

# Biosecurity for Poultry Flocks

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**DIRECTORATE OF DUHOK VETERINARY**

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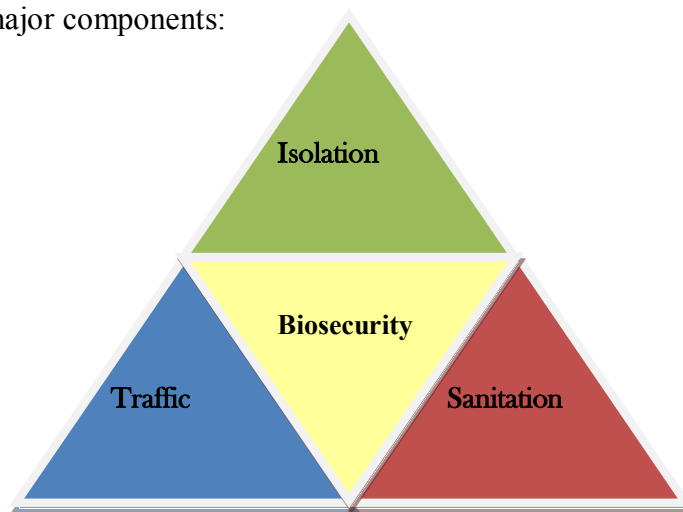
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Biosecurity is a practice designed to prevent the spread of disease into your farm. It is accomplished by maintaining the facility in such a way that there is minimal traffic of biological organisms (viruses, bacteria, rodents, etc.) across its borders. Biosecurity is the cheapest, most effective means of disease control available. No disease prevention program will work without it.

## What is biosecurity?

Biosecurity has three major components:

1. Isolation
2. Traffic Control
3. Sanitation



### Isolation:

- Only obtain new birds from reputable sources.
- Isolate sick birds from the rest of the flock.
- Limit the frequency of introducing new birds to the flock.
- Isolate any new birds or birds returning from shows and exhibits.
- Use all-in-all-out flock movement where possible

### Traffic control:

- Control visitors' access to the flock.
- Prevent birds, rodents, pets and other animals from coming into contact with the flock.
- Require all visitors to wear clean boots, clothing and gloves.
- Maintain records of the movement of people, animals and equipment on and off the premises.
- Make sure all suppliers and other farm visitors follow your biosecurity measures.

### Sanitation:

- Routinely clean and disinfect buildings, poultry houses, equipment, clothing and footwear.
- Designate a cleaning area for vehicles and equipment.
- Promptly dispose of mortalities and damaged eggs.
- Use plastic crates to transport birds (easier to clean).
- Vaccination programmer.

### **Sources of avian diseases**

Disease in poultry and other avian species can be spread in a number of ways, including:

- Through diseased birds or birds carrying disease;
- Through animals other than birds (farm animals, pets, wild birds and other wildlife, vermin and insects);
- On the clothing and shoes of visitors and employees moving from flock-to-flock;
- In contaminated feed, water, bedding and litter;
- From the carcasses of dead birds;
- On contaminated farm equipment and vehicles;
- Through contact with neighboring flocks, or via airborne particles and dust blown by the wind
- Contaminated feed and feed bags.
- Contaminated delivery trucks, rendering trucks, live hauling trucks
- Contaminated premises through soil or old litter.
- Air-borne fomites.
- Egg transmission
- Rodents, wild animals and free-flying birds and Insects.

Of all the possible breakdowns in biosecurity, the introduction of new birds and traffic pose the greatest risk to bird health. Properly managing these two factors should be a top priority on your farm.

### **Procedures of Traffic control**

Should be reduced as much as possible of the movements of the human elements, by closing the doors and prevent the entry of visitors, except with the permission for the specific purpose worker necessary and only after it took off their clothes and regular field wear special clothing and shower after cleansing tools carried. The control of the movements are not limited to rights, but other animals such as mice, cats and wild birds, and some say that cats are considered as a help for the eradication of rodents, however, outweigh their advantages and disadvantages of, it preferred insecticide for rodents. Mow the grass on the field periodically to reduce the risk of fires, insects and nesting rodents.

The breeding All-in/all-out as it is not possible in the fields of breeding birds or ornamental birds, games, action will be taken to isolate the new bird in the quarries, especially isolated from the field and muzzle for 2-4 weeks and the latter is preferable, to ensure that health cards and, during this period will be monitored to see any symptoms, and a satisfactory serological test to infectious diseases. Use a clean plastic cages for the transport of poultry.

