GUIDELINES FOR CONTROL MEASURES FOLLOWING A SUSPECT/CONFIRMED HIGHLY PATHOGENIC AVIAN INFLUENZA OUTBREAK IN CHICKENS

Contents

1. Legislative Background ................................................................................................................................................. 3
2. Definitions ........................................................................................................................................................................ 3
3. General Biosecurity and Biosecurity Measures ............................................................................................................. 4
4. Quarantine of Suspect HPAI Land ................................................................................................................................. 5
5. Confirmation of HPAI Infection .................................................................................................................................... 6
6. Forward and Backward Tracing .................................................................................................................................. 7
7. Control Measures on a Confirmed HPAI Infected Site ................................................................................................. 8
8. Control Measures in the 3km Zone of an HPAI Infected Site ......................................................................................... 17
9. Export of Poultry Products, Birds Classified as Non-Poultry and Other Bird Products ............................................. 17
ANNEX A ............................................................................................................................................................................. 19
1. Legislative Background

1.1. Section 11(1) of the Animal Diseases Act, 1984 (Act No 35 of 1984), places certain obligations on the owner or manager of land on which there are animals and the owner of such animals to, amongst others, take all reasonable steps to prevent the infection of the animals with any animal disease and the spreading thereof from the relevant land or animals, or steps which are necessary for the eradication of animal diseases on the land or in respect of the animals.

1.2. In terms of the control measures prescribed in Table 2 of the Regulations of the Animal Diseases Act, 1984 (Act No 35 of 1984), all infected poultry shall be destroyed by the responsible person under the supervision of an officer. All in contact poultry shall be isolated and destroyed by the responsible person under the supervision of an officer.

1.3. Deviation or exemption from these guidelines shall only be permitted with written approval from the DAH. The responsible person shall apply directly to the DAH in writing for such exemption. The application submitted to the DAH must contain all the relevant information. Upon receiving a written request for exemption, the DAH will evaluate the exemption request with the input of officials or experts as deemed necessary. A written response will be forwarded to the responsible person.

2. Definitions

2.1. A “site” is defined as a chicken production unit constituting a number of chicken housing facilities that share common biosecurity components (workers, vehicles, water sources, feed sources, containers, etc.) and are separated from any other poultry by a fence with access control.

2.2. A “Highly Pathogenic Avian influenza (HPAI) infected site” (“infected site”) is any site where a chicken, whether free ranging or housed, diagnosed with HPAI, is located.

2.3. “HPAI suspect land” is considered to be any land on which infection with HPAI is suspected for any reason or land that could be epidemiologically linked to an HPAI infected site or to other HPAI suspect land.
2.4. The “responsible person” means a manager or owner of land on which there are animals and an owner of animals

2.5. ‘Land’ includes any building, structure, enclosure, premises, harbour, jetty; wharf or water and, subject to subsection (5) of Section 1 of the Animal Diseases Act 1984 (Act no 35 of 84), any adjoining land.

3. General Biosecurity and Biosecurity Measures

3.1. Biosafety

3.1.1. Everyone entering a HPAI suspect land must wear proper protective clothing (PPE), including gumboots, overalls, gloves and face masks.

3.2. Biosecurity

3.2.1. State Veterinarians that have visited land affected by HPAI or suspected to be affected by HPAI are requested to not enter compartments for inspections for annual re-registration. In such cases the inspection must be delegated to another official. In the instance that another official is not available, a private veterinarian may be authorized to conduct the physical inspection.

3.2.2. Any person leaving the suspect or confirmed HPAI land must shower out (or shower as soon as possible if no shower is available on the land). As far as possible, the protective clothing must remain on the affected land and be cleaned and disinfected and destroyed after use. If the veterinarian provided his/her own protective clothing, this must be taken off on leaving the land, placed in double packaging and disinfected as soon as possible by complete immersion in disinfectant.

3.2.3. After having visited land where birds with clinical signs are present, the veterinary team(s) that were present on this land is/are then regarded as contaminated and should refrain from visiting other land where susceptible species are kept within a 48 hour period.

