

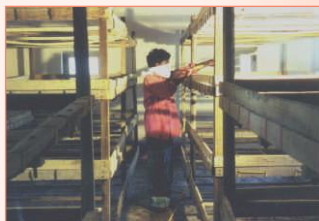
Fumigation of Rotary mountages

- Spray 10% formalin solution on mountages and frames placed on a vinyl sheet. Fold the vinyl sheet to cover the mountages and keep a side for 6 hours.



Disinfection of Rearing House and appliances

- Conduct two disinfections with the recommended disinfectants using a power sprayer. An optional disinfection using 0.3% slaked lime solution is also recommended when high incidence of Grasserie or Viral Flacherie were noticed in the previous rearing.



Maintenance of hygiene during rearing

- Wash hands in Asthra/Bleaching powder solution before entering the rearing house and also after attending the rearing. Keep Asthra or bleaching powder solution in a shallow tray at the entrance to disinfect the feet.



- Collect diseased/dead/under sized larvae from the rearing bed and burn
- Collect silkworm bed refuse in litter basket/vinyl sheet and dispose by burning or burying
- Store mulberry leaves in a separate disinfected room
- Feed silkworm with quality mulberry leaves
- Rear silkworms under recommended optimum temperature, humidity and spacing so that the larvae grow healthy and resist infection
- Dust slaked lime powder on the rearing bed when the larvae settle for moult
- Dust Ankush/Vijetha and Vijetha Supplement as per schedule



Bed disinfectant	Schedule
Ankush	After each moult and on 3 rd and 5 th day of final instar
Vijetha	After each moult and on 4 th day of final instar
Vijetha Supplement	On 3 rd day of 4 th instar, 2 nd and 6 th day of final instar in addition to Vijetha dusting

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DISINFECTION AND HYGIENE IN SILKWORM REARING



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One of the major reasons for crop losses in cocoon production is the diseases of silkworms. Proper disinfection of rearing house, its surroundings and appliances and maintenance of hygiene are important to prevent diseases. Diseased silkworms extrude pathogens into the rearing environment that become the source of infection. Destruction of disease causing pathogens is called disinfection. Although it can be done by various methods, the most effective one is chemical method using chemical disinfectants.

Disinfectants recommended in sericulture

- 2% Bleaching powder in 0.3% slaked lime solution
- 2.5% Sanitech/Serichlor in 0.5% slaked lime solution
- 1.25% Sanitech Super in 0.5% slaked lime solution
- 0.05% Asthra solution
- 0.2% Serifit solution
- 0.3% Slaked lime solution (for optional disinfection)
- 10% Formalin solution (for of Rotary mountages)

Requirement of disinfectants

1.5 l/sq. m floor area or

140 ml/ sq. ft. floor area

+ 10% in case of shoot rearing for disinfecting area surrounding rearing house

+ 35% in case of tray rearing for disinfecting rearing trays

Volume of disinfectants required (ℓ)

Floor area		Height of rearing house						
Sq.ft.	Sq.m	10'/ 3m	11'/ 3.35 m	12'/ 3.7 m	13'/ 4 m	14'/ 4.3 m	15'/ 4.6 m	
5	0.46	0.77	0.84	0.91	0.98	1.05	1.12	
10	0.92	1.54	1.68	1.82	1.96	2.10	2.24	
25	2.32	3.85	4.20	4.55	4.90	5.25	5.60	
30	2.78	4.62	5.04	5.46	5.88	6.30	6.72	
35	3.25	5.39	5.88	6.37	6.86	7.35	7.84	
40	3.71	6.16	6.72	7.28	7.84	8.40	8.96	
45	4.17	6.93	7.56	8.19	8.82	9.45	10.08	
50	4.64	7.77	8.40	9.10	9.80	10.50	11.20	
75	6.96	11.55	12.60	13.65	14.70	15.75	16.80	
100	9.28	15.40	16.80	18.20	19.60	21.00	22.40	
500	46.44	77.00	84.00	91.00	98.00	105.00	112.00	
1000	92.88	154.00	168.00	182.00	196.00	210.00	224.00	
2000	185.80	308.00	336.00	364.00	392.00	420.00	448.00	
3000	278.70	462.00	504.00	546.00	588.00	630.00	672.00	
4000	371.50	616.00	672.00	728.00	784.00	840.00	896.00	
5000	464.40	770.00	840.00	910.00	980.00	1050.00	1120.00	

Preparation of disinfectant formulations

a. 2% Bleaching Powder in 0.3% slaked lime solution (100 ℓ)

Ingredients	Qty. required
Bleaching powder	2 kg
Slaked lime	300 g
Water	100 ℓ



b. 2.5% Sanitech/Serichlor or 1.25% Sanitech Super in 0.5% slaked lime solution (100 ℓ)

Ingredients	Qty.	Ingredients	Qty.
Sanitech/Serichlor	2.5 ℓ	Sanitech Super	1.25
Activator crystals	250 g	Activator crystals	125 g
Slaked lime	500 g	Slaked lime	500 g
Water	97.5 ℓ	Water	98.75 ℓ



Preparation of Chlorine dioxide based disinfectants

c. 0.05 % Asthra solution

Dissolve 50 g of Asthra powder in 100 ℓ of water. Keep the solution for 2 hours before spraying.



d. 0.2% Serifit Solution

Dissolve 200 g of Serifit powder in 100 ℓ of water. Keep the solution for 30 min. before spraying.



e. 0.3% Slaked lime solution

100 ℓ of 0.3% slaked lime solution is prepared by mixing 300 g of slaked lime powder in 100 ℓ of water.

f. 10% Formalin solution

10% formalin solution is prepared by mixing one part of fomalin with 3 parts of water.

Schedule of disinfection

Day	Activity
On completion of rearing	1. Collect and burn diseased larvae, melted/flimsy cocoons 2. Disinfect the Rotary mountages by fumigation with formalin 3. Conduct first disinfection of rearing house and appliances
5 days before brushing	4. Clean and wash the appliances 5. Sun dry the appliances
4 days before brushing	6. Disinfect rearing house with 0.3% slaked lime solution (optional)
3 days before brushing	7. Conduct 2 nd disinfection of rearing house and appliances
2 days before brushing	8. Dust 5% bleaching powder & slaked lime mixture around the rearing house 9. Open the windows of rearing house for ventilation