



AVIAN INFLUENZA

WHAT YOU NEED TO KNOW

WHAT IS AVIAN INFLUENZA?

Avian Influenza (AI) is a disease which can affect poultry. Some strains of AI are notifiable, therefore it is an offence not to report any suspected cases to the Animal & Plant Health Agency (APHA).

There are two types of avian influenza:

- **Highly pathogenic avian influenza (HPAI)** is the more serious type and it is often fatal in birds.
- **Low pathogenic avian influenza (LPAI)** is usually less serious and can cause mild breathing problems, but affected birds will not always show clear signs of infection. The severity of LPAI depends on the type of bird and whether it has any other illnesses.

There are a number of strains of AI, and they are determined by the haemagglutinin (H) and neuraminidase (N) proteins in the structure of the virus, e.g. H7N7, H5N1.

In rare cases when there is close contact between humans and infected birds, some strains of AI can be transmitted to humans – this is known as zoonosis.

ROUTES OF TRANSMISSION

Avian influenza spreads from bird to bird by direct contact or through contaminated body fluids and faeces.

The disease can spread:

- Between birds in the same environment;
- From the wild bird population; and
- By humans, vehicles or equipment contaminated with body fluids and faeces from infected birds.

CLINICAL SYMPTOMS


The main clinical signs of HPAI in birds are:

- swollen head;
- blue discolouration of neck and throat;
- loss of appetite;
- respiratory distress, such as gaping beak, coughing, sneezing, gurgling, rattling;
- diarrhoea;
- egg drop; and
- increased mortality.



THINGS TO THINK ABOUT FOR YOUR CONTINGENCY PLAN

A contingency plan can help you prepare for disease on your farm.

Download a contingency plan template from nfuonline.com/avianflu and look out for the  in this guide for things to think about when planning.

RISK TO PUBLIC HEALTH

The avian influenza virus can change frequently, creating new strains and there is a risk that one of the new strains may spread to people.

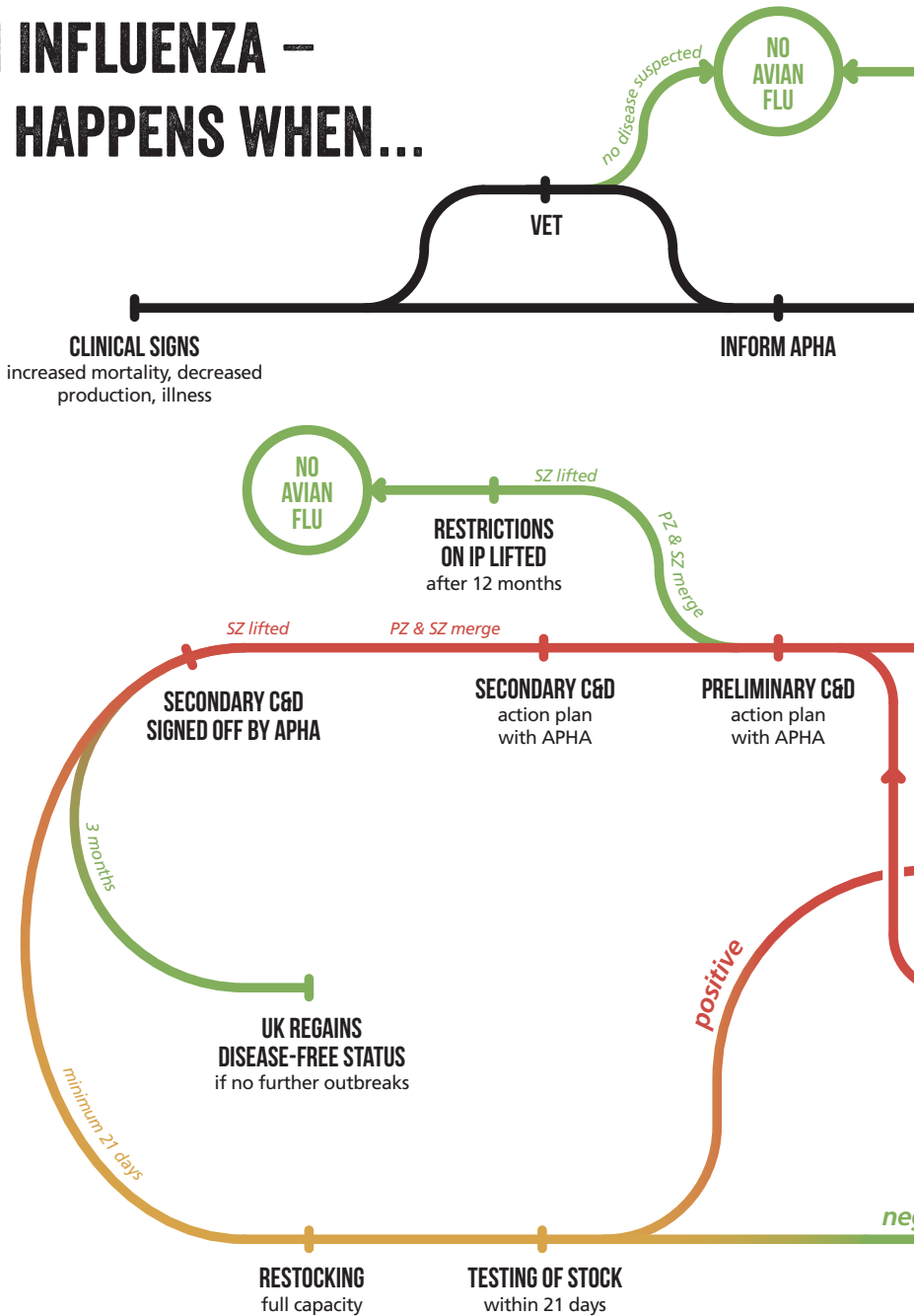
Avian influenza does not pose a food safety risk for UK consumers. Properly cooked poultry and poultry products, including eggs, are safe to eat.

