



Department  
for Environment  
Food & Rural Affairs

# Biosecurity and preventing welfare impacts in poultry and captive birds

**Advice for all captive bird and poultry keepers (including game birds, waterfowl, and pet birds)**

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# Introduction

This document tells you, as a keeper of poultry or captive birds, about the biosecurity measures you should take to prevent your birds from becoming sick with diseases like avian influenza and Newcastle disease. You should read it if you keep birds for commercial, hobby or other purposes, including as pets.

You should read this document together with the specific legal requirements in the Avian Influenza Prevention Zones (AIPZs) that England, Scotland and Wales declared on 03 November 2021. The purpose of the zones is to help protect poultry and other captive birds within Great Britain from a highly pathogenic strain of avian influenza (bird flu), which is circulating in the UK and Europe.

To assist you with this guidance, a biosecurity self-assessment checklist is provided. It is advised that you complete the self-assessment form, in order to assess and assure yourselves whether your current biosecurity practices are fit-for-purpose, and to identify where improvements may be required. It has been designed to support you in meeting the measures introduced as part of an Avian Influenza Prevention Zone (AIPZ), in particular.

**This document represents biosecurity guidance that is published in accordance with section 6A of the Animal Health Act 1981 in England and Wales. In Scotland, this document represents guidance that is published in accordance with the Codes of Recommendations for the Welfare of Livestock: Animal Health and Biosecurity, made under the Animal Health and Welfare (Scotland) Act 2006. You should read this document together with the specific declarations and legal measures in force at the time, and detailed on [GOV.UK](https://www.gov.uk), on [GOV.SCOT](https://www.gov.scot), or on [GOV.WALES](https://www.gov.wales). Measures could include Protection Zones, Surveillance Zones, Restricted Zones or an Avian Influenza Prevention Zone.**

## Benefits of biosecurity

Good biosecurity improves overall flock health and productivity by helping to keep out poultry diseases such as avian influenza and Newcastle disease. In the event of an outbreak, it also limits the spread of disease both on and off your premises, harmed birds and cuts the costs of disease treatment and reduces losses, which could improve profitability.

## Spread of disease

Disease can be spread through several pathways, including:

- the introduction of diseased birds
- contact with diseased flocks
- through wild birds' contaminated faecal matter around the farm (such as walking it into sheds on footwear or on clothing and equipment).
- vermin or wild birds getting access to poorly maintained houses, feed or bedding
- birds drinking from contaminated water sources
- birds eating contaminated feed
- contamination of vehicles, equipment, clothing and footwear, which are moved between and within farms
- using shared farm equipment and vehicles, which have not been effectively cleansed and disinfected
- unsatisfactory cleansing and disinfection of vehicles, sheds, feeding troughs or other equipment

## Biosecurity measures

The following are mandatory biosecurity measures required within an Avian Influenza Prevention Zone (AIPZ), to reduce the risk of transmission of highly pathogenic avian influenza (HPAI). All poultry keepers (including game birds, waterfowl, and pet birds) must take all appropriate and practicable steps to ensure that:

**You wear clean overalls and footwear when entering poultry farms or premises, to avoid bringing infection onto your farm, or spreading it around farms or premises, via your clothes, footwear or hands. Overalls should ideally be changed, and boot dips used when moving between flocks or sheds.**

**Staff and all visitors should be provided with protective clothing and footwear dedicated for use on your premises.** These should be removed and cleansed, disinfected, laundered or disposed of after use. Remember to include, contractors, maintenance personnel or workers and any tools they bring onto the premises. Provide hand-washing or sanitization facilities and insist that these are used by staff and all visitors.

**Keep good records of all visitors and vehicles that enter the site** – names, contact details, dates, times and purpose of visit. This will allow the source and spread of disease to your premises to be rapidly traced and will minimise the effect on your business.

**Strictly limit and control access to all poultry flocks (including game birds and pet birds). If possible, the site should be fenced with a controlled entry point.** You should restrict the number of visitors and their vehicles and keep them as far away as possible from poultry buildings, and pastures.

**Keep appropriate records of poultry (including game birds and pet birds), captive birds and egg movements including production records.** You must keep mortality records. You are also advised to record details of any movement of poultry and eggs on and off your premises, and relevant production records at a shed/house level (such as water consumption, feed consumption and egg production). Where possible, records should be electronic.

**Have pressure washers, brushes, hoses, water, and fresh supplies of a government [approved disinfectant](#) available at all points where people should use them.** Make sure they are used by all visitors to clean vehicles, equipment and boots both before entry to, and upon leaving, your farm and poultry houses or enclosures. Visitors should, ideally, only use footwear and outer clothing that is kept on-site.

