

CENTRAL SERICULTURAL RESEARCH & TRAINING INSTITUTE, PAMPORE

To whom to contact for adoption of silkworm rearing, is the most common question asked by all farmers?

Contact the state sericulture department of the state or its subunits in the particular area, contact the CSB units located in the state or in the region.

How many layings a farmer can brush?

Brushing capacity is dependent on the availability of leaf and rearing facilities available with the farmer.

Leaf requirement to rear one ounce of laying?

The leaf requirement for rearing one ounce of disease free laying (100 Dfls) (60,000 larvae) for popular hybrid is approximately 1400-1600 kgs.

What is the disinfectant used for disinfection of rearing house?

Senitech, Serichlor and Bleaching Powder are used for disinfection of rearing houses. However, as it is carried out by the Government agencies, farmers will have not to bother.

What is quantity of solution required for disinfection of rearing houses?

Disinfection solutions @ 2.0 liters / sq. mtr or 140 ml / sq. ft

What are the hygienic measures to be followed during rearing?

Avoid borrowing rearing appliances, do not use appliances without disinfections, restrict entry of persons into rearing house, persons entering the rearing house must disinfect feet and hands before entering, sprinkle 5% bleaching powder in slaked lime at the passage of entrance, wipe the floor after each bed cleaning.

Bed disinfectant used for prevention of diseases?

RKO, Resham Jyothi, Vijetha, Ankush etc are used for prevention of diseases. Vijetha as bed disinfectant was tested & was found to give best result over others.

What is the quantity requirement of disinfectant?

Approximately 4 kgs. However, as it is supplied to farmers free of cost, they will have not to bother.

When to dust disinfectant on larvae?

Bed disinfectant should be dusted half an hour before resuming worms after each moult & 4th day of 5th instar after bed cleaning.

How should be ideal rearing house?

Rearing house should be such where optimum environmental conditions required for silkworm rearing can be regulated viz., temperature, humidity, photoperiod, air current etc.

What are the environmental conditions required for rearing of silkworm ?

Temperature and humidity is to be maintained as – III Stage – temperature – 260C and humidity 80%
IV Stage - temperature – 24-250C and humidity 75% V Stage - temperature – 23-240C and humidity 70%

Which type of mountages can be used for mounting of silkworm?

There are various types of mountages viz., rotary card board mountages, bamboo chandrike, plastic collapsible mountages, bottle brush mountages, bamboo spiral mountages, but farmers use dried grass, straw, mulberry twigs etc for the purpose. In such cases, cocooning is less, defective cocoons and floss are more, single cocoon and shell weight is less.

What are the advantages of shoot rearing?

Labour saving up to 50%, leaf saving up to 15%, reduced leaf driage in rearing bed, less bed area requirement, less chances of contamination, better aeration etc.

Why ventilation in rearing houses?

There should be cross ventilation as higher % of CO₂ in the rearing house is injurious to health of larvae.

What should be the frequency of feeding?

Two feeding every day at equal intervals both during spring and autumn seasons. However, it is desirable to decide feeding frequency observing weather conditions.

What spacing is required for silkworm rearing in shoot rearing methods?

For one Ounce of silkworm rearing the rearing space requirement for III Stage is 45-90 sq. ft; IV Stage – 90-200 sq. ft and for V Stage – 200-450 sq. ft.

What care can be taken during moult?

Maintain optimum recommended environmental conditions as far as possible, spread bed to facilitate drying of leaf, dust thin layer of lime on rearing bed.

How to identify spinning larvae?

These larvae feed less, become soft, litter becomes light brown colored which can be crushed with fingers, skin becomes gradually transparent, crawl here and there in search of space for spinning, larvae tend to move to darker areas.

How to mount spinning larvae?

Pick up method, self-mounting method, netting method, jobarai method (shaking of shoots).

What should be the density of larvae during mounting?

40-50 larvae (100 dfls) per square feet.

When to harvest cocoons?

Cocoons should be harvested on 6th day of mounting

What are the defective cocoons?

Frame printed cocoons, soiled cocoons, thin end cocoons, deformed cocoons, thin shelled cocoons, uninated cocoons, malformed cocoons are major types of defective cocoons.

Why the instar duration from one moult to another is prolonged?

The duration could be prolonged due to insufficient feeding and also due to improper temperature and relative humidity in the rearing bed.

Why some silkworm larvae are of smaller size?

Other than disease factor, the size of some larvae could remain small due to over crowding. The silkworm larvae which are not getting sufficient feed, remain small in size. In addition to it, if correct procedure is not followed during resuming the worms after moult. Hence all the larvae in rearing bed should be resumed at a time when all are out of moult and equal quantity of leaf be fed to the worms at each location in the bed.