Poultry workers, vets, contractors and other people engaged in disease control activities will be offered antiviral therapy, personal protection equipment and seasonal flu vaccinations when AI is confirmed.

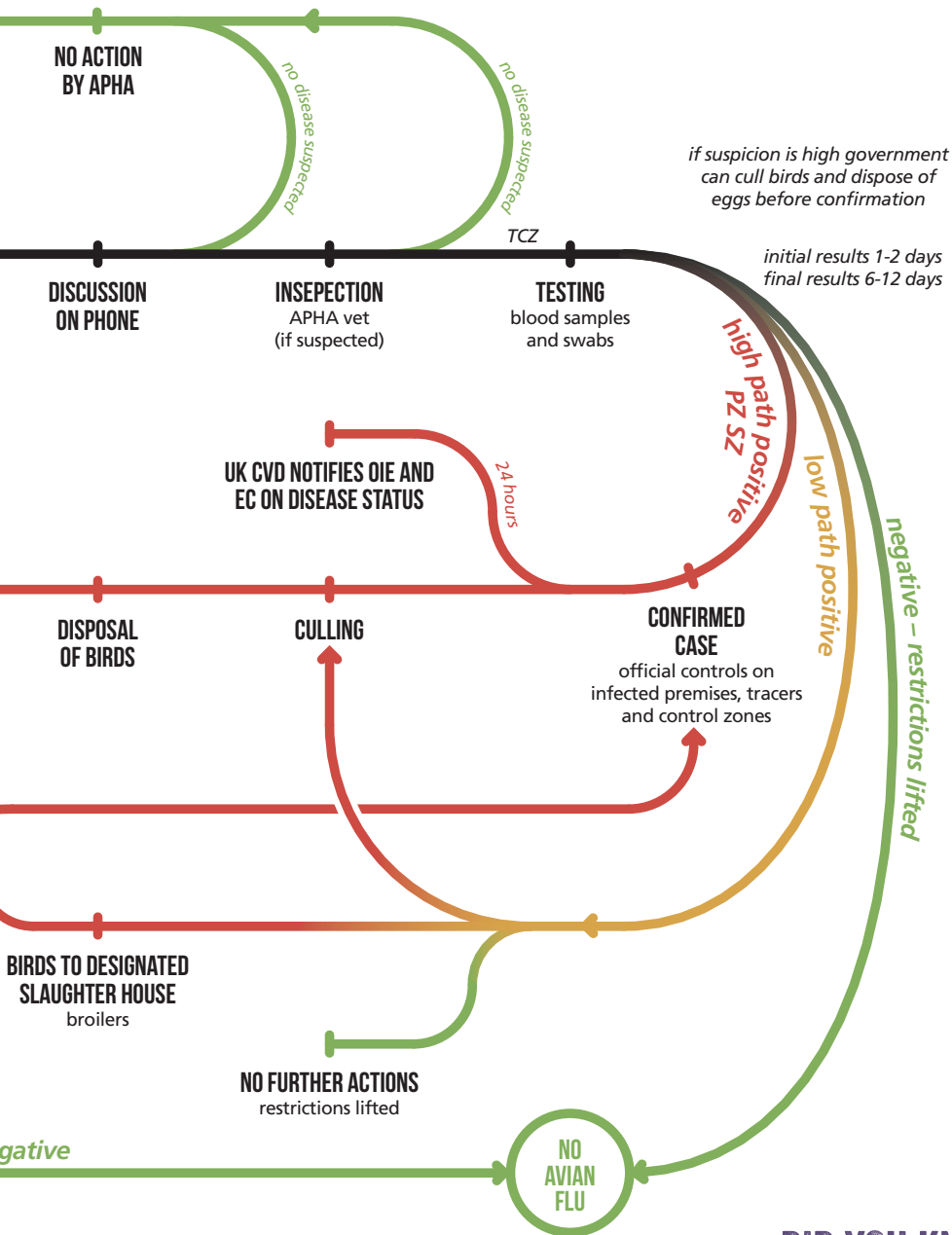


Do all workers on your farm know what the clinical symptoms are?
Do you communicate directly with consumers?
Do you need to explain the risk to human health is minimal?

AVIAN INFLUENZA – WHAT HAPPENS WHEN...



TCZ = temporary control zone
PZ = protection zone
SZ = surveillance zone



DID YOU KNOW?

If you suspect avian influenza you must tell your nearest Animal and Plant and Health Agency (APHA) office immediately? Failure to do so is an offence.

WHAT RESTRICTIONS WILL BE IN PLACE ON YOUR PREMISES WHILST AN INVESTIGATION IS CARRIED OUT?

APHA will undertake an investigation and, if the suspicion cannot be ruled out, it will take samples from birds for testing. It will also put disease control measures in place until the results are known.

Measures include:

- A temporary control zone – this prohibits the movements of poultry, other captive birds, eggs, vehicles and people to and from the premises. Although some essential movements may be licensed subject to certain conditions (e.g. people off the premises, feed deliveries);
- A means of cleansing and disinfection (C&D) using an approved disinfectant must be provided at the entrances and exits of the premises and of buildings which house poultry or other captive birds;
- Warning signs must be erected at appropriate places on the premises;
- Examination of production records; and
- Housing or isolation of poultry and other captive birds.



Do you have backup storage for eggs? Location for vehicle washing? Have you considered the welfare of birds if they have to be housed? PPE, warning signs, production records? Stage in production – back up for later stages. Is your visitor book up to date and capturing the right information?

CONTROL ZONES

When a case of AI is suspected a temporary control zone (TCZ) will be put in place by the APHA. Once confirmed, a protection zone (PZ) and surveillance zone (SZ) will be put in place around the infected premises (IP).