**Make sure that disinfectant in boot dips is at the right concentration and that it is changed in accordance with the manufacturer's instructions.** Use a stable disinfectant with good resistance to inactivation by organic matter, at a minimum concentration as required by the disinfectants approved for use in England, Scotland and Wales (<http://disinfectants.defra.gov.uk>). The level of boot dip should always be at least ankle deep and care should be taken to position the boot dip to allow easy step in/step out procedures to take place. Boot dips should be covered to prevent disinfectant from being diluted by rainwater. The effectiveness of the disinfectant can become compromised in the presence of excessive organic material (including mud, dirt and faeces). Therefore, they should be visually checked regularly and if this occurs, the disinfectant should be changed. Pre-cleaning boots with water and a brush prior to using the dip is essential to avoid organic overload. It is preferable to have specific footwear that is only worn in the bird area, changing footwear on entering and leaving the area accessed by birds.

**Cleanse and disinfect all vehicles which have been transporting poultry (including game birds and pet birds), poultry products or poultry by-products, after each journey.** Don't forget to clean the wheels, under wheel arches, and foot wells in the vehicle.

**Cleanse and disinfect all crates, containers, plastic egg trays and other equipment before and after use or if not possible, destroy.** Do not move any equipment into different poultry buildings without cleansing and disinfecting it first. This also applies to injecting and dosing equipment.

**Keep farm access routes, parking areas, yards, areas around buildings and storage areas clean and tidy and well maintained, at all times.** This helps avoid wild birds and animals being attracted onto your premises and entering buildings and stores. It will also reduce the risk of vehicles becoming contaminated. You should also prevent the accumulation of standing water and remove any spilled feed that could attract wild birds.

**Keep all poultry houses or sheds well maintained to ensure that wild birds do not nest or roost in them, and cannot access the inside of the building.** Rectify any defects, such as holes in the roof or walls. Any openings must be covered with suitable mesh or netting which should be of a maximum size of 25 mm mesh to prevent ingress from wild birds (see the advice on protecting your birds from wild birds).

**Keep all poultry houses or sheds well maintained to ensure that water cannot ingress.** Rectify any defects, such as holes in the roof or walls or damaged guttering, without undue delay to prevent ingress of contaminated water.

**Keep wild birds, dogs, cats, rodents and other livestock out of poultry buildings and feed stores.** These can carry infection or infective material onto your farm and spread disease to your flock.

**Have an effective rodent and pest control system in place.** Be vigilant for evidence of vermin. Monitor vermin activity by baiting and trapping. Feed silos and containers must be regularly cleaned, maintained and properly sealed, to prevent vermin and wild birds accessing and contaminating feed.

**Supply only clean fresh drinking water to birds.** Water lines and drinkers must be flushed through and cleaned regularly. You could consider the use of water sanitisers in consultation with your vet. Where birds cannot be housed for welfare reasons, restrict access to possible sources of water used by wild birds and restrict wild bird access to your drinking systems.

**You should only obtain your feed from a mill or supplier that operates in accordance with relevant Government, Agricultural Industries Confederation or credible assurance scheme standards,** who will normally make available results of salmonella tests on request.

**Damaged eggs, dead birds, litter and manure may carry disease. Dispose of them promptly and appropriately.** For further information, see the guidance on fallen stock and on poultry manure:

- [Fallen stock and safe disposal of dead animals in England](#)
- [Fallen stock guidance in Scotland](#)
- [Fallen stock guidance in Wales](#)
- [How to use, store or move manure, guano and digestive tract content](#)

**At depopulation at the end of a production cycle (for example at the end of lay for laying hens), thoroughly clean the building and all equipment, including ducting, drains and fans.** Remove all surplus feed, dead birds and litter. Disinfect the premises and all equipment and carry out rodent and other pest control. You should also clean and disinfect cleaning equipment and protective clothing. Make sure that any visiting teams that catch your poultry follow the biosecurity measures described above for entering and leaving your premises, and only wear protective clothing that is dedicated for use on your premises. If partial depopulation (for example, on a broiler unit - thinning) is carried out, make sure a quarantine period is observed by catching teams. A quarantine of 72 hours is recommended between their last contact with poultry and entry to your buildings.

## Buying new stock

- Check whether poultry and/or captive bird gatherings are permitted. If they are not, then buying new stock from a gathering will not be possible (although direct sales that are not at a gathering may still go ahead).
- Always make sure you know the health status of any birds you are buying or moving.
- Incoming stock should be isolated from the rest of the flock – discuss this with your vet and agree a testing and monitoring programme.
- Only place new stock in facilities which you know have been cleansed and disinfected.
- Where used, keep isolation buildings as near as possible to the farm entrance and separate from other poultry buildings/ranges.
- Use separate equipment when handling isolated stock. If you have enough staff on your farm, allocate some of them to deal only with isolated stock. If

not, make sure you handle isolated stock last. Always wash and change into clean overalls and boots before going back to your main flock buildings.