Grasserie disease is occurring after 4th moult, why?

Symptoms visible after 4th moult are due to NPV infection in early stage. The rearing room should be properly disinfected before and after every silkworm rearing and proper use of bed disinfectants i.e. Vijetha after every moult ½ an hour before resuming the worms.

What is the pit size required for mulberry plantation?

For planting a mulberry sapling the pit size should be 60x60x60 cm.

What is the required FYM dose during sapling plantation?

The recommended dose of FYM during plantation is 1.5 to 2kg/pit.

What should be the pH value of the soil for mulberry plantation?

For mulberry plantation the soil should be slightly acidic (pH 6.2 to 6.8).

Which is the popular variety among farmers in Kashmir ?

Goshoerami is the popular variety among farmers in Kashmir . The origin of this variety is Japan .

How much quantity of mulberry seed can be harvested from 1 Quintal of mulberry fruits?

About 5 Kg seed can be harvested from 1 Quintal of mulberry fruits.

Which is the best and famous indigenous cultivar of mulberry in Kashmir for the purpose of fruit?

Shahtul (*Morus nigra*).

What are the different types of grafting methods used for raising poor rooting varieties?

Various types of grafting methods used for raising poor rooting varieties are: (a) Root grafting (b) Wedge grafting (c) Bag grafting

What is Root grafting?

Root grafting is a technique for propagation of poor rooting mulberry varieties. In this technique, mulberry variety which is to be propagated is used as scion and the root of a seedling is used as stock.

What is Wedge grafting?

Wedge grafting is a technique for propagation of poor rooting mulberry varieties. In this technique, mulberry variety which is to be propagated is used as scion and saplings of good rooters are used as stock.

Which are the popular varieties for sub tropical areas of North India?

S146, S1635, TR10 and S

What is Bag grafting?

Bag grafting is a technique for propagation of poor rooting mulberry varieties. In this technique, mulberry variety which is to be propagated is used as scion and stem cuttings of good rooters are used as stock.

Which is the widely accepted technology for raising poor rooting mulberry varieties in Kashmir ?

Bag grafting is the widely accepted grafting method for raising poor rooting mulberry varieties in Kashmir as it is quick and the survival rate is higher.

Which is the most preferable season for planting mulberry saplings in Kashmir ?

The most preferable season for planting mulberry saplings in Kashmir is 1st week of March and October.

For how much time mulberry sapling can be kept out of ground before transplanting?

While uprooting mulberry saplings for the purpose of transplantation, care should be taken not to disturb the soil adhering to the root system of the plant and care should also be taken to plant them immediately in pre-dug pits.

What are the high yielding mulberry varieties that can be grown as tree under Kashmir conditions?

Goshoerami, KNG & TR-10 are the mulberry varieties that can be cultivated as trees to get quality foliage besides high yield.

Where from the saplings of the mulberry shall be available?

The saplings of high yielding mulberry varieties are available at DOS, farms besides at CSR&TI, Pampore and SKUAST, Mirgund, Kashmir

How many Dfls of silkworm can be reared from one kanal of mulberry plantation?

100 Dfls of silkworm can be reared from one kanal of mulberry plantation in two seasons.

How many times a mulberry tree is pruned in a year?

Once at crown height in the first week of June in temperate condition and twice in sub tropical condition (June-crown level and December middle pruning 03-feet above crown).

Can saplings be raised in ones kitchen garden?

Yes, saplings can be raised in kitchen garden also, but fertilizer recommended application and irrigation is must alongwith inter-cultural operations.

What are the intercrops that can be grown with mulberry?

So many intercrops can be grown with mulberry. The studies conducted at CSR&TI, Pampore have revealed that crops like saffron, peas, beans can be cultivated as intercrop with mulberry without affecting the leaf quality and yield.

What activities are to be done for qualitative production of leaves ?

Follow the recommended package of practices, use of integrated nutrient management and integrated disease, insect and pest management.

Can the mulberry be grown from seed?

Yes but it is convenient to grow mulberry by using cuttings of recommended mulberry genotypes. It is better to raise saplings in nursery and then transplant them in the field for better survival. Six month old saplings are recommended for bush plantation while as one year old sapling should be used for tree plantation.

How to transport mulberry shoots?

Mulberry shoots are to be transported during cooler hours of the day. If they are to be transported to long distance and takes more than 30 minutes, they should be covered with wet gunny cloth, polythene sheet to reduce moisture loss from the leaf.

How to preserve mulberry shoots?

Make bundle of 20 kgs and preserve in vertical position as moisture loss in such position is minimum

When to do mulberry tree plantation?

Tree plantation is to be carried out in the month of July (rainy season), August and during winter (January) in sub tropical areas. However, under temperate conditions, it is done in the month of March.