Enhanced Poultry Barn Cleaning and Disinfection Protocol Post–Inclusion Body Hepatitis (IBH) Outbreak SOP

Purpose: This enhanced sanitation and disinfection protocol is intended for use following a confirmed Inclusion Body Hepatitis (IBH) outbreak in a poultry barn that resulted in over 10% mortality. The objective is to reduce environmental viral load, improve biosecurity, and minimize the risk of disease carryover between flocks.

1. Dry Cleaning

- After bulk manure removal and prior to blow down, scrape caked floor areas and remove as much organic material as possible.
- Blow down all dust and remaining litter and remove material from the barn.
- Ensure complete cleaning of the barn interior, including entrances, heating sources, brooders, and box heaters.
- Remove all organic material including feathers, manure, litter, feed, dust, dirt, and cobwebs by scraping, brushing, wiping, or blowing debris.
- Remove movable equipment and clean/disinfect separately before returning to the barn.

2. Soap Wash

Recommended products: Biosolve Plus

- Use appropriate detergent concentration. For heavy organic load, mix Biosolve Plus at 60 mL per 3.8 L of water.
- Apply using low pressure to ensure adequate foaming and surface coverage.
- Wash all walls, floors, posts, waterlines, regulators, hoses, feed systems, hoppers, fans, air inlets, and service rooms.
- For tunnel barns, open tunnel doors and wash inside tunnel fins thoroughly.
- Wash mortality pails and associated equipment.
- Allow detergent to soak for a minimum of 10 minutes before rinsing. This might mean soaking/washing the barn in sections if drying is occurring.

3. Foam Cleaner Option

Foam cleaners such as Kenosan or MS Top Foam may be used as an alternative to standard soap detergents. Foam products provide extended contact time for improved deep cleaning.

4. Pressure Washing

- Power wash all surfaces to remove detergent residue and visible organic material.
- Hot water (50–60°C) is preferred for improved cleaning and disinfection efficiency.

- Wash walls, floors, waterlines, regulator hoses, feed pans, feed lines, fans (inside only), vents, ceilings, mortality buckets, service rooms and exterior concrete pads where applicable.
- Push or scrape all wastewater and organic debris completely out of the barn.

5. Disinfection

Recommended products: Virocid, MS MegaDes Novo

- Apply disinfectant at 5 mL of solution per litre of water unless otherwise specified on the label.
- Ensure all previously cleaned surfaces receive thorough disinfectant coverage.
- Maintain a minimum contact time of 30 minutes.
- Adequate contact time is especially important for control of IBH-associated viral contamination as the virus is quite hardy.

6. Fogging or Fumigation

Fogging (fine mist) or fumigation may be used as an additional disinfection step but is not a substitute for manual cleaning and washing.

- Seal the barn completely prior to fogging or fumigation.
- Maintain barn temperature above 20°C with approximately 70% humidity for optimal efficacy.
- Leave the barn closed for a minimum of 24 hours before ventilating and re-entering.

7. Insecticide Application

Darkling beetles and other insects may contribute significantly to disease transmission and can act as vectors for IBH

- Apply insecticide after the barn has dried completely.
- Treat all floor cracks, wall edges, and barn posts to at least 60 cm height.
- Rotate insecticide groups between flocks to reduce resistance development.
- For heavy burdens of darkling beetles consider spraying right after the flock has shipped and prior to pushing out the litter. Shovel a pathway around the outside of the barn and spray on that pathway as many of the beetles will retreat to the walls after heat is turned off.

8. Heat Treatment Following Bedding Placement

- After fresh bedding placement, heat the barn continuously to 38°C (>100°F) for 4 days.
- Maintain humidity below 40% during heat treatment.
- Heat treatment alone should not be relied upon for IBH elimination and must be combined with thorough cleaning and disinfection.

Pest Control Considerations

Poultry barns provide ideal environmental conditions for insects including flies and darkling beetles. Effective pest management is essential following an IBH outbreak to reduce disease carryover risk.

- Treat barns within 24–48 hours after bird removal whenever possible.
- Repeat treatment before bedding placement.
- Apply a final treatment after bedding placement and during barn preheating. The warm barn will help bring out the insects from their hiding place.
- Service rooms may require treatment throughout the production cycle.
- Seal floor cracks and eliminate areas where manure and moisture accumulate.

Important: Disinfectants and insecticides should not be applied simultaneously, as one product may reduce the effectiveness of the other.

To prevent resistance, it is recommended to switch between groups ever cycle

Insecticide Options

Product	Dosage	Use
Debantic (Group 1)	250g / 6.25L water	Flies, beetles, lice; cracks, crevices, posts
Tempo (Group 3)	19g / 3.75L water	Broad spectrum insect control
Ectiban (Group 3)	20mL / 2.5L water	Surface spray for flies and lice
Annihilator Polyzone (Group 3)	6mL / 1L water	Indoor and outdoor perimeter treatment
Credo SC (Group 4)	90mL / 3.5L water	Darkling beetles
Agita Fly Bait (Group 4)	200g / 100m²	Fly bait formulation
Agita Wettable Granules (Group 4)	250g / 2L water	Contact insecticide for beetles

Alternative Products

Product	Dosage	Use
Hydrated Lime	0.012–0.014 lbs/sq ft	Drying agent, reduces microbial load

Diatomaceous Earth	Apply to cracks and entry points	Controls external insects (dry only)
Stalosan	1 lb / 100 ft²	Dry disinfectant for moist areas

Key Recommendations

- Prioritize thorough dry cleaning before applying water.
- Ensure correct product concentrations and application methods.
- Maintain proper contact times for both detergents and disinfectants.
- Integrate pest control as part of the sanitation program.
- Regularly inspect barns for structural issues that allow buildup of organic material.
- Train staff to ensure consistency and compliance with protocols.