



Isolation of *Salmonella Enteritidis* from boot swabs in broiler breeders during lay

Questions:

Private vet questions:

1. The private veterinarian must notify the state veterinarian. The ramifications of the disease must be discussed with the client, especially the impact the situation can have on the business (an infected breeder flock can infect up to a million commercial birds).

2. Immediate actions to be implemented are the following:

- The relevant parties must be notified and the farm should be placed under quarantine.
- Eggs are to be kept separate from other farms' eggs in the hatchery. It is important to realise infected eggs from 4 weeks ago could still be in circulation in the system.
- Disinfection protocols are important. For instance, disinfect the egg trolleys which have carried eggs from the infected flock.
- Chicks that are hatched from infected eggs can be treated with antibiotics.
- One could try to alter the gut flora through organic acids.
- Access control to and from the farm should be monitored.
- Breeders can be treated (usually through a long antibiotics course), but realise that antibiotic resistance could develop with the tetracyclines.
- The withdrawal period of treatment in eggs should be carefully adhered to.
- Biosecurity are important. For instance fumigate outside the hatchers and the removal of chicken litter should be closely monitored. Rodent control becomes important, and breeder operations should be bird proof.

3. Additional monitoring that can be considered are the following:

- boot swabs should be done monthly
- one set of bootswabs should be done per house, and analysed separately.
- personnel should be tested as well
- test dust in houses (it is more important to do so on breeder farms than on broiler farms)

4. Possible source could be:

- personnel
- carrier birds
- chick suppliers
- feed, water, rodents and wild birds
- visitors
- drains

5. To prevent further spread and risk to the rest of the farm, proper biosecurity will become very important.



State vet questions

1. With the quarantine, consider the following:

- Have dedicated workers and equipment.
- Destroy culls and dirties.
- After egg grading has been done, the eggs should be placed separately in the hatchery and not be mixed with eggs from other farms. The affected eggs should be kept as much in isolation as possible, and fumigated as close to possible to the collection point.
- Monitoring should be done till the end of lay. For instance, boot swabs should be performed monthly. In a properly vaccinated flock, blood samples will not be really of much use.
- Antibiotics should be selected through an antibiogram. Permanent antibiotics that are to be placed in feed should be on the recommendation of the private veterinarian.
- Take into consideration whether hens are early or late in lay. If the hens are late in lay, what is one to do with the hens after they are culled?
- A young flock should be placed under continuous monitoring.
- Houses that tested negatively should also be monitored regularly.
- Day old chicks should be placed under quarantine. Placement should be done on farms that can be properly controlled. If it is possible, the farms where the placements are done should be farms that belong to the breeder farms. If not, then the farms where placements occur should be informed of the situation.
- Deflocking can be done earlier, but financial implications are important to consider. Birds must also be treated before they are sent out. Further, treatment will not eliminate Salmonella, but only reduce the load.

2. Other farms that are potentially quarantined:

- Farms where infected eggs were sent
- Free range farms – what is also important to monitor is that infected flocks do not go outside the house.

3. In a vertically integrated company the best manner in which to approach this type of situation is to know who the correct people are to report to.