



British Egg Industry Council

11th January 2021

To: BEIC Subscribers, PHBA, PRA, BEA, BEPA, Council
All Lion registered LF and PR sites, Poultry vets

Policy: Handling of non-notifiable Low Pathogenic Avian Influenza in Lion Code registered laying flocks (and pullet rearing flocks)

Background

As you are aware, during 2020 there were a number of cases of non-notifiable H6N1 Low Pathogenic Avian Influenza (LPAI) which caused significant production losses across NI and in Scotland.

Following industry discussions, BEIC was requested to put in place a requirement for action to be taken by Lion registered sites with a view to trying to prevent further infection of this and similar strains of LPAI.

(Please note - this paper applies to strains of AI causing significant disease, but which are confirmed to be not notifiable. It is not intended for application where there is a non-notifiable influenza in the absence of significant disease).

Actions required

1. If the senior management of the site have suspicion of AI, then a vet and/or the appropriate government authorities must be informed. Suspicion may arise from unexplained rises in mortality or drops in production. Unexplained drops of production of greater than 20% should always be investigated. If the flock is officially investigated and the virus is found to be a non-H5 or H7 LPAI, then official restrictions are lifted. The depletion of the affected birds is not enforced by the government and it is the responsibility of the flock owner to manage the flock and prevent spread of LPAI to protect the wider egg industry.
2. The flock owner must inform the BEIC, the receiving packing centre, and egg processor if a flock is under investigation as a result of suspected

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AI. The outcome of investigation(s) must also be shared with the BEIC.

3. If the flock has non-notifiable LPAI, then the flock owner must inform BEIC when official restrictions are lifted and confirm how it is proposed to manage the flock and the precautions in place to prevent the spread of LPAI to other flocks on site, other poultry businesses and wild birds. Where possible, the affected flock(s) should be culled on site as soon as possible and the carcasses sent for rendering, while applying strict biosecurity to the culling operation, manure and eggs.
4. In some situations, it may be more appropriate not to cull the birds immediately, for instance during the acute phase of viral replication to reduce the risk of spread during the culling operation. In this case it is necessary to apply rigorous and very strict quarantine to the affected flock(s) and premises. An updated biosecurity procedure will need to be implemented which focusses on bio-containment and mitigates risks of onward spread, in particular but not limited to eggs, packaging, people, vehicles, manure, litter, and carcasses of any birds which die.

It is thought that peak excretion of the LPAI virus is likely to occur as the infection goes through the flock as indicated by the very marked drop in egg production and elevated mortality. There is likely to be a very large quantity of infectious virus produced by a flock in the first few days after the onset of clinical signs, and birds become exposed and shed the virus, and then either succumb, or their body mounts an immune response by way of antibody production. Transmission time will vary and depends on the flock set-up (e.g. enriched colony cage versus free range birds), environmental conditions and the virus subtype. Serology (Elisa or Hemagglutination Inhibition) performed in the weeks following the recovery of birds will indicate whether the flock has fully seroconverted. Delayed or uneven seroconversion increases the period of viral shedding and risk of onward spread. **Environmental contamination including litter, manure and dust in and around the poultry unit, may remain infectious for some weeks** and studies undertaken at APHA tell us that the survival of virus in the environment is also dependent on many factors such as temperature and surface material. In convalescence, laying hens may resume egg production but how quickly this would happen, and the level of production, is unclear.

To move birds or untreated litter from infected premises during the first few weeks after the onset of clinical signs risks moving highly infectious material and would be highly irresponsible, putting other poultry units at major risk. It is well documented in other parts of the world that live transport of infected birds down major roads can be a major contributor in spreading AI to farms near major roads, as is the movement of manure and litter. Affected flocks must not be sent for conventional slaughter until fully recovered, as

demonstrated by seroconversion and other measures of flock health, including egg production and daily mortality.