3.3. Personnel:

3.3.1. A limited number of personnel should have contact with infected birds;

3.3.2. Ideally, designated personnel should be assigned to the affected house/site/premise;
3.3.3. Where possible, personnel in contact with infected birds should reside on site;

3.3.4. All in contact personnel must refrain from contact with poultry for at least 48 hours following their last exposure to infected birds;

3.3.5. All in contact personnel must wear the appropriate personal protective equipment. This should include a full body suit over designated overalls, boots and protective face masks;

3.3.6. Overalls and boots must be cleaned, disinfected and washed on site.

4. Quarantine of Suspect HPAI Land

4.1. Responsibility to prevent spread of disease

4.1.1. Upon suspicion of an HPAI infection on any land, the responsible person must prevent susceptible animals or potentially contaminated things from moving to (onto), through (via) or from (off) the land in order to prevent the spread of disease in accordance with Section 11 of the Animal Diseases Act, 1984 (Act No 35 of 1984).

4.2. Quarantine

4.2.1. In addition to the legally obligatory quarantine referred to in 4.1 above, the responsible state veterinarian should officially place the land under quarantine and impose movement restrictions in terms of Sections 15 of the Animal Diseases Act, 1984 (Act No 35 of 1984). If verbal quarantine is used, it should be followed with a written quarantine notice issued in terms of Section 15 of the Animal Diseases Act, 1984 (Act No 35 of 1984).

4.2.2. In reference to 2.1, any land that may have received any potentially infected or contaminated animals or things from the HPAI suspect land and any land that shared or is sharing common biosecurity components (workers, vehicles, water sources, feed sources, containers, etc.) with the HPAI suspect land should also be placed under quarantine. In this regard the relevant period, in line with Regulation 12 under the Animal Diseases Act, 1984 (Act No 35 of 1984) and double the OIE defined incubation period of avian influenza, includes 30 days before the first suspicion of HPAI was found on the related land.

4.2.3. Should the HPAI suspect land encompass several poultry production units or sites it is recommended that the all land with all such units be quarantined until it can be
ascertained which of the units are affected by the clinical or laboratory suspicion of HPAI and until it can be ascertained whether the HPAI suspect unit or units have shared and are sharing common biosecurity components (workers, vehicles, water sources, feed sources, containers, etc.) with any other production units.

4.2.4. Any land, units or sites that are potentially linked must be put under quarantine as a precaution until an investigation by the responsible state veterinarian has confirmed which production units and / or properties are regarded as HPAI infected sites because they were exposed to potentially infected or contaminated animals or things and / or by virtue of shared common biosecurity components (workers, vehicles, water sources, feed sources, containers, etc.). This is required to prevent any potential spread of HPAI after the initial suspicion.

4.2.5. There will be no exemption from quarantining the entire land or all land that is potentially linked as per 4.2.4 above until HPAI has been either confirmed or excluded as a diagnosis and the investigations by the responsible state veterinarian have been concluded.

4.2.6. Sites, as defined in 2.1 above, that can be demonstrated by the responsible person and verified by the responsible state veterinarian following investigation, as epidemiologically separate from any HPAI infected site may be released from quarantine by the responsible state veterinarian. Considering the potential links, it is however recommended that daily mortality and morbidity rates for these sites on which precautionary quarantine was lifted be reported to the responsible state veterinarian for monitoring purposes and early detection of any increase in the rates.

4.2.7. If the procedures according to point 5 below result in a diagnosis of HPAI being excluded, the quarantine on all suspect land, units and sites may be lifted unless there is the suspicion of another controlled animal disease.

5. Confirmation of HPAI Infection

5.1. Samples must be collected without delay by a veterinarian (private or state) for confirmation of disease by Polymerase chain reaction (PCR) diagnostic tests and virus isolation:

5.2. Sample collection from dead or killed birds:
5.2.1. Prioritize spleen, caecal tonsils and brain samples but other internal organ samples may also be taken. Organ samples should be placed in clean containers and the outside surface disinfected. Also take cloacal swabs.

5.3. **Sample collection from live birds:**

5.3.1. Swabs for PCR collected at 60 cloacal swabs per epidemiological unit. Use plastic swabs (not wooden, as it could contain PCR inhibitors) and place a maximum of 5 swabs/swab tips in a sterile tube with 2 to 5ml sterile Phosphate-buffered saline (PBS) or submit them dry.

