

It is a way to avoid contact between animals and microbes

- Biosecurity is common sense.
- Biosecurity may not cost too much money, it is mainly good practices to use in your farm.
- Principles of biosecurity can be applied in both large-scale animal production units and backyard or small-scale animal production units.
- For small-scale poultry production, biosecurity consists on various, simple, sometimes zero-cost measures that will:
 - Keep microbes away from poultry.
 - Keep poultry away from microbes.
- If biosecurity measures are not followed, we spend more time and more money in trying to solve the disease when it does appear.
- **The principles of biosecurity may however be difficult to follow in cases like ducks scavenging in paddy fields. If you cannot apply biosecurity in these cases, you should make sure that these animals are kept separated from other poultry.**
- Different measures of biosecurity can be applied in different

circumstances. For example, if there are outbreaks of avian flu close to your farm, you must take stronger measures than in normal times. You can look at the following pages for details about the biosecurity measures to be taken according to the disease situation in your area.

- Do not forget that biosecurity will help to protect your farm against every disease, not only avian flu.



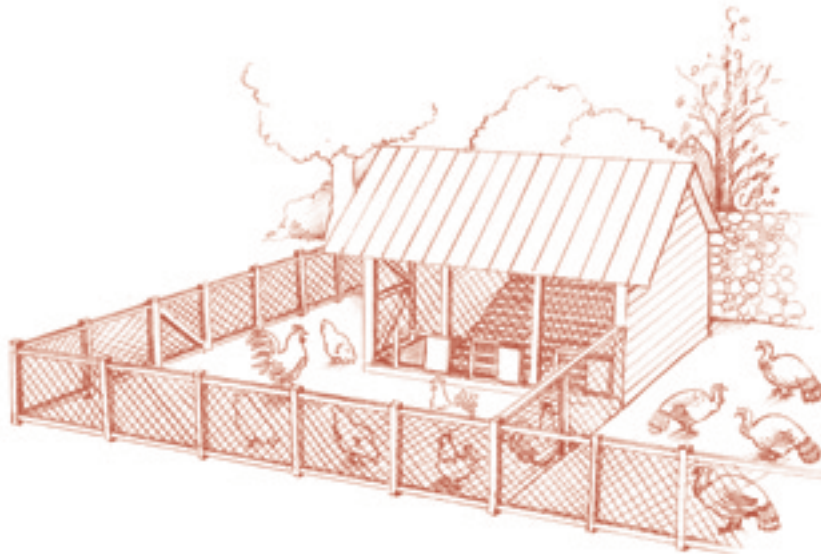


WHAT TO DO TO PROTECT A FARM WHEN THERE IS NO OUTBREAK IN THE PROVINCE OR IN THE COUNTRY?



- With Avian Flu, there is almost never a time when the risk of getting the disease is zero. Even if you have not heard of outbreaks being reported in the province or in the country, there is still a risk of getting the disease. This is a low to medium risk situation.
- Keep the poultry in good condition. When you hear about an Avian Flu outbreak being reported in the neighbouring province, it does not mean that some farms close to yours or even that your farm is not yet infected. Poultry and human beings may have travelled from the infected area to your area before the disease was observed and the outbreak reported.

Always consider that Avian Flu may come!



- By following some basic principles, a farm will remain free of disease. These principles are:

A *Keep the poultry in good condition*

B *Keep the poultry in a protected environment*

C *Control the entries on to your farm*

Rely on yourself to keep your farm free of disease!





PRINCIPLE

1

Keep the poultry in good condition

- An animal in good condition has a better resistance to diseases. Poultry in good conditions:
 - Have good access to clean water and adequate food.
 - Have access to an adequate housing.
 - Receive de-worming products and vaccination
- If your poultry is not in good condition:
 - They are more likely to catch diseases.
 - They produce fewer eggs, less meat, therefore: less food or less income for your family

PRINCIPLE

2

Keep the poultry in a protected environment

- Ideally, poultry should be kept in a protected place. But in small-scale production, this is sometimes impractical. In the below figure, some situations are described and ranged according to the level of biosecurity they provide.

**■ What is the best system?**

Situation A is much better for the protection of your birds than Situation E, because the contacts between the poultry and infected animals or contaminated places are less likely if poultry are kept in a closed building than if they are running in paddy fields.