HPAI in captive birds and poultry:

A Protection Zone (PZ) and Surveillance Zone (SZ) will be declared. A Restricted Zone (RZ) will also be declared if the virus is confirmed to be HPAI H5N1. If HPAI H5N1 is found in the wild bird population control zones will be put in place.

LPAI in captive birds and poultry:

An LPAI Restricted Zone (LPAI RZ) will be declared. Within the zones, there will be a ban on bird gatherings and a ban on the release of gamebirds. If a housing order is issued by Defra or a farm is within a PZ, free-range birds within the area they have specified must be housed. In this situation the free-range or organic status of the unit will be retained for up to twelve weeks.



PROTECTION ZONE

The farmer must:

- Keep poultry and other captive birds in their buildings or isolated from other poultry, captive birds and wild birds;
- Ensure that all carcasses that are not seized or disposed of by a veterinary inspector are disposed of in accordance with their instructions;
- Not move poultry meat, carcasses, litter, eggs, other livestock or animals within or outside of the zone; and
- Adhere to strict biosecurity on and off the farm.

All premises within the PZ are also in the SZ.



SURVEILLANCE ZONE


The farmer must:

- Not move poultry, other captive birds or mammals (including pigs) to or from premises where poultry or other captive birds are kept (exceptions apply for pet animals);
- Record any individuals visiting the premises where poultry or other captive birds are kept. Exceptions: zoos or wildlife parks (providing the public has no access to areas where birds are kept) and on public rights of way;
- Keep a record of all poultry or poultry eggs entering or leaving premises within the zone, except where eggs are being moved direct to retail premises or onwards from such premises;
- Ensure appropriate biosecurity measures are in place for people and vehicles entering or leaving premises where poultry, other captive birds or eggs are kept – disinfectants must be from the approved list;
- Poultry litter, manure or slurry should not be moved or spread.

