outbreaks. This involves producing guidance for the industry on biosecurity and managing the Significant Diseases Charter- a voluntary scheme for producers to sign up to receive disease alerts in return for sharing their status. Prior to joining AHDB Lauren was working at ForFarmers with the minerals and nutrition team. Previously she worked at Alltech, developing auditing tools to help pig farmers assess their current performance in comparison with industry standards, so they could identify areas for improvement and drive performance.

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