The Financial Impact of Biosecurity Spotlight:

A Deep Dive into Economic Benefits and Challenges



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Biosecurity, the practices and measures taken to prevent the introduction and spread of harmful organisms that can negatively impact animals and humans alike, is critical for maintaining our agricultural output and public health.

While the importance of proactive biosecurity in preventing diseases like avian influenza, foot-and-mouth disease, and African swine fever is well-established, the financial impact of these biosecurity measures is underexplored and most probably profoundly underestimated.

In the UK, Livetec are at the forefront of driving a proactive approach to biosecurity, through disseminating proven best practices, designing innovative digital tools to help assess risk, and creating new and comprehensive training programs that better fit today's modern farming industry.

Their approach offers valuable insights into the economic implications of biosecurity practices across the agricultural sector.

This article explores the financial impact of biosecurity, drawing on examples from Livetec and other sources, while considering how the effective implementation of these practices can significantly benefit the agricultural industry.



Cost-Effective Implementation of Biosecurity Measures

A key lesson from Livetec, which specialises in advancing the efficacy of biosecurity systems in the UK, is that strong biosecurity doesn't always require extensive and/or expensive interventions. Instead, Livetec emphasises the importance of subtle, (often behavioural) targeted changes that are often cost neutral, and can lead to substantial improvements. Through their Livestock Protect Platform, specifically the eBAS (electronic Biosecurity Advisory System) feature, Livetec helps farmers identify specific areas of vulnerability on their farms and provides information and recommendations to help them improve.

By focusing on practical measures - such as controlling movements on and around site and adapting procedures for how staff enter buildings- farmers can significantly reduce the risk of disease outbreaks, without straining their resources. All biosecurity measures will have a direct economic impact by helping to optimise flock productivity and prevent costly disease management interventions, such as medication or culling. Further along the supply chain, disease management can have profound implications to trade creating local market disruption, and export restrictions.

Dr Paul Talling, Senior Biosecurity Advisor, Livetec

"Our experience and feedback from customers suggests that simple interventions can be highly cost-effective in disease prevention," says Dr Paul Talling, Senior Biosecurity Advisor, Livetec. "Examples such as simply adding locks to gates, parking all cars outside the unit and providing biosecurity signage and clear instructions for visitors, can alleviate the risk of disease 'walking' into your farm. In contrast fitting expensive automated wheel disinfection systems (in isolation) is rarely as effective as they can only mitigate the risk not halt it."

Prevention is better than cure. History has taught us that when diseases like Foot and Mouth and Avian Influenza have taken hold massive financial losses have been accrued across the whole agriculture industry. Therefore, investing in preventative measures must be far more cost-effective than managing an outbreak.

Biosecurity and Disease Prevention: A Long-Term Financial Benefit

Strong biosecurity measures help prevent the spread of notifiable diseases. The financial burden of a disease outbreak goes beyond the direct loss of livestock on farms.

Clean-up and restocking costs can be high with significant financial implications to those associated businesses that normally buy the livestock or produce from these farms and to those businesses that normally supply products and services to them.

Greater costs and financial losses can also be accrued by the wider food industry due to disruptions to food supply chains, the loss of consumer confidence and international trade restrictions

It is estimated that in the 2024/25 season alone, the financial impact of AI outbreaks cost the UK sector around £50million. This followed on from the 2022/23 season which was estimated to have cost well over £100million.

Livetec Systems estimates that biosecurity measures, when implemented effectively, should be a small fraction of total business costs (around 1.2%,) These costs are dwarfed by the potential expenses associated with a disease outbreak.

As a broiler farmer, research shows you need to dedicate just 8% of your total work time to achieve a good standard of biosecurity.

On an egg laying farm, good biosecurity requires just 5% of your time. If you're working on average of 8 hours per day, that's just 24 minutes daily to help prevent disease and protect your flock.

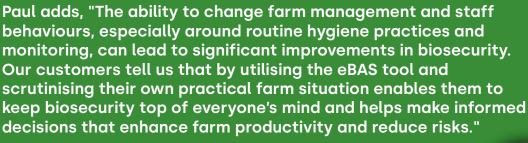
Behaviour Change and Training as a Catalyst for Financial Savings

Behaviour change and training are critical components of successful biosecurity strategies. Livetec recognises that biosecurity isn't just about putting physical structures or barriers in place, it's about changing the mindset of those who will use them. Livetec's training programs explain the 'whys' as well as describe the 'how's', so that everyone fully understands the impact of specific biosecurity measures. This training aims to embed biosecurity into daily routines and drive small but impactful behaviour changes.

For instance, users of the Livestock Protect Platform can assess their farm's biosecurity practices and helps identify vulnerabilities and areas for improvement. With this data, Livetec provides targeted feedback that empowers farmers to improve their practices. Combining this advice with Livetec's new training initiatives helps drive the behaviour changes that can lead to substantial financial savings.

The EU BETTER 1 Cost Action Project highlighted that effective training could lead to improved biosecurity outcomes. It concluded that good training reduces the likelihood of disease outbreaks and increases productivity, resulting in long-term financial benefits for the industry.