Anyone involved in the transport or marketing of poultry or poultry eggs must also make a record of those that are transported or marketed.



Consider the implications of an outbreak at different stages in the cycle, e.g. feed requirements, storage of eggs. Ensure the visitor book is kept up to date. Do you have other ventures on the farm e.g. livestock, farm shoots?



WHAT HAPPENS IF DISEASE IS CONFIRMED ON YOUR PREMISES?

Certain actions must be taken quickly in order to contain the disease and minimise the risk of spreading it to other poultry farms. These include:

- Culling;
- Disposal of carcasses and other contaminated material; and
- Cleansing and disinfection.

CULLING

If disease is confirmed, APHA will arrange for susceptible birds at your premises to be humanely culled to prevent the risk of disease spread.

Compensation is payable for healthy poultry killed at the value of the birds immediately before killing. Further details about compensation are available on gov.uk. Look at nfonline.com/avianflu for the link.

Valuation is determined by one of the following methods:

- APHA uses poultry valuation tables to calculate compensation for poultry culled to prevent the spread of avian influenza;
- APHA approved valuer who is suitably qualified and experienced to value the species and type of poultry; or
- Specialist poultry consultants (when no other method of valuation is possible).

The local APHA office will be able to provide more information on compensation.



DISPOSAL

APHA is responsible for the disposal of carcasses of birds culled for disease control purposes.

Where there are other carcasses, poultry meat, table and hatching eggs on the premises – which have been produced from susceptible animals originating at the IP – these must be disposed of by the owner and compensation is not payable. These products must be disposed of in a biosecure manner (following liaison with the APHA vet) and in compliance with Animal By-Products Regulations at a designated disposal facility.



PRELIMINARY CLEANSE AND DISINFECTION

Once birds at the IP have been culled, APHA will carry out and fund the preliminary cleanse and disinfection (C&D). They will spray an approved disinfectant on:

- All parts of the premises (other than parts where disinfectants would have no effect, such as fields);
- All equipment which poultry or other captive birds have had access to;
- Any contaminated material remaining at the IP (e.g. litter); and
- Anything contaminated during culling.



SECONDARY CLEANSE AND DISINFECTION

A secondary C&D must be carried out at the expense of the owner of the IP before restocking can take place.

Completion of secondary C&D is also linked to when the UK can regain official disease-free status for AI from the World Organisation for Animal Health.

Disease freedom cannot be regained until either:

- three months after secondary C&D has been completed; or
- 12 months after the last outbreak occurred.

Not being able to carry out secondary C&D, or delays in completing the procedure, can therefore have serious implications on international trade.

WHAT IS THE PROCESS FOR SECONDARY C&D?

1. Once preliminary C&D is complete, APHA will serve a notice (EXD23) which sets out the high-level requirements that must be met.
2. The IP must then submit plans to APHA for how the requirements will be achieved
3. APHA will work with the IP to agree the scope and method before setting out a detailed "Schedule of Works" (EXD158) which will include a target date for completion.
4. APHA will monitor the progress of the work throughout the operation to ensure it is being completed to required standards and will be available to provide any advice required.
5. Once APHA is satisfied that the work has been completed, sentinel birds can be introduced for restocking after 21 days and the three month countdown to disease freedom begins.

If the APHA concludes that secondary C&D cannot be undertaken, restrictions must remain in place on the premises for a minimum of 12 months from the date of preliminary disinfection. Restrictions will then be lifted and restocking permitted.

WHAT WORK IS INVOLVED?

In the majority of cases, an external contractor will need to be employed to carry out secondary C&D due to the equipment and expertise required. Secondary C&D is a deep clean, involving the cleansing, degreasing and disinfecting of all equipment that has come into contact with the birds (this includes troughs, shelters and housing on free range units) and any tissue of the birds, organic matter and dust.

1. Grease and dirt (feathers and litter) must be removed from all surfaces through the application of a degreasing agent and washed with water.
2. After washing with water, disinfectant should be applied.
3. After seven days, points one and two will need to be repeated followed by a further rinse with water.

