

# How to maximise biosecurity

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# What is biosecurity?

**Biosecurity is the act of protecting yourself, your animals and therefore your livelihood from infectious diseases and refers to a set of procedures, protocols and behaviours that are intended to reduce the risk posed by harmful pathogens.**

In the agricultural sector, this refers to any measures put in place to protect livestock and food business operations from bacteria, viruses, and other potential harmful pathogens.

**The purpose of agricultural biosecurity is fourfold:**

To minimise the chance of harmful organisms being introduced onto the farm.

1

To limit the spread of pathogens should they be introduced.

2

To keep the impact of an outbreak to a minimum.

3

To support farmers in making faster decisions to aid a speedy recovery.

4

There are many different forms that biosecurity can take. Biosecurity activities can be considered to be '*primary*' measures which directly protect animals from harm, such as installing gates to restrict access to the farm and the cleaning and disinfection of barns. Measures may also be '*secondary*' or '*tertiary*'. Secondary measures help to reduce risk and may include adapting layouts to minimise the likelihood of pathogen spread. Tertiary measures are behaviours that can be adopted on-site such as best practices for protection.



### Conceptual biosecurity:

Considerations related to your farm's location

### Structural biosecurity:

Considerations related to the physical design and layout of your farm and its buildings

### Procedural biosecurity:

The processes and procedures you follow during normal day-to-day operations

**Biosecurity is different to outbreak response in that it is not a reactive approach but a proactive, continuous strategy designed to provide continuous everyday protection.**



**Good biosecurity should be practised at all times, not just during a disease outbreak. Taking the right measures in the early stages of an outbreak e.g. before we know disease is in the country, can help prevent or reduce its spread<sup>1</sup>.**


Department of Agriculture, Environment,  
and Rural Affairs


<sup>1</sup> <https://www.daera-ni.gov.uk/articles/biosecurity>

## Why do farmers need biosecurity?

**The risk of disease has always been around. Pathogens can enter farms in a wide variety of ways. This includes contact with infected wildlife and contamination of natural water sources. Visitors, vehicles, machinery, bedding, equipment and feed can also increase the risk of pathogens spreading.**

However, the prevalence of disease in the UK is growing rapidly, especially in cases of African Swine Fever, Salmonella, E. coli and most notably avian influenza.



 **However, the prevalence of zoonotic disease in the UK is growing rapidly, especially in cases of Salmonella, E. coli and most notably avian influenza. "**

UK Health Security Agency



**Not only is disease being identified year-round, but AI in particular is noted as being more prominent, and spreading between animals more easily<sup>2</sup>. The UK experienced its biggest ever avian flu outbreak in 2022<sup>3</sup>, resulting in the loss of 3.8 million birds.**

The rise in cases alone is worrying. Businesses today are simultaneously facing additional challenges - such as increased production costs and growing recruitment issues - that are making it more difficult for them to address the risks of disease.

The situation that UK farmers are facing today is both unfamiliar and unprecedented. It's clear that existing measures are no longer enough.

Disease outbreaks can be devastating. Many farmers are finding that they have little option but to cull healthy birds. Production rates are falling. Reputation is on the line. And few farmers envision a strong future.

**Biosecurity is the key to tackling today's biggest agricultural challenges. By not just responding to an outbreak, but actively taking measures to reduce the risk of an outbreak occurring, and limiting the potential impact of an event, businesses can ensure they're in a position to operate with confidence in a difficult landscape.**

<sup>2</sup> <https://ukhsa.blog.gov.uk/2022/11/17/an-update-on-avian-flu/>

<sup>3</sup> <https://www.nature.com/articles/d41586-022-03322-2>

# How to maximise biosecurity

**Unfortunately, while the need for enhanced biosecurity on UK farms is evident, research suggests that 'farmers' uptake of biosecurity recommendations is often poor'<sup>4</sup>.**

Therefore, it is critical that strategies are implemented to support farmers and ensure they're able to make the best decisions for their businesses and futures.

**This can be achieved in two ways:**

## 1 Improved education

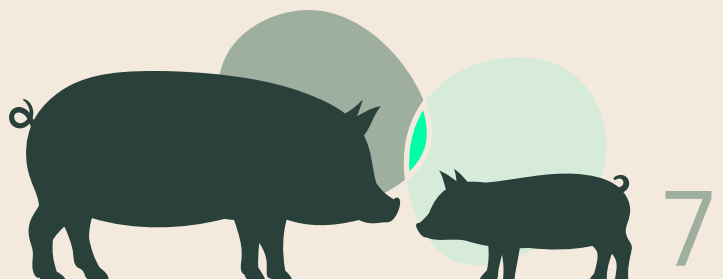
Experts agree that 'there is scope for further education about the evidence supporting biosecurity interventions'<sup>5</sup>. More resources are needed to ensure farmers and their employees fully understand the role that biosecurity plays in disease prevention and organisational success, and to assist in the identification of effective measures.

## 2 Increased accessibility

Biosecurity measures must become more accessible if they are to make a difference. Farmers must be able to access and utilise simple and affordable tools, along with relevant training resources. This is particularly useful for farmers who are non-native speakers.

<sup>4</sup> <https://lordslibrary.parliament.uk/bird-flu-2022-dealing-with-the-uks-largest-ever-outbreak/>

<sup>5</sup> <https://www.frontiersin.org/articles/10.3389/fvets.2021.751699/full>



**Ultimately, maximising biosecurity means introducing and implementing crucial new measures, and supporting farm workers to embrace these new measures as part of their everyday responsibilities and operations.**

### **Actions to be prioritised include:**

#### **Cleaning and disinfection**

Maintaining a clean environment is one of the best ways to reduce the risk of disease. Despite this, cleaning and disinfection measures on farms can be lacking. A Government report found that many farms have 'hygiene barriers'<sup>6</sup> which pose a safety hazard.