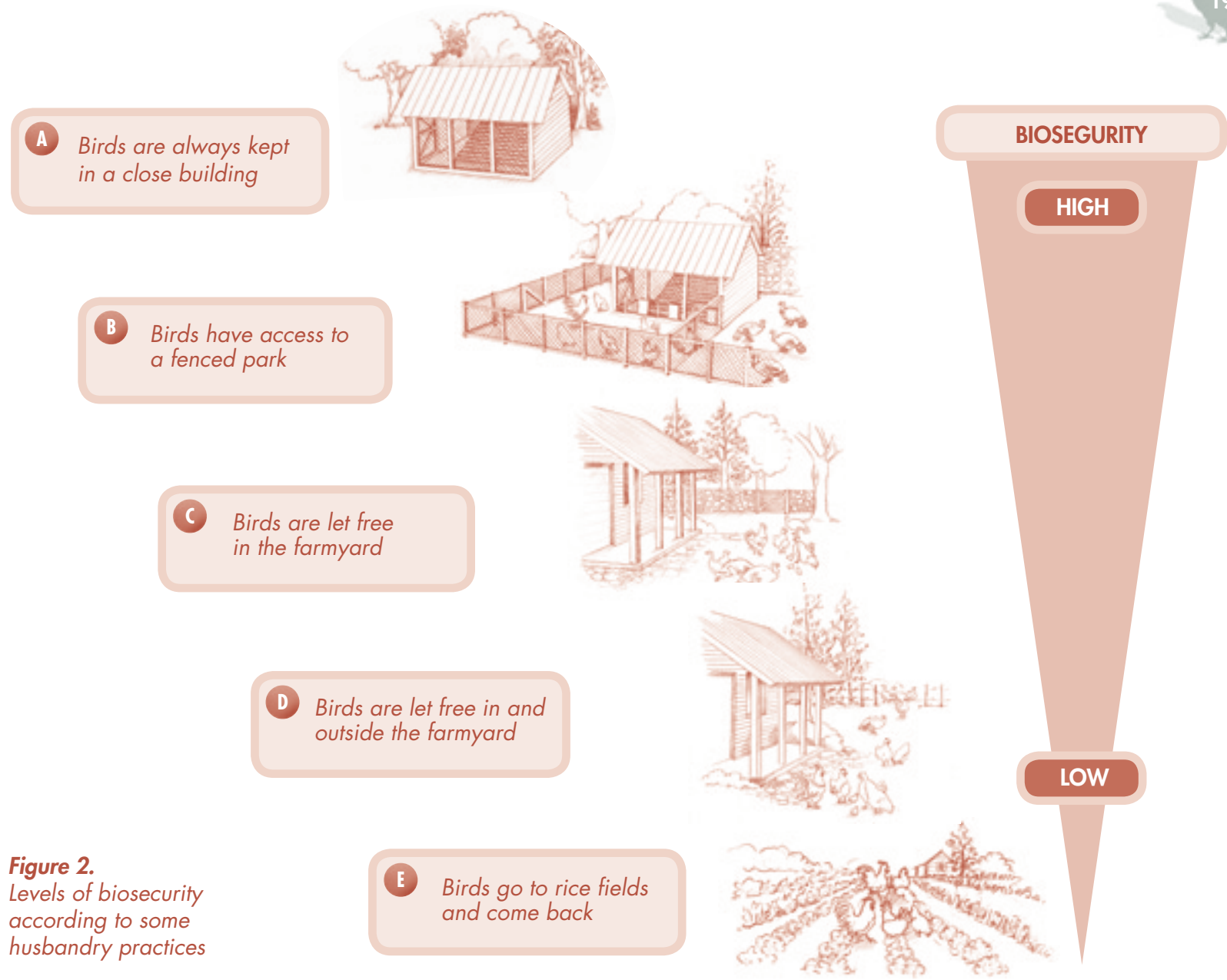


Figure 2. Levels of biosecurity according to some husbandry practices



- Letting ducks scavenge in paddy fields is an easy way of getting income without too much inputs BUT it is also a risky behaviour. It is better to have a pond, with fences.
- A closed building for the night and a fenced park (with a pond if necessary) for the day is a practical solution.