Approved disinfectants must be used to carry out the secondary C&D at a concentration approved for treatment of AI virus – look at nfuonline.com/avianflu for the link.

Equipment or installations will usually need to be dismantled for effective secondary C&D to take place. Should the design of the building or equipment within it make this process impossible then the secondary C&D will not be signed off by the APHA.

Free-range fields must be harrowed, rotavated or ploughed and left fallow for at least 56 days. The depth will be stipulated in the protocols. This period of time could be longer if there are ponds, ditches or wetland areas on the range.



DISPOSAL OF WASTE MATERIAL

All waste material which includes water, litter/manure and Personal Protective Equipment (PPE) is classed as hazardous when it is infectious or has been in contact with infected material. Therefore disposal of waste has to adhere to the Hazardous Waste Regulations.

WASH WATER

Can be spread on land if it is agreed with the APHA and the Environment Agency (EA) in England or Natural Resources Wales (NRW) in Wales. The location will be considered dependent on proximity to water courses any other environmental considerations. Prior to the wash water being spread, an environmental permit will be required. If the wash water cannot be spread on land it can be sent to a water treatment plant under agreement with the operator.



Could you use existing resources to help with secondary C&D?
Which companies would you approach to support with secondary C&D?
Are there suitable sites on your farm to stack used litter and manure?
Do you have sufficient storage for wash water?

USED LITTER AND MANURE

Must be treated by a method capable of killing the virus. This method must comprise one of the following practices:

- Incineration or steam treatment at a temperature of 70°C. The receiving site of the hazardous waste must have an appropriate permit and record the treatment or disposal. It is unlikely that a power station will continue to accept contaminated litter, therefore this may not be an option for disposal.
- Stacking and dampening (if necessary) in a field or sealed trailer, covering to keep in the heat and leaving covered for 42 days to prevent access by vermin and wild birds. The location for stacking the litter must be approved by the EA or NRW.
- If the litter needs to be moved off farm for stacking, this will need to be done under licence from APHA and may involve compliance with carriage of dangerous goods regulations. The litter can then be spread on agricultural land following best practice.
- Burial of waste on site requires an environmental permit, however it is unlikely that the EA would issue one for this activity on a farm.

RESTOCKING

An IP can be restocked under a permit (from APHA) from 21 days after secondary C&D has been approved by APHA.

The premises will remain under restrictions for a further 21 days and it should be stocked at full capacity to ensure that all the areas of the premises that are usually accessed by birds are stocked. The birds will need to be inspected by an APHA vet and samples tested at an approved reference laboratory. Sampling (including the costs of packaging and transport) will need to be undertaken at the producer's expense.

If any birds die within the 21-day period diagnostic tests must be carried out on them. The producer is responsible for recording information of any mortality and must keep production data. If there are any concerns about the health of the birds this must be reported to APHA immediately.

If the birds remain healthy, mortality rates are normal and test results are negative after the 21 days, then all remaining restrictions will be lifted. If secondary C&D has not been carried out, the premises can only be restocked after the movement restrictions have been lifted 12 months after the preliminary C&D has been completed.

MOVEMENT ON AND OFF THE INFECTED PREMISES

When AI is suspected or confirmed, the movement of people and vehicles also come under restriction and the C&D process.

A licence is required to move vehicles and people off the IP.

PPE should be worn to minimise the risk to human health when people come into contact with infected birds or equipment contaminated with body fluids and faeces from infected birds. It should be suitable for the wearer and, where appropriate, should be fit-tested to the person.

Correct PPE will comprise:

- Disposable or polycotton coverall with head coverage of CE type 5 and 6 that offers protection against dusts, splashes and liquid sprays (with, as appropriate, safe disposal or cleaning after use);
- Disposable gloves of lightweight nitrile or vinyl or heavy duty rubber (not latex) gloves that can be disinfected;
- Rubber or polyurethane boots that can be cleaned and disinfected;
- FFP3 respirator with exhalation valve; and
- Close-fitting goggles or other equipment that gives at least the same level of protection.

See the HSE website for more information.



VEHICLES

At any premises where vehicles come under the C&D requirement, the occupier of that premises must provide adequate facilities, proper equipment and materials.

All disinfectants must be from the approved list (see link on [nfuonline.com/avianflu](https://www.nfuonline.com/avianflu)) and used at the appropriate dilution.

Any vehicle which may have been exposed to infection must have a C&D carried out.