1 BETTER Cost Action CA20103: Biosecurity Enhanced Through Training Evaluation and Raising Awareness









Data Sharing and Trust Building: The Key to Financial Efficiency

One of the most important parts to help improve biosecurity and reduce financial risk, across the whole agriculture/food industry is the sharing of data. Livetec emphasises the importance of building trust between farmers, researchers, and other stakeholders. By sharing data on biosecurity practices, the agricultural sector can better understand which interventions are most effective and cost-efficient.

For example, data generated by Livetec's Livestock Protect platform (permissioned by user) can be used to help build a larger, more accurate picture of biosecurity risks across individual sites, multisite businesses, producer groups, regions and even countries. Suppliers and customers will ultimately benefit from these insights. When farmers understand how wider data sharing can be used to improve their own individual operations and assess their vulnerabilities, they are more likely share data and then adopt the best practices that are highlighted. This will lead to improved biosecurity outcomes and financial savings for the whole industry.

Customers using Livestock Protect can choose to share/permission their data across their network.

This enables streamlined access, driving efficiency and collaboration across sites and between partners.

Anything you can do to bring insight and information into the hands of everyone on site will ultimately lead to greater attention to biosecurity.

Dr Paul Talling, Senior Biosecurity Advisor Livetec Systems.





The Concept of 'Super Spreaders' and Network Risks

The financial impact of biosecurity is also affected by the concept of "super spreaders". These can be farms with poor biosecurity and high levels of interconnection with other farms or commercial networks. These can also be suppliers or customers who also exhibit a limited regard for maintain biosecurity between clients.

Whilst we rarely see these types of farms in the UK, we do have a lot of integrated supply chains which necessarily access multiple farms. These "super spreaders" pose a significant risk to the agricultural industry, as a disease outbreak on one farm can quickly spread to others, causing widespread financial losses.

Livetec's work with farmers highlights the importance of improving biosecurity across interconnected networks and has led to the development of AccessProtect. AccessProtect is a QR-code based system which enables all site visitors to be logged in and out of sites efficiently via a digital logbook. This system will monitor, in real time, who is accessing farms and will ultimately build a detailed picture of vehicle and personnel movements which will be especially useful during times of high disease risk or during outbreaks.

Paul adds, "As we look to manage risks beyond the normal prescribed surveillance zones and we see more integrated networks of suppliers and producers, the risk becomes greater of seeing "super spreaders" impacting others across the network."

Dr Paul Talling, Senior Biosecurity Advisor Livetec Systems.



Conclusion: The Financial Case for Biosecurity

The financial impact of biosecurity is profound, influencing not just the health and productivity of individual farms but also the broader agricultural economy. Livetec demonstrates that biosecurity is not only beneficial to the farming industry but a sound public health strategy that must be a financially beneficial investment. Through disease prevention, improved productivity, and less market disruption, biosecurity offers significant financial benefits.

While challenges remain, particularly in resource-poor settings, the economic case for strengthening biosecurity measures is clear: the initial costs of implementing robust biosecurity practices are far outweighed by the potential savings and long-term economic stability they bring. As biosecurity measures evolve and improve, their financial impact will only grow, providing both immediate and long-term benefits to the agricultural sector, economies, and societies at large.

Livetec Biosecurity

Biosecurity Advisory Service

Our Biosecurity Advisory Service provides you with an on-farm visit with a biosecurity expert.

Our on-farm discovery sessions make us a supportive partner, helping you to minimise risks and imparting knowledge so that you can better protect your farm from disease incursion.





Contingency Plan

Our Contingency Plans encompass every aspect of farming businesses, risks and emergencies that could arise in the future. We help you to design strategies to manage the impact of these concerns. A comprehensive package, this helps make you compliant and insurable.



▶ Emergency Response Plan

An Infected Premises Response plan or, as we call them, an Emergency Response Plan, significantly enhances your preparedness and is designed to cover everything that APHA and insurance brokers require if and when they visit your farm business. This plan holds all the necessary critical information, in one place, putting your mind at rest during a time of crisis.

▶ Cleansing and Disinfection Plan

Our Cleansing and Disinfection plan is designed to give you the framework for all of the measures you need to take, with clear instructions that comply with APHA requirements.





Cost of Depopulation Report

Our Cost of Depopulation calculator will help you accurately assess all catching and disposal costs related to depopulation, assisting you in gaining the correct level of insurance.

National Outbreak Plan

Our National Outbreak Plan has been designed to comply with the regulations and requirements set by the UK government, providing bird owners with everything you need to know should you be impacted by a disease outbreak or fall within a restriction zone.





View Online



The Livetec Systems App

You can stay ahead of bird flu outbreaks with real-time alerts from across the UK delivered to your phone. So, if there's an outbreak near your premises you can be proactive and protect your poultry - whether the threats come from wild birds or neighbouring premises.



Learn more



Learn more

Livestock Protect Platform: Digital Biosecurity 365

Livestock Protect is Livetec's powerful, subscription-based platform built specifically for poultry producers like you. It puts control back in your hands – delivering the insights and tools needed to manage biosecurity, disease risk, and site compliance all in one place.

View Online



To find out more about how our plans can help your farming business, please visit **www.livetecsystems.co.uk/plans** or email us for more information **sales@livetecsystems.co.uk**