5.4. **Sample packaging and transport**

5.4.1. All samples must be sent on ice (4 °C) and must be packaged in triple packaging in compliance with the Regulations of the National Road Traffic Act, 1996 (Act No 93 of 1996).

6. **Forward and Backward Tracing**

6.1. **Information to be provided by the responsible person:**

   6.1.1. In compliance with Regulation 12(3)(b) the owner will provide forward and backward tracing information for a period of 30 days prior to the suspicion of the HPAI outbreak (also in line with double the OIE incubation period as up for adoption).

6.2. **Forward and backward tracing by the responsible state veterinarian**

   6.2.1. Full trace back and forward commencing from at least the last 30 days prior to the date of outbreak.

   6.2.2. Trace back and trace forward must include investigation of any receipt or dispatch of any potentially infected or contaminated animals or things and any potential sharing of common biosecurity components (workers, vehicles, water sources, feed sources, containers, etc.).

   6.2.3. Trace back must include scrutiny of the visitors list and in contact workers and any possible subsequent contact they may have had with poultry outside of the HPAI infected site.

   6.2.4. All thus identified HPAI suspect land traced must be placed under quarantine immediately as per Section 4 above. An investigation as to morbidity and mortality
rates and whether there has been an increase should be conducted by the responsible state veterinarian and samples collected if required. If there are no increased morbidity and mortality rates and a period of 30 days since the last potential contact with the confirmed HPAI infected site has lapsed without any signs of HPAI on the HPAI suspect land, quarantine on the HPAI suspect land may be lifted.

7. **Control Measures on a Confirmed HPAI Infected Site**

7.1. **General**

7.1.1. Quarantine should already be in place as per Section 4 above.

7.1.2. No captive birds may enter or leave the site.

7.1.3. No carcasses or products (manure, feed, feathers, eggs etc.) may leave the infected site unless under cover of a permit from the responsible state veterinarian. See conditions as per Section 7.3 below.

7.2. **Destruction (Culling)**

7.2.1. All the infected or in-contact chickens within an HPAI infected site must be isolated and destroyed by the responsible person under the supervision of an officer, as prescribed in Table 2 of the regulations of the Animal Diseases Act 1984 (Act no 35 of 84) for disease control purposes.

7.2.2. A responsible person may, after consultation with the relevant state veterinarian, determine which groups or houses of chickens are to be regarded as infected and in-contact.

7.2.3. A responsible person may determine that groups or houses of chickens on an infected site that do not show any symptoms of disease and which can reasonably be regarded as separated from infected and in-contact chickens on the site by biosecurity measures, may be regarded as neither infected nor in-contact at that point in time and thus need not be destroyed.

7.2.4. In making a determination under 7.2.2 or 7.2.3, a responsible person ought to, where possible, consult with a private veterinarian.
7.2.5. Chickens which fall within 7.2.3 above (referred to as “chickens separated from infected or in-contact chickens”) must remain under quarantine and their status must be reviewed on an ongoing basis as the disease eradication process progresses on the infected site. Please note, once birds start dying in a house, destruction due to welfare reasons is recommended.

7.2.6. Such quarantine may only be lifted in accordance with paragraph 7.9 below.

7.2.7. All hatching / laying (table) eggs from the HPAI infected houses or groups where chickens are destroyed, must also be destroyed. This includes all eggs laid from 14 days (one OIE defined incubation period) prior to the start of HPAI suspicion in the respective house.

7.2.8. No slaughter for human consumption of chickens from infected sites will be allowed even where there is a registered abattoir on the land.

7.2.9. Destruction is the responsibility of the responsible person.

7.2.10. The responsible state veterinarian is responsible for supervising the destruction.

7.2.11. Accurate records must be kept separately by both the owner and the responsible state veterinarian and include at least: dates of destruction; numbers destroyed per house/site.

7.2.12. For chickens destroyed as infected or in contact animals in terms of Table 2 of the Regulations of the Animal Diseases Act, 1984 (Act No 35 of 1984), an application for compensation may be made in terms of Section 19 and Regulation 30:

7.2.13. Section 19 of the Animal Diseases Act 1984 (Act no 35 of 84) “Compensation” states that:

“The owner of any animal or other thing which has been destroyed or otherwise disposed of pursuant to any control measure, or any provision of section 17 (3) or (5), or any other provision of this Act, by the director or on his authority, may submit an application for compensation for the loss of the animal or thing to the director.