## Other actions to consider for all poultry keepers

Where practical, you should also take the following steps:

- Consult your private veterinary surgeon about the risks specific to your premises and the practical steps you can take to reduce them.
- For poultry flocks with fewer than 50 birds, although you are not required by law to register them, we encourage you to do so, as this means we can contact you quickly if there is an outbreak of disease. Please see further information on [how to register your poultry](#).
- Keep domestic ducks and geese completely separate from other poultry species, as they often don't show any signs of disease, but can still pass it on to chickens, turkeys or other poultry species.
- If you have staff, give them the information and training they need to maintain good standards of hygiene (an important aspect of biosecurity) at all times. If they keep their own birds at home, they will need to be extra vigilant for signs of disease and even more careful about biosecurity both at home and on your farm.
- You must consider what measures may be appropriate and practical to protect your birds from contact with wild birds, such as feeding and watering birds indoors or under protection from wild birds and rodents (see [the advice on protecting your birds from wild birds](#) later in this guidance). Talk to your private veterinarian for further advice.
- Review the contingency plans, which you should have in place for managing your premises in the event of a suspected or confirmed case of notifiable avian disease, both on your premises or nearby. The types of movement restrictions that could be put in place are set out in the [Notifiable Avian Disease Control Strategy](#). Register your premises with APHA on the GB Poultry Register. You should also regularly check that APHA have your correct contact details, including email address and mobile phone number. This will allow us to contact you in the event of an outbreak in your area or further afield in Great Britain. It will help in avoiding delays in issuing

licenses in the event of an outbreak.

- Sign up to the [Animal and Plant Health Agency \(APHA\) Diseases Alerts Service](#) to keep up to date with the latest news on other exotic notifiable animal disease outbreaks in Great Britain. Note, this is not the same as the GB Poultry Register.

## Protecting your birds from wild birds

One way by which notifiable avian disease may spread to poultry is through contact with infected wild birds. Contact may be direct (through mingling), or indirect (through bird secretions, faeces, feathers, rodents (rats or mice) etc., contaminating anything that may then come into contact with poultry, such as feed, water, utensils clothing). Flooding at your premises or fields nearby can attract wild birds, thereby increasing the risk of notifiable avian disease. Flood water can be contaminated (with wild bird infectious material), which can get into poultry houses or range areas.

Make sure poultry houses or sheds on your premises are well maintained to prevent wild birds from nesting or roosting in them. It is important that you regularly inspect the building(s) used to house your poultry (including game birds and pet birds) for any structural damage (such as leaks e.g. roofs, holes, blocked drains or downpipes) and repair any defects without undue delay.

Notifiable avian disease can be introduced into poorly maintained poultry houses, via wild birds, rats or mice that could mechanically carry virus into the house, or ingress of contaminated water. You must ensure appropriate rodent control is in place on your premises, including in poultry houses, to prevent the introduction of notifiable avian disease.

It is important that rat or mice infestations are effectively controlled by using an [approved rodenticide](#).

When putting measures in place to control rodents you must ensure these do not pose any health risks to your poultry or other animals. The Campaign for Responsible Rodenticide Use has produced [Guidance for Rodent Control and the Safe Use of Rodenticides](#).

It is your responsibility to make sure your birds are protected from disease causing agents.

Biosecurity is cumulative, so the more you do, the better protected your birds will be.

Where an Avian Influenza Prevention Zone or other disease control zone, such as a Protection Zone, Surveillance Zone or Restricted Zone has been declared, the declaration will state the mandatory biosecurity and wild bird separation measures that will apply. **You must follow the disease control measures and any published guidance in force at the time.**

## Housing

If you choose to house your birds for biosecurity or commercial reasons, or housing is required by government, you should ensure **any gaps, openings or ranges are covered with netting**. This should have a mesh size that is sufficiently small enough to exclude wild birds from passing through the openings (see the section below for advice on mesh size). Check these structures regularly for damage that may allow wild birds access. If your birds spend time outside, you will need to consider alternative arrangements.

Planning permission may be required for some of these options and the section on planning (below) should be consulted. There are a number of different housing options, including:

- making use of suitable existing buildings (such as barns, farm sheds, outbuildings, garages, garden sheds) adapted for your birds. Ensure that there is adequate ventilation and that any openings or ranges are netted to prevent wild birds gaining access. You should check for and remove hazardous and toxic substances if garages and outbuildings are being used as temporary accommodation.
- erecting a solid lean-to or veranda on the side of existing houses (provided it does not impact on the minimum space requirement for access to outdoor areas for free range birds).
- erecting a new temporary structure with solid walls and roof, or a polytunnel. A polytunnel will be suitable only in cooler weather.
- any proposed building must take into account the welfare requirements of the birds, in particular the importance of adequate ventilation and light. This is also covered in the advice on welfare later in this guidance.