5. BEIC requires receipt of documentation from the senior management of the site outlining the measures to control the spread of LPAI. These should include options A and/or B (below):
 - A. As soon as is practical, culling and disposal of the flock - this is the preferred option. Quarantining of the flock, in line with section B is required up to the point of culling and to the environment until cleaning and disinfection.
 - i. The rapid culling of the flock(s) by containerised gassing unit or by whole house gassing should be considered. **Culling should be controlled to avoid generation of virus-laden dust plumes.** Beckett's PCD¹ (WHG via Van Eck Bedrijfshygiëne) and Livetec Systems have the equipment and resources to plan and facilitate this and working in conjunction with veterinary advice will manage the process of culling the birds whilst maintaining a high level of biosecurity. Carcasses will be disposed of by rendering. The site must put in place a plan of action to safely decontaminate the site with cleaning and disinfection of the poultry house and any contaminated facilities. It is likely that veterinary advice will be to not repopulate the site for at least 4 weeks after the appropriate cleaning and disinfection.
 - ii. Enhanced cleaning and disinfection should be initiated as soon as possible with a particular focus on residual faecal material. Quarantine of the site as described below is applied until satisfactory completion of C&D
 - iii. Re-stocking of the site may be initiated after an audit by the attending veterinarian confirming effective C&D.
 - B. Quarantine of the flock with enhanced biocontainment which has been approved by BEIC (in the period up to C&D if culling flock(s), or to allow flock recovery) - measures described should include:
 - i. Attention to biosecurity with a minimum of; dedicated staff, footwear changes on entering the bird areas, disinfectant footbaths properly used and maintained, frequent and thorough cleaning and disinfection of service areas
 - ii. The entrance ways to the site must be locked and only authorised personnel may enter
 - iii. Essential visitors only as far as service areas. All visitors made aware of the flock's health status and the risk of carriage of infection. Maintenance personnel and other essential visitors who have to enter bird areas should have 72 hours down-time after the visit and should thoroughly C&D any equipment prior to visiting any other poultry site

¹ BEIC has a standby culling contract in place.

- iv. Housing of the flock(s) if required by the attending veterinarian with a view to controlling disease spread or for reasons of bird welfare. (Please note - It is unlikely that appropriate biocontainment could be achieved without housing free range or organic flocks)
- v. Controlled access with a pressure washer with disinfectant in place for C&D of all vehicles on departure from the site that have to attend the flock – feed lorries, etc
- vi. Manure/litter and disposal/storage on site, or if moved off site, in properly covered trailers or lorries and stored at a location away from other poultry and covered. Appropriate C&D of such vehicles on leaving the poultry unit and after unloading. A dedicated trailer is recommended. Any vehicle or trailer used for the above should not be used on another poultry site for a minimum of 72 hours after C&D. Attention to these requirements is particularly critical where fresh manure is regularly removed from site (enriched colony cages and multi-tier systems)
- vii. No eggs shall be moved to a packing station until 28 days after the flock has fully seroconverted – 60 serum samples with no negative or low titres (serogroup 1 or 2 by Elisa), including samples from the last affected colony/pens or area of the house. Prior to this, eggs may be sent for processing in single use packaging/pallets², informing the processor that the flock is under quarantine. It should be noted that this is intended as a precaution with the objective of reducing the risk of spread of infection within the poultry industry and does not imply a food safety risk from eggs or egg products. Egg movements from an LPAI infected flock(s) are to be direct to an egg processor or store (at any time), or packing centre (from 28 days after seroconversion). The packing centre must follow the requirements as set out in its designation pre-approval. For example, there should be thorough C&D of the egg vehicle prior to any other egg collections by that vehicle from any other sites. Egg collection is best arranged prior to weekend or other downtime for the collection vehicle
- viii. If non-single use packaging/dividers/pallets have to be used to send eggs to an egg processor during the quarantine period, plastic egg trays, dividers and pallets originating from a quarantined site must be thoroughly washed and disinfected prior to re-use. If in doubt, then disinfection should be done twice
- ix. Quarantine of flock is maintained for a minimum of 4 weeks after full seroconversion
- x. Carcasses from any ongoing mortality, or a culling operation, are to be disposed of either by on-site incineration or by direct delivery to a licensed disposal company
- xi. Flocks which have completed a quarantine period and recovered may be slaughtered in the normal way, but the processor must be informed as soon as this is planned (and in any case 7 days before slaughter) to allow any extra biosecurity precautions they require.

² Wooden pallets can be used, but must not be returned into the egg supply chain.

C. Depletion of flocks

- i. Depletion of flocks from the same company on other sites is expected to proceed as normal
- ii. Depletion of healthy flocks from the same site as an affected flock should be handled with extra precautions
 - a. The senior management of the site will notify the processor at least 7 days prior to processing that the flock will originate from a site with LPAI controls³ in place and provide a formal declaration that the required biosecurity precautions have been put in place
 - b. The senior management of the site will arrange for a veterinary inspection to be carried out within 72 hours of the planned depletion time, to include inspection of production records and of the flock, and forward the veterinary certificate confirming that the flock concerned is not suspected to be infected with either notifiable disease or LPAI.
- iii. Depletion of recovered flock(s) in accordance with B.ix and B.xi above should also be handled with extra precautions
 - a. The senior management of the site will notify the processor at least 7 days prior to processing that the flock has recovered from LPAI and also provide a formal declaration that the required biosecurity precautions remained in place at least until 28 days after confirmed sero-positivity (see B.vii)
 - b. The senior management of the site will arrange for a veterinary assessment of serological response and production data confirming recovery and forward the veterinary certificate to the processor.

³ 'Controls' in this context means the controls set out in this paper.