The director may, taking into consideration –

the applicable compensation, based on a fair market value of the animal or thing, which has been prescribed for purposes of this section or, where no compensation has been so prescribed, any amount fixed by him in accordance with any criterion deemed applicable by him; ….. fix a fair amount as compensation.”
Regulation 30 of the Animal Diseases Act 1984 (Act no 35 of 84) entitled “Compensation” states that: “When compensation is payable to a responsible person in terms of section 19 of the Act, the applicable compensation shall be determined by the director.”

7.3. Movement off a HPAI Infected Site

7.3.1. Under no circumstances may live chickens move off an HPAI infected site for any purpose whatsoever.

7.3.2. Dead Chickens can move off but only with a red cross permit and only in compliance with the conditions as stipulated under disposal below in point 7.4.

7.3.3. Table and Hatching Eggs

7.3.3.1. Eggs from houses where chickens are being destroyed, must also be destroyed. This includes all eggs laid from 14 days (one OIE defined incubation period) prior to the start of HPAI suspicion in the respective house.

7.3.3.2. For groups or houses on an HPAI infected site where chickens are not being destroyed as they can be reasonably be regarded as separated from infected and in-contact chickens on the site by biosecurity measures, the hatching/laying (table) eggs must be kept until the end of the quarantine period and then be fumigated twice on site prior to removal. Each batch of eggs must be wrapped in plastic with the following information clearly indicated: date of collection and house/site of origin.

7.3.3.3. If table eggs from groups or houses on an HPAI infected site where chickens are not being destroyed as they can be reasonably be regarded as separated from infected and in-contact chickens on the site by biosecurity measures, have to be removed prior to the lifting of quarantine such eggs must be sent for an additional risk mitigation measure being pasteurization under Red Cross Permit.

7.3.3.4. It is recommended for hatching eggs that are moved off after quarantine has been lifted, that these eggs be kept separate from other eggs at the hatchery. And that records be kept of where these day old chicks are being
placed for traceability purposes and that they be monitored for at least 21 days for any abnormal morbidity and mortality rates.

7.3.3.5. Any vehicles transporting these table eggs and/or hatching eggs should be properly disinfected prior to transportation of anything else.

7.4. **Disposal**

7.4.1. The responsible person is responsible for the disposal, cleaning, disinfection and repopulation and keep auditable records thereof. Disposal, cleaning, disinfection and repopulation should be supervised by the responsible State Veterinarian.

7.4.2. **Composting:**

7.4.2.1. The preferred method of disposal of all affected material (carcasses, eggs, feathers, manure, bedding, feed etc.) is composting.

7.4.2.2. The preferred method is composting of the affected material in the affected house for a minimum of 21 days:

7.4.2.3. There must be temperature control and monitoring to ensure the material reaches the necessary temperature of 55 °C for 3 consecutive days during composting;

7.4.2.4. Any machinery or equipment or personnel used to stack, turn or otherwise handle the composting material must be effectively cleaned and disinfected before leaving the affected houses;

7.4.2.5. The houses must be sealed and managed in such a manner as to prevent wild birds, pests or insects from entering the houses;

7.4.2.6. Removal of adequately composted material from the houses and the destination of such material must be detailed.

7.4.3. **Burial:**

7.4.3.1. It is preferable that affected material is buried on site and as close as possible to the affected houses to minimize the risk of spreading the disease off the land. This is subject to the approval and conditions from the DEA and DWS;

7.4.3.2. Movement of the affected material from the affected houses to the burial site must be undertaken in such a manner as to prevent environmental
contamination e.g. using closed bags or bins to transport material, emptying material into burial trenches as close to the bottom of the trench as possible etc.;

7.4.3.3. The burial site must be secured against scavengers until covered and burial trenches must be covered in such a manner as to prevent scavengers accessing the material;

7.4.3.4. Any machinery or equipment or personnel used to pack, move or otherwise handle the material must be effectively cleaned and disinfected before leaving the affected land;

7.4.3.5. The plan must comply with the requirements of DEA and DWS where applicable.

7.4.4. For disposal at a land fill site as approved by the Department of Environmental Affairs:

7.4.4.1. It is the responsibility of the responsible state veterinarian to ensure that the responsible owner/manager has obtained the required approval from the Department of Environmental Affairs.

