

## DO's

- Harvest mulberry shoots during cooler hours of the day with sharp saw/brush cutter
- Preserve shoots by wrapping with wet gunny cloth and stack vertically in upright position
- 50-70 larvae per square feet is ideal for better growth
- Collect unequal/diseased worms and destroy
- Adopt proper bed disinfection methods to prevent diseases and maintain hygiene
- When more than 50% of worms mature, mount using plastic collapsible mountages

## Don'ts

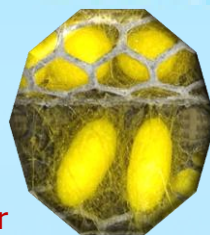
- Don not dust bed disinfectant on feeding larvae
- Do not delay feeding after dusting of bed disinfectant

## Additional Economic Benefits

Activity	Tray Rearing	Shelf rearing	Benefit
Labour (mandays @ Rs. 250/d)	39	30	9
Cocoon Yield (Kg/100 dfls) @ Rs. 250	50	55	5
<b>Approximate Additional Returns (Rs.)</b>			<b>3500</b>

## Advantages of Shoot Rearing

- Easy silkworm rearing
- Avoids drudgery
- Leaves remain fresh for longer time
- Better aeration in the rearing bed
- Facilitates better hygienic conditions
- Avoids bed cleaning
- Labour saving
- Lower chances of secondary contamination
- Increased cocoon productivity by 5 kg /100 dfls
- Quality cocoon production
- Improved economic returns



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## Silkworm Shelf Rearing (Shoot Feeding)

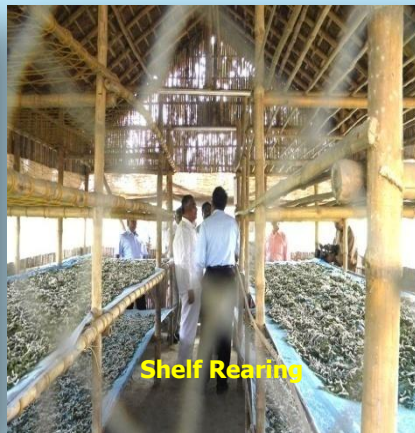


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## Silkworm Shelf Rearing (Shoot Feeding)

Silkworm rearing employing shelf rearing involving shoot feeding instead of traditional tray rearing using harvested mulberry leaves optimizes cocoon yield and quality. Shelf rearing besides improving productivity reduces cost of cocoon production and drudgery of laborious bed cleaning. Chawki worms reared up to second moult by farmers or chawki rearing centers (CRCs) are transferred to the shelf rearing stands. Shelf rearing is recommended for silkworms in 4<sup>th</sup> and 5<sup>th</sup> instars. As the worms attain maturity, the plastic collapsible mountages are spread on the shelf rearing stands for cocooning.



### Shoot Rearing Stands & Shelves

- Shelf rearing stands could be made by using iron, wood, bamboo or hard plastic racks.
- The stands could be with 3-5 tiers with 24" gap in between; 5' width and 24' in length
- 600-700 sq. feet bed area accommodates 100 dfls (70 larvae/sq. ft.)
- The shelves are prepared by using nylon ropes, net or GI wire strips. Old news paper is overlaid on this for providing support to the silkworms

### Shoot Feeding

- 50-60 days-old whole mulberry shoots are fed to the larvae in alternative directions
- Silkworms are fed with shoots twice or thrice per day
- Shoot feeding quantity should be controlled before moulting

### Crop Protection

- Apply bed disinfectant (Labex/Vijetha) as per recommended schedule with out fail
- Bed disinfectant should not be applied when eating leaf is available in the rearing bed



### Requirement of Bed disinfectant (100 dfls)

Larval Stage	Quantity
After 1 <sup>st</sup> Moults	100g
After 2 <sup>nd</sup> Moults	250g
After 3 <sup>rd</sup> Moults	750g
After 4 <sup>th</sup> Moults	1500g
4 <sup>th</sup> Day of Final Instar	2800g
<b>Total</b>	<b>5400 (5.4 kg)</b>

### Optimal Conditions for Late Age Rearing (100 dfls)

Particulars	4 <sup>th</sup> Instar	5 <sup>th</sup> Instar
Temperature (°C)	24 - 25	23- 24
Relative Humidity (%)	70 - 75	65 - 70
Feeding Method	Shoot Feeding	
<b>Bed Area (sq ft)</b>		
Initial	<b>190</b>	<b>380</b>
Final	<b>380</b>	<b>700</b>
Quantity of Shoot (kg)	525	2630