## Netted structures

Netting of fenced areas can also reduce the risk of disease, provided wild birds cannot gain access to the enclosed area and steps are taken to make the area unattractive to wild birds.

Total netting may be a requirement in Avian Influenza Prevention Zones and other disease control zones. It may also be an alternative to mandatory housing for birds that cannot easily be housed; for example, ducks, geese and game birds may be kept in fully netted areas, even if this means netting a smaller area than they currently occupy. (The only exception is for certain zoo/aquarium birds and overwintering birds kept for restocking game, where other measures to minimise contact with wild birds should be used).

If you choose to fully enclose/totally net outdoor areas, or this is required by government, the following steps should be taken:

- erecting a net structure that will reduce contact between your birds and wild birds;
- when using a netted structure, pay special attention to keeping wild birds from perching on the roof and defecating through it - for example you should consider using additional deterrent methods described below;
- constructing temporary outdoor pens using straw bales and a tarpaulin roof with bird-proof netted gaps for light and ventilation;
- if bad weather is likely to be a problem, it may be necessary to erect a windbreak around your bird-proof structure;
- it is generally recommended that netting should have a maximum mesh size of 25 mm although for exposed areas or where heavy snow fall can be expected, a larger mesh size of up to 50 mm may be appropriate. You should, where appropriate, consult commercial suppliers of anti-bird netting for advice and further information on equipment.

## Feeding and watering

Regardless of whether your birds are kept indoors or not, you should always isolate their feed and water from wild birds. Available feed and water will attract wild birds; by feeding and watering your birds under cover, and ensuring feed leaks from silo augers etc. are prevented, the possibility of mingling is reduced. The steps you should take, where practical, include:

- never feed or water your birds outdoors in open troughs or by scattering feed on the ground. Feed and water should be provided under cover or in specially designed feeding stations that prevent access by wild birds.
- rotating feeding times. Many wild birds learn when kept birds are fed and congregate at these times.

- preventing your birds from accessing open water that may be contaminated. Ensure that your birds receive only mains or treated water or ensure that reservoirs or storage tanks are covered. Sealed nipple systems can be considered.

## **Deterrents for wild birds**

When designing any protective structure, if you need to use posts, you should think about incorporating spike strips to deter perching by wild birds. In all cases you should also consider making use of deterrents such as flutter tape, flashing lights and scarecrows.

However, in doing so, you should be careful to avoid any potential impacts on your birds; particularly flashing lights.

## **Pheasants, partridges and other game birds**

If housing is a government requirement, pheasants, partridges and other game birds should be housed wherever possible. If this measure is not possible, they should be kept in fully netted areas where practical. All feeding and watering should take place under cover. Specialist advice is available from representative organisations and the Animal and Plant Health Agency (APHA).

## **Domestic ducks and geese**

If housing is a government requirement and you keep small numbers of ducks and geese, it may be possible to house them. If this measure is not possible, ducks and geese should be kept in fully netted areas or temporary netted structures, where practical. All feeding and watering should take place under cover. You should consider using wild bird deterrents to prevent contact with wild birds. Where possible, avoid keeping ducks and geese with other poultry species as they often don't show any signs of disease but can still pass it on to chickens, turkeys or other poultry species.

## **Captive wildfowl and waterfowl**

If housing is a government requirement but this measure is not possible, captive wildfowl and waterfowl should be kept in fully netted areas. All feeding and watering should take place under cover or in some form of structure designed to exclude wild birds as far as possible. Consider making sensible use of wild bird deterrents to prevent contact with wild birds. You should consider moving your birds away from large bodies of water that attract wildfowl.

## Backyard flocks and pet/hobby birds

Where possible, the best approach may be to keep birds in a suitable building, such as a shed, outbuilding or garage adapted to house birds, or a new temporary structure such as a lean-to or polytunnel (note - a polytunnel will be suitable only in cooler weather). Ensure openings and ranges are netted to prevent wild birds getting in and remove any hazardous substances.