7.4.4.2. The responsible State Veterinarian should ensure that the vehicle for transport is a leak proof truck/container. If the vehicle is open at the top, the container should be secured properly to prevent anything potentially falling off the vehicle. A sealed cooler truck would be the best option to transport bagged carcasses.

7.4.4.3. The responsible state veterinarian should supervise the loading of the truck.

7.4.4.4. The truck should use a route to drive through that is an area with the least poultry.

7.4.4.5. The truck and any containers should be properly disinfected prior to leaving the land fill site.

7.4.4.6. The responsible state veterinarian should obtain a certificate of disposal from the land fill site.

7.4.5. For disposal at a rendering plant:
7.4.5.1. It is the responsibility of the responsible State Veterinarian to ensure that the rendering plant to be used is a bona fide rendering plant that is registered with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947).

7.4.5.2. It should be confirmed that the rendering plant can render chicken carcasses as is.

7.4.5.3. The rendering plant should be able to render these avian influenza positive carcasses on a day where no other carcasses from other facilities are being rendered.

7.4.5.4. The responsible State Veterinarian should ensure that the vehicle for transport is a leak proof truck/container. If the vehicle is open at the top, the container should be secured properly to prevent anything potentially falling off the vehicle. A sealed cooler truck would be the best option to transport bagged carcasses.

7.4.5.5. The responsible State Veterinarian should supervise the loading of the truck.

7.4.5.6. The truck should use a route to drive through that is an area with the least poultry.

7.4.5.7. The truck and any containers should be properly disinfected prior to leaving the rendering plant.

7.4.5.8. The responsible state veterinarian should obtain a certificate from the rendering plant upon completion of the rendering.

7.5. Determination of Clinical Endpoint/last destruction or mortality due to HPAI on an infected site.

7.5.1. If all chickens on an HPAI infected site have died or are destroyed, date of clinical endpoint is the date on which the last chicken on the land has died or been destroyed and all infectious material safely disposed of. In the case of composting being used as a method of disposal, clinical endpoint is delayed to the date on which the state veterinarian considers all compost on the land to be free of HPAI.

7.5.2. If some chickens are kept alive
7.5.2.1. Accurate daily morbidity (sickness) and mortality (death/killed) figures must be kept by the responsible person and shared with the state veterinarian for every group or house of chickens at least once a week;

7.5.2.2. After 14 days after the last chicken on the HPAI infected site has died or was destroyed and all infectious material (including compost) safely disposed of, the abovementioned figures must be reviewed to confirm there has been no undue mortality in the remaining groups or houses.

7.5.2.3. Post mortem examinations must be conducted on each mortality for seven consecutive days (after the 14 days as per point 7.5.2.2 lapsed). Organ samples must be collected from each mortality - prioritize spleen, caecal tonsils and brain samples but other internal organ samples may also be taken. The collected organs samples for each individual bird must be placed in an individual sterile container labelled with the date, house and/or site details. These samples must be submitted to a DAH approved and SANAS accredited laboratory at the cost of the owner for avian influenza PCR testing. The person submitting the samples to the laboratory must inform the relevant laboratory in writing to store all the samples until all 7 consecutive days of samples have been collected and await written confirmation from the Director Animal Health as to how samples are to be pooled for PCR testing.

7.5.2.4. If the avian influenza PCR tests on the post mortem samples as per point 7.5.2.3 are negative for HPAI to the satisfaction of the DAH, random serological sampling of 30 chickens in each house of chickens must be conducted by the responsible person and submitted to a DAH approved and SANAS accredited laboratory at the cost of the owner for avian influenza serology.

7.5.2.5. If both the avian influenza PCR and serological tests as per points 7.5.2.3 and 7.5.2.4 are negative to the satisfaction of DAH, the DAH may consider giving written permission to lift the quarantine.