#### **Pest control**

Vermin such as mice and rats can introduce diseases such as salmonella and campylobacter onto farms<sup>7</sup>. Taking measures to reduce access points, eg. holes in fences, could have a significant impact on the prevalence of these diseases.

#### **Movement tracking and restrictions**

Restricting and closely monitoring the movement of livestock can reduce the risk of disease entering through contact with neighbouring animals, or with contaminated water sources.

#### **Feed delivery systems**

With feed being a notable transport mechanism for pathogens, building robust feed delivery systems is essential. A big aspect of biosecurity is ensuring that supply chains are strong and reliable, lowering the risk associated with poor quality manufacturing.

#### **Washing & hygiene**

Any materials that come into contact with livestock must be handled with care, washed regularly, and maintained in a hygienic manner. This is particularly important for materials that are used regularly such as animal bedding and worker boots.

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<sup>6</sup> <https://pubmed.ncbi.nlm.nih.gov/34993244/>

<sup>7</sup> <https://acss.food.gov.uk/sites/default/files/multimedia/pdfs/biocampaignph2.pdf>





### Maintenance

All on-farm structures must be maintained adequately, ensuring that vulnerabilities such as holes are addressed rapidly to prevent unintentional animal movement, vermin access, or other potential sources of disease introduction such as floodwater. On-site standing water can be a major contributor to disease.

### Vehicle tracking

Where possible, vehicles should not be shared between farms. In cases where sharing is necessary, movement tracking of trucks and visitors can help analysis of risks and speeds up response in the event of an outbreak.

### Digital record keeping

It is critical that, should an urgent situation arise such as the identification of disease, everyone is making decisions based on the same information. Accurate digital record keeping is at the heart of biosecurity, providing quick access to the single source of truth.

### Staff training

It is imperative to the success of biosecurity measures that workers fully understand their roles, responsibilities and the potential risks associated with their behaviours. Staff should be trained in best practices for disease prevention and protection.

### Compliance

It's important to remember that the situation is constantly evolving. Maximising biosecurity means being open, flexible and adaptable, tailoring the approach in line with the latest Government guidance, recommendations, and legislation.

## How Livetec can help



**Livetec is a UK leader in planning, protecting, and future-proofing agricultural businesses with advanced biosecurity measures and customised disease mitigation strategies.**

Along with a comprehensive selection of biosecurity and contingency planning services delivered by industry experts, we're also proud to be standing at the forefront of Agtech, developing digital solutions to today's biggest challenges.

### **Our latest digital solution, [Farm Health Guardian](#),**

focuses on one of the most pressing obstacles standing in the way of the roll out of strong biosecurity strategies across UK farms today: administration. Manual, time consuming admin work is often one of the first activities to be put on the back burner as farmers naturally prioritise more urgent on-farm tasks, especially at such a vulnerable time for the agricultural industry.

**Farm Health Guardian** is an automated monitoring and tracking tool which continually collects data from across a wide range of activities and movements.

### **The tool can be used to collect and store data relating to:**

- Vehicle movements
- Animal health
- Employee check-ins
- Visitor check-ins
- Staff communications



Ultimately, data is key to maximising biosecurity. Farmers must be able to make faster and smarter decisions, both for implementing the right measures - at the right time - and for responding to potential events quickly and efficiently. That data can only come from tracking and monitoring on-site activity, which is exactly what **Farm Health Guardian** specialises in: monitoring disease risk, around the clock.

**Maximising biosecurity in agricultural environments at this particularly challenging time isn't a single, one-off task.**

It means continually bringing together a range of tactics that help farmers to build more robust strategies and stronger, more resilient operations. It means educating farmers, improving access to critical prevention and detection tools, facilitating digital adoption across the industry, offering tailored support, recommendations, and guidance. This ultimately provides workers with the data and insight they need to make the right decisions today and tomorrow.

**At Livetec, that's our business, our passion, and our vision for the future. We're pleased to be doing our part to protect UK agriculture and build a stronger sector.**



## Livetec plans help protect your livelihood and livestock:



### Biosecurity Advisory Service

Our biosecurity advisory service provides you with an on-farm visit with a biosecurity expert. Our full on-farm discovery sessions make us a supportive partner, helping you to minimise risks and know how you can better protect your farm from disease incursion.

### Contingency Plan

Our contingency plans encompass every aspect of farming businesses, predicting scenarios, risks and emergencies that could arise in the future and designing strategies that help to manage the impact of these concerns. Supported by a range of plans, this also helps make you compliant and insurable.



### Biosecurity Plan

Without a biosecurity plan in place, you are leaving your business and animals highly susceptible to disease incursion. Our biosecurity plans encompass and outline all of the measures that must be followed by every single person on and off farm to prevent the introduction of deadly pathogens.

### Emergency Outbreak Response Plan

An infected premises response plan significantly enhances your preparedness. Designed to cover everything that APHA needs from you if and when they visit your farm business. This plan holds all of the critical information they need, in one place, allowing you to be less stressed and make your processes smoother.



### 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 a wealth of information of everything you need to know, should you be impacted by zones or a disease outbreak.

### Cleaning And Disinfection Plan

A critical part of farming includes the ability to undertake thorough and comprehensive cleaning and disinfection of your premises. Our cleaning and disinfection plan is designed to give you the framework for all of the measures you need to take, with clear instructions that show compliance to APHA.



To find out more about how our plans can help your farming business, please visit [www.livetecsystems.co.uk/plans](http://www.livetecsystems.co.uk/plans) or email us for more information [info@livetecsystems.co.uk](mailto:info@livetecsystems.co.uk)