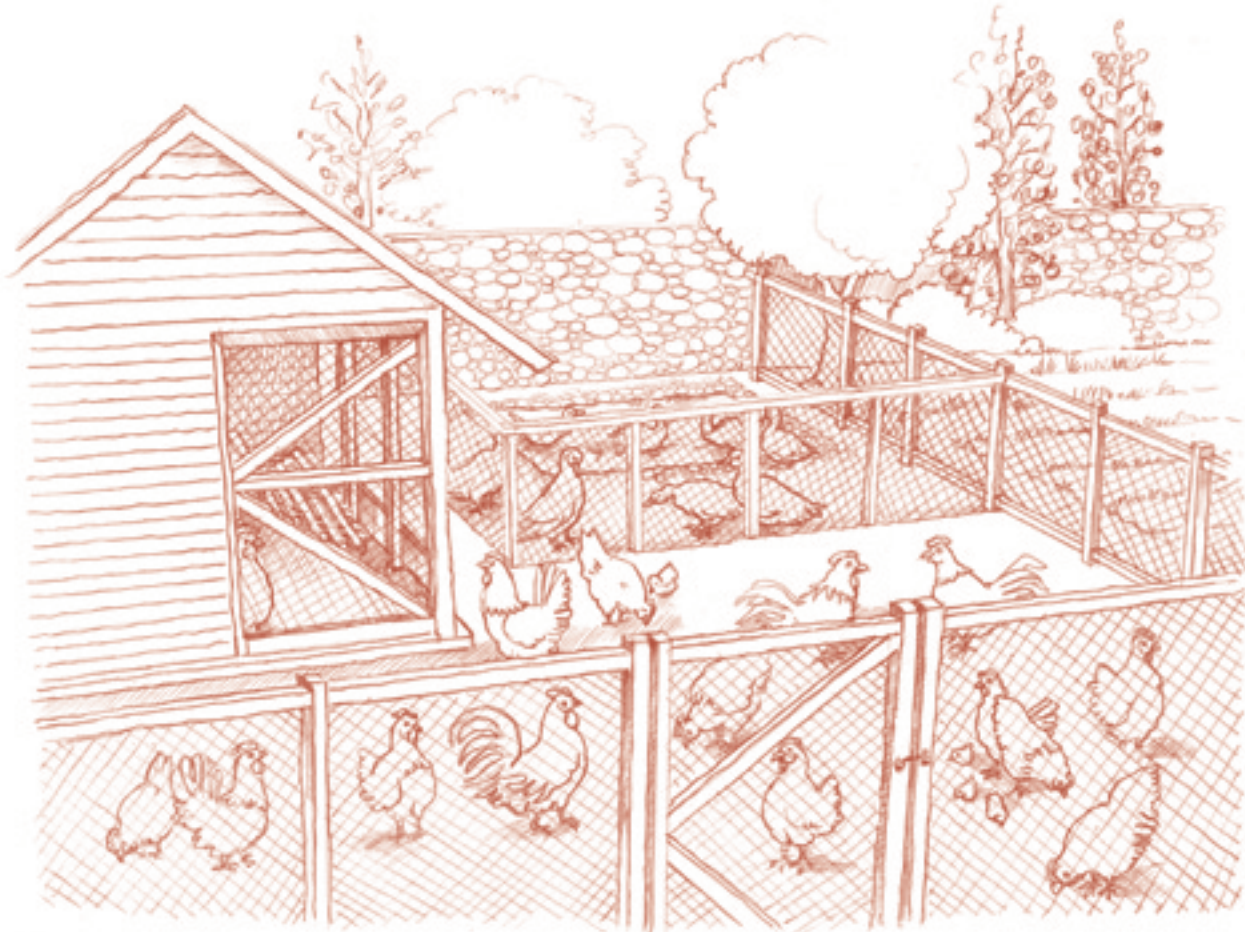


Figure 3. Ducks kept within fences

- If your poultry are allowed to go in the farmyard, keep the ground clean.
- When you see one or more birds that appear to be sick, take these birds out of the flock and place them in a closed cage. They must not be in contact with other animals.
- When you observe or take care of your poultry, always start by the healthy flock and then go to the sick flock.