You are responsible for ensuring the welfare of your birds while they are indoors, and for keeping them calm and comfortable:

- ensure birds have natural light where possible and are not kept permanently in the dark. Any artificial light should ideally follow typical day and night patterns
- ensure there is adequate ventilation – adult birds will tolerate low temperatures but are very susceptible to high temperatures (temperatures should not be allowed to go significantly above 21°C)
- feather pecking can be a risk when birds are kept indoors. Keep the environment interesting to reduce this risk. Consider adding pecking blocks, fresh bedding, straw bales and objects such as cabbages, scatter feed or whole grain on the floor of the building and add grit to litter so birds can scratch and carry out natural foraging behaviours
- if feather pecking occurs, you can reduce light levels, although there should still be light enough for you to read a newspaper
- if you keep several types of birds, you should house chickens or turkeys in separate enclosures from waterfowl (ducks and geese)
- check birds regularly to ensure they are healthy and have enough food, water and dry bedding; you may want to consider nutritional supplements in drinking water as these can help keep birds calm
- skin parasites, such as red mite, can be a problem in birds kept indoors and can make birds more irritable. Advice on controlling these parasites can be obtained from your vet
- [Register your birds on the GB Poultry Register.](#)

If an Avian Influenza Prevention Zone is in place requiring birds to be housed or otherwise kept separate from wild birds, specific advice and guidance for

backyard producers and pet keepers will be published on [GOV.UK](https://www.gov.uk), or on [www.gov.scot/avianinfluenza](https://www.gov.scot/avianinfluenza), or [GOV.WALES](https://www.gov.wales).

## Zoological collections of birds

All zoos should have a written, site specific, contingency plan produced in consultation with their vet for responding to disease outbreaks.

Zoos are required to adhere to the biosecurity measures of any declared Avian Influenza Prevention Zone, unless where exempt. If housing is a government requirement, zoos (a zoo/aquarium licensed under the Zoo Licensing Act) should house birds where possible or keep them in fully netted enclosures. If it is not possible to meet the basic welfare requirements of particular species, the zoo, in consultation with their private vet, will be expected to produce robust justification for any deviation and demonstrate they have measures in place to minimise any disease spread from un-netted areas.

Zoos may choose to manage their operations as a single unit or split their site into multiple epidemiological distinct units, in consultation with their private vet. The unit should contain the area in which the birds are kept and the keeper areas (changing area, area to keep personal protective equipment (PPE) and equipment used in the enclosure, cleaning and disinfection facilities, storage of waste pending appropriate disposal). Each unit can then be treated as if it were a separate premises and the biosecurity measures outlined in an AIPZ Declaration applied to each in turn. If a site is split into multiple units, zoos must demonstrate that these are epidemiologically distinct, that is, there is no transfer of birds, food, equipment or personnel between the different units, without them having undergone suitable disinfection, decontamination / isolation / quarantine etc.

Zoos also must recognise the biosecurity risks introduced from access by members of the public and steps should be taken to minimise the risk of disease transmission to and from zoological collections by visitors. Where members of the public are permitted access to areas where poultry or other captive birds are kept, disinfectant mats should be placed at entry and exit points, and handwashing facilities made available.

## Planning permission for bird housing

Planning permission for bird housing is not always required if the work does not involve building, engineering or similar operations. Permitted Development Rights exist for erecting structures in certain circumstances. Simple structures such as posts and netting might not require permission. It is unlikely, for example, that you would need planning permission if the structure is temporary, mobile, or used for

the purposes of agriculture.

However, regulations will differ between commercial and hobby poultry keepers. You should always check with your local planning authority in the first instance. You can go to [www.planningportal.gov.uk](http://www.planningportal.gov.uk) for contact details in England and Wales or [planning authorities in Scotland](#).

## Steps to take before letting birds outside

Before releasing birds after a period of housing, there are a number of steps you should take to prepare the outside area (the “range”) and reduce the risk of infection. To be effective these steps should be taken as early as possible before birds are allowed back onto the range:

- inspect your range regularly and remove any obvious contaminants from wild birds (such as faeces or feathers) in a biosecure manner
- net ponds and drain waterlogged areas of land. If this isn’t possible, then you must fence them off from your birds so they cannot access it whilst ranging, or use an alternative paddock that doesn’t have access to water
- remove any feed sources that might attract wild birds from the range, or ensure that they are covered to sufficiently restrict access by wild birds
- deter wild birds from landing on and feeding on the range by walking the area or using decoy predators on the range. You could also consider bird scarers if their use is appropriate for the area (see [NFU Code of Practice](#) on bird scarers)
- consider daily checks of the range area to monitor any changes in the biosecurity measures in place and to record changes in wild bird activity and discuss with your own vet where these are noted
- consider increasing the number of shelters on the range area

## Effects on organic and free-range status

This section applies where the government has put in place mandatory housing or separation from wild birds.

- The organic status of poultry flocks is not affected by any legal requirement to house or restrict access to open-air runs, provided that all other

requirements of the Organic Standards continue to be met.