7.5.2.6. If the avian influenza PCR and/or serology are not negative, the site must be dealt with as determined by the DAH.

7.6. Cleaning of HPAI Infected Sites
7.6.1. Following clinical endpoint and complete disposal of carcasses, eggs, feathers, manure, bedding, feed, compost etc. as per point 7.4 above, cleaning should be undertaken.

7.6.2. Cleaning refers to the physical removal of dirt etc. from the affected houses and equipment. Cleaning of the houses must only be undertaken once all of the infectious material has been safely removed from the houses;

7.6.3. All equipment and houses must be thoroughly scrubbed or scraped in such a manner as to remove all encrusted organic material and other dirt that may harbor the virus without allowing this material to enter the environment and increase the risk of environmental contamination. Disinfection may only commence after the houses and equipment are cleaned to the satisfaction of the State Veterinarian;

7.6.4. It is important not to permit the use of high pressure water hoses for initial cleaning, as these will not only dislodge the dirt but will spray it into the environment and increase the potential contamination. If high pressure hoses must be used, all surfaces of the houses and equipment must first be covered with a disinfectant foam or gel effective against HPAI and left for the appropriate contact time, before cleaning commences. If high pressure hoses are used thereafter, it is strongly recommended that the water be mixed with disinfectant;

7.6.5. The owner must ensure that the effluent plan for the cleaning and disinfection process that adequately controls run-off water to limit spread of virus outside the affected houses is approved by DEA and DWS and proof of approval supplied to the responsible state veterinarian;

7.6.6. Ensure that there are no standing pools of water created around the houses as these will attract wild birds and the HPAI virus is capable of surviving for prolonged periods in water.

7.7. Disinfection of Infected Properties

7.7.1. Following cleaning to the satisfaction of the responsible state veterinarian as per “Cleaning of HPAI infected sites” above, disinfection is the process of eliminating infectious organisms by using chemical or physical agents;

7.7.2. Thorough disinfection of the houses and equipment must be undertaken at least twice;
7.7.3. After disinfection, the house and equipment must be allowed to dry completely;

7.7.4. It is recommended that disinfection is commenced in all cases by spraying a disinfectant gel or foam effective against HPAI onto the equipment and inside the houses;

7.7.5. Disinfectant used on houses, equipment, vehicles etc. must be registered with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947) and must contain compounds effective against HPAI (virucidal);

7.7.6. It is important to ensure the recommended concentration and contact times of these products are complied with. Please note that some disinfectant compounds may be corrosive on certain materials;

7.7.7. The owner must ensure that the effluent plan for the cleaning and disinfection process that adequately controls run-off water to limit spread of virus outside the affected houses is approved by DEA and DWS and proof of approval supplied to the responsible state veterinarian. Ensure that there are no standing pools of water created around the houses as these will attract wild birds and the HPAI virus is capable of surviving for prolonged periods in water.

7.8. **Optional placement of sentinels**

7.8.1. The HPAI infected site will remain under quarantine for a minimum period of 28 days after the first disinfection is completed to the satisfaction of the State Veterinarian;

7.8.2. After 14 days have elapsed since the first disinfection, the owner/manager may, with the written permission of the State Veterinarian and under State Veterinary supervision, bring sentinel poultry onto the site. Clinical surveillance on the sentinels during days 14 to 28 must be undertaken. All cases of morbidity or mortality must be reported immediately to the State Veterinarian and must be sampled for HPAI;

7.8.3. The site is still under quarantine and no birds or products (including eggs) may be permitted to leave the site until the quarantine is lifted.

7.9. **Lifting of Quarantine and Repopulation**

7.9.1. If all chickens have died or been destroyed, the state veterinarian may consider lifting quarantine after a minimum period of 28 days after the initial disinfection following clinical endpoint has been completed to the satisfaction of the State Veterinarian;
7.9.2. If any chickens are left alive on the HPAI infected site, lifting of quarantine may only be considered once written permission to do so has been received by the SV from the DAH following fulfillment of the conditions for clinical endpoint - see above.

