

- **Do not wait for laboratory results before acting.** In such a situation, laboratory results are only here to help the DVO and the veterinary take the decision to maintain / extend the control measures (if the specimens are positive for Avian Flu) or to stop them (if specimens are negative). Laboratory results are to help better understand the problem. The control measures should start immediately with the veterinary's visit. If you wait, it could be too late!
- **Do not wait for DVO staff to come before acting.**
- If the disease is confirmed to be Avian Flu, the district vet and the veterinary should ensure that the control measures are maintained or extended, according to what is decided by the DVO (advised by the National & Provincial Veterinary Services).

Below is an example of the steps that should be followed:

On the Sunday, at 18.00, Ms Smith feeds her 20 chickens. They all look normal.



On Monday:

- 7.00 5 chickens are dead and the others are weak.
- 8.00 Ms Smith washes her hands and sandals and then goes to the house of the veterinary.
- 9.00 The veterinary takes some disinfectant at his home, and he goes to the house of Ms Smith.
- 9.30 The Veterinary arrives; leaves his motorbike at the farm gate.
- 9.35 The Veterinary looks at the poultry (alive and dead). Asks some questions to Ms Smith. He learns that one week before a lot of chickens died at the next house. He thinks that it may be Avian Flu or Newcastle disease. He explains to Ms Smith what must be done.
- 10.00 Ms Smith puts the dead chickens in plastic bags. She closes the plastic bags and places them in a protected area (away from the house, from other animals, from the well). She keeps the live ones in a protected place (poultry pen or fenced park).
- 11.00 The Veterinary prepares a solution of commercial disinfectant in 1 bucket. The Veterinary goes to the farm gate, washes and brushes his hands and his sandals in the bucket, as well as the wheels of his motorbike.



Ms Smith puts small equipments at risk in the bucket.

Ms Smith agrees to control the entry and exit of people and animals into her farmyard.

Ms Smith puts some quicklime on the poultry house, and everywhere the poultry may have walked during the last few days. She checks that all animals are kept in their pens or attached.

- 11.30 *The Veterinary goes immediately to inform the village chief and goes to phone to the District Veterinary Office to inform them about the disease, gives them detailed information of what he has seen and what he has done. The District Vet informs him that someone will go in the afternoon to discuss and take some specimens for laboratory testing.*
- 15.00 *One staff from the DVO arrives at Ms Smith house with the veterinary. DVO and the Veterinary follow the same principles before entering the farm. DVO opens the bags, observes the dead birds, opens them (post-mortem). He takes specimens from the dead and alive birds. During these operations, DVO and others wear gloves and facemasks.*
- 16.00 *DVO asks Ms Smith the following questions: Who has entered her farm during the past 3 weeks and where they*

have gone? What animals have been purchased during the past 3 weeks and where did they come from? What animals have left (sold or given) her farm during the last 3 weeks and where have they gone?

- 17.00 *The DVO advises Ms Smith not to move any animal in or out the farm, to reduce the human movements in and out the farm and he advises her to cull the remaining animals before getting the laboratory results. Ms Smith agrees on the measures to take at her farm.*
- 17.30 *The DVO goes to the next house to ask the same questions and to see if there are still live animals. If so, he also take samples and advises to keep the animals in a protected place*
- 19.00 *Back at the office, the DVO staff calls the Provincial Department of Animal Health (DAHP) to inform them. Specimens are stored in the fridge of the DVO. DVO prepares a brief report to fax to DAHP and to attach to the specimens for the laboratory.*

On Tuesday:

- 08.00 *The DVO puts the specimens into a taxi to send them to the local diagnosis veterinary laboratory.*

■ **What to do with dead birds and other contaminated objects?**

- Never throw the dead birds in the river.

- Never eat them.

- Dead birds should be put immediately in a bag.