### **Entrances to the field:**

Must maintain records of visitors to the field or the project and the dates of visits and the names

of the persons and the nature of their work and their addresses in order to be a reference in the event of a pandemic was to investigate if necessary, and must specify certain times for visitors to visit only when necessary maintenance workers, inspectors, are required to wear protective suits and gloves and shoes, after taking a hot bath and this should provide a set of clean clothes ,and at the end of the visit must take a hot bath again and wear their own clothes when going out, and there must be clear guidance, through the development of placards, which stated **No entry** should also the doors remain closed and kept the keys in a place known and secure. Should also be sprayed cars and pass through a disinfectant bath filled with a substance that remains inside the car driver.

Management plays a significant and decisive role in controlling and preventing the entry of diseases.

### **Vaccines:**

Assistant is an important aspect of security is involved and the diversity of the major side of the triangle of security and vital for the prevention of diseases through the application of the fortifications, particularly viral ones, which there is no other way to prevent them, but on this road and that does not work with antibiotics also be careful to choose the type of vaccine appropriate and given in a timely manner through a work program covering all the gaps of time of breeding must be pointed out here that some vaccines provide immunity, but a good time to give the same strong reactions and harsh on the herd and affect the emergence of other diseases. There are several ways to give the vaccine, including:

- Intravenous
- Inhalation
- Specking eye
- Specking nose
- Commonly in water.

It must also be selected for age-appropriate knowledge of the vaccine and the vaccine when used, as Serological tests must be done by taking random samples periodically to determine the level of antibodies and the level of objects immune to the bird, and the timeliness of the vaccine, and the results of the vaccine. The reservation of these results in easy access to records that will be an important factor in power when a certain disease.

### **Cleaning:**

Is the most difficult stage of the security and vital piece of the left (mattress) on the field after the cleaning process will eliminate the whole cleansing. Must be cleared of all surfaces inside and outside the feeders and maintenance tools from the top toward the bottom and must also develop a plan to clean up and use the appropriate purgatory, which characterized by:

- 1) he did not leave a smell.
- 2) Do not leave any trace of color.
- 3) Do not irritate.

- 4) Inexpensive.
- 5) A broad spectrum Elimination or killed of viruses, bacteria and other causes.
- 6) Solubility in water easily.
- 7) Keep in force for a long time and its impact quickly.

#### Procedures of Cleaning:

- 1 - Removal of waste from outside the halls and out the field for long-distance and then be sure to not waste their access to the entrance of the project.
- 2 - After that comes the process of sweeping the room from the remains of Brush.
- 3 - Remove light lamps, fan blades and the removal of lamps unemployed.
- 4 - Removal of miscellaneous equipment, and even the tools of the Guard and the rooms and service workers.
- 5 - Start the sterilization of the ceiling and walls thoroughly and feeders and drinker, and other equipment a good disinfectant, and here should not be sprayed Box electricity is then spray all the rooms and the facade of the building.
- 6 - Use of pesticides on the field and the walls.
- 7 - Closure of the rooms are sterilization by evaporation and left for 24 hours and then open the windows for ventilation.
- 8 - Empty Granary (feed tank) of the feed remaining from the previous flock and sterilization of the interior gaseous disinfectant. And the removal of feed and feed lines are not used in the next flock.
- 9 - Cleaning water lines using a disinfectant, sodium hypochlorite, a home and leave the ovary and should not remain more than 24 hours so as not to spoil the rubber teats and make sure the access through the sterile smell the smell of chlorine at the end of pipe and then rinsed vigorously and long enough to make sure water is being completely that no trace of the smell of chlorine.

#### After disinfection and sterilization:

- Return the miscellaneous equipment.
- Make sure to fill water tanks.
- Ensure the work of the generators.
- Examined the feeder machine and operation.
- Check and make sure burners well.
- Examine the lines of drinkers, diversion of water.
- lighting.

#### **How much biosecurity do I need?**

In order to assess how much biosecurity is practical for your farm, look at these three factors.

##### 1. Economics

2. Common Sense

3. Relative Risk.

**Table 1. Longevity of Disease-Causing Organisms**

<b>Disease</b>	<b>Lifespan away from birds</b>
Infectious Bursal Disease	Months
Coccidiosis	Months
Duck Plague	Days
Fowl Cholera	Weeks
Coryza	Hours to days
Marek's Disease	Months to
Newcastle Disease	Days to weeks
Mycoplasmosis (MG, MS)	Hours to days
Salmonellosis (Pullorum)	Weeks
Avian Tuberculosis	Years