7.9.3. Commercial chicken farms are advised to have a full biosecurity audit performed by a State Veterinarian and address all recommendations and concerns arising from this audit prior to restocking with poultry;

7.9.4. Quarantine should preferably be lifted in writing by the responsible State Veterinarian.

8. Control Measures in the 3km Zone of a HPAI Infected Site

8.1. State Veterinary Officials should urgently identify all poultry facilities within a 3km radius and prioritise as follows (and in this order):

   8.1.1. large commercial operations;
   8.1.2. small and upcoming commercial operations; and
   8.1.3. properties where only a few birds are being kept;

8.2. For each of the above properties, the following information should be collected:

   8.2.1. Census data including number of birds and type of birds;
   8.2.2. Accurate GPS co-ordinates;
   8.2.3. Findings of evaluation for clinical signs;

8.3. Increased surveillance must continue at these facilities until the quarantine on the HPAI infected site has been lifted.

9. Export of Poultry Products, Birds Classified as Non-Poultry and Other Bird Products

9.1. Trade partners require certification of country freedom from HPAI for the export of fresh meat from poultry as well as exports of live poultry, hatching eggs and poultry products (unless the product has been subject to a process to inactivate avian influenza viruses in line with the OIE Code on avian influenza viruses), which we cannot currently provide. However, fresh meat from poultry as well as exports of live poultry and hatching eggs and poultry products sourced from a registered avian influenza free compartment (in terms of
VPN/44/2012-01) will be negotiated with trade partners and can be exported if the import requirements can be met. The client has to get the latest import permit;

9.2. It is necessary for the exporter to confirm with the importer whether the importing country will still allow importation of non-poultry birds, and whether the import requirements may have changed.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Name: Dr Mpho Maja</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reason:</td>
</tr>
<tr>
<td></td>
<td>Date: 2021.05.21 09:31:40 CAT</td>
</tr>
<tr>
<td>Name</td>
<td>Dr Mpho Maja</td>
</tr>
<tr>
<td>Designation</td>
<td>Director: Animal Health</td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>
ANNEX A

Disease Outbreak Investigation Guideline

When investigating a disease outbreak, your aim should be to establish the following as quickly and accurately as possible:

1) A definitive diagnosis
2) Where did the disease come from
3) What is the disease doing now
4) Where might the disease have spread to, and how
5) What preventative/control measures have/need to be put in place and by whom

Use the following as a checklist to ensure that all relevant information is captured

A) Investigation performed by: - Name, address, contact details, job title/position etc

B) Location of outbreak: Farm name/village name/diptank name or number AND GPS co-ordinates

C) Contact Details of stockowner/manager

D) Farm/Location details
   1. Production system
   2. Species on farm
   3. Number of animals per species
   4. Other relevant farm detail

E) Disease Details:
   1) Species affected and breed(s)
   2) Clinical symptoms observed/related
   3) Has a confirmed diagnosis been made Y N
   4) If No – is there a presumptive diagnosis, or a differential diagnosis list
   5) If No – What samples taken/what tests requested/PM findings etc

F) Outbreak history:
   1) Date of first symptoms
   2) Number of animals at risk (herd/flock size)
   3) Number of animals that have died (Mortality)
   4) Number of animals that are sick (Morbidity)
   5) Any obvious clustering e.g. by sex/age/breed/geo location etc
6) What response, if any, has been undertaken (treatment, culling etc) and how effective has this been

G) Where did the disease come from?
   1) Backward tracing – animal movements onto farm
   2) Other potential sources – labour, suppliers, visitors
   3) Biosecurity – present/absent/breaches

H) What is the disease doing now?
   1) Is the disease spreading on the farm/has it been contained
   2) Are mortality/morbidity figures increasing or decreasing
   3) Other pertinent information to the current situation

I) Where might the disease have spread to and how?
   1) Forward tracing – what, where, when, how

J) What preventative/control/surveillance measures have/need to be put in place
   Quarantine or isolation
   Testing of adjacent herds/areas
   Other surveillance measures
   Treatment
   Vaccination
   Culling
   Biosecurity review

K) Does the disease have zoonotic potential? If so, have local health authorities been informed

L) List people/institutions that have (or should) be advised of the outbreak.

Compile a comprehensive report shortly after the investigation

Include the information collected according to the check list.

This document was compiled by the Veterinary Epidemiology Working Group with Dr K Perrett (KZN) as the main author.