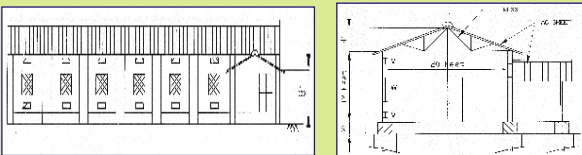
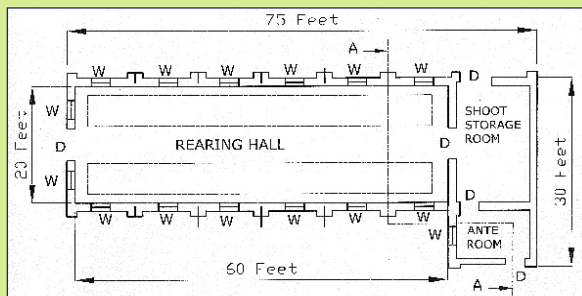


6. The roof of the house should be of either Asbestos sheets or RCC to avoid entry of the Uzi-fly. In hot regions, coconut fronds or straw should be placed over the roof to avoid heat radiations during day time. A false ceiling of plywood or thermocol sheet is also effective in reducing the solar radiation from roof.

The minimum width of a rearing house for late age rearing should be 5.5 m (18'). The length of the rearing house can be calculated as follows:

Number of tiers	Length of rearing house in feet
For 4 tier shoot rearing stand	0.20 x no. of dfls + 10
For 5 tier shoot rearing stand	0.16 x no. of dfls + 10



1. The wall height in a rearing house should be minimum 10' on the sides and 14' at the center.
2. An ante-room should be provided for washing hands and disinfecting legs before entering into the rearing area.
3. Doors and windows should be fitted with wire mesh to avoid entry of uzi-fly into the rearing house.
4. Water facility should be provided in a rearing house for cleaning/washing and disinfection and also for humidification purpose.
5. The rearing house should have adequate lighting arrangements for working during night.
6. Electrical points in the rearing house should be provided for using heaters, humidifiers, coolers and lighting the building for workers during night hours.
7. Provisions must be made for exhaust fans for evacuating humidity from rearing house during rainy days.
8. Arrangements should be made to ward off rats, lizards, etc. and avoid entry into the rearing house.
9. Shade trees around the rearing house should be planted to protect the walls and the roof from afternoon sun.

Rearing Houses Constructed by Farmers



SILKWORM REARING HOUSES



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The rearing of the mulberry silkworms is fully domesticated. A silkworm-rearing house is the place where the silkworms are reared to produce cocoons. The cocoon quality and yield are adversely affected if the optimal environmental conditions i.e. temperature, relative humidity, ventilation, illumination, hygiene, etc. are not provided to the silkworms. The rearing house should be rationally designed in order to keep the micro-climatic and environmental conditions for rapid and healthy growth of the silkworms. It should, therefore, have facilities for creation and maintenance of the optimal environmental conditions inside the silkworm-rearing house. The rearing house should also provide sufficient space and healthy environment for the workers attending the silkworm rearing.

Optimal Environmental Conditions for Silkworms :

The optimum rearing temperature and relative humidity for different stages of the silkworms are as follows :

Instar	Temperature°C	RH %
I	27-28	85-90
II	27-28	85-90
III	26-27	75-80
IV	25-26	70-75
V	25-26	70-75

When the temperature and relative humidity inside the rearing house are below optimum conditions, they are artificially raised through charcoal or electric heaters and running humidifiers. When the rearing room temperature and relative humidity are above the optimum conditions, arrangements for natural cooling through good ventilation or forced cooling through wet curtains on windows, air coolers or air-conditioners should be made besides covering the roof with mats made up of coconut fronds, grass etc.

Light or Illumination : Young Silkworms prefer dark or dim light [15-30 lux]. Light intensity influences the even distribution of the larvae in the rearing bed. Silkworms are crowded in dark place in the rearing bed.

Ventilation : A silkworm rearing house should be well ventilated. Poor ventilation leads to humidity built up and accumulation of gases like carbon monoxide, carbon dioxide, ammonia, etc., which adversely affect the growth of silkworms and make them susceptible to diseases.

Rearing Bed Area Requirement for Silkworms : The rearing bed area required for different races of the silkworms during different stages of growth is given below for 100 Dfls (2 Boxes) resulting in approximately 40,000 larvae.

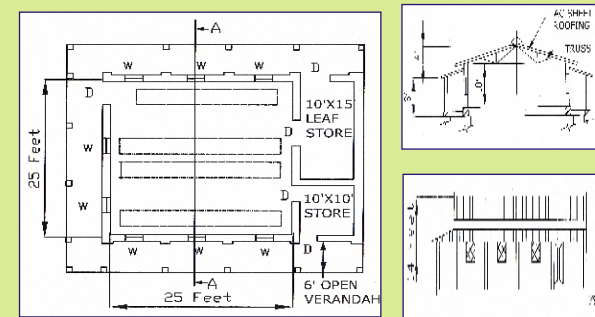
Rearing bed area required for silkworms during different stages for 40000 larvae :

(1 sqm=10 sq.ft.)

Instar	Bed area for Multivoltine (sqm/sqft.)	Bed area for Bivoltine (sqm/sqft.)
First	1.50/15	1.75/17.5
Second	4.50/45	5.25/52.5
Third	9.00/90	12.00/120
Fourth	24.00/240	133.00/330
Fifth	50.00/500	77.00/700

Young Age Silkworm Rearing House

The Young age silkworm rearing houses are often called as Chawki Rearing Centre (CRC). Adequate care in terms of temperature, relative humidity and hygienic conditions should be provided to young silkworms for their good and healthy growth. A CRC for brushing 5000-6000 dfls per batch consists of a rearing hall of 30' x 30', leaf storage room of 10' x 20' and ante-room of 10' x 10' size. Adequate ventilation in the rearing hall is recommended. A continuous water channel inside the rearing hall along the walls helps in keeping the ants away from silkworms and also maintaining the humidity. The windows should be fitted with wire mesh to avoid entry of uzi fly. The ceiling should be kept at 9'-10' from floor. In case of more roof height a false ceiling at 8' to 9' from floor helps in reducing the volume of air in the rearing hall so that required temperature and humidity can be maintained conveniently.



Late Age Silkworm Rearing House

1. The silkworm rearing house should be located on an elevated place to avoid moisture migration from floor to rearing house, provide good cross ventilation, facilitate drainage of the water at the time of cleaning and disinfection.
2. The rearing house should be north facing i.e., the windows face north and south. This will avoid direct entry of the sunlight into the rearing house.
3. Ventilators should be provided above and below the windows for air circulation inside the rearing house.
4. The rearing house should have cement flooring for maintaining hygiene.
5. A 10-15 cm deep channel inside all around the rearing hall should be provided to prevent entry of ants in the rearing area and also to drain out water at the time of cleaning and disinfection. During summer, the water in channel helps in increasing the humidity and cooling the air entering in through the lower ventilators.