Figure 4.
*Separation of sick poultry away
from the rest of the flock.*

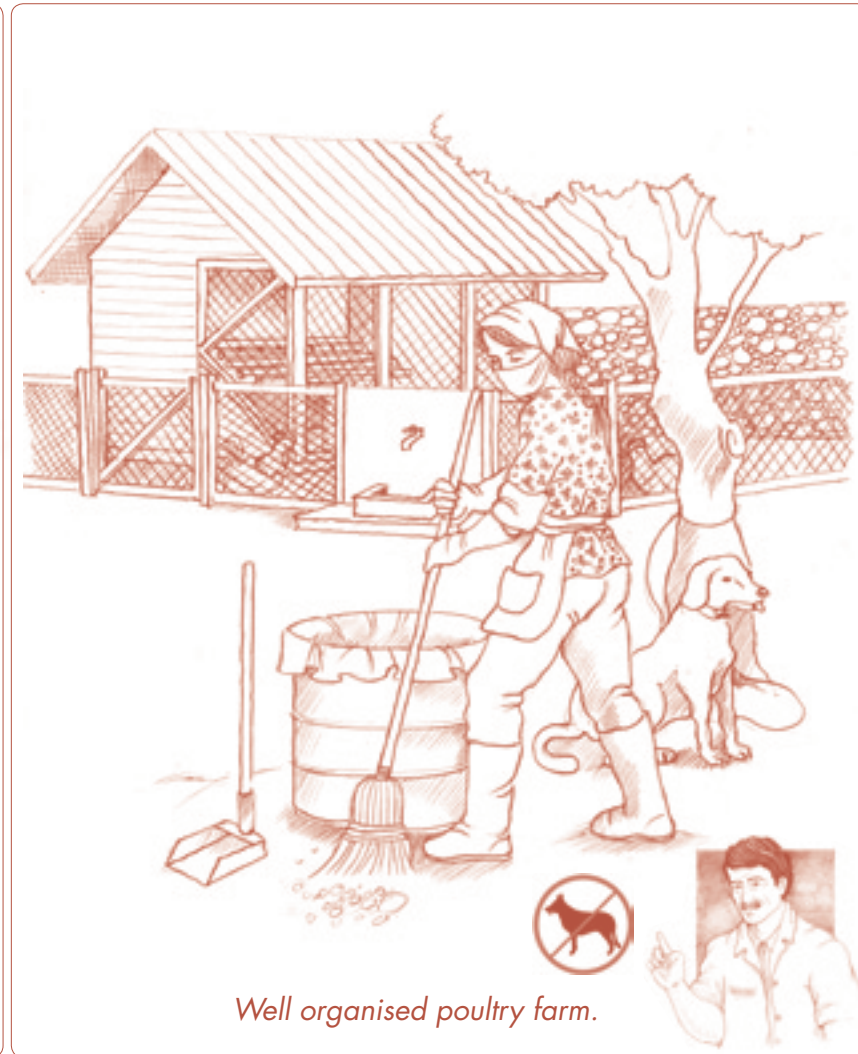


Figure 5

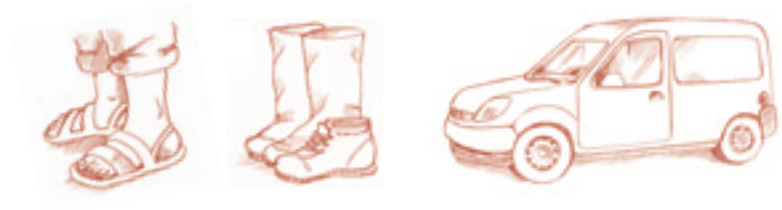
PRINCIPLE

3

Control the entries on to your farm

What are the entries to control?

- Everyone coming from a place where there are sick poultry, can carry the virus on their clothes and their sandals:
 - Family members: coming back from neighbours, from the local market; from the paddy fields.
 - Neighbours
 - Middlemen coming to buy or to sell poultry but also pigs, cattle or other agriculture products.
 - Tools and equipment from infested farms.
 - Veterinaries and livestock experts coming to treat or vaccinate your animals. They may have just visited an infected farm.
- New chicks, ducklings, piglets bought from a middleman, from a neighbour's farm, from the market or unknown place.
- Purchase of animal feed, equipment, etc.
- Entry of motorbike, bicycle or other vehicle in the farmyard.
- Dogs or cats that bring dead animals.
- Manure purchased from another farm.





What can you do?

Those advices may appear difficult to apply but they are the best way to protect the animals and therefore to protect the incomes of the farmer!

This is a lot about changing habits. It may be difficult to change everything at the same time, but the farmer and you must try to adapt yourselves little by little.

- Always consider that you or anyone may carry the virus! Even if the person is someone you know very well, be careful!
 - Keep the visitors away from where the poultry live or eat.
 - Ask people, especially the middleman carrying live birds, to leave their motorbike or bicycle at the farm gate.
 - Do not allow the middleman enter your farmyard. Go yourself outside to bring him your animals if he/she wants to buy them.
 - You and the farmer should wash your hands with soap before and after you take care of the animals.
 - The farmer should change his/her clothes when he/she comes back from outside, especially from another farm.
- If possible:
 - Farmers should have a bucket of water & soap at the farm gate so he/she and anyone can clean hands, the sandals, shoes, wheels of bicycle / motorbike before entering the farmyard.
 - Farmers have sandals for visitors so they can leave their sandals at the farmgate and take the farmer's sandals to come in the farmyard. If not, the farmer should ask visitors to wash and brush theirs when they are at the farm gate.
 - If the farmer takes manure from another farm, he must store it in a protected place for at least 3 weeks and spray some disinfectant on the top to kill the virus. Mix this often (every 2 or 3 days, so that any virus can get exposed to the air and die)



