

Precautions

- Wear protective mask during disinfection
- Avoid direct (acute) exposure to eyes/skin
- Do not inhale or swallow NIRMOOL solution
- Prepare NIRMOOL solution in well-ventilated areas
- Keep NIRMOOL away from the reach of children

Shelf Life

- ❖ One Year (from the date of manufacturing)

NIRMOOL Advantages

- ✓ Effective against all Major Silkworm Pathogens
- ✓ Cost Effective, Eco & User Friendly
- ✓ Easily Soluble in Water & Highly Stable
- ✓ Easy & Rapid Disinfectant Preparation Method
- ✓ Non-Chlorine & Formaldehyde based Product
- ✓ Non-Corrosive & Odourless

Estimated Expenditure for Disinfection

Rs. 120/- (100 dfls or 400 sq.ft)

Cost-Benefit Ratio = 1 : 6.8

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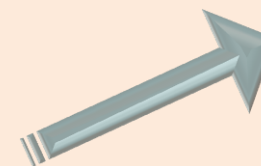
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NIRMOOL



**Eco & User Friendly
General Disinfectant
for Sericulture**



Product Patent Submitted

CSRTI - BERHAMPORE

Central Sericultural Research & Training Institute

Central Silk Board, Ministry of Textiles

CSRTI

Central Sericultural Research & Training Institute

Central Silk Board, Ministry of Textiles, Govt. of India
Berhampore - 742 101, West Bengal

NIRMOOL

Eco & User Friendly General Disinfectant for Sericulture

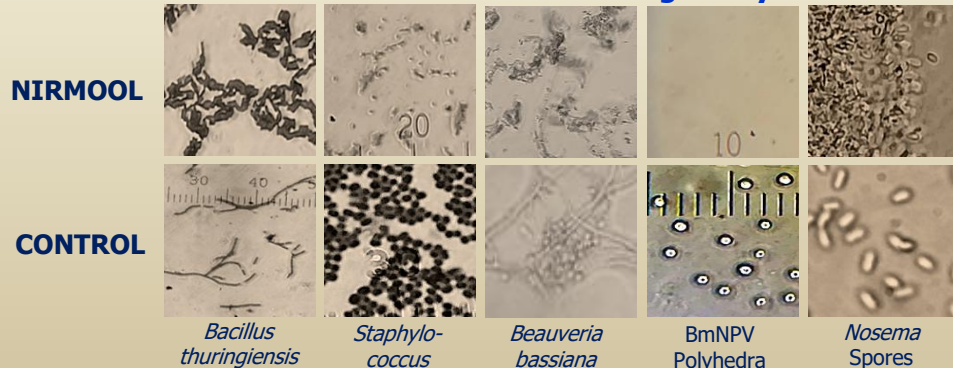
Silkworm Diseases

- Viruses, Bacteria, Fungi & Microsporidia cause silkworm diseases (Grasserie, Flacherie, Muscardine & Pebrine)
- 10-15 kg crop loss/100 dfls is estimated
- Disease prevalence higher in adverse seasons (Jaistha, Shravani, Bhaduri & Ashwina)

Disinfection using NIRMOOL

Sericulture farmers in Eastern & North-Eastern India are currently using 5% Bleaching Powder solution or 500 ppm Chlorine Dioxide for the disinfection of silkworm rearing house and appliances. Ghar sodhon, a fumigant is also employed on a limited scale for the purpose. Most of these liquid spray disinfectants have several disadvantages of being chlorine-based, non-eco friendly and corrosive. CSRTI-Berhampore has recently developed an effective eco- and user friendly disinfectant "NIRMOOL" containing active oxidative substances for the disinfection of rearing house and appliances. NIRMOOL inactivates all the silkworm pathogens which cause major silkworm diseases.

Inactivation of Silkworm Pathogens by NIRMOOL



Preparation of NIRMOOL Disinfectant Solution

- Take 100 liters of water in a container
- Empty the contents of NIRMOOL (2Kg) powder into water
- Mix thoroughly for preparing NIRMOOL disinfectant solution
- Drench spray rearing room & appliances using the sprayer
- Clean the sprayer after disinfection with NIRMOOL



Requirement of NIRMOOL

- Disinfectant NIRMOOL solution required = 1.5 litres/sq.m or 140 ml/sq.ft Floor Area (room height of 3m/10ft) or 100 litres/100 dfls
- Additional 10% quantity NIRMOOL is required for disinfecting the rearing house surroundings
- Additional volume of 500 ml/sq.m or 14 ml/sq.ft is necessary for an increase in rearing house height by every m/ft

Other Disease Management Measures

- Disinfecting the Rearing House Surroundings Periodically
- Practicing Personal & Rearing Hygiene
- Application of Bed Disinfectants (Labex/Sericillin)
- Rearing Silkworms under Optimal Temperature & Humidity
- Spacing of Late Age Larvae (700 - 800 sq.ft/100 dfls)
- Feeding Nutritious Mulberry Leaves