

Prevention of Infectious Bursal disease (Gumboro / IBD) with good Hygiene and Bio-security

1. It is always important to provide the cleanest and most adequate environment for a poultry flock, to maintain birds in a good state of health, by using **simple and correct measures of biosecurity**.

Farm workers cannot keep other birds of any kind.

8. Rodent and insect control



Should form part of the Biosecurity protocol. It is especially important to control litter beetle, (lesser mealworm or the *Alphitobius* beetle). Gumboro virus can be transmitted horizontally by farm pests, they are the vectors carrying and transferring Gumboro from one flock to another.



7. Protective Clothing:

All visitors and farm Personnel should wear clean protective clothing and footwear. Protective clothing must remain on the farm and cleaned regularly.



6. Keep the chicken houses locked



Chicken houses must remain properly closed. Ensure that fencing is effective to **keep wild birds out**.

Keep grass short between houses.

Place **footbaths** to the entrance of each house. Use a broad-spectrum **Glutaraldehyde** and **QAC** based disinfectant or a phenolic type of disinfectant. Replenish the foot bath solution daily.

2. The aim should be to implement and **all-in, all-out practise and follow a down time of at least 7 days between cycles**. This all-in, all-out policy, coupled with stringent disinfection can be effective in reducing the IBD challenge and enhance the impact of vaccination.

3. Do not **mix different breeds of birds** on the same farm, e.g. Layers and broilers, or broilers and turkeys.



4. Traffic control - People and vehicles.



Have a **wheel dip** at the entrance gate, and **spray vehicles and feed delivery trucks** with a QAC based disinfectant. Ensure that all visitors use the **foot bath** at the gate, which must be filled with a **Glutaraldehyde and QAC based disinfectant**.

Visitors should also sanitize their hands with an **alcohol-based disinfectant**.

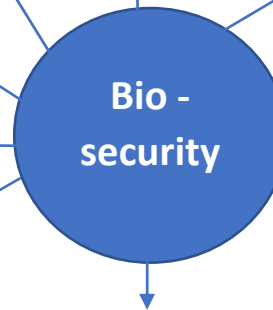


Try to minimize visits to as few as possible.

Have a **sign in-sign-out logbook** in place, which must be completed by each visitor.



Do not share equipment between farms. If it is necessary to do so, ensure that all equipment is **cleaned and disinfected** regularly.



5. Install warning or alert signs:

Place signs of warning at the farm **entrance gate**, stating that the farm is a **Biosecurity zone**, and that all visitors should adhere to the **Biosecurity protocol**.

Place signs at **each house**, with instructions to use the **foot dips** and **sanitize hands**, before entering the poultry house.

1. A proper level of cleaning and disinfection is a must, especially in infected houses.

Proper litter removal and dry cleaning is very important.

Remove manure as far away as possible from farms.

The spread of Gumboro has been associated with the use of infected manure on fields adjoining the poultry houses.

It is important to put all aspects of a good Hygiene and Biosecurity program in place, to prevent disease outbreaks.

5. Houses can be **fogged or sprayed** with a broad-spectrum disinfectant after the bedding material / litter has been placed.

Alternatively fumigate the poultry house with Chlorine Dioxide tablets a day before the placement of day-old chicks.

2. Cleaning of Soil Floors -Earth Floors

Remove some of the top level of soil from the ground /soil floors. IBD virus can survive for months in soil and can resist routine cleaning procedures.

Use a **Phenolic disinfectant** as cleaning agent.

The phenolic based disinfectant can also be mixed with diesel.

Mix 250ml Phenolic product, 250ml diesel into 25 liters water, and spray over the floors.

Leave to dry.

Disinfect with a 2 % Formalin solution, mix 2-liter Formalin with 20 liters of water, and spray on surface.

3. Cement / Concrete floors:

Rinse surfaces with water, to remove all excess dust and dirt.

Apply an **alkaline detergent-degreaser** on all surfaces, via a foaming lance.

Allow for a contact time of at least 15 minutes, so that the detergent can loosen all soil. Keep in mind that all loose equipment like drinkers and feeders also need to be cleaned properly.

Rinse with water.

It is essential that all surfaces are clean before disinfection.

Select a **broad-spectrum disinfectant**, which will be effective against non-enveloped viruses, like Gumboro.

Broad spectrum disinfectants have good anti-microbial properties, it means they will be virucidal against enveloped and non-enveloped viruses. Broad spectrum disinfectants will also be bactericidal, fungicidal, and sporicidal, if they are used at the correct concentration or dilution.

A combination of **Glutaraldehyde and QAC based disinfectant** will be suitable. The other option would be a combination of **Formaldehyde, Glutaraldehyde and QAC based disinfectant.**

Apply the disinfectant via a foaming lance and allow for a contact time of at least 30 minutes.

Leave to dry and ensure that foot dips have been placed at the entrance to the house.

Cleaning and Disinfection

4. **Sanitation of the water system** is crucial, use an **oxidizing agent** to sanitize and remove biofilm and slime build-up in the water system. Broad spectrum Oxidising agents are products that contain **Hydrogen Peroxide or Chlorine Dioxide.**

Leave the solution overnight in the drinking water system. Flush properly with clean water.

Drinking water can be treated during the cycle with **Chlorine-Bromide tablets.**

Use an **acidic product (descaling agent)** to remove mineral scale from bell drinkers.



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