- Under EU egg marketing regulations, keepers who are required by government to house their birds to protect animal health can retain their free range status during the fixed 16 week grace period. Eggs laid by housed birds after the grace period has expired may no longer be marketed as free-range. Once allowed back outside, laying hens regain their free range status provided all other free range marketing requirements are met.
- Under EU poultry meat marketing regulations, keepers who are required by government to house their birds can retain their free range status provided birds have spent a minimum of half their life time with either access to outside areas, or housed during the fixed 12 week grace period. If birds are housed for longer than half their lifetimes outside of the 12 week grace period, they cannot longer be marketed as free range.
- “Traditional free-range” and “free range – total freedom” birds ordinarily must have continuous daytime access to open-air runs from a certain age depending on the species. In the case of chickens for “Traditional free range”, it is six weeks of age with a minimum age at slaughter of 81 days. A chicken will lose its ability to acquire “Traditional free-range” status if it is kept housed beyond the 12 week grace period and after the first 6 weeks of its life and will never be able to attain it. For “Free range – total freedom” birds they must have continuous access to open air runs. They will lose their free range status if they continue to be housed after the grace period and will never be able to attain “free range – total freedom” status.
- For longer-term concerns about possible loss of status, for example organic or free- range, you should consult the responsible sector body or organic certification body.

## **Welfare: taking care of your birds**

### **Welfare surveillance**

You must always look after the welfare of your birds, particularly so in the case of a disease outbreak. If you choose to house your birds for biosecurity or commercial reasons, or housing is required by government and your birds are not used to being housed for a sustained period, this may create welfare and behavioural problems. This means:

- you should seek advice from your vet if there are any potential concerns

about welfare.

- you should be vigilant for signs such as injurious feather pecking, behaviours associated with redirected foraging and any other signs of poor welfare such as loss of condition
- you should understand the type of pecking that could occur in your flock. Aggressive pecking, which is not the same as injurious feather pecking, may also be seen when management changes are made. [Featherwel](#), BEIC and AssureWel have produced practical guidance which describes how to check for early signs of injurious feather pecking in laying hens. [AssureWel](#) and BEIC have also produced a bench- marking tool for feather loss scores for commercial producers.
- you should consider using scratch feeds to prevent boredom amongst housed flocks, which can lead to injurious feather pecking and cannibalism
- overcrowding may become a problem and you must take steps to ensure that the stocking density within each house will not reach the point at which bird welfare is compromised – a particular risk in hot, cold or wet weather
- you should consider installing thermometers at bird level – you should monitor the maximum temperature and take action if it significantly exceeds 21°C for adult birds. This could prevent losses due to hyperthermia (high temperatures are more difficult for birds to cope with than low temperatures), but they may also give an indirect measure of ventilation rates
- you should consider providing perches as a welfare benefit. In Scotland, for species other than waterfowl, it is a requirement that all Scottish registered laying flocks are provided with aerial perching. There are many advantages, including making use of vertical space so that stocking density is reduced, but the main advantage is giving submissive birds the chance to remove themselves from situations where they may otherwise be pecked or cannibalised
- you should provide fresh litter in all temporary accommodation, and ensure that adequate feed and water, ventilation and lighting are available. Consider making use of damp proof membranes for earthen floors to maintain good litter conditions
- you should also consider ways to enrich the birds' environment more generally, such as using straw bales, rope, footballs or hanging cabbages
- you should maintain a regular lighting pattern with no sudden changes. If an outbreak of injurious feather pecking occurs, you may need to reduce the

lighting, as well as adding more environmental enrichment including scratch feeding if feasible

- always ensure that your birds have clean water – do not use standing water that may have become contaminated by wild birds
- you should also ensure that you (or your staff) inspect the birds more often in order to pick up problems before they lead to the deterioration of bird welfare
- you should avoid sudden changes to main diet and, where possible, mix old and new diets through any transition period. Mashing feed increases eating time compared to pellets and keeps the birds occupied which reduces the risk of injurious feather pecking. Consumption of whole oats, wheat, corn, alfalfa, maize/barley/pea, silage and carrots can reduce injurious feather pecking, plumage damage and cannibalism
- you should maintain effective levels of disease control. High levels of red mite infection and worm burdens are associated with increased risk of injurious feather pecking
- you should provide pullets with rearing conditions that are similar to those during laying. If pullets are normally given access to a range during their rearing phase and are then confined, this can increase the risk of injurious feather pecking. Pullet suppliers should make any unexpected confinement history available to those taking delivery of these birds to help reduce the risk of injurious feather pecking at onset of lay and during the laying period

### **Specific measures for ducks**

You may wish to provide an alternative source of water for housed ducks. Open water sources such as troughs, filled water buckets and showers enable them to immerse their heads in or under water and preen effectively, keeping eyes, nostrils, beaks and plumage in a healthy condition. However, your ducks should not be given access to water which may be contaminated by wild birds. You should ensure that litter quality does not deteriorate with excess water spillage. Wet bedding can increase the spread and severity of pododermatitis (contact dermatitis on the feet) and an increased susceptibility to other infectious diseases.