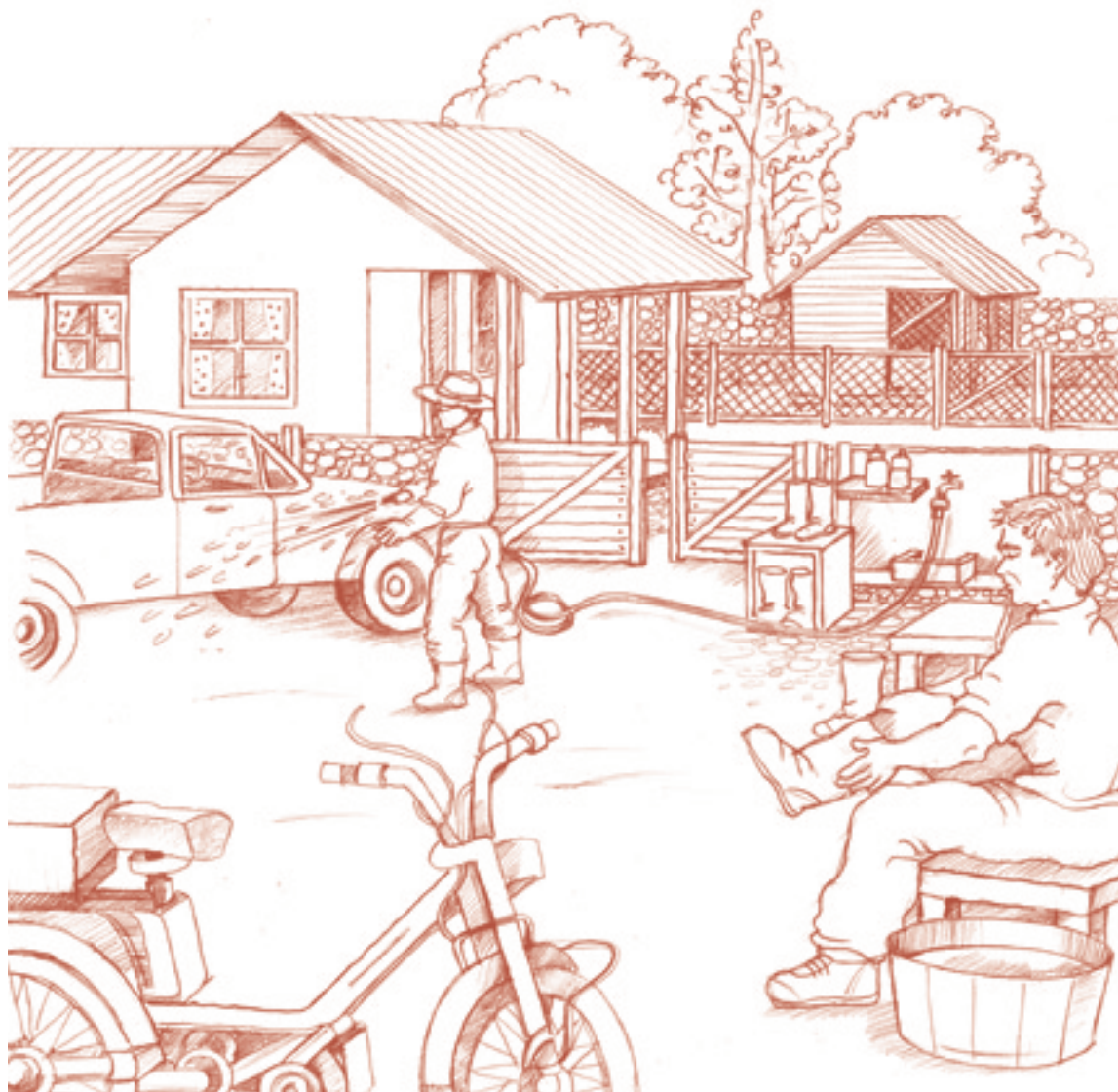


Figure 6. Good control measures for people entering the farmyard (vehicles are left outside, hands are washed, use of the farmer's sandals)



- **Quarantine:** if the farmer needs to buy some animals, he must put them in a closed and separate place with no contact with your other animals for at least 2 weeks. Because even if the new animals look healthy, no one can know if they carry the virus or not. If they do, not only they will die but all your poultry may also die.
- For poultry, you can put these new animals in a large basket, and make sure that your other poultry cannot come near the basket.



1 New animals have been bought and are brought into the farm

2 The new animals are kept in a close and separate place for at least 3 weeks, and observed everyday

3 If after at least 3 weeks, they are still healthy, they are put with the rest of the animals

Figure 7. Principles of Quarantine