Figure 12. Throwing dead birds in the river

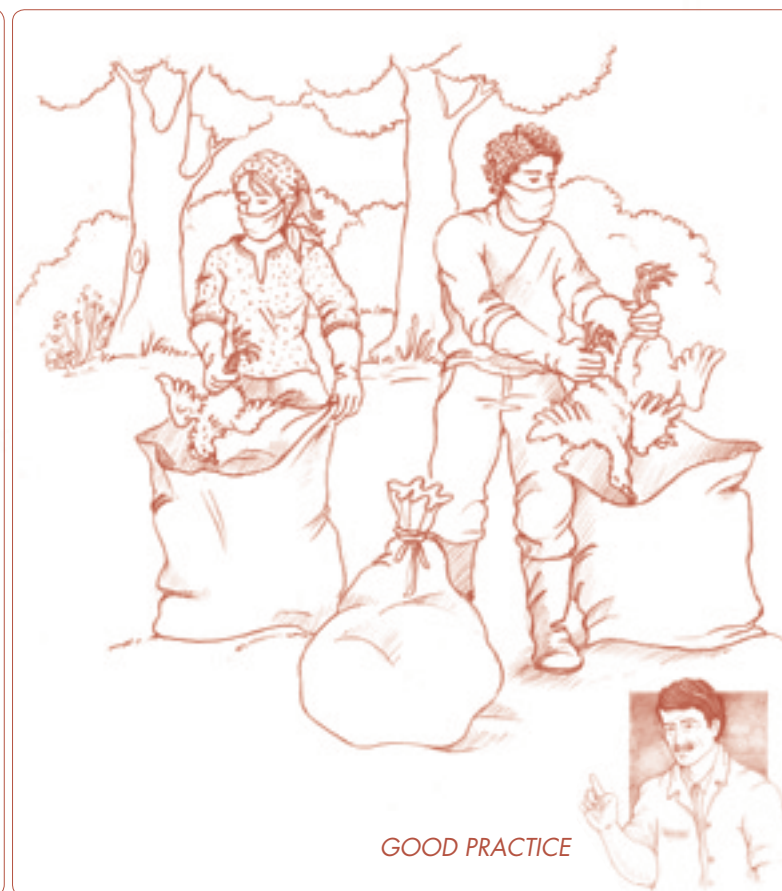


Figure 13. Placing dead birds in a bag



- The DVO staff may come and take some specimens from these birds. After the DVO has come or after one day, these birds must be destroyed as described below.
- All dead birds and other contaminated objects (for instance: manure, eggs, blood, feathers, egg crates) must be destroyed properly as soon as possible during the day through:



Burning

Place all the birds and objects in a recipient, add some petrol, and light a fire.



Burying

Dig a hole (far from a well, pond, animals) in the ground, put some quicklime at the bottom and on the borders of the hole; put all the birds and objects in the hole; cover with quicklime; cover with earth.



■ What to do with sick birds?

- **Never eat sick birds.**
- Sick birds should be put in a **fully closed building** with no contact with any other animal. The DVO staff may come and take some specimens from these birds. After the DVO has come or after one day, these birds should be immediately culled (because when they are alive, they continue to produce some virus and anyway they will very probably die).
- **Culling:** in small-scale poultry production, there may be no other method available for culling than to do it with your hands and a knife (decapitation). It is important that people who do the culling are in good health and protect themselves (with mask, glasses, gloves, boots, etc.) from the start of the culling until they finish cleaning the area and equipment used. Blood, as well as any other waste, must be collected and destroyed (see above). The culling must be done away from natural sources of water (pond, well). The culling must induce death of the bird as quickly as possible both to avoid spreading of contaminated feathers in the environment and to limit the pain induced to the bird before death.
- **Destruction:** see above (burning or burying)

■ What to do with healthy birds?

- Birds that are apparently healthy can be kept alive as long as they are kept in a **fully closed building, with no contact with any other animal.**
 - The veterinary and the DVO may suggest culling these birds immediately if the risk is too high, without waiting for the lab results.
 - If the lab test is positive with Avian Flu, these birds should be culled immediately (if they are still alive), as explained above.
 - The farmer should never sell nor give these birds or the eggs even though they may look healthy!! He puts himself and other people in danger of catching the disease. He puts people's poultry in danger of catching the disease.
- ## ■ Cleaning and disinfection of premises and equipment
- The virus may be present on many objects, materials and areas that have been in contact with the infected poultry or that have been used during the observation, the culling and the destruction of the animals.
 - Plastic bags, animal feed, wooden baskets / walls, etc. can be easily burnt. Manure can be composted or buried.