Consider making use of raised, perforated plastic floors or equivalents to place water sources on to assist maintaining litter/straw quality.

You should ensure that ventilation and temperature controls are appropriate for ducks. They drink and produce more water in their droppings than other poultry,

and humidity and ammonia levels can increase rapidly. Adult ducks prefer lower temperatures (around 13°C) to other poultry.

Having a contingency plan that can be put into operation will make sure the welfare of your flock remains a priority at a critical time. Further guidance and information on poultry welfare is available on the following pages:

- England: [poultry on farm welfare](#), or you can call the Defra Helpline on **03459 33 55 77**
- Scotland: [farmed animals](#)
- Wales: [animal welfare](#)

## Maintaining welfare after the release of free-range hens from housing

When released after a period of housing, free-range poultry may exhibit increased levels of aggression or feather pecking. The cause of these behavioural changes is not completely understood, but should be treated in a similar manner to any occurrence of these behaviours. If you are worried about their welfare, seek advice from your vet.

You should continue to inspect livestock more regularly than once a day. This will ensure that you detect any injurious pecking resulting from housing at the earliest opportunity and enable you to take steps to treat or cull injured birds.

Ideally, hens should be kept inside large naturally-lit veranda-type buildings. If this is not possible, you should maintain light intensity at 10 lux or above in the perching, feeding and walking areas during the housed period and afterwards unless injurious pecking occurs.

You should only decrease light intensities for the period where injurious pecking is a welfare problem.

During housing and afterwards, resources such as food and water sources, should be made more widely available to reduce competition.

Space allowances for free-range hens are specified in legislation and codes of recommendations and should be maintained at these levels or more.

Re-introduction to the range should be carried out with minimal disturbance to the birds. You should treat the flock as if it was a young flock and re-introduce

birds to the range gradually over a period of 7-10 days in order for them to re-adjust to temperature changes, light conditions and additional external influences.

## Racing pigeons

You can fly pigeons that already live together, if housing is a government requirement as part of any Avian Influenza Prevention Zone (AIPZ) in place.

You can exercise your racing pigeons for up to one hour once each day or may train birds as a single loft, if mandatory housing is required as part of an AIPZ, but they should avoid direct contact with wild birds.

Birds that are not already housed together/on the same premises should not be flown/trained together, if bird gatherings are banned. Bird gatherings are not allowed in a Protection Zone or Surveillance Zone.

You must not have an open loft that allows the birds to freely come and go, which would increase the chance of wild birds entering your loft and contaminating it.

To reduce the risk of your birds becoming infected with avian influenza, you should take steps to avoid your birds coming in to contact with wild birds, or their faeces/body fluids:

- You should focus on ensuring a high level of cleanliness (biosecurity) in your lofts, particularly if you also keep poultry – chickens, hens, ducks, geese, turkeys, game birds and guinea fowl – and should follow the advice in biosecurity guidance documents available on government websites.
- You should undertake vermin (rats and mice) control to reduce their contact with feed and water for pigeons.
- Your birds should, where practicable, receive mains or treated water that is not accessible to wild birds or poultry to reduce the risk of contamination.
- You should ensure your baskets are as clean as practicable when you are using them to transport birds to other locations (other lofts, shows, sales, race marking). They should be disinfected regularly during the racing season.
- You should consider cleaning the feet of your birds before transporting them to other locations, particularly for shows, races and sales.
- If you also keep other poultry, including a few chickens or ducks,

ensure that your pigeons neither mix with such poultry nor have access to their food and water, in order to reduce the risk of spreading disease.

- Any vehicles / trailers used to transport pigeons must be cleansed and disinfected using Government approved disinfectant, between transports

## Birds of prey

If housing is a government requirement, you can fly a bird (falcon/hawk etc.) or multiple birds that already live together while housing measures are in force.

You can fly birds of prey, including for pest control, if they are already housed together, but they should avoid direct contact with wild birds where mandatory housing is in force as part of an AIPZ. Birds that are not already housed together/on the same premises should not be flown together, if bird gatherings are banned by the government.

Bird gatherings are generally not allowed in a Protection Zone or Surveillance Zone.

## Further help and advice

### What to do if you find dead wild birds

Do not touch or pick up any dead or visibly sick birds that you find in the wild. If you find dead wild waterfowl (swans, geese or ducks) or gulls, or any other dead wild birds of other species in the same location in England, Scotland or Wales, you should report them to the Defra helpline on **03459 33 55 77 (please select option 7)** or by emailing [defra.helpline@defra.gov.uk](mailto:defra.helpline@defra.gov.uk). We may then collect some of these birds and test them to help us understand if disease is present and, if so, how this may be distributed geographically and in which bird species.

Where dead birds are not required for surveillance purposes it is the landowner's responsibility to safely dispose of the carcasses as animal by-products.