This includes:

- Inside surfaces of trailer/bulker
- Tilt/tarpaulin/top cover
- Detachable fittings
- Equipment within the vehicle
- Exterior of the trailer/bulker
- Wheels
- Mudguards and wheel arches
- Exterior of the vehicle and any other areas exposed to poultry or faecal matter



Consider people and vehicle logistics on the farm – how could you put the biosecurity requirements into place? Do you have biosecurity protocols? What are the approved disinfectants required? Where would you store disinfectants? What PPE is required?



RODENT CONTROL

As part of the biosecurity measures put in place the IP is responsible for the implementation and cost associated with rodent control. The APHA will check that the measures in place are adequate.



VALUATION

Valuation is determined by one of the following methods:

- APHA uses poultry valuation tables to calculate compensation for poultry culled to prevent the spread of avian influenza;
- APHA approved valuer who is suitably qualified and experienced to value the species and type of poultry; or
- Specialist poultry consultants (when no other method of valuation is possible).

The local APHA office will be able to provide more information on compensation.

WHAT HAPPENS IF MY PREMISES HAS HAD CONTACT WITH AN IP?

To find where disease may have come from or gone to, APHA will trace all poultry, eggs and litter that have been moved off an infected premises. All people, vehicles and equipment that have visited an IP within the tracing window will also be traced.

The tracing window will be defined for each outbreak but is expected to be at least 21 days from the date that disease is likely to have been first present on the IP. These traced premises will be placed under restriction to prevent the spread of any undetected disease pending a more detailed epidemiological investigation. Movements of poultry, eggs, litter and other products of animal origin will be prohibited. The length of time restrictions will be in place depends on whether the birds at the IP have HPAI or LPAI, however they could last for up to 21 days. Testing may also be carried out.

After initial veterinary assessments have been carried out by APHA, producers may be able to apply for a licence to allow low risk movements to take place. However, such moves will only be allowed if government are content that it will not put disease control at risk and there are legal provisions to issue a licence.



Do you keep detailed movement records? Have you considered vehicle and human logistics on your farm? Can you put the biosecurity requirements in place?
Do you have biosecurity protocols? Can you store eggs, litter etc.?

MOVEMENT RESTRICTIONS

The exact restrictions imposed will be dependent on the type of avian influenza confirmed and will be detailed on gov.uk

As the outbreak progresses and more is known about the likely spread of infection and the risks, licences may become available to allow certain movements within, into and from the zones. However, these will only become available when government is content that allowing the movement will not put disease control at risk and there are legal provisions to issue licences. Based on previous experience of outbreaks in the UK, the following licences for low-risk movements may become available in the first few days of a HPAI outbreak:

- Movement of table eggs to a designated packing centre;
- Movement of table eggs or hatching eggs to an egg processing plant or for disposal;
- Movement of hatching eggs to a designated hatchery;
- Movement of specific pathogen free eggs to a designated laboratory, institute or vaccine manufacturer for scientific, diagnostic or pharmaceutical uses;
- Movement of day-old chicks from designated hatcheries (other than into a PZ);
- Movement of chickens or turkeys for slaughter in a designated slaughterhouse;
- Carcasses for diagnosis (other than for notifiable avian disease); and
- Carcasses for disposal (subject to animal by-products regulations and biosecurity instructions).

It is unlikely that other movements will be considered for licensing in the first few days of an outbreak, such as the movement of ducks and geese, the movement of ready-to-kill poultry and movement of manure/litter.

There are two categories of licences:

GENERAL LICENCE

- Placed on the gov.uk website
- Allow a movement/activity to take place without applying for a licence. If you can meet the conditions of the licence, the movement/activity can be undertaken.

SPECIFIC LICENCE

- A specific licence is considered on a case-by-case basis. Apply to the APHA (by email) for permission to carry out a movement or activity, subject to conditions.
- The APHA will establish a central licensing team that will offer help and advice. See nfonline.com/avianflu for the link.

Slaughterhouses must apply to the Food Standards Agency for designation if they are located within disease control zones, or intend to receive birds from these zones. The application form can be requested from approvals@foodstandards.gsi.gov.uk.

ARE YOU REGISTERED?

Poultry flocks of 50 or more birds that you own or are responsible for must be registered with the APHA. All other poultry keepers are urged to register in order for them to be contacted quickly in the event of a disease outbreak.

Form and email address: gov.uk/poultry-registration

For more information and resources visit nfuonline.com/avianflu



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