Poultry building whether made with bricks or wooden must be:



- The ground where poultry walked should be cleaned (with a broom) then sprayed with disinfectants.
- Quicklime is the cheapest disinfectant and should be used for ground and poultry housing.
- **Other things**
 - Do not visit other poultry farms: you could bring the virus to them.
 - Do not lend your equipment (for instance: bicycle, egg crates) to someone else.
 - Do not sell, nor give away any animals, eggs, manure.

- When the farmer and family members leave the farm, they must wash and brush their shoes / sandals and the wheels of the bicycle / motorbike, and sprayed them with some disinfectants.



■ **Time before restocking with birds**

- After all poultry has been destroyed and after all materials, surfaces have been washed, brushed and sprayed with disinfectants, you should not bring in new animals.

- If the cleaning has been done properly, at least 21 days should go by before bringing new poultry. Most of viruses cannot survive after these 21 days in the environment if they cannot come into contact with animals.

<i>< 3 weeks ></i>		
<i>1st September</i>	<i>< 1 week ></i>	<i>22nd September</i>
<i>Cleaning, burning, disinfection.</i>	<i>2nd cleaning and disinfection</i>	<i>Bring in new animals</i>

Figure 14. Steps and duration before restocking with birds.





- When there are outbreaks reported in the province or in the country, everyone should be aware that they may get the virus. The avian influenza can be transmitted to human beings mainly through the faeces or by inhaling the virus that are spread by the infected birds when breathing.
- In non-infected poultry farms, only one person should take care of the poultry. This person should be an adult in good health. The pregnant women and the young children should avoid the contact with the animals.
- Don't eat animals dead of disease, because you take a risk of getting infected by the avian flu when preparing the poultry.





- Each time you have to touch your animals or their products (meat, eggs), you should wash your hands with soap afterwards.
- People should not eat raw blood.
- Veterinaries, middlemen, market sellers, people buying live birds at the market, people preparing birds for home consumption or for restaurants, etc. should protect themselves when in contact with poultry. They should at least wear masks and if possible gloves, glasses, etc. They should wash their hands with soap frequently. They should wash their clothes, shoes, and sandals at least once a day before going home.
- In infected areas, any contact with poultry or poultry products must be avoided. The only people who have to be in contact with poultry should be: farmers, veterinaries and livestock experts, and they should wear protection.
- Advice should be sought from the local nurses or doctors.
- When you or a member of your family, who was in contact with animals, especially sick birds, has fever or respiratory problems, go as soon as possible to a health centre and inform the doctor that you were working with poultry.



VETERINARIES, LIVESTOCK EXPERTS AND DISTRICT VETERINARY OFFICE: A KEY PARTNERSHIP TO FIGHT AVIAN FLU



- Avian Flu can be best fought if **(1) outbreaks are reported early, (2) control measures are implemented early**. The fight against avian influenza requires different people to work together: farmers / veterinaries / livestock experts/ district vets / provincial vets / central department of animal health / laboratory and also doctors. The veterinary is a key person in this network so he/she must have good relationships with the farmers, must react quickly and must inform the district vet or provincial vets and the village or commune leaders.
- Good relationships between poultry farmers and the veterinaries are key since veterinaries are the only “animal health” local experts in close contact with the community. This will facilitate reporting of important diseases from farmers to veterinaries and implementation of measures advised by the veterinary.
- The veterinary and the livestock expert can help the farmer by giving good advice and by implementing control measures to protect the family and the community.
- The veterinary and the livestock expert must have good relationships to ensure early reporting and early action.
 - The livestock experts have an interest in collaborating with the district vet because they may get technical support from the district veterinary office.
 - The District Veterinary Office staff have an interest

in collaborating with the veterinaries and livestock experts because this is the only way for them to know what happens at the village level. They can also use the services of the veterinaries and livestock experts to implement control or prevention measures in the villages.

In order to facilitate the coordination at the district level, regular meeting between the veterinaries, livestock experts (and private veterinarians) and the District Veterinary Office are very useful.





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