## Be vigilant!

Look out for clinical signs of disease in your flock.

Increased mortality, unusual behaviour, neurological signs such as shaking or incoordination, decreased eating or drinking, falling egg production, eggs with thin or misshapen shells and breathing difficulties may all be early signs of a disease

problem. Ensure you keep yourself and your staff aware of what signs each disease may cause.

If you suspect disease, ask your vet for advice as soon as possible. Do not wait for more evidence – **some diseases can spread very quickly.**

Where avian influenza (or Newcastle disease) is **not** strongly suspected, but cannot be ruled out, poultry keepers may wish to liaise with their private veterinarian about utilising the Animal and Plant Health Agency (APHA) “testing to exclude” regime in GB. This involves submitting samples to a testing service at the APHA’s National Reference Laboratory, Weybridge. This can help detect a notifiable avian disease at the earliest opportunity, for such cases. Further information is available on the [APHA website](#).

Avian influenza and Newcastle disease are notifiable diseases and if you suspect either of these diseases, you must report them immediately by calling the Defra Rural Services Helpline on 03000 200 301. In Wales, contact 0300 303 8268. In Scotland, contact your local [Field Services Office](#). Failure to do so is an offence.

## Advice and guidance

**Always practice good biosecurity, ask your vet for advice if you suspect disease. You must report any suspicion of avian influenza or Newcastle disease** immediately by calling the Defra Rural Services Helpline on 03000 200 301. In Wales, contact 0300 303 8268. In Scotland, contact your local [Field Services Office](#). Failure to do so is an offence.

You can find more information about diseases, such as avian influenza and Newcastle disease, including signs to watch out for, at the following pages:

- England: [avian influenza](#) and [Newcastle disease: how to spot and report it](#), or you can call the Defra Helpline on **03459 33 5577**.
- Scotland: [avian influenza](#) and [Newcastle disease](#).
- Wales: [avian flu](#) and [Newcastle disease](#)

Version Control	Date
Version 1.0	Published 21 December 2014
Version 1.1	<p>Published on 29 November 2016.</p> <p>Minor editorial changes to biosecurity advice and updates to links. Additional information regarding the Animal and Plant Health Agency “testing to exclude” scheme included on page 12 and new paragraphs added on welfare surveillance on page 13.</p>
Version 1.2	<p>Published on 7 December 2016.</p> <p>Document updated to refer to specific biosecurity considerations applicable across Great Britain under Avian Influenza Prevention Zones that were created by Defra, the Scottish Government and the Welsh Government on 6 December 2016.</p>
Version 1.3	<p>Published on 18 January 2017</p> <p>Document updated to reflect the extension to the Prevention Zones to 28 February 2017, also includes extra guidance for those with backyard flocks.</p>
Version 1.4	<p>Published on 31 March 2017</p> <p>Document updated to remove specific references to any current Prevention Zones which may be in force, and to include extra guidance on welfare.</p>
Version 1.5	<p>Published on 29 May 2017</p> <p>Minor editorial changes, plus amendments to Housing subsections to make it clear that housing of birds is a voluntary decision, unless required by government.</p>
Version 1.6	<p>Published on 27 November 2018</p> <p>Minor editorial changes and updates to include keeping ducks and geese separate from other poultry.</p>
Version 1.7	<p>Published on 1 April 2020</p> <p>Minor editorial changes including amendments to general biosecurity subsections and “Protecting your birds” paragraph.</p>
Version 1.8	<p>Published on 11 November 2020.</p> <p>Document updated to refer to specific biosecurity considerations applicable across Great Britain under Avian Influenza Prevention Zones that were created by Defra, the Scottish Government and the Welsh Government on 11 November 2020.</p>

Version 1.9	Published on 27 November 2020 Minor editorial change to reflect the quarantine period needed to be observed by catching teams during partial depopulation.
Version 2.0	Published on 3 December 2020 Document updated to reflect the mandatory housing measures due to come into force on 14 December 2020. across Great Britain.
Version 2.1	Published on 14 December 2020 Document updated to reflect the mandatory housing measures coming into force on 14 December 2020 across Great Britain.
Version 2.2	Published on 15 January 2021 Document updated to include rodent control.
Version 2.3	Published on 1 April 2021 Minor editorial changes to make it clear that housing of birds is a voluntary decision, unless required by government.
Version 2.4	Published 21 April 2021 Document updated to reflect the changes to the ban on bird gathering.
Version 2.5	Published 15 May 2021 Document updated to remove references to any current Avian Influenza Prevention Zones which may be in force.
Version 2.6	Published on 03 November 2021. Document updated to refer to specific biosecurity considerations applicable across Great Britain under Avian Prevention Zones that were created by Defra, the Scottish Government and the Welsh Government on 